IBM Cognos Business Intelligence
Version 10.1.1

Administration and Security Guide



Note
Before using this information and the product it supports, read the information in "Notices" on page 785.

Product Information

This document applies to IBM Cognos Software Version 10.1.1 and may also apply to subsequent releases. To check for newer versions of this document, visit the IBM Cognos Information Centers (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp).

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Introduction

This information is intended for use with IBM® Cognos® software.

This information is intended for use with IBM Cognos Administration, the IBM Cognos software.

This information contains step-by-step procedures and background information to help you administer IBM Cognos software.

Audience

To use this information, you should be familiar with reporting and security concepts, and have experience using a Web browser.

Finding information

To find IBM Cognos product documentation on the web, including all translated documentation, access one of the IBM Cognos Information Centers. Release Notes are published directly to Information Centers, and include links to the latest technotes and APARs.

You can also read PDF versions of the product release notes and installation guides directly from IBM Cognos product disks.

Forward-looking statements

This documentation describes the current functionality of the product. References to items that are not currently available may be included. No implication of any future availability should be inferred. Any such references are not a commitment, promise, or legal obligation to deliver any material, code, or functionality. The development, release, and timing of features or functionality remain at the sole discretion of IBM.

Samples disclaimer

The Great Outdoors Company, GO Sales, any variation of the Great Outdoors name, and Planning Sample depict fictitious business operations with sample data used to develop sample applications for IBM and IBM customers. These fictitious records include sample data for sales transactions, product distribution, finance, and human resources. Any resemblance to actual names, addresses, contact numbers, or transaction values is coincidental. Other sample files may contain fictional data manually or machine generated, factual data compiled from academic or public sources, or data used with permission of the copyright holder, for use as sample data to develop sample applications. Product names referenced may be the trademarks of their respective owners. Unauthorized duplication is prohibited.

Accessibility Features

Accessibility features help users who have a physical disability, such as restricted mobility or limited vision, to use information technology products. Because the

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IBM Cognos Administration component supports a wide range of IBM Cognos components, the availability of accessibility features varies by component within IBM Cognos Administration.

In IBM Cognos Administration, you can enable system-wide settings to create accessible report output. For more information, see "Enable Accessible Report Output Using System-wide Settings" on page 157.

Chapter 1. What's New?

This section contains a list of new, changed, and deprecated features for this release. It also contains a cumulative list of similar information for previous releases. It will help you plan your upgrade and application deployment strategies and the training requirements for your users.

For updates according to product version:

- "New Features in Version 10.1.1"
- "New Features in Version 10.1.0" on page 4
- New Features in Version 8.4
- New Features in Version 8.3

For information about upgrading, see the *Installation and Configuration Guide* for your product.

For information about other new features for this release, see the *New Features Guide*.

To review an up-to-date list of environments supported by IBM Cognos products, including operating systems, patches, browsers, Web servers, directory servers, database servers, and application servers, access one of the IBM Cognos Information Centers at http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp.

New Features in Version 10.1.1

New Features in Version 10.1.1

Listed below are new features since the last release. Links to directly-related topics are included.

Archived report output

IBM Cognos Business Intelligence now provides the ability to archive saved report output to external repositories, such as IBM FileNet® Content Manager. This allows you to adhere to regulatory compliance requirements, and reduces the size of content in the content store. You can view archived content from IBM Cognos Connection and search archived content using indexed search.

For information about how to archive content to an external repository, see Chapter 11, "IBM Cognos Content Archival," on page 229.

For information about viewing archived content, see "Viewing archived report output" on page 418.

For information about searching for archived content, see "Searching archived content" on page 235.

For information about searching for archived content, see .

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SharePoint 2010 integration

IBM Cognos Business Intelligence has improved integration with SharePoint by simplifying the deployment of Cognos web parts. As well, with SharePoint 2010, you can publish Cognos reports to document libraries and attach discussion threads to Cognos content.

For information about improvements to deploying Cognos web parts, see

- "Rebuilding the solution file" on page 556
- "Configure Cognos Web Part connection settings" on page 558

For more information about publishing Cognos reports and attaching discussion threads, see "IBM Cognos BI and SharePoint 2010 Collaboration" on page 560.

Support for WebSphere 7.0

WebSphere® 7.0 is supported in this release.

For more information about deploying Cognos portlets to the WebSphere 7.0 portal, see "Deploying Cognos Portlets to WebSphere Portal 6.0, 6.1, and 7.0" on page 533.

Restricting search

Administrators can now restrict search in the portal so that only index search using the Full text and all fields option is available to users. Restricting search avoids the risk of excessive demand on system resources which can result in system degradation.

For more information, see "Restricting searches of IBM Cognos content" on page 163.

Dashboards are now workspaces

In IBM Cognos Business Insight, the term *dashboard* is replaced by the term *workspace* to describe a web page that contains widgets that graphically represent business data.

Content IDs during deployment

Content ids are deleted by default during deployment, however, now when you run a deployment import, you can choose to retain content ids. Retaining content ids is important for certain functionality, for example, when archiving content to an external repository.

For more information about assigning content ids, see "Content ID assignment" on page 374.

Support for running reports with report owner capabilities

Users can now run a report using specific capabilities granted to the owner of the report, even if they do not have these capabilities themselves.

When a user runs a report with the **Run as the owner, Capabilities only** option selected, only the owner report capabilities are available to the user and not the owner credentials. The user's credentials, not the report owner credentials, are used to run the report.

For more information , see “Running reports with report owner capabilities” on page 405.

Index search support for active reports

IBM Cognos Business Intelligence version 10.1.1 now supports active reports with indexed search.

To include active reports in an index, in IBM Cognos Administration, go to the **Index Search** tab, **Index**, **General** tab. Under **Indexable Types**, select **Report**.

To search for active reports, in the **Search** dialog box, select the **Active report** type in the **Search for type list**. For more information, see “Searching for entries using full text and all fields” on page 303.

Safari 5 support

This release of IBM Cognos Business Intelligence provides Safari 5 support for IBM Cognos Connection and IBM Cognos Viewer.

Secure the CAM passport cookie

Administrators can secure the CAM passport cookie by enabling the HTTPOnly attribute. This blocks scripts from reading or manipulating the CAM passport cookie during a user's session with their web browser.

For more information, see “Secure the CAM Passport Cookie” on page 152.

Specify the JMX proxy server host

You can create a list of one or more dispatchers that are available to host the Java Management Extensions (JMX) proxy server. Once the list of dispatchers is created, the dispatcher that is at the top of the list and is currently running is the dispatcher that is chosen as the host. This helps reduce the number of threads required to collect JMX metrics and increases the number of threads that are available for content manager.

For more information, see “Specifying the dispatchers to host the JMX proxy server” on page 117.

Internal postscript interface for printing on UNIX operating systems

The new advanced server property, RSVP.PRINT.POSTSCRIPT, allows you to control which interface you want to use to print a PDF from a UNIX operating system. Keeping the default setting, true, provides users with the ability to print PDFs using the internal postscript interface from a UNIX operating system. This removes the dependency for installing Adobe reader on UNIX operating systems.

Adobe Reader is still required for Windows server platforms.

For more information, see “Printing from UNIX operating systems” on page 164.

Changed features in version 10.1.1

Listed below are changes to features since the last release. Links to directly-related topics are included.

Location of troubleshooting information

For fast and easy access to troubleshooting topics, the troubleshooting topics are now available in the new IBM Cognos Business Intelligence Troubleshooting Guide.

Troubleshooting information is no longer available in the IBM Cognos Business Intelligence Administration and Security Guide.

Deprecated Features in Version 10.1.1

Listed below are features deprecated in this release of IBM Cognos Business Intelligence.

The Disable query plan caching Property

This Query Service property is removed from the product user interface.

The property is still available to existing applications through IBM Cognos Software Development Kit; however, it will be entirely removed from the product in a future release. If your application contains references to this property, you can start removing them now.

New Features in Version 10.1.0

Listed below are new features since the last release. Links to directly-related topics are included.

Dynamic Query Mode

IBM Cognos BI Server offers improved query functionality and performance with a dynamic query mode that you can use with supported data sources.

Dynamic query mode provides communication to data sources using Java/XMLA connections. For more information, see Chapter 8, "Data Sources and Connections," on page 167.

The query service supports the dynamic query mode. Using Cognos Administration, you can set query service properties and manage query service caching. For more information, see Chapter 9, "Query Service Administration," on page 221.

More Information about Dynamic Query Mode

For more information about dynamic query mode, see the documents listed in the following table.

What are you looking for?	Where to find the information
An overview of the dynamic query mode, its benefits, and considerations when using it.	*IBM Cognos Business Intelligence Dynamic Query Guide*

What are you looking for?	Where to find the information
Detailed information about techniques and product behaviors of the dynamic query mode.	IBM Cognos 10 *Dynamic Query Cookbook* in the Proven Practices section of the IBM Cognos Customer Center (http://www.ibm.com/software/data/cognos/customercenter/).
Information about enabling connectivity for data sources supported by the dynamic query mode.	*Installation and Configuration Guide*
Information about query service administration, including caching and query service properties.	*Administration and Security Guide*
Information about publishing packages for the dynamic query mode.	Framework Manager *User Guide*
Information about testing reports in the dynamic query mode prior to upgrade.	Lifecycle Manager *User Guide*
Information about using the IBM Cognos Software Development Kit to administer query service properties and develop client applications to use dynamic query mode.	IBM Cognos Software Development Kit *Developer Guide*

IBM Cognos Active Reports

IBM Cognos Report Studio now has an active report output type that provides a highly interactive and easy-to-use managed report.

For more information, see "IBM Cognos Active Reports" on page 398.

IBM Cognos Business Insight

IBM Cognos Business Insight is a new report consumption environment that provides an integrated Business Intelligence experience for business users. This Web-based tool allows you to use IBM Cognos content and external data sources to build sophisticated, interactive dashboards. For a more detailed description of IBM Cognos Business Insight, see the IBM Cognos Business Intelligence New Features.

IBM Cognos Connection users can launch IBM Cognos Business Insight from within IBM Cognos Connection, however, they must have the appropriate licence. For information about launching IBM Cognos Business Insight in IBM Cognos Connection, see "Launching IBM Cognos Business Insight" on page 653. For information about using IBM Cognos Business Insight, see the IBM Cognos Business Insight *User Guide*.

Collaboration Using IBM Cognos Business Insight

Collaboration capabilities in IBM Cognos Business Insight provide a bridge between using IBM Cognos Business Intelligence to discover a business problem and using available social software resources to track and resolve the problem.

Business Insight users can create activities in IBM Lotus® Connections and share them with other users who collaborate in decision-making and problem-solving processes. To take advantage of this capability, after installing and configuring the required software, you must configure the Collaboration discover URI setting. For more information, see "Configuring the Collaboration Discovery URI" on page 160.

My Inbox

In this release, there is a new task inbox that contains the following human tasks: secure approval requests, ad-hoc tasks, and notification requests.

For more information, see Chapter 29, "Managing Human Tasks," on page 449.

IBM Cognos Connection Login Page Customization

You can now customize the IBM Cognos Connection login page using a login template.

For more information, see "Customizing the IBM Cognos Connection Login Page" on page 625.

New Services

The following new services have been added to IBM Cognos Business Intelligence: Annotation service, Content Manager cache service, Graphics service, Human task service.

For more information, see "Dispatchers and Services" on page 103.

New Properties

New properties have been added to IBM Cognos Business Intelligence.

The new properties are

- lifetime of completed human tasks and annotations "Set Lifetime of Completed Human Tasks and Annotations (Comments)" on page 162
- balancing dispatcher load with in-progress request factor "Balance Dispatcher Load with In-Progress Request Factor" on page 128
- cache size limit for the Content Manager cache service "Set the Cache Size Limit for the Content Manager Cache" on page 121
- Metric Studio parameters that control the number of connections that are established to the database server and how long they are left open if they are unused "Tune Metric Studio Connections" on page 144
- dynamic drill-through filter behaviour that controls whether filters use the Member Business Key or Member Caption "Changing Drill-Through Filter Behavior" on page 163

Support for Data Sources

You can now use the following data source in IBM Cognos: Microsoft Analysis Services 2008

For information about this data source, see "Microsoft Analysis Services Data Sources" on page 180.

You can now create packages for SAP BW data sources in IBM Cognos. For more information, see "Create a Package for SAP BW" on page 382. You can also edit the packages in IBM Cognos. You can also set the maximum number of objects that can be used in a SAP BW package. For more information, see "Set the Maximum Number of Objects Used in SAP BW Packages" on page 383.

For data sources that can have packages created in IBM Cognos, you can select which data sources can be used to create a package. For more information, see

"Select Which Data Sources Can Be Used to Create a Package" on page 385. You can also control which users can create packages. See "Set Entry-Specific Capabilities " on page 267.

Users can now manage their own data source credentials. They can also choose to have their data source credentials remembered so they do not have to be entered every time. For more information, see "Manage Your Own Data Source Credentials" on page 259.

You can now view the data sources used by a package. For more information, see Chapter 24, "Packages," on page 379.

Style Management Utility

The style management utility lets you create, delete, deploy, and publish custom styles to change the appearance of IBM Cognos Connection, IBM Cognos Administration, and other Cognos components.

For information about the stule management utility, see "Using the Style Management Utility" on page 576.

Support for New Scheduling Options

There are several new scheduling options.

They include

- the ability to specify a daily frequency for a schedule, by hour or by minute, and limit the running of scheduled entries to a certain period of the day.
- the ability to change the owner credentials for a schedule.
- the ability to suspend scheduled activities.
- the ability for administrators to limit scheduling using the new scheduling capabilities. For example, an administrator can restrict by minute scheduling.

Accessible Report Output

In this release, you can create accessible report output. Accessible reports contain features, such as alternate text, that allow users with disabilities to access report content using assistive technologies, such as screen readers.

For more information about enabling accessible reports in IBM Cognos Connection, see "Enabling Accessible Report Output" on page 416.

In IBM Cognos Administration, you can enable system-wide accessibility support. For more information, see "Enable Accessible Report Output Using System-wide Settings" on page 157.

Report Name Used for the Exported Output File Name

When you run a report in an export format such as PDF, delimited text (CSV), Microsoft Excel spreadsheet software (XLS), the IBM Cognos report name is now used as the exported file name. This allows you to save the report output using the same name as the original report.

For more information, see "View, Run, or Open a Report" on page 398.

New for Metric Studio

In this release, there is a new check box that lets you clear the Metric Studio audit history.

For more information, see "Metric Maintenance Tasks" on page 465.

New Deployment for Human Tasks and Annotations

In this release, there is a new deployment procedure for human task and annotations services.

For more information, see "Deploy Human Task and Annotation Services" on page 375.

New Data Schema Tables for Logging for Human Task and Annotation Services

In this release, there are new data schema tables for logging for human task and annotation services.

For more information, see Appendix G, "Data Schema for Log Messages," on page 737.

New for Data Movement

In this release, you can create views of data movement tasks which uses the same specifications as the source data movement entry, but have different properties. You can also provide variables in data movement tasks.

For more information, see Chapter 12, "Data Movement Entries," on page 237.

You can also balance data movement task execution load. For more information, see "Balance the Data Movement Task Execution Load" on page 130.

New for Content Manager Load Management

You can reduce the processing load on the Content Manager by storing user session files on the report server local file system. You can also set the lifetime that temporary user session cache files are kept.

For more information see "Reduce the Content Manager Load by Storing User Session Files Locally" on page 122.

New Logging

You can use logging to diagnose user-specific problems.

For more information see "Use Logging to Diagnose a Problem for a Specific User" on page 82.

Convert Numeric Search Keys to Strings in Queries

You can now enable conversion of numeric search keys to strings in queries for some data sources, such as Teradata, that do not make the conversion, which causes an error.

For more information, see "Conversion of Numeric Search Keys to Strings in Queries" on page 150.

Group 1 Language Support in IBM Cognos Business Intelligence

With this release of IBM Cognos Business Intelligence, the following Group 1 languages are supported in the product user interface, the search functionality, and the indexed search functionality: English, Chinese (simplified and traditional), Japanese, Korean, French, German, Italian, Spanish, and Portuguese (Brazil).

For information about setting the product language, see "Personalize the Portal" on page 304.

For information about how to perform a search, see "Searching for entries using name, description, and name or description" on page 302 and "Search for an Entry in Multiple Languages" on page 303.

For information about specifying the languages for indexed search, see "Limit Index by Language" on page 476.

Curly Brackets and Parentheses are Breakable

When you run a report in PDF format, curly brackets {} and parentheses () no longer stay on the same line as the text before them.

For example, **Products(2004)** may now break to a new line between **Products** and **(2004)**.

Changed Features in Version 10.1.0

Listed below are changes to features since the last release. Links to directly-related topics are included.

Changes to Portlet and Portlet Group Names

The following is a list of the portlet and portlet group names that have changed in this release of IBM Cognos Business Intelligence.

Previous Name	Current Name
Cognos Content	IBM Cognos Content
Cognos Extended Applications	IBM Cognos Extended Applications
Cognos Metrics	IBM Cognos Metric Studio
Cognos Navigator	IBM Cognos Navigator
Cognos Search	IBM Cognos Search
Cognos Utility	IBM Cognos Utility
Cognos Viewer	IBM Cognos Viewer
Metrics Custom Diagram	IBM Cognos Custom Diagram
Metric History Chart	IBM Cognos History Chart

Previous Name	Current Name
Metrics Impact Diagram	IBM Cognos Impact Diagram
Metric List	IBM Cognos Metric List

Watch Rules

You can now use a new watch rule for saved reports that sends alerts depending on a metric-like change in the performance status of a condition (good, average, or poor).

In addition, you can now alert other report users by sending a notification to their task inbox when an event condition is satisfied.

For more information, see "Watch Rules in Saved Reports" on page 422.

IBM Cognos Report Studio Professional and Express Authoring Modes

In this release, Professional authoring mode is available in Report Studio and Express Authoring mode is available in IBM Cognos Business Insight Advanced. In previous releases, Professional authoring mode and Express authoring mode were available in Report Studio.

For more information, see "Set Access to User Interface Profiles for Report Authors" on page 269.

Enhanced Search Capability

In earlier releases, enhanced search was available by installing IBM Cognos Go! Search as a separate component. Now, enhanced search is the default mode in IBM Cognos Business Intelligence.

For information about searching for an entry, see "Searching for entries using name, description, and name or description" on page 302.

For information about creating a search index and configuring permissions for enhanced search, see Chapter 31, "Managing Index Search," on page 471.

For information about how to set up and configure enhanced search, see the Installation and Configuration Guide.

Change of Name for IBM Metadata Workbench

The name IBM Metadata Workbench has changed to IBM Metadata InfoSphere™ Workbench.

IBM Cognos Now! Name Has Changed

IBM Cognos Now! has been renamed and is now called IBM Cognos Real-Time Monitoring. In Cognos Administration, when selecting a data source, choose IBM Cognos Now!- Real-time Monitoring Cube.

For more information, see "IBM Cognos Now! - Real-time Monitoring Cube" on page 170.

IBM Cognos 8 Portal Services

BEA AquaLogic User Interaction 6.1 (ALUI 6.1) portal is replaced by Oracle WebCenter Interaction Portal 10.3.

For more information, see Oracle WebCenter Integration Portal.

Line break rules in PDFs have changed

Line break rules for word wrapping in PDFs have changed slightly from the last release. Brackets and parenthesis such as { } and ( ) are now treated as breakable. For example, in past releases, the following string would be treated as a single non-breaking string.

Boilers(Steam)

In this release, "Boilers" and "(Steam)" are treated as separate strings which might result in the following when the string occurs at the end of a line.

Boilers

(Steam)

Deprecated Features in Version 10.1.0

A deprecated feature is one that is being replaced by a newer version or a better implementation. The intention is to discontinue the use of the feature and provide recommendations for adapting to this change over multiple releases.

Listed below are deprecated features, including links to related topics.

Support for Excel 2000 and Excel 2000 Single Sheet Formats

In this release, support for Microsoft Excel spreadsheet software 2000 and Excel 2000 single sheet output formats has been deprecated.

For information about the currently supported Excel formats, see “Microsoft Excel Formats” on page 411.

IBM Cognos PowerCube Connection Utility and cubeswap

In this release of IBM Cognos Transformer, the PowerCube Connection Utility and cubeswap has been deprecated. The functionality provided by these utilities is no longer required when using the automated copy and activate options on the Deployment tab of the PowerCube properties dialog box.

For more information about the PowerCube copy and activate options, see “Deploy Updated PowerCubes” on page 200 or the Transformer *User Guide*.

New Features in Version 8.4

Listed below are new features since the last release. Links to directly-related topics are included.

Additional Language Support

In addition to Japanese, German, and French, the installation documentation and the user interface for the installation program and IBM Cognos Configuration are

available in the following languages: Chinese (simplified), Chinese (traditional), Korean, Italian, Spanish, Portuguese (Brazilian).

You can use the new product languages when personalizing your user interface in IBM Cognos 8 "Personalize the Portal" on page 304.

English product documentation is installed when you install the IBM Cognos 8 gateway component. The *IBM Cognos Installation and Configuration Guide*, the *Quick Start Installation and Configuration Guide*, and the *Readme* are the exceptions, and are available in all supported languages. To access all other translated documentation, you must install the Supplementary Languages Documentation.

Support for IBM Metadata Workbench as a Lineage Solution

You can now configure IBM Metadata Workbench as a lineage solution in IBM Cognos 8.

For more information, see "View Lineage Information for a Data Item" on page 408.

Administrators can configure the lineage solution by specifying the lineage URI in IBM Cognos Administration "Configure the Lineage Solution" on page 158.

Access to IBM InfoSphere Business Glossary

If you use the IBM InfoSphere Business Glossary, you can now access the glossary from Cognos Viewer.

For more information, see "Access the IBM InfoSphere Business Glossary" on page 408.

You can configure the IBM InfoSphere Business Glossary URL in IBM Cognos Administration "Configure the IBM InfoSphere Business Glossary URI" on page 160.

Managing Comments Using Cognos Viewer

You can now add user-defined comments to saved HTML, PDF, and XML reports using Cognos Viewer.

For more information, see "Comments in Saved Reports" on page 426.

Adding Application Context to Dynamic SQL

An administrator can now define a custom string including application context that is added as a comment marker within SQL generated by the application.

For more information, see "Comments in Saved Reports" on page 426.

Support for New Data Sources

You can now use the following data sources in IBM Cognos 8: IBM Cognos Now! Cube, IBM InfoSphere Warehouse Cubing Services, TM1®, and Microsoft Analysis Services 2008.

For more information, see

- IBM Cognos Now! Cube "IBM Cognos Now! - Real-time Monitoring Cube" on page 170

- IBM InfoSphere Warehouse Cubing Services "IBM InfoSphere Warehouse Cubing Services" on page 178
- TM1 "TM1 Data Sources" on page 194
- Microsoft Analysis Services 2008 "Microsoft Analysis Services Data Sources" on page 180

Support for New Portal Versions

IBM Cognos 8 Portal Services now provide extended support IBM WebSphere 6.0 and 6.1, and BEA AquaLogic User Interaction 6.5 (ALUI 6.5)

For more information, see Chapter 34, "Deploying Cognos Portlets to Other Portals," on page 533.

Hiding Entries

You can hide entries in IBM Cognos Connection and IBM Cognos Administration, such as reports, packages, pages, folders, jobs, data sources, portlets, and so on. This functionality is most often used with drill-through reports.

Hiding an entry does not affect its security policies.

For more information, see "Hide an Entry" on page 297.

Updating Published PowerCubes

You can now use the pcactivate command to make new versions of published PowerCubes available to users.

For more information, see "Deploy Updated PowerCubes" on page 200.

Object Capabilities

You can now specify capabilities for individual packages.

For more information, see Chapter 17, "Object Capabilities," on page 271.

Schedule Credentials

When you choose to import schedules in the deployment, you can change the imported schedule credentials to your credentials.

For more information, see "Including Schedules" on page 357.

Save History Details for Job Steps

You can save history details for job steps when the run activity completes successfully.

For more information, see "Job Properties" on page 291.

Viewing Lineage Information

A data item's lineage information traces the item's metadata back through the package and the package's data sources. Viewing lineage information ensures that you add the correct data items to a report.

For more information, see "View Lineage Information for a Data Item" on page 408.

Enhanced Drill-through Capabilities

In earlier versions of IBM Cognos 8, model-based drill-through supported only reports created in Analysis Studio, Query Studio, or Report Studio as targets. Other types of drill-through targets are now supported. For example, you can drill through to PowerPlay® Studio reports saved in the content store, or to a package that contains a PowerCube.

In earlier versions of IBM Cognos 8, drill-through access required the existence of parameters in the target. IBM Cognos 8 now allows dynamic filtering of the data. In cases where more control is needed, you can continue to use the existing parameterized drill-through.

You now also can restrict the availability of package drill-through definitions to measures as well as other data when you set the scope.

If the source is based on a dimensional package, you can choose what property of the source metadata item to map to the target. For example, you can map the member caption of the source metadata item to a relational value in the target instead of using the business key. For more information, see Chapter 32, "Drill-through Access," on page 489.

The drill-through assistant contains improved debugging information "Debugging a Drill-through Definition" on page 507.

Metric Studio Content in Portal Pages

An IBM Cognos Connection page or a dashboard can now display metric impact diagrams and custom diagrams.

This new content can be added by using the following new portlets:

- Metrics Impact Diagram

  Use to display impact diagrams associated with a metric.
- Metrics Custom Diagram

  Use to display custom diagrams associated with a scorecard.

For more information, see Chapter 20, "Pages and Dashboards," on page 311.

Changed Features in Version 8.4

Listed below are changes to features since the last release. Links to directly-related topics are included.

Composite Information Server is Replaced By IBM Cognos Virtual View Manager

Composite Information Server was available with earlier releases of IBM Cognos 8. In the current release, Composite Information Server is replaced by IBM Cognos Virtual View Manager, which is an IBM proprietary product that is based on a new version of Composite Information Server. In this release, the default repository is changed, from Microsoft SQL Server to IBM Informix®. If you have Composite data sources defined in IBM Cognos Connection, you must migrate the existing repository to the new default repository.

For more information, see “ODBC Data Source Connections” on page 186. For more information about migrating the repository, see the IBM Cognos Virtual View Manager *User Guide*.

IBM Cognos 8 Portal Services

Plumtree portal is replaced by BEA AquaLogic User Interaction 6.1 (ALUI 6.1) portal.

Deprecated Features in Version 8.4

A deprecated feature is one that is being replaced by a newer version or a better implementation. The intention is to discontinue the use of the feature and provide recommendations for adapting to this change over multiple releases.

Listed below are deprecated features, including links to related topics.

IBM Cognos 8 PowerCube Connection Utility and cubeswap

In the next release of IBM Cognos 8 Transformer, the PowerCube Connection Utility and cubeswap will be deprecated. The functionality provided by these utilities is no longer required when using the automated copy and activate options on the Deployment tab of the PowerCube properties dialog box.

For more information about the PowerCube copy and activate options, see “Deploy Updated PowerCubes” on page 200 or the Transformer *User Guide*.

New Features in Version 8.3

Listed below are new features since the last release. Links to directly-related topics are included.

Improved User Interface for Administrators

Administrative tasks are now located in one central management interface named IBM Cognos Administration. The new interface will help you make quicker, more informed decisions, and simplify the overall management of the IBM Cognos environment.

Access to More Documentation

You can access supplementary documentation from More Documentation on the Help menu of IBM Cognos Connection. This new link opens a dynamic IBM Cognos Documentation page that contains one or more readme files and additional guides, depending on the products you have installed and the language in which you installed them.

More Granular Administrative Capabilities

A more granular approach to securing administrative functions is now available. Administrators can be granted some administrative permissions, but not others. For example, an administrator can have access to tasks associated with managing data sources, but not to the tasks associated with maintaining the security namespaces.

For more information, see Chapter 16, “Secured Functions and Features,” on page 261.

Access to System Statistics

You can view metrics related to different servers, dispatchers, and services. The metrics provide you with insight into the status of the environment.

For more information, see Chapter 6, “System Performance Metrics,” on page 87.

Snapshot of System Health

You can get a snapshot of the status of all servers, server groups, dispatchers, and services in the IBM Cognos topology. All system metrics are found on the System tab in IBM Cognos Administration. When you see statistics in their proper context, you can make better decisions regarding performance, scheduling, and capacity planning.

For more information, see Chapter 6, “System Performance Metrics,” on page 87.

Managing Queues

IBM Cognos Administration provides specific views and tools to identify the report, job, or application currently in the queue or being processed. These views also reveal who is running the item, regardless of whether it is a background or interactive task. You can better understand what is happening in your environment and take action to resolve issues. For example, you can cancel a job for a user.

For more information, see Chapter 21, “Activities Management,” on page 329.

Reducing Deployment Details

An administrator can specify the level of deployment details logged to the content store. By default, the deployment history will contain only summarized information. This will save memory space, improve performance, and require less maintenance.

For more information, see Chapter 24, “Packages,” on page 379.

You can learn the current status of a deployment by viewing periodic updates in the **Monitor Service** Chapter 21, “Activities Management,” on page 329.

Setting Priority on Schedules

You can set a priority, from 1 to 5, on a schedule. Setting a priority ensures that if two reports are waiting in the queue to be run, the report with the higher priority is run first. You can override and reset the priority on any schedule.

For more information, see “Manage Entry Run Priority” on page 337.

Better Control of Interactive Features in Reports

You can now disable interactive features in addition to drill-up, drill-down, and package drill report options. Administrators can control access to all interactive features, including drill-up and drill-down, package drill, authored drill, Go! Search, and notifications.

This feature gives you more control of interactive activities. Hiding these functions may reduce the need for user training in large deployments.

The new capabilities are exposed as run options in IBM Cognos Connection “Set Default Report Options” on page 399.

New Sample Audit Reports

Sample audit reports have been added for metric threshold exceptions, agents, failed reports, and presentation service.

For more information, see Chapter 5, “Setting up Logging,” on page 71.

Publishing and Managing Packages in Non-root Folders

You can now publish packages from Framework Manager into any folder in IBM Cognos Connection. In previous versions, packages could be published and maintained only in the single root folder. These packages can also be moved from the root folder to any folder in IBM Cognos Connection. In Framework Manager, any target folder can be used for publishing.

For more information, see Chapter 24, “Packages,” on page 379.

Enabling Report Studio Authoring Modes

Report Studio now accommodates two distinct types of report authors: Express® and Professional.

- **Express**

  This user can access the Report Studio Professional authoring mode and the Express authoring mode.

- **Professional**

  This user can access the Report Studio Express authoring mode for financial report authoring to create and maintain statement style reports. Financial authoring requires many, but not all, of the features that exist in Report Studio and interaction with live data.

In IBM Cognos Administration, you can restrict users to have access to only the Express authoring mode in Report Studio. For more information, see “Set Access to User Interface Profiles for Report Authors” on page 269.

Server Administration

Server administration is enhanced with new capabilities.

You can now:

- set PDF file character encoding, font embedding, and compression types and levels
- set the maximum execution time
- limit hotspots that are generated in an Analysis Studio or Report Studio chart
- set watch list output retention time

Settings for the maximum number of processes and connections has been improved. For some services, you can now set the maximum number of processes and the maximum number of high affinity and low affinity connections that the dispatcher can open to handle requests. For other services, you can set the maximum number of connections.

For more information, see Chapter 7, “Server Administration,” on page 103.

Transformer Integrated into IBM Cognos 8

Transformer is now fully integrated into IBM Cognos 8 Business Intelligence. This includes the ability to leverage IBM Cognos 8 metadata, support for cube building on IBM Cognos 8 platforms, and integration with IBM Cognos 8 security.

For more information, see the Transformer *User Guide*.

My Activities and Schedules

You can now manage IBM Cognos 8 activities from My Activities and Schedules in IBM Cognos Connection.

You can view a list of your activities that are current, past, upcoming on a specific day, or scheduled. You can filter the list so that only the entries that you want appear. A bar chart shows you an overview of activities.

You can set run priority for entries. You can also view the run history for entries, specify how long to keep run histories, and rerun failed entries.

For more information, see Chapter 21, "Activities Management," on page 329.

My Watch Items

Use the My Watch Items area of the portal to view and manage alerts for new report versions and rules that you have set for conditional report delivery. The My Watch Items functionality enables end users to monitor and manage business information that is critical to them from a single location.

As a report owner, you must allow report users to receive alerts and create watch rules for the reports. For information about how to enable these features for reports, see "Enable Watch Rules for a Report" on page 423.

Report Alerts

By enabling an alert on a report, you can now be notified when a new version is available. Whenever a report is run and saved due to a scheduled or manual run, all subscribers receive an email that a new version is available.

Subscriptions are saved to the **Alerts** tab of **My Watch Items** "My Watch Items" on page 307 and can be maintained from that location.

For more information, see "Adding or Removing Yourself from the Alert List for a Report" on page 421

Watch Rules

A new watch rule action is available in Cognos Viewer. You can use watch rules to control when users are notified about the availability of new report versions. When a report is run and saved, a user-defined threshold condition is checked. If this condition satisfies a user's criteria, the report can be e-mailed.

To create a watch rule "Create a Watch Rule for a Specific Condition" on page 423, a saved report must be viewable in HTML format. You can select the data to be monitored and enter the threshold condition that will trigger the delivery of the report. Watch rules are saved to the **Rules** tab of **My Watch Items** "My Watch Items" on page 307, and can be maintained from that location.

This feature lets users maintain their own report distribution preferences and avoid information overload.

Drilling Through on Multiple Values

Drilling through is now more powerful and flexible. You can pass multiple items, such as products, countries and regions, to a target report. You can now use this feature regardless of the type of drill-through path that was created. Drilling through is automatically enabled when you select multiple values.

In previous versions, passing multiple values was available only within drill-through paths created in IBM Cognos Connection.

Go Directly to Target Report When Only One Target Report Exists

When there is only one target report available, you can now go directly to the target report when you click the drill-through link in Cognos Viewer. If there are multiple target reports available, you see the Go To page, which allows you to select the target report that you want. This behavior is automatic and works the same way whether the drill-through is defined in Report Studio or in a drill-through definition in IBM Cognos Connection.

For package-based drill-through, if there is only one target report, you click on the **Go To** link in the right-click menu to go directly to the target report (not **Related Links** that you see when you hover your mouse over the **Go To** menu). If there is more than one target report, clicking on **Go To** has the same effect as clicking on **Related Links**. In both cases, you see the **Go To** page, which allows you to select the target report that you want.

For more information, see "Drill Through to Another Target" on page 434.

Support for Microsoft Excel 2007

IBM Cognos 8 supports Microsoft Excel spreadsheet software 2007 native spreadsheets as a report format, in addition to the existing Microsoft Excel HTML formats. The Microsoft Excel 2007 XML format, also known as XLSX, provides a fast way to deliver native Excel spreadsheets to Microsoft Excel XP, Microsoft Excel 2003, and Microsoft Excel 2007.

The use of a native Microsoft Excel format means that the spreadsheets are smaller and more usable. Because the new Office Open XML format is a recognized industry standard supported by ECMA International, the new format provides the added benefit of an open, documented integration format that extends an open systems solution.

The new format appears in the run report user interface. Users of Microsoft Excel XP and Microsoft Excel 2003 must install the Microsoft Office Compatibility Pack, which provides file open and save capabilities for the new format.

For more information about Excel format support, see "Microsoft Excel Formats" on page 411.

Saving Report Outputs to a File System

You can now export report results directly to a server file system using IBM Cognos Connection. You decide which formats to export, and select from a

predefined set of directory locations. This feature makes it easy to integrate IBM Cognos content into other external applications.

IBM Cognos 8 does not keep a record of the exported reports, but does prevent and resolve name conflicts that arise when the same file is saved multiple times to the same directory. You are responsible for managing the reports after export. An XML descriptor file with the same file name prefix is created, which can be used by an external application to locate and manage the exported reports.

The export options appear as run options for a report, provided you were granted access to this feature. For more information, see "Save Report Output" on page 415.

Resubmitting Failed Jobs and Reports

You can resubmit a failed job or report. For example, you discover that 20 reports in a job containing 1,000 reports fail due to an invalid signon. The problem is corrected and the job is resubmitted so that only the 20 failed reports are rerun.

In previous versions, if you submitted a report and it failed, the run options associated with the report were lost. Now the report can be resubmitted without having to reset the run options.

Failed reports, jobs, and agent tasks can be resubmitted from the run history, accessed from the **Past activities** page of **IBM Cognos Administration**, or accessed from the **Actions** page of the item.

Resubmitting Failed Agent Tasks

Failed agent tasks can now be resubmitted with their original data values. In previous versions, if a task failed, the data passed to the task was lost. Rerunning the agent may not solve this problem if the task is set to process new events only.

Default Actions for Agent Items

You can now choose a default action to use when an agent item is selected in IBM Cognos Connection, rather than automatically opening the agent in Event Studio.

The new choices are:

- show the most recent event list
- run the agent
- open the agent in Event Studio

The default action is defined on the **Agent** tab of the item properties in IBM Cognos Connection.

Tabbed Portal Pages

You can now create pages with multiple tabs that are easy to navigate. The new type of pages is also referred to as dashboards. Dashboards are created by using a new portlet named Multi-page.

For more information, "Create a Dashboard with Multiple Tabs" on page 319.

Global Filters and Enhanced Portal Interactivity

You can select the dashboard context in the portal with one or more global filters. A global filter may be a prompt, a drill-up or drill-down action, or a report that is

based on drill-through content. For example, you can add a prompt control to a portal page to automatically pass the selection to all reports on the page. When a prompt answer is changed, all related reports will refresh accordingly. So, if you answer a country or region prompt with Brazil, all related reports on the page will be filtered to show the data for Brazil.

When these techniques are used on a tabbed dashboard, the context is passed to all corresponding sections of the dashboard. This functionality allows for a single selection to drive a number of reports at once.

For more information, see "Adding Interactivity to Pages and Dashboards" on page 322.

Metric Studio Content in Portal Pages

An IBM Cognos Connection page or a dashboard can now display more types of Metric Studio metrics and a history chart.

This new content can be added by using the following new portlets:

- Metric List

  Use to add a watchlist, an accountability list, a scorecard metric list, or a strategy metric list to the page.
- Metric History Chart

  Use to add a graphical chart that illustrates the historical performance of a metric to the page.

For more information, see Chapter 20, "Pages and Dashboards," on page 311.

Support for Microsoft SharePoint Portal 2003 and 2007

Microsoft SharePoint Portal 2003 and 2007 is now supported in IBM Cognos 8. You can use this portal with the Cognos Navigator, Cognos Search, Cognos Viewer, Metric List, Metric History Chart, and Cognos Extended Applications portlets.

For more information, see "Deploying Cognos Portlets to Microsoft SharePoint Portal Server 2003" on page 546.

Changed Features in Version 8.3

Listed below are changes to features since the last release. Links to directly-related topics are included.

Updated IBM Cognos Connection Look

The IBM Cognos Connection user interface was changed to provide more space for reports and information that you care about, and use less space for toolbars and functions.

The new features include:

- The **Launch** menu, which replaces the **Tools** menu.

  This menu lets you access the IBM Cognos 8 studios, **Drill-through Definitions**, and **IBM Cognos Administration**.
- The my area icon  , which lets you access the **My Watch Items**, **My Preferences**, and **My Activities and Schedules** areas in IBM Cognos Connection.

- The portal style named **Business**.
- The updated **Welcome to IBM Cognos 8** page.

For more information, see "Personalize the Portal" on page 304.

More Information in the Go To Page

Additional information was added to the Related Links page. Related Links, also known as the Go To page, is used to show users all of the drill-through paths available from a source report. The page now automatically shows more information, such as the target report and its location. This information helps you choose which drill-through path to use.

Cognos Watchlist Portlet

The Cognos Watchlist Portlet was replaced by the Metric List portlet. In the new portlet, the watchlist is now one of the selectable options.

For more information, see Chapter 20, "Pages and Dashboards," on page 311.

Replaced Capability

The capability known as Directory in previous releases of IBM Cognos 8 was replaced by the following, more granular capabilities: Data Source Connections, Set capabilities and manage UI profiles, and Users, Groups, and Roles.

For more information, see Chapter 16, "Secured Functions and Features," on page 261.

Chapter 2. IBM Cognos Software Administration

After IBM Cognos software is installed and configured, you can perform server administration, data management, security and content administration, activities management, and portal services administration.

You can also perform the following administrative tasks:

- automating tasks
- setting up your environment and configuring your database for multilingual reporting
- installing fonts
- setting up printers
- configuring web browsers
- allowing user access to Series 7 reports from IBM Cognos Connection
- restricting access to IBM Cognos software

Aside from the typical administrative tasks, you can also customize the appearance and functionality of different IBM Cognos components.

For information about potential problems, see the *IBM Cognos Business Intelligence Troubleshooting Guide*.

IBM Cognos Administration

You can access IBM Cognos Administration from the Launch menu in IBM Cognos Connection.

You must have the required permissions to access **IBM Cognos Administration**.

For more information, see Chapter 16, “Secured Functions and Features,” on page 261.

Administrative Area	Tab	Use
Activities	**Status**	To manage current, past, upcoming, and scheduled IBM Cognos entries.
Content Manager computers	**Status**	To manage Content Manager computers.
Content store	**Configuration**	To perform content store maintenance tasks.
Data sources	**Configuration**	To create and manage data sources connections.

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Administrative Area	Tab	Use
Deployment	**Configuration**	To deploy IBM Cognos , to export from a source environment and then import in a target environment.
Dispatchers and Services	**Status**	To manage dispatchers and services.
Distribution lists and contacts	**Configuration**	To create and manage distribution lists and contacts.
Portals	**Configuration**	To manage styles, Cognos portlets, and other portlets in IBM Cognos Connection.
Printers	**Configuration**	To create and manage printers.
Security	**Security**	To control access to specific product functions, such as administration and reporting, and features within the functions, such as bursting and user-defined SQL.
System, dispatcher, server, and service administration	**Status**	To monitor system performance using system metrics and administer servers.
Server tuning	**Status**	To optimize the speed and efficiency of IBM Cognos software.
Users, groups, and roles	**Security**	To create and manage users, groups, and roles.

Automating Tasks

Virtually everything you can do with the product, you can achieve using the appropriate API, URL interface, or command line tool, as illustrated in the table below.

Goal and document	Automation interface	User interface
Begin basic reporting with the IBM Cognos Software Development Kit. For information, see the IBM Cognos Business Intelligence *Getting Started Guide*.	BI Bus API	Report Studio
Modify a model, or republish it to UNIX or Microsoft Windows operating systems. For information, see the Framework Manager *Developer Guide* and Framework Manager *User Guide*.	Script Player tool	Framework Manager
Modify an unpublished model using the updateMetadata and queryMetadata methods. For information, see the IBM Cognos Software Development Kit *Developer Guide*.	BI Bus API	Framework Manager
Retrieve the query items available in the published package using the getMetadata method. For information, see the IBM Cognos Software Development Kit *Developer Guide*.	BI Bus API	IBM Cognos Connection
Grant capabilities to users. For information, see the IBM Cognos Software Development Kit *Developer Guide*.	BI Bus API	IBM Cognos Connection Server Administration

Goal and document	Automation interface	User interface
Administer and implement security. For information, see the IBM Cognos Software Development Kit *Developer Guide*.	BI Bus API	IBM Cognos Connection Server Administration
Run, view, and edit reports through a hyperlink in an HTML page. Use URLs to view, edit, and run reports. For information, see the IBM Cognos Software Development Kit *Developer Guide*.	URL Interface	IBM Cognos Viewer Query Studio Report Studio
Manipulate objects in the content store. Manage content manager. For information, see the IBM Cognos Software Development Kit *Developer Guide*.	BI Bus API	IBM Cognos Connection Query Studio Report Studio Framework Manager
Administer reports. For information, see the IBM Cognos Software Development Kit *Developer Guide*.	BI Bus API	IBM Cognos Connection
Administer servers and manage dispatchers. For information, see the IBM Cognos Software Development Kit *Developer Guide*.	BI Bus API	IBM Cognos Connection Server Administration
Modify or author reports. For information, see the IBM Cognos Software Development Kit *Developer Guide*.	BI Bus API and report specification	Report Studio

Goal and document	Automation interface	User interface
Modify the functionality of IBM Cognos software. For information, see Appendix H, "Performing tasks in IBM Cognos BI using URLs," on page 765.	URL Interface	IBM Cognos Connection Report Studio Query Studio

Setting up a Multilingual Reporting Environment

You can set up a multilingual reporting environment.

You can create reports that show data in more than one language and use different regional settings. This means that you can create one report that can be used by report consumers anywhere in the world.

The samples databases provided with IBM Cognos software store a selection of text fields, such as names and descriptions, in more than 25 languages to demonstrate a multilingual reporting environment.

Here is the process for creating a multilingual reporting environment:

- Use multilingual metadata.

  The data source administrator can store multilingual data in either individual tables, rows, or columns.
- Create a multilingual model.

  Modelers use Framework Manager to add multilingual metadata to the model from any data source type except OLAP. They add multilingual metadata by defining which languages the model supports, translating text strings in the model for things such as object names and descriptions, and defining which languages are exported in each package. If the data source contains multilingual data, modelers can define queries that retrieve data in the default language for the report user.

  For more information, see the Framework Manager *User Guide*.
- Create multilingual maps.

  Administrators and modelers use a Microsoft Windows operating system utility named Map Manager to import maps and update labels for maps in Report Studio. For map features such as country or region and city names, administrators and modelers can define alternative names to provide multilingual versions of text that appears on the map.

  For more information, see the Map Manager *Installation and User Guide*.
- Create a multilingual report.

  The report author uses Report Studio to create a report that can be viewed in different languages. For example, you can specify that text, such as the title, appears in German when the report is opened by a German user. You can also add translations for text objects, and create other language-dependent objects.

  For more information, see the IBM Cognos Report Studio *User Guide*.
- Specify the language in which a report is viewed.

  You can use IBM Cognos Connection to do the following:

– Define multilingual properties, such as a name, screen tip, and description, for each entry in the portal.
– Specify the default language to be used when a report is run.

  Tip: You can specify the default language on the run options page, in the report properties, or in your preferences.
– Specify a language, other than the default, to be used when a report is run.

For more information, see the IBM Cognos Connection *User Guide*.

The data then appears in the language and with the regional settings specified in

- the user's Web browser options
- the run options
- the IBM Cognos Connection preferences

Any text that users or authors add appears in the language in which they typed it.

Configuring Your Database For Multilingual Reporting

IBM Cognos Business Intelligence is a Unicode product capable of querying data in many languages and encoding.

IBM Cognos BI typically queries the database using the native data encoding of the database (Latin-1, Shift-JIS, Unicode, and so on). IBM Cognos BI translates this data to Unicode as required.

When querying databases with two or more data encodings, Report Studio requests the data in Unicode. Certain databases require specific configuration of the client or server software to enable this capability. For more information, see your database vendor documentation.

Note: For information on round trip safety issues when characters are converted from Unicode to Shift-JIS and back, see the information on the Round Trip Safety Configuration utility in Appendix A, “Round Trip Safety Configuration of Shift-JIS Characters,” on page 655.

Installing Fonts

IBM Cognos software uses fonts to display HTML reports and pages in browsers, to render PDF reports on the IBM Cognos server, and to render charts used in PDF and HTML reports.

To display output correctly, fonts must be available where the report or chart is rendered. In the case of charts and PDF reports, the fonts must be installed on the IBM Cognos server. For example, if a Report Studio user selects the Arial font for a report, Arial must be installed on the IBM Cognos server to properly render charts and PDF files. If a requested font is not available, IBM Cognos software substitutes a different font.

Because HTML reports are rendered on a browser, the required fonts must be installed on the personal computer of each IBM Cognos software user who will read the HTML report. If a requested font is not available, the browser substitutes a different font.

When creating reports, you must select fonts that your IBM Cognos server or users have installed. Microsoft delivers a broad selection of fonts with different language

packs, so this will likely not be an issue in Microsoft Windows operating system. However, UNIX servers rarely have fonts installed. You should be prepared to purchase and install the fonts you need on both the server and browser clients.

For information about PDF file settings, see "PDF File Settings" on page 135. For information on using PDF format in reports, see "Report Formats" on page 410. For information about configuring fonts and about mapping substitute fonts, see the IBM Cognos *Installation and Configuration Guide*.

IBM Cognos Default Font

If a requested font is not found, the IBM Cognos server renders PDF files and charts using a default font.

Andale WT, part of the sans serif font family, is the default font because of its wide support of Unicode characters. However, it is not necessarily complete for all languages and may not be considered as attractive as purchased fonts. Also, this font has no Glyph Substitution (GSUB) and Ligature support in most languages.

Report Studio Fonts

Report Studio is an HTML and JavaScript application that runs in a browser.

Because of the browser design, Report Studio operates within the browser security sandbox and has no access to the list of fonts installed on the local computer. Instead, Report Studio uses fonts configured in the IBM Cognos global configuration.

For more information, see the IBM Cognos *Installation and Configuration Guide*.

Set Up Printers

To make printers available to users when they distribute reports, you can create entries for printers and save them in the IBM Cognos content store.

When users want to print a report, they can select a printer that you set up without needing to know its network address details.

When you create a printer entry, ensure that the printer you define is set up on the computer where IBM Cognos is installed.

To set up printers, you must have the required capabilities to access **IBM Cognos Administration** functionality. You must have write permissions for the Cognos namespace, see Chapter 16, "Secured Functions and Features," on page 261.

To avoid possible errors, ensure that the following conditions are met before you try printing:

- Ensure that Adobe Reader is installed on each computer where IBM Cognos servers are installed.
- Ensure that the IBM Cognos server is started using an account that has access to the network printer.

  Sometimes, system accounts may not have access to network printers.
- If IBM Cognos is installed on a UNIX operating system, ensure that the command **lpstat -v**, returns a configured printer and that a printer variable is defined.

- When you define the network address for the printer in IBM Cognos Connection, use the following syntax:

  For Microsoft Windows operating system, use *server_name**printer_name*.

  For a UNIX operating system use *printer_name*.
- When you define the network address for the printer, try using the IP address of the printer instead of the computer name.
- Ensure that IBM Cognos users have the correct access permissions to the printer.

The role Directory Administrators must have all access permissions granted, and the group Everyone must have read, execute, and traverse permissions granted.

Tip: To check or assign access permissions for a printer, in the **Actions** column, click the set properties button  for the printer, and then click the **Permissions** tab.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Printers**.

   A list of printers appears.

   Tip: To remove a printer, select the check box for the printer and click the delete button.
3. On the toolbar, click the new printer button  .
4. Type a name and, if you want, a description for the printer.

   Tip: Use a name that provides details about the printer, such as Color Printer - 4th Floor
5. Type the network address of the printer by using the format *server_name**printer_name* for a network printer on a Windows installation and *printer_name* for a UNIX operating system installation or for a local printer on Windows.
6. Click **Finish**.

Configure Web Browsers

IBM Cognos Business Intelligence products use default browser configurations. Additional required settings are specific to the browser.

Browser Settings Required for IBM Cognos BI Portal

The following table shows the settings that must be enabled.

Table 1. Enabled Browser Settings for IBM Cognos BI Portal

Browser	Setting	IBM Cognos component
Internet Explorer (settings for studios and portals)	Allow Cookies Active Scripting Allow META REFRESH	IBM Cognos Connection IBM Cognos Administration Cognos Viewer Report Studio Query Studio Analysis Studio Event Studio Metric Studio PowerPlay Studio
Internet Explorer (settings for some studios)	Run ActiveX controls and plug-ins Script ActiveX controls marked safe for scripting	Report Studio Query Studio Analysis Studio
Internet Explorer (settings for a single studio)	Binary and script behaviors Allow programmatic clipboard access	Report Studio
Firefox	Allow Cookies Enable Java Enable JavaScript Load Images	IBM Cognos Connection IBM Cognos Administration Cognos Viewer Report Studio Query Studio Analysis Studio PowerPlay Studio

Report Studio and Query Studio use the native Microsoft Internet Explorer XML support, which is a component of the browser. ActiveX support must be enabled because Microsoft applications implement XML using ActiveX. IBM Cognos BI does not provide or download ActiveX controls. Only the ActiveX controls that are installed as part of Internet Explorer are enabled through this configuration.

If Adblock Plus is installed with Firefox, disable it using the per-page option. Adblock Plus prevents some IBM Cognos Connection resources from working properly.

If you use Microsoft Internet Explorer Version 8, you may receive Adobe link errors when you open PDF documents in the IBM Cognos portal. To prevent these errors, in Internet Explorer, from the **Tools** menu, select **Manage Add-ons**, and disable **Adobe PDF Reader Link Helper**.

If you use a Microsoft Internet Explorer Web browser, then you can add the URL for your gateway(s) to the list of Trusted sites. For example, `http://<server_name>:<port_number>/ibmcognos`. This enables automatic prompting for file downloads.

For more information, see the topic about configuring IBM Cognos Application Firewall in the *IBM Cognos Business Intelligence Installation and Configuration Guide*.

Cookies Used by IBM Cognos BI Components

IBM Cognos BI uses the following cookies to store user information.

Table 2. Cookies used by IBM Cognos BI components

Cookie	Type	Purpose
AS_TICKET	Session temporary	Created if IBM Cognos BI is configured to use an IBM Cognos Series 7 namespace
caf	Session temporary	Contains security state information
Cam_passport	Session temporary	Stores a reference to a user session stored on the Content Manager server. Administrators can set the HTTPOnly attribute to block scripts from reading or manipulating the CAM passport cookie during a user's session with their web browser.
cc_session	Session temporary	Holds session information that is specific to IBM Cognos Connection
cc_state	Session temporary	Holds information during edit operations, such as cut, copy, and paste
CRN	Session temporary	Contains the content and product locale information, and is set for all IBM Cognos users
CRN_RS	Persistent	Stores the choice that the user makes for the "view members folder" in Report Studio
PAT_CURRENT_ FOLDER	Persistent	Stores the current folder path if local file access is used, and is updated after the Open or Save dialog box is used

Table 2. Cookies used by IBM Cognos BI components (continued)

Cookie	Type	Purpose
pp_session	Session temporary	Stores session information that is specific to PowerPlay Studio
qs	Persistent	Stores the settings that the user makes for user interface elements such as menus and toolbars
userCapabilities	Session temporary	Contains all capabilities and the signature for the current user
usersessionid	Session temporary	Contains a unique user session identifier, valid for the duration of the browser session.
FrameBorder PageOrientation PageSize PDFLayerDimension PDFOPTS	Session temporary	These cookies store the preferences for export to PDF.
DimTreeToolbarVisible	Persistent	Stores the setting that determines whether to show or hide the dimension viewer toolbar.
cea-ssa	Session temporary	Stores the setting that determines whether the user session information is shared with other IBM Cognos BI components.
BRes	Session temporary	Stores information used to determine the screen resolution to use to render charts.

After upgrading or installing new software, restart the Web browser and advise users to clear their browser cache.

Allow User Access to Series 7 Reports from IBM Cognos Connection

If IBM Cognos software is configured properly to use the IBM Cognos Series 7 namespace, you can allow users to access NewsIndexes and NewsBoxes of the Series 7 version of IBM Cognos Upfront from IBM Cognos Connection.

We recommend that IBM Cognos Connection and Upfront use the same Web server if Upfront is set up to use relative URLs. If IBM Cognos Connection and Upfront use different Web servers, configure Series 7 to use fully qualified URL. This allows users to use the Web browser back button to navigate from Upfront back to IBM Cognos Connection.

For information about configuring Series 7, see IBM Cognos Series 7 Configuration Manager *User Guide*.

Procedure

1. In IBM Cognos Configuration, configure IBM Cognos to use your IBM Cognos Series 7 namespace. For more information, see the *Installation and Configuration Guide*.
2. In the **Properties** window, under **Cookie Settings**, ensure that the **Secure Flag Enabled** property is set to **false**.
3. From the **File** menu, click **Save** and close IBM Cognos Configuration.
4. Ensure that the ticket server for IBM Cognos Series 7 namespace is running.
5. Ensure that the timeout value of the Series 7 ticket server is set to the same value or to a higher value than the IBM Cognos passport timeout value.
6. On the computer where IBM Cognos software is installed, open the *c10_location*/templates/ps/system.xml file in an editor.

   Ensure that your editor supports saving files in UTF-8 format.
7. Find and edit (with an XML editor) the `series7` parameter as follows:

```
<!-- Series 7 Integration parameters -->
<param name="series7">
  <enabled>true</enabled>
  <!-- character encoding used by series7 -->
  <encoding>series7_character_encoding</encoding>
  <!-- host and port to connect to Upfront server -->
  <host>Upfront_host_name</host>
  <port>Upfront_dispatcher_port_number</port>
  <!-- Upfront gateway location -->
  <gateway>Upfront_gateway_location</gateway>
  <!-- If required, specify the prefix for IBM Cognos
back URLs when linking to Series 7 content. (eg. http://ibmcognos_computer)
otherwise relative URL's will be used -->
  <back-prefix>http://Series 7_server</back-prefix>
</param>
```

   To view the character encoding used by Series 7, in Series 7 Configuration Manager, on the **Properties** tab, click **IBM Cognos Shared**, click **Locale**, and then click the **Encoding** property.
8. Save the system.xml file in UTF-8 format.
9. Using IBM Cognos Configuration, stop and then restart IBM Cognos Business Intelligence.

   For more information about stopping IBM Cognos BI, see the *Installation and Configuration Guide*.

Restricting Access to IBM Cognos Software

You may not want all users that exist in an authentication source to have access to IBM Cognos software.

To secure IBM Cognos software, configure the product so that only users who belong to a specific group or role in your authentication source, or in the Cognos namespace, are allowed access.

We recommend using the Cognos namespace because it contains pre-configured groups and roles that help you to secure IBM Cognos software quickly. One of the pre-configured groups is Everyone. By default, the group Everyone belongs to several built-in groups and roles in the Cognos namespace. If you decide to use the

Cognos namespace, you must remove the Everyone group from all built-in groups and roles and replace it with groups, roles, or users authorized to access IBM Cognos software.

To restrict access to IBM Cognos software, do the following:

- In IBM Cognos Configuration, enable the required properties to restrict access.

  For more information, see the *Installation and Configuration Guide*.
- In **IBM Cognos Administration**, remove the Everyone group from all built-in groups and roles.

  Replace it with groups, roles, or users that are authorized to access the different functional areas of IBM Cognos software. For more information, see Chapter 18, "Initial Security," on page 275.
- In IBM Cognos Connection, set up access permissions for individual entries, such as folders, packages, reports, pages, and so on. For more information, see Chapter 15, "Access Permissions and Credentials," on page 253.

For more information about the security concepts implemented in IBM Cognos software, see Chapter 13, "Security Model," on page 241.

Chapter 3. Building IBM Cognos Business Intelligence Applications

You use the IBM Cognos Business Intelligence components to build reporting and analysis applications.

The lifetime of an IBM Cognos Business Intelligence application can be months, or even years. During that time, data may change and new requirements appear. As the underlying data changes, authors must modify existing content and develop new content. Administrators must also update models and data sources over time. For more information about using data sources, see the *IBM Cognos Business Intelligence Administration and Security Guide* and the *IBM Cognos Framework Manager User Guide*.

Before you begin

In a working application, the technical and security infrastructure and the portal are in place, as well as processes for change management, data control, and so on. For information about the workflow associated with creating IBM Cognos BI content, see the *IBM Cognos Business Intelligence Architecture and Deployment Guide*. For additional information, see the IBM Cognos Solutions Implementation Methodology toolkit, which includes implementation roadmaps and supporting documents. Information about the toolkit is available on http://www.ibm.com.

The following graphic provides an overview for how to use IBM Cognos BI to build applications across all of your IBM Cognos BI components.



Procedure

1. Locate and prepare data sources and models

   IBM Cognos BI can report from a wide variety of data sources, both relational and dimensional. Database connections are created in the Web administration interface, and are used for modeling, for authoring, and for running the application.

   To use data for authoring and viewing, the business intelligence studios need a subset of a model of the metadata (called a package). The metadata may need extensive modeling in Framework Manager.

2. Build and publish the content

   Reports, scorecards, analysis, workspaces and more are created in the business intelligence studios of IBM Cognos BI. Which studio you use depends on the content, life span, and audience of the report, and whether the data is modeled dimensionally or relationally. For example, self-service reporting and analysis are done through IBM Cognos Business Insight Advanced, IBM Cognos Query

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Studio, and IBM Cognos Analysis Studio, and scheduled reports are created in IBM Cognos Report Studio. Report Studio reports and scorecards are usually prepared for a wider audience, published to IBM Cognos Connection or another portal, and scheduled there for bursting, distribution, and so on. You can also use Report Studio to prepare templates for self-service reporting.

3. Deliver and view the information

   You deliver content from the IBM Cognos portal or other supported portals, and view information that has been saved to portals, or delivered by other mechanisms. You can also run reports, analyses, scorecards, and more from within the business intelligence studio in which they were created.

   For information about tuning and performance, see the *IBM Cognos Business Intelligence Administration and Security Guide* and http://www.ibm.com.

Chapter 4. Samples

This content explains the purpose, content and location of IBM Cognos Business Intelligence samples and the sample company, Great Outdoors, its structure, databases, model and packages.

For information on how to set up the sample databases, see "Setting Up the Samples" on page 45.

The Sample Outdoors Company

The Sample Outdoors Company samples illustrate product features and technical and business best practices.

You can also use them for experimenting with and sharing report design techniques and for troubleshooting. As you use the samples, you can connect to features in the product.

For examples related to different kinds of businesses, see the product blueprints at http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp. For information about specific installation choices and environments, see the *IBM Cognos Business Intelligence Architecture and Deployment Guide*, or the Proven Practices and the IBM Cognos Implementation Roadmaps on http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp. For information about audit samples, see the *IBM Cognos Business Intelligence Administration and Security Guide*. For information about Mobile samples, see the *IBM Cognos Mobile Installation and Administration Guide*.

The Sample Outdoors Company, or GO Sales, or any variation of the Sample Outdoors name, is the name of a fictitious business operation whose sample data is used to develop sample applications for IBM and IBM customers. Its fictitious records include sample data for sales transactions, product distribution, finance, and human resources. Any resemblance to actual names, addresses, contact numbers, or transaction values, is coincidental. Unauthorized duplication is prohibited.

Where to find the samples

The samples are included with the product and the samples for each studio are described in the related user guide and online help. To use the samples, you must install, set up, and configure them or contact your administrator to find out where they are installed. For instructions on how to install the samples, see the *IBM Cognos Business Intelligence Installation and Configuration Guide*. For instructions on how to set up and configure samples, see the *IBM Cognos Business Intelligence Administration and Security Guide* or the *IBM Cognos Business Intelligence Installation and Configuration Guide*.

Samples outline

The samples consist of the following:

- Two databases that contain all corporate data, and the related sample models for query and analysis

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- Five samples cubes and the related models
- A metrics data source including associated metrics and a strategy map for the consolidated company, and a model for Metric extracts.
- Reports, queries, query templates, and workspaces

  To run interactive reports, scripts are required. To see all the reports included in the samples packages, copy the files from the samples content installation into deployment folder and then import the deployments into the IBM Cognos Business Intelligence product.

Security

Samples are available to everyone. To implement security, see the *IBM Cognos Business Intelligence Installation and Configuration Guide*.

The Sample Outdoors Group of Companies

To make designing examples faster, especially financial examples, some general information about The Sample Outdoors Company is useful.

To look for samples that use particular product features, see the individual sample descriptions in this section.

Revenue for The Sample Outdoors Company comes from corporate stores and from franchise operations. The revenues are consolidated from the wholly-owned subsidiaries. There are six distinct organizations, each with its own departments and sales branches. Five of these are regionally-based companies.

The sixth company, GO Accessories:

- Has its own collection of products, differentiated from the other GO companies by brand, name, price, color and size
- Sells from a single branch to all regions and retailers
- Functions both as an operating company based in Geneva, and as a part owner of the three GO subsidiaries in Europe

The diagram below illustrates the consolidated corporate structure, including the percentage changes in ownership for GO Central Europe, and shows the reporting currency and GL prefix for each subsidiary.

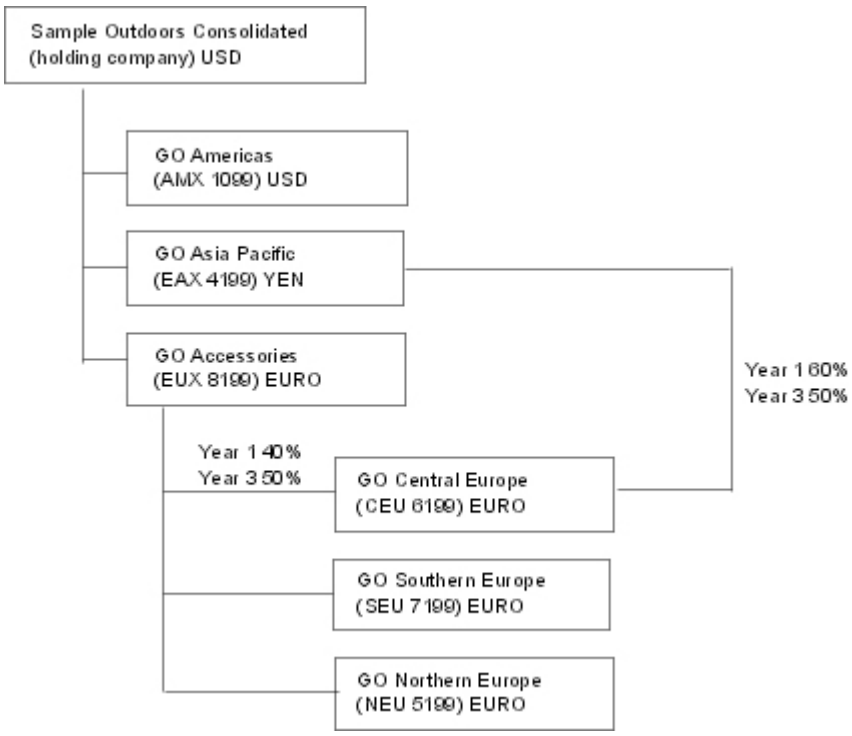


Figure 1. Consolidated corporate structure

Each corporation has the same departmental structure and the same GL structure, shown in the table below. Divisions may not report in the same currencies. For example, the Americas subsidiary reports in US dollars, but the Corporate division local currency is Canadian dollars, and the Operations division local currency is pesos.

Table 3. Departmental structure

Division (GL)	**Department (GL)**
Corporate (1700)	Sales (1720) Marketing (1750) IS&T (1760) Human Resources (1730) Finance (1740) Procurement (1710)
Operations (1800)	Production and Distribution (1820) Customer Service (1820)

Each corporation has a complete chart of accounts. Most of the accounts, such as those under non-personnel expenses, are at the department level, and contain only summary amounts. For example, although each marketing department has expenses, the cost is unspecified at the transaction level where marketing promotions occur.

Employees

The Sample Outdoors data contains a full list of employees in all divisions, departments, and locations.

Data is available for reports about bonuses (Global Bonus report) and sales commissions (Sales Commissions for Central Europe report), training (Employee Training by Year report), and performance reviews and employee satisfaction surveys (Employee Satisfaction 2006). If you use Metric Studio, sample metrics for human resources are also available.

In the GO Data Warehouse (analysis) package, groups of measures and the related dimensions are organized into folders. The employees are organized in hierarchies for region and manager, to make different kinds of aggregation easy to report on. Aggregation has been defined for the Employee Position Summary measures, so that Position count and Planned position count aggregate correctly at each level of time: monthly, quarterly, or yearly. For example, see the Planned Headcount report.

The employees are also listed in a sample LDIF file which could be used for any LDAP IBM product authentication including Tivoli®. This authentication directory is necessary for IBM Cognos Planning samples. No other samples depend on security profiles. For more information, see the IBM Cognos Business Intelligence *Installation and Configuration Guide*.

Sales and Marketing

Data about sales and marketing is available for all of the companies in the Sample Outdoors group.

GO Accessories has richer details to support analysis examples. For example, see the Revenue vs % Profit Margin by Product Brand analysis, based on the Sales and Marketing cube. Marketing and sales campaigns are tied to the Sample Outdoors regional companies.

Overall, the GO companies have experienced solid growth across most product lines (Sales Growth Year Over Year), in all regions (Revenue by GO Subsidiary 2005), because of factors like an increase in repeat business and new or improved products, such as the high margin sunglasses product line. In the product lines sold by the five regional companies (all but GO Accessories) promotions have had mixed success (Promotion Success by Campaign, Bundle and Quarter). If you use Metric Studio, this can also be seen in the sample metrics.

Customer Surveys

The data also contains information from customer surveys. For example, the product line that includes bug spray, sun screen, and so on has not been successful (Product Satisfaction - Outdoor Protection 2005) and a source of retailer dissatisfaction may be the level of customer service rather than the returns (Customer Returns and Satisfaction). If you use Metric Studio, this information can also be monitored in metrics.

Sales Outlets

Revenue from the corporate outlets is available at the transaction level. Revenue from the franchise outlets is available at the consolidated level only (Sales and

Marketing cube). Metrics about retailers show that the number of new retail outlets has dropped over the time period covered by this data.

GO Accessories sells worldwide, and sells only accessories. Transaction data for GO Accessories is the primary source for analysis of product by brand, color and size. The other five subsidiaries in the group of companies are regional and sell all product lines for retailers in their region. For example, the report Top 10 Retailers in 2005 uses sparklines and list data to review revenues at the retailer level.

Sample Outdoors Database, Models, and Packages

The Sample Outdoors models illustrate modeling techniques and support the samples.

The models are based on the GO data warehouse and the GO sales transactional database and are the basis for the sample reports and queries. Each model contains two packages for publishing analysis (dimensional) and query views of the data.

For a description of each sample report or query, see the user guide for the studio that you open the sample in. For more information about modeling techniques, see the *Guidelines for Modeling Metadata*, or the IBM Cognos Framework Manager *User Guide*.

You must have access to Framework Manager, the modeling tool in IBM Cognos Business Intelligence, to look at the sample models. You may also need to set up the sample databases and connections. For instructions, see the IBM Cognos Business Intelligence *Installation and Configuration Guide*.

GO Data Warehouse

The GO Data Warehouse model, great_outdoors_data_warehouse.cpf, is based on the database GOSALESDW. It contains data about human resources, sales and marketing, and finance, grouped into business areas. In the Database view, the three business areas are grouped into separate namespaces. The Database view contains a fourth namespace (GO Data) for the common information.

The Database view is very similar to the structure of the underlying database. All tables (database query subjects) are unchanged. This enables IBM Cognos BI to retrieve metadata directly from the package in most cases, instead of using a metadata call to the database. The following changes and additions have been made in the Database view:

- Joins have been added as necessary.
- To allow for aggregation at different levels of granularity, some model query subjects have been created. For example, see the relationships between Time and Sales or Sales fact.
- To allow single joins to be made between the lookup tables and each level in a dimension, lookup tables have been copied. For example, see the Products look up tables.

The Business view contains only model query subjects, with no joins. The following changes and additions have been made in the Business view:

- Calculations were added to the model query subjects. For example, the time dimension contains language calculations.

- Where the database has multiple hierarchies, new dimensions have been created to organize each hierarchy. For example, see the employee hierarchies, where employees are organized by manager and region.

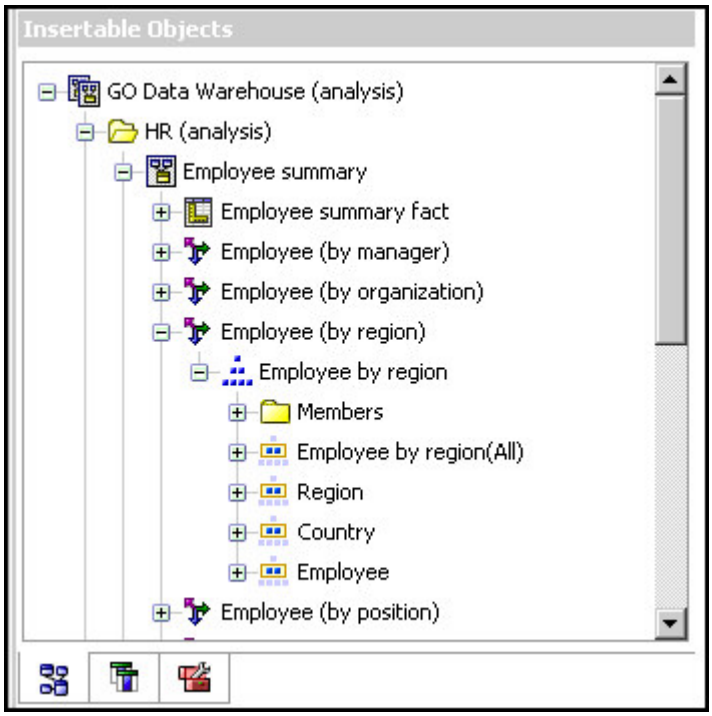


Figure 2. Employee hierarchies

The GO Sales Transactional Database

The GO Sales model, great_outdoors_sales.cpf, is based on the GOSALES database, which is structured as a transactional database. It contains principally sales data.

The Database view is very similar to the underlying database structure. The following changes and additions have been made in the Database view:

- To make it possible to join the fact tables to the time dimension, model query subjects and multipart joins have been used.
- Other joins have been added as necessary.

The Business view contains only model query subjects, with no joins. The following changes and additions have been made in the Business view:

- Calculations were added to the model query subjects.
- Model query subjects that were created in the Database view to enable joins on the time dimension have been linked as reference shortcuts.
- Where the database has multiple hierarchies, new dimensions have been created to organize each hierarchy.
- Sales Staff is a subset of the slowly changing Employee dimension. There is no unique Employee key in GO Sales, so a filter retrieves the current record only. This model does not use historical data.

The Samples PowerCubes

The following cubes are delivered with the Sample Outdoors samples in English, French, German, Japanese and Chinese:

- sales_and_marketing.mdc
- employee_expenses.mdc
- go_accessories.mdc
- go_americas.mdc
- go_asia_pacific.mdc
- great_outdoors_sales_en.mdc

The Samples Packages

The Sample Outdoors samples include six packages. Below is a brief description of each available package.

Go Data Warehouse (analysis) is a dimensionally modeled view of the GOSALESDW database. This package can be used in all studios, including IBM Cognos Analysis Studio. Using this package you can drill up and down.

Go Sales (analysis) is a dimensionally modeled view of the GOSALES database. This package can be used in all studios, including Analysis Studio. Using this package you can drill up and down.

Go Data Warehouse (query) is a non-dimensional view of the GOSALESDW database. This package can be used in all studios except Analysis Studio, and is useful for reporting when there is no need for drilling up and down.

Go Sales (query) is a non-dimension view of the GOSALES database. This package can be used in all studios except Analysis Studio, and is useful for reporting when there is no need for drilling up and down.

Sales and Marketing (cube) is an OLAP package, based on the sales_and_marketing.mdc cube.

Great Outdoor Sales (cube) is an OLAP package, based on the great_outdoors_sales_en.mdc cube.

Note: The OLAP packages, Great Outdoor Sales (cube) and Sales and Marketing (cube), are not multilingual. The IBM_Cognos_PowerCube.zip archive contains five versions of each package; one in English, French, German, Japanese and Chinese.

Setting Up the Samples

To set up the samples, you must perform several set up tasks, such as restoring the samples databases and creating data source connections.

After setting up the samples, you can use them to learn how to use IBM Cognos software, including Framework Manager, Metric Studio, Metric Designer, Event Studio, Business Insight and IBM Cognos Mobile.

IBM Cognos BI provides sample databases that contain sales, marketing, and financial information for a fictional company named the Sample Outdoors Company that sells sporting equipment.

Before you can use the sample databases, IBM Cognos BI must be installed, configured, and running and then the IBM Cognos BI Samples must be installed. To use the modeling tool, you should install the components Framework Manager, Metric Designer and Transformer. For information about installing and configuring IBM Cognos BI components and the samples, see the IBM Cognos BI *Installation and Configuration Guide*.

Restoring Backup Files for the Samples Databases

To use the samples, you must restore backup files for the samples databases. This action re-creates multilingual versions of the Great Outdoors databases.

The following sample databases and associated files are provided with IBM Cognos Business Intelligence. For Microsoft SQL Server, each database is delivered as a Microsoft SQL Server backup file. For Oracle, you will need to unzip the file GS_DB_ORA.tar.gz. For DB2®, you will need to unzip the file GS_DB.tar.gz. The location for the databases are as follows.

Databases	File Location
Oracle	GS_DB_ORA\data
DB2	GS_DB\data

Table 4. Microsoft SQL Server Databases and Files

Database or schema description	File name
Great Outdoors sales	GOSALES.zip
Great Outdoors retailers	GOSALES.zip
Great Outdoors sales data warehouse	GOSALESDW. zip
Great Outdoors market research	GOSALES.zip
Great Outdoors human resources	GOSALES.zip

Table 5. Oracle Databases and Files

Database or schema description	File name
Great Outdoors sales	GS_DB_ORA.tar.gz
Great Outdoors retailers	GS_DB_ORA.tar.gz
Great Outdoors sales data warehouse	GS_DB_ORA.tar.gz
Great Outdoors market research	GS_DB_ORA.tar.gz
Great Outdoors human resources	GS_DB_ORA.tar.gz

Table 6. DB2 Databases and Files

Database or schema description	File name
Great Outdoors sales	GS_DB.tar.gz
Great Outdoors retailers	GS_DB.tar.gz
Great Outdoors sales data warehouse	GS_DB.tar.gz
Great Outdoors market research	GS_DB.tar.gz
Great Outdoors human resources	GS_DB.tar.gz

When restoring the samples databases, ensure that you do the following:

- Give the restored databases the same names as the backup or export file names.

  The names are case-sensitive.

  You use the correct username and password.
- Create users with select privileges for tables in multiple schemas.

  Setup for the GO Data Warehouse packages specifies a single connection object and user signon. This requires a single user named GOSALESDW with the select privilege to tables in a single schema named GOSALESDW.

  Setup for the GO Sales packages specifies a single connection object and user signon. This requires a single user named GOSALES with the select privilege to tables in four schemas: GOSALES, GOSALESHR, GOSALESMR, and GOSALESRT.
- Use the UTF-8 character set on the Microsoft Windows operating system computer that is the Oracle or DB2 client to see reports in multiple languages.

  For DB2, you must set the DB2CODEPAGE environment variable to a value of 1208. For Oracle, you must set the NLS_LANG environment variable to a value that is specific to a region. For example, set NLS_LANG for Americas to American_America.UTF8.
- Have sufficient disk space available in the target location. Reserve 150MB for the GO Sales data (four schemas) and 200MB for the GO Data Warehouse data (one schema).

Oracle Considerations

To create foreign key constraints in tables that reference different schemas, you must run gs_or_modify.sql, found in the same folder as the .dmp files.

Microsoft SQL Server Considerations

If you restore the Microsoft SQL Server backup files, you must use Microsoft SQL Server 2000 or Microsoft SQL Server 2005. Ensure that TCP/IP connectivity is used for the Microsoft SQL Server.

DB2 Considerations

The data files for db2move and the scripts, to add constraints, are located in the data directory. The data directory is created when you unzip the GS_DB.tar.gz file.

If you use WinZip to extract the DB2 move file on Windows, ensure that the TAR file smart CR/LF conversion option is not selected.

After extracting the DB2 move file, restore the schemas to a database named GS_DB.

To add views, constraints, user privileges, and stored procedures to GS_DB, prepare and run the gs_db_modify files included with the samples in the following order:

- Update the user name and password at the top of the gs_db_modify.sql and save it.
- Execute gs_db_modify.bat

Note: If the script file attempts to create a stored procedure where the procedure does not exist an error is generated. This error does not affect the samples.

Restore Backup Files for the Samples Databases

Use this procedure to restore backup files.

Procedure

1. On the computer where IBM Cognos BI is installed, go to the sql server, oracle, or db2 directory located in *c10_location* /webcontent/samples/datasources.
2. If required, copy the backup files for the samples databases to your database backup directory.

   To ensure the security and integrity of IBM Cognos BI, copy the files to a directory that is protected from unauthorized or inappropriate access.
3. Restore the samples databases using your database management tool.

   Tip:
   - For SQL backup files, restore the database from a device, and ensure that the restore locations are correct for the .ldf and .mdf database files. For more information, see the Microsoft SQL Server documentation or the IBM Cognos Knowledge Base on the IBM Cognos Customer Center (http://www.ibm.com/software/data/cognos/customercenter/).
   - For DB2, when you create the GS_DB database, create a buffer pool with a page size of 16 KB and an associated tablespace.
4. For each database, create at least one user who has select permissions for all the tables in the restored databases.

Results

You can now create the data source connections in the portal.

Restore Backup Files for Sample Databases for DB2 Using Scripts

You can use scripts to restore backup files for sample databases for DB2.

To set up the sample database, you must extract the GS_DB tar.gz file, customize a configuration file, and run the setup script.

There are prerequisites for installing the Great Outdoors sample database for DB2 on Linux, UNIX and Windows. Before you can install the sample databases, you must verify or configure privileges.

1. Extract the GS_DB.tar.gz file and retain the original directory structure. If you use WinZip to extract the DB2 move file on Microsoft Windows operating system, ensure that the TAR file smart CR/LF conversion option is not selected.
2. On Linux and UNIX operating systems, modify the file permissions on the setupGSDB.sh file so that it is executable: chmod u+x setupGSDB.sh.
3. Ensure that the user ID used to set up the database has DBADM authority or the following authorities in DB2:
   - CREATETAB
   - CREATE_NOT_FENCED_ROUTINE
   - LOAD

Optional: Editing the configuration file

The configuration file contains the default configuration options that are used when creating the GOSALES data. The default configuration settings are.

Configuration Setting	Default	Description
GOSALES_INST	GS_DB	Used to set the name or alias of the database.
GOSALES_CREATEDB		Optional: Causes an existing database with the same name to be dropped.
GOSALES_DB_TERRITORY	US	When creating a database this is the territory of the UTF-8 database that is created.
GOSALES_BP GOSALES_TS	GOSALES_BP GOSALES_TS	Optional: Enter the buffer pool and tablespace name, if these are to be created by the script.
GOSALES_GRANTEES	GOSALES, DB2ADMIN	Enter the list of users, groups or PUBLIC that will have CONTROL permissions for the GOSALES, GOSALESHR, GOSALESMR and GOSALESRT schemas. This string needs to follow the syntax of the GRANT command.
GOSALESDW_GRANTEES	GOSALESDW DB2ADMIN	Enter the list of users, groups or PUBLIC that will have CONTROL permissions for the GOSALESDW schema.
GOSALES_DPF	N	Change to 'Y' if installing a database partitioned environment (DPF)
GOSALES_SCHEMA GOSALESHR_SCHEMA GOSALESMR_SCHEMA GOSALESRT_SCHEMA GOSALESDW_SCHEMA	GOSALES GOSALESHR GOSALESMR GOSALESRT GOSALESDW	Enter the names to be used for each schema.

You can customize the sample configuration file to use settings other than the default values.

The setup script creates the GS_DB database, table spaces, tables, views, grants privileges, and modifies the schema names for the sample database. In most situations, you can accept the default options. If you want to change the database name or modify the users or groups that have permissions on the data, you must update the **GOSalesConfig** configuration file.

Edit the configuration file by using a text editor.

Note: If you edit UNIX shell scripts in a Windows environment, ensure that you preserve the UNIX line endings.

The configuration file on Windows is GOSalesConfig.bat. The configuration file on UNIX is GOSalesConfig.sh.

By default, the GS_DB database name is used and permissions are granted to the DB2ADMIN (Linux, UNIX, Windows) and GOSALES users.

Running the setup script in interactive mode

In interactive mode, the setupGSDB script prompts you to confirm or provide configuration information for the GS_DB database installation. You can accept the default settings or provide different settings to replace the defaults.

- Run the setup script for your operating system.

Operating System	Command
Microsoft Windows	In a DB2 command window, change to the GS_DB/win directory and run the **setupGSDB.bat** script.
UNIX	From a shell prompt, source the db2profile change to the GS_DB/unix directory, and run the **setupGSDB.sh** script.

- Press Enter to proceed. The script displays a summary of your choices before you commit to changes to your environment. If you approve the choices, press Enter and the script makes the changes. For example:

```
Please confirm the following settings:
Database Name: GS_DB
Drop and Recreate Database: Y
DPF environment: N
Create a 16k Bufferpool named: GOSALES_BP
Create a 16k Tablespace named: GOSALES_TS
GOSALES Grant users/groups: GOSALES, DB2ADMIN
GOSALESDW Grant users/groups: GOSALESDW, DB2ADMIN
Administration User Name: db2admin
Import the sample data to the following schemas:
GOSALES
GOSALESHR
GOSALESMR
GOSALESRT
GOSALESDW
WARNING: If the database GS_DB already exists it will be dropped
Continue creating the sample data with these settings? (Y/N) Default=Y:
```

The GS_DB database is set up.

Running the setup script with command line options

The **setupGSDB** script lets you provide information on the command line to reduce the number of prompts from the script.

From a command line, run the script for your operating system.

Operating System	Script
Windows	**setupGSDB.bat**
UNIX	**setupGSDB.sh**

You can run the **setupGSDB** script with the following options:

Option	Description
-createdb	Creates the database. This option drops any existing database with the same name. It creates the required buffer pool and table space.
-database database name	Specifies the name of the database. This value overrides the default value of GS_DB.
-userid administration_user_ID	Specifies the name of the DB2 administrator user ID that is used to create the database.
-password administration_user_ID	Specifies the password for the DB2 administrator user ID.
-noprompt	Indicates that no prompt will display. This option runs the script in silent mode. Any missing information causes the script to fail. You will not be prompted for any confirmations.

Example 1: You are a DB2 administrator and want to create the default GS_DB database on the local node. You run the following command:

setupGSDB -createDB -noprompt

Example 2: You want to create the tables in an existing database named GSDBY, and you want to use the administrator user ID db2admin. Run the following command:

setupGSDB -database GSDBY -userid db2admin

The script prompts you for the password when it connects to GSDBY. The script will replace any tables that already exist in the GSDBY database, unless you choose to drop the database.

Optional: Installing the sample data on a remote server

If the GS_DB sample database is installed on a remote server in your environment, you can link to it by cataloguing the remote database on your local computer and then running the setup script locally.

- If the sample database does not yet exist on the remote server, create it with the `CREATE DATABASE` command. The database requires a UTF-8 codeset and a default table space with a pagesize of 16 KB or larger. For example, on the remote server, create the database by running the following command:

  ```
  CREATE
  DATABASE GS_DB USING CODESET UTF-8 TERRITORY US PAGESIZE 16k
  ```

- On your local computer, catalog the remote database:

  ```
  db2
  catalog tcpip node nodename remote ipaddr server port_number
  db2 catalog database GS_DB as GS_DB at node nodename
  ```

- On your local computer, run the script:

  ```
  setupGSDB
  -database GS_DB -userid administration_user_ID
  ```

You are prompted for a password to connect to the database.

Restore Backup Files for Sample Databases for Oracle Using Scripts

You can use scripts to restore backup files for sample databases for Oracle.

To set up the sample database, you must extract the file GS_DB_ORA.tar.gz, customize a configuration file, and run the setup script.

There are prerequisites for installing the Great Outdoors sample database for Oracle. Before you can install the sample databases, you must verify or configure privileges.

- Extract the GS_DB_ORA.tar.gz file and retain the original directory structure.
- On Linux and UNIX operating systems, modify the file permissions on the setupGSDB.sh file so that it is executable: chmod u+x setupGSDB.sh.
- Ensure that the user ID used to set up the Oracle database has authority to create users and run the import utility.

Editing the configuration file: Optional

The configuration file contains the default configuration options that are used when creating the GOSALES data. The default configuration settings are.

Configuration Setting	Default	Description
GOSALES_IMP_CMD	imp	If necessary can be modified to specify the complete path to the correct version of the import utility.
GOSALES_INST		Oracle host string.
GOSALES_TS	GOSALES_TS	If users are created by scripts, used to enter the tablespace name to assign to users.
GOSALES_CREATE_TS		Optional: Used to create the default tablespace for users.
GOSALES_TEMP_TS		If users are created by scripts, used to name a temporary tablespace to assign to users. Leave blank to use the default temporary tablespace.
GOSALES_SCHEMA GOSALES_SCHEMA_PW	GOSALES GOSALESPW	Used to enter the username and password for the GOSALES user. You will be prompted for a password if not entered.
GOSALESHR_SCHEMA GOSALESHR_SCHEMA_PW	GOSALESHR GOSALESHRPW	Used to enter the username and password for the GOSALESHR user. You will be prompted for a password if not entered.

Configuration Setting	Default	Description
GOSALESMR_SCHEMA GOSALESMR_SCHEMA_PW	GOSALESMR GOSALESMRPW	Used to enter the username and password for the GOSALESMR user. You will be prompted for a password if not entered.
GOSALESSRT_SCHEMA GOSALESRT_SCHEMA_PW	GOSALESRT GOSALESRTPW	Used to enter the username and password for the GOSALESRT user. You will be prompted for a password if not entered.
GOSALESDW_SCHEMA GOSALESDW_SCHEMA_PW	GOSALESDW GOSALESDWPW	Used to enter the username and password for the GOSALESDW user. You will be prompted for a password if not entered.
GOSALES_GRANTEES	GOSALES	Used to enter the users that will have SELECT, INSERT, DELETE, UPDATE, and ALTER permissions for GOSALES, GOSALESHR, GOSALESMR and GOSALESRT schemas. **Note**: The owner of the GOSALES_SCHEMA will always be granted SELECT, INSERT, DELETE, UPDATE and ALTER privilege on all schemas.
GOSALESDW_GRANTEES	GOSALESDW	Used to enter the users that will have SELECT, INSERT, DELETE, UPDATE and ALTER permissions for GOSALESDW schema.

You can customize the sample configuration file to use settings other than the default values.

The setup script creates the users and schemas specified in the configuration file. In most situations, you can accept the default options. If you want to change the schema names or modify the users or groups that have permissions on the data, you must update the **GOSalesConfig** configuration file.

Edit the configuration file by using a text editor.

File	Description
GOSalesConfig.bat	Configuration file on Microsoft Windows operating system
GOSalesConfig.sh	Configuration file on UNIX

Running the setup script in interactive mode

In interactive mode, the setupGSDB script prompts you to confirm or provide configuration information for the sample database installation. You can accept the default settings or provide different settings to replace the defaults.

- Run the setup script for your operating system.

Operating System	Command
Microsoft Windows	In a DOS command window, change to the GS_DB_ORA\win directory and run the **setupGSDB.bat** script.
UNIX	From a shell prompt, change to the GS_DB_ORA/unix directory, and run the **setupGSDB.sh** script.

- Press Enter to proceed. The script will run the sample database setup and display a summary of your choices before you commit to changes to your environment. If you approve the choices, press Enter and the script makes the changes. For example:

```
Please confirm the following settings:

Instance Name is ORAINST123
Create the following user accounts and import the data:
 GOSALES
 GOSALESHR
 GOSALESMR
 GOSLAESRT
 GOSALESDW

Default tablespace is GOSALES_TS
Temporary tablespace is DEFAULT
Administration User name is sys

WARNING: If the users already exist they will be dropped

Create a Tablespace named GOSALES_TS

Grant select on the GOSALES schemas to GOSALES
Grant select on the GOSALESDW schema to GOSALESDW

Continue creating the sample data with these settings?
(Y/N) Default=Y:
```

Tip: If you edit UNIX shell scripts in a Windows environment, ensure that you preserve the UNIX line endings.

Running the setup script with command line options

The **setupGSDB** script lets you provide information on the command line to reduce the number of prompts from the script.

From a command line, run the script for your operating system.

Operating System	Script
Windows	**setupGSDB.bat**
UNIX	**setupGSDB.sh**

You can run the **setupGSDB** script with the following options:

Option	Description
-createdb	Creates the users. This option drops any existing users with the same name.
-database database name	Specifies the name of the Oracle instance. This value overrides the default value specified in the configuration file.
-userid administration_user_ID	Specifies the name of the Oracle administrator user ID that is used to create the users.
-password administration_user_ID	Specifies the password for the Oracle administrator user ID.
-noprompt	Indicates that no prompt will display. This option runs the script in silent mode. Any missing information causes the script to fail. You will not be prompted for any confirmations.

Example 1: You are an Oracle administrator and want to create the default sample database schemas. You run the following command:

setupGSDB -createDB -noprompt

Example 2: You want to create the tables in the existing schemas specified in the configuration file, and you want to use the administrator user ID sys. Run the following command:

setupGSDB -YourOracleInstance -userid sys -sysdba

The script prompts you for the password when it connects to the Oracle instance. The script deletes any existing tables or views in the specified schemas and replaces them.

Create Data Source Connections to the Samples Databases

You must create data source connections to the samples databases that you restored.

IBM Cognos Business Intelligence uses data source connections to the samples databases to connect to the samples databases and run the sample reports or use the sample package.

Before you begin

The DB2 database name that you type must use uppercase letters. Also, in Framework Manager, the schema names that you type for the DB2 data sources must use uppercase letters.

Before you create the data source connections, you must restore the backup files for the samples databases. Also, ensure that the IBM Cognos BI service is running.

To create data sources, you must have execute permissions for the **Data Source Connections** secured feature and traverse permissions for the Administration secured function. You must have write permissions for the Cognos namespace.

If you have restored the sample databases on a different computer than where you have installed the IBM Cognos BI Application Tier Components, you may have to install the database client to access the sample databases. For more information, see "Set Up Database Connectivity for the Reporting Databases" in the *Installation and Configuration Guide*.

Procedure

1. Open IBM Cognos Administration by connecting to the IBM Cognos BI portal and clicking **Administer IBM Cognos Content** on the **Welcome** page.
2. Click the **Configuration** tab.
3. Click the new data source icon  .
4. In the **Name** box, type **great_outdoors_sales** and then click **Next**.
5. In the connection page, click the type of database that you restored and want to connect to, select an isolation level, and then click **Next**.

   The connection string page for the selected database appears.

   Tip: The user specified in the great_outdoors_sales data source must have select privileges on the tables in each of the GOSALES, GOSALESRT, GOSALESMR, AND GOSALESHR schemas.
6. Do one of the following:
   - If you restored the samples databases in Microsoft SQL Server, in the **Server Name** box, type the name of the server where the restored databases are located. In the **Database name** box, type **GOSALES**.

     IBM Cognos BI samples require TCP/IP connectivity with Microsoft SQL Server. Ensure the SQL Server Security is set to SQL Server and Microsoft Windows operating system, instead of Windows Only. The samples use SQL Server security for authentication.
   - If you restored the samples databases in Oracle, in the **SQL*Net connect string** box, type the instance name of the Oracle database as it is entered in the tnsnames.ora file.
   - If you restored the samples database in DB2, in the **DB2 database name** box, type **GS_DB** using uppercase letters. Leave the **DB2 connect string** box blank.
   - If you deployed the sample cube to IBM InfoSphere Warehouse Cubing Services, in the **Name** box, type sales_and_marketing_cs. On the **Specify the connection** page for the **Type** box, select IBM InfoSphere Warehouse cubing services (XMLA). On the **Specify the connection string** page for the **Server URL** box, type the name of the server and the XMLA port number for the cube, followed by /IBMXmlAnalysis. For example, myserver:1999/IBMXmlAnalysis.
7. Under **Signons**, select the both **Password** and **Create a signon that the Everyone group can use** check boxes, type the user ID and password for the user that you created when you restored the databases, and then click **Finish**.

   Tip: To test whether the parameters are correct, click **Test the connection...**.
8. Click **Finish**.
9. Repeat steps 4 to 9 for the GOSALESDW samples database or schema, and type **great_outdoors_warehouse** in step 5.
10. If the GOSALESW model will be used by modelers in IBM Cognos Transformer, the connection string must be manually added to the cs7g.ini file.

    For more information, see the *Installation and Configuration Guide*.

Results

The Great Outdoors data source connections appear as entries in **Data Source Connections**.

You can now import the samples unless there is a syntax error in the connection string or an incorrect parameter.

Set Up Microsoft Analysis Services Cube Samples

IBM Cognos Connection or Framework Manager provides sample cubes for Microsoft Analysis Services (MSAS).

For finance data, use the GO Finance Fact cube derived from the GOSALESDW database. This cube contains year-to-date and monthly financial data for all accounts so that you can create financial statements in Analysis Studio, Query Studio, and Report Studio. The data is in actual US dollars submissions for 2004, 2005, 2006, or 2007 (7 months actual data only).

The MSAS2000 version of the finance cube and database is in the GOFinanceFact_XX.cab file. The MSAS2005 version is in the GOFinanceFact_XX.abf file. XX represents the language. For example, XX is replaced with EN which indicates English. The MSAS2008 version of cubes also exists, with report content only for 2000 and 2005 versions.

For sales data, use the GOSalesFact cube derived from the GOSalesFact_XX Analysis Services database, based on the GOSALESDW SQLSERVER Database. The cube contains measures such as unit cost, unit price, quantity, and gross profit. Dimensions include Time, Product, and Retailers.

The MSAS2000 version of the sales cube and database is archived in the GOSalesFact_XX.cab. The MSAS2005 version is in the GOSalesFact_XX.abf restorable backup file.

The backup files are located in the *c10_location*/webcontent/samples/datasources/cubes/MSAS directory. The files must be restored to a Microsoft SQL Server database running the applicable Microsoft Analysis Services and hosting the GOSALESDW database.

Note: Both Microsoft XML 6.0 Parser and Microsoft SQL 2005 Analysis Services 9.00 OLEDB Provider must be installed on the local client to establish data source connections to MSAS cubes.

Procedure

1. On the computer where IBM Cognos Business Intelligence is installed, go to the *c10_location*/webcontent/samples/datasources/cubes/MSAS/en directory.
2. Copy the GOSALESDW.cab and GOSALESDW.abf files to a directory that you can access from the Analysis Manager console in the Analysis Servers of Microsoft SQL Server.
3. Use the Microsoft Analysis Services Analysis Manager to restore the database from the GOSALESDW.cab and GOSALESDW.abf files.

Results

You can now create the data source connections to these MSAS datasources in Cognos Administration by referencing either the GOSalesFact_XX or GOFinanceFact_XX cubes you restored.

Set Up the InfoSphere Warehouse Cubing Services Sample

IBM Cognos Connection or Framework Manager provides sample cubes for InfoSphere Warehouse Cubing Services.

Before you begin

Before you set up the InfoSphere Warehouse Cubing Services samples, you must restore the DB2 sample database.

Procedure

1. On the computer where IBM Cognos software is installed, go to the db2 directory located in *c10_location*/webcontent/samples/datasources/cubes/CubingServices/EN.
2. If required, copy the csgodw.xml file to your working directory.
3. In IBM InfoSphere Warehouse Design Studio, import the csgodw.xml metadata file into a data model based on the DB2 GS_DW schema.
4. Deploy the CSGODW cube to the DB2 GS_DW schema.
5. Use the IBM InfoSphere Warehouse Administration Console to add the new cube to a cube server, and run it.

   Note the XMLA port number for the cube, as this number is required for the data source connection.

Results

You can now create the data source connections in the IBM Cognos Connection portal.

Set Up the TM1 Samples

To use the TM1 samples, you must set up the servers, create a shortcut to the configuration file, import the deployment files, and create the data source connections.

To set up the TM1 server samples, unzip and install the greatoutdoors.zip files. To set up the TM1 FinanceFact Server, unzip and install the financefact.zip files. The default installation path for these files is: C:\Program Files\IBM\Cognos\c10\webcontent\samples\datasources\cubes\tm1.

Procedure

1. Ensure that you have the TM1 software installed and the server started.
2. Create a desktop shortcut to the preconfigured location of the TM1s.cfg configuration file. The default location is: *C:\Program Files\IBM\Cognos\TM1\bin\tm1s.exe" -z "C:\ProgramFiles\IBM\Cognos\c10\webcontent\samples\datasources\cubes\tm1\greatoutdoors.*".
3. If the location of your configuration file is different, open the configuration file in a text editor and modify it. An example of a basic configuration file is as follows.

Security Mode

- If IntegratedSecurity Mode is set to 1. All clients must provide a database username and password.
- If IntegratedSecurity Mode is set to 2. The clients will have the choice to connect by providing a database username and password or use the single-login mechanism for authentication.
- If IntegratedSecurity Mode is set to 3. All clients must use the single-login mechanism for authentication.

  TM1S

  DataBaseDirectory=*C:\ProgramFiles\IBM\Cognos\c10\webcontent\samples\datasources\cubes\tm1\greatoutdoors*

  LoggingDirectory=*C:\ProgramFiles\IBM\Cognos\c10\webcontent\samples\datasources\tm1\greatoutdoors\LogFiles*

  ServerName=GreatOutdoors

  PortNumber=33339

  AdminHost=localhost

  Language=eng

  Protocol=tcp

  NetworkFrame=

  SaveTime=

  DownTime=

  RuleTraceOn=

  For more information about setting up the configuration file and its parameters, see the *TM1 Operations Guide*.

4. To start the server, launch the desktop shortcut to TM1s.cfg.
5. To import the report deployment files, Sales_plan.zip, Sales_plan_TC.zip, and TM1_FinanceFact.zip, use IBM Cognos Administration.

Results

The Financefact and Salesplan packages are created. These packages connect to the TM1_FinanceFact and TM1_SalesPlan data sources which you must now create in Cognos Administration.

The deployment packages refer to the following data sources.

Tip: For Traditional Chinese, use the x_TC packages.

Application	Data Sources
Great Outdoors	TM1_SalesPlan
	TM1_SalesPlan_TC
FinanceFact	TM1_FinanceFact
	TM1_FinanceFact_TC

The deployment packages refer to the following Report Studio reports.

Packages	Reports
GreatOutdoors	Best Selling Products
	Channel Pricing Comparison

Packages	Reports
	Forecast Revenue by Region: Golf Shops
	Golf Shop Sales Forecast - Americas versus Asia Pacific
	Gross Margin Forecast
FinanceFact	Balance Sheet - Americas
	Balance Sheet - Central Europe
	Income Statement
	Source and Application of Funds (Central Europe)

Set Up the Essbase Cube Sample

To set up the Essbase cube sample, you must have Oracle Essbase and Essbase Integration Services Console installed.

Alternatively, you can set up the smaller Essbase cube GODBReduced.zip which is a filtered version of the full version, GODWENU. To set up the small version, unzip GODBReduced.zip, load the OTL and txt file in the Essbase environment, and perform the same steps shown below.

Procedure

1. Go to the *c10_location*\webcontent\samples\datasources\cubes\Essbase\Outlines_and_Raw_Data directory.

   This directory contains zip files for the different languages, such as EN.zip or JA.zip for English and Japanese, respectively.
2. Unzip the file for your language.

   Each zip file contains the following two files:
   - *language*U_Data.txt, such as ENU_Data.txt or JAU_Data.txt.
   - GODW*language*U.otl, such as GODWENU.otl or GODWJAU.otl.
3. Using block storage in Essbase, create a Unicode application.
4. Within the application, create a new database.

   You can use GODW*language*U, such as GODWENU or GODWJAU, as your database name, or use the name of your choice.
5. Copy and paste the GODW*language*U.otl file in your database directory.
6. If the database name specified in step 4 is different than GODW*language*U, rename the GODW*language*U.otl file to match the database name that you created.

   Confirm that you want to overwrite the .otl file.
7. In **Essbase Administration Services** console, open your database outline and save it.

   Confirm that you want to save the outline even if it was not changed.
8. Copy the *language*U_Data.txt file and paste it in the same directory as the .otl file.
9. In **Essbase Administration Services** console, right-click the database you created and select **Load Data**.
10. Browse to the *language*U_Data.txt file in your database directory, select the file, and click **OK**.

11. After the data loads successfully, right-click the database and select **Execute Calculation**.
12. Select the default calculation, and click **OK**.

    The calculation process may take up to 5 hours, depending on the computer where Essbase OLAP Server is installed.

Results

You can now create a data source connection to the cube.

Creating Data Source Connections to OLAP Data Sources

IBM Cognos Business Intelligence provides OLAP samples.

Samples are accessible to everyone by default. To create customized data sources, you must have execute permissions for the **Data Source Connections** secured feature, and traverse permissions for the **Administration** secured function. You must have write permissions for the Cognos namespace.

The OLAP samples are

- GO Sales Fact and GO Finance Fact Microsoft Analysis Services cubes
- Great Outdoors Company cubes which includes sales_and_marketing, employee_expenses, go_accessories, go_americas, go_asia_pacific, and great_outdoors_sales_en.
- Great Outdoors DB2 cube

You must create data source connections to the cubes to use the samples. You must set up the Microsoft Analysis Services cube samples or set up the Essbase cube sample, if you are using them, before creating data source connections.

Create Data Source Connections to PowerCubes

Use the following procedure to create a data source connection to a PowerCube.

Procedure

1. Open IBM Cognos Administration by connecting to the IBM Cognos BI portal and clicking **Administer IBM Cognos Content** on the **Welcome** page.
2. Click the **Configuration** tab.
3. Click the new data source button  .

   Note: You must add a data source connection for each cube.
4. To create a data source connection for the Sales and Marketing cube, type **sales_and_marketing** in the **Name** box, and then click **Next**.
5. In the connection page, under **Type** click **IBM Cognos PowerCube**, and then click **Next**.

   The connection string page for the selected database appears.
6. Optional: In the **Read cache size (MB)** box, type the cache size of the cube in megabytes.

   If you leave this field blank or type 0, IBM Cognos Connection uses the default value in the ppds_cfg.xml file in the configuration folder.
7. In the **Windows location** box, type the location and name of the sales_and_marketing.mdc file for the data source connection. For example, type

c10_location/**webcontent/samples/datasources/cubes/PowerCubes/En/Sales_and_Marketing.mdc**

You can define a Microsoft Windows operating system path or a UNIX operating system path.

If you define a UNIX path and you plan to use Framework Manager, you must also define the Windows path and ensure that the cube is also available in the Windows location. Framework Manager can access cubes only from Windows locations.

8. To test whether the parameters are correct, do the following:
   - Click **Test the connection**.
   - Click **Test**.
   - When the test finishes, click **Close** twice.
9. Click **Finish**.

Results

You can now import the sample package for the PowerCube to use this data source or you can create your own package using cube.

Create Data Source Connections to Oracle Essbase Cubes

Use the following procedure to create a data source connection to an Oracle Essbase cube.

Note: To connect to an Oracle Essbase data source, the client software must be installed and configured on the IBM Cognos Business Intelligence server and in the same location as IBM Cognos Framework Manager.

Procedure

1. Launch IBM Cognos Admistration.
2. On the **Configuration** tab, click **New Data Source**.
3. In the name and description page, type a unique name for the data source and, optionally, a description and screen tip, and then select **Next**.
4. In the connection page, from the Type drop-down list, select **Oracle Essbase**, and then click **Next**. The connection string page appears.
5. Type the name of the Oracle Essbase sever.
6. Select **Signons**, and then click **Password** and **Create a signon the Everyone group can use**.
7. Type the User ID, Password, and then confirm the password for the cube.
8. Select **Test the connection**, and then **Test** to test whether parameters are correct. In the Status column, you can see if the connection was successful. If it was unsuccessful, select **Close**, return to the previous steps, and verify your connection parameters. If it was successful, go to the next step.
9. Click **Finish**.

Results

To use this data source, you must create a package using this data source in Framework Manager, and then publish the package.

Create Data Source Connections to Microsoft Analysis Service Cubes

Use the following procedure to create a data source connection to a Microsoft Analysis Service cube.

Procedure

1. Open IBM Cognos Administration by connecting to the IBM Cognos BI portal and clicking **Administer IBM Cognos Content** on the **Welcome** page.
2. On the **Configuration** tab, click **New Data Source**.
3. In the **Name** box, type the name of the data source connection, and then click **Next**.
   - For the GOFinanceFact cube, type GOFinanceFact_XX_MSAS2005.
   - For the GOSalesFact cube, type GOSalesFact_XX_MSAS2005.
4. In the **Specify Connection** page of the New Datasource Wizard, click **Microsoft Analysis Services 2005** or click **Microsoft Analysis Services (via ODBO)** as appropriate to the cube you are accessing.
5. Click **Next**.
6. In the **Server Name** box, type the name of the server where the restored databases are located. Back slashes are not required.
7. Under **Signon**, select the **Password** check box and then select the **Create a signon that the Everyone group can use** check box. Type the user ID and password for the MSAS database. For MSAS2005, this is a network login.
8. Click **Test the connection**, and then click the **Test** button. Click **Close**.
9. Click **Finish**. You are now prompted to create a package.

   Alternatively, you can deploy an existing package from a sample deployment archive. The names of the deployment archives match the datasource connection names specified in step 4 and contain sample reports that work with the associated cubes.

   In Content Administration on the Configuration tab in IBM Cognos Administration, click **New Import**. The New Import Wizard prompts you to select a deployment archive. When you select a deployment archive, it is important to click **Edit** and specify a target name for the package to prevent an existing package from being overwritten.
10. To create a package, check **Create a Package** and then click **OK**.
11. Specify a package name and then click **OK**.
    - For the GO Finance Fact cube, type GOFinanceFact_XX_MSAS2005.
    - For the GO Sales Fact cube, type GOSalesFact_XX_MSAS2005.
12. Specify the Analysis Services database you restored either GOFinanceFact_XX or GoSalesFact_XX:
    - For either the GOFinanceFact cube or the GOSalesFact cubes, type GOSALESDW.
    - For the GO Sales Fact cube, type GO Sales Fact.
13. Click the cube applicable to the database.
14. Click **Finish**.

Setting Up the Metric Studio Sample

To set up the Metric Studio sample, you must create a metric store and a new metric package, set the import source, and import the metric data and files into the metric store.

Use the following procedure:

- Create a metric store named GOMETRIC.

  For more information about creating a metric store, see the IBM Cognos Business Intelligence *Installation and Configuration Guide*.
- Create a new metric package named GO Metrics that uses the data source **go_metrics**.

  When prompted by the wizard, select the standard Gregorian calendar and accept the defaults for Years, Quarters, and Months. Select January 1, 2004 as the start date for a period that includes the current year. For example, if it is the year 2008, use a period of at least 5 years.

  For more information, see "Create a Metric Package" on page 461.
- Set the import source.
- Import the metric data and files into the metric store.

Set the Import Source

To set up the Metric Studio sample, you must set the import source.

Procedure

1. Copy all text files from the appropriate folder to the folder *c10_location*/deployment/cmm:
   - For Microsoft SQL Server or Oracle, copy from *c10_location*/webcontent/samples/datasources/metricsdata/*GOMetrics_Unicode*
   - For DB2, copy from *c10_location*/webcontent/samples/datasources/metricsdata/*GOMetrics_UTF8*
   - For all databases, for English instead of the multilingual Unicode samples, copy from c10_location webcontent/samples/datasources/metricsdata/*GOMetrics*.

   Note: You may need to create the cmm folder.
2. In Public Folders, click **GO Metrics**.
3. In Metric Studio, in the **Tools** list, click **Import Sources.**
4. Click the **Set Properties** icon in the **Actions** column next to the Default Import Source.
5. Under **Metric Deployment Location**, click **cmm** folder. This is the default deployment location.
6. Click **Include sub-directories**.
7. In the **File format** box, click **10.1.1**.
8. Under **Character Set Encoding,** select the appropriate encoding and click **OK**.
   - For Microsoft SQL Server or Oracle, select **Unicode (UTF-16)**
   - For DB2, select **Unicode (UTF-8)**
   - For **GO Metrics** data set, select Western European (Windows-1252), or leave the data set empty by selecting **Other**.

Results

You can now use the GO Metrics package in Metric Studio.

Import Metric Data and Files into the Metric Store

To set up the Metric Studio sample, you must import the metric data and files into the metric store.

Procedure

1. Choose whether to import the files into the metric store using IBM Cognos Connection or Metric Studio:
   - To use IBM Cognos Connection, in **Public Folders** or **My Folders**, open the GO Metrics package by clicking the view metric package contents icon in the **Actions** column. Click **Metric Maintenance**.
   - To use Metric Studio, in Metric Studio, in the **Tools** list, click **Metric Maintenance**.
2. Click the **Import and transfer data from files into metric store** metric task.

   Tip: If an error occurs, click **Clear staging area rejected data logs**, **Clear metric history data only**, and **Clear metric history and calendar data**.

   Tip: You can also clear all existing audit log data from the metric data store by clicking **Clear audit history**. For more information, see "Clear Audit History" on page 465.

Results

You can now use the GO Metrics package in Metric Studio.

Import the Samples

To use the sample package and other content, you must import them from the sample deployment archive.

Before you begin

Before you import the IBM_Cognos_Samples.zip, IBM_Cognos_Metrics.zip, IBM_Cognos_Mobile.zip, IBM_Cognos_Office.zip, IBM_Cognos_Audit.zip, IBM_Cognos_Statistics.zip, IBM_Cognos_csgodw.zip or IBM_Cognos_DrillThroughSamples.zip deployment archives, you must restore the databases. You must also create data source connections to the samples databases. Every deployment requires a data source connection in order to run reports.

Before you import the IBM_Cognos_PowerCube.zip deployment archive, you must create a database connection to the appropriate PowerCube and select the language that you want to use. The language that you select must be supported by your locale.

For more information about locales, see the IBM Cognos Business Intelligence *Installation and Configuration Guide*.

Procedure

1. Copy the zip file from the *c10_location*/webcontent/samples/content directory to the directory where your deployment archives are saved.

   The default location is *c10_location*/deployment. The location is set in the configuration tool. For information about changing the location, see the configuration tool online help.
2. Open IBM Cognos Administration by connecting to the IBM Cognos BI portal and clicking **Administer IBM Cognos Content** on the **Welcome** page.
3. On the **Configuration** tab, click **Content Administration**.

Note: To access this area in IBM Cognos Administration, you must have the required permissions for the **Administration tasks** secured feature.

4. On the toolbar, click the **New Import** button.

   The **New Import** wizard appears.

5. In the **Deployment Archive** box select the archive:
   - **IBM_Cognos_Samples**
   - **IBM_Cognos_PowerCube**
   - **IBM_Cognos_Metrics**
   - **IBM_Cognos_DrillThroughSamples**
   - **IBM_Cognos_Audit**
   - **IBM_Cognos_Mobile**
   - **IBM_Cognos_csgodw**
   - **IBM_Cognos_Office**
6. Click **Next**.
7. Type a unique name and an optional description and screen tip for the deployment archive, select the folder where you want to save it, and then click **Next**.
8. In the **Public Folders Content** box, select the folders that you want to import.

   The IBM_Cognos_Samples deployment archive has a single folder named Samples with subfolders: Models and Sample Template. The Models folder contains the following packages or folders:
   - **GO Data Warehouse (analysis)**, **GO Data Warehouse (query)**, **GO Sales (analysis)**, **GO Sales (query)**.
   - **Dashboard Folder**, **Dashboard Objects**, **Business Insight Samples**, **Interactive Samples**

   Note: The Business Insight Advanced folder from the **GO Data Warehouse (analysis)** package contains reports used for external data.

   The IBM_Cognos_PowerCube deployment archive has packages or folders for the following languages:
   - English - Sales and Marketing (cube)
   - French - localized packages
   - German - localized packages
   - Japanese - localized packages
   - Simplified Chinese - localized packages

   The **IBM_Cognos_Metrics** deployment archive has the following packages or folders:
   - **GO Metrics**

   The **IBM_Cognos_Mobile** deployment contains:
   - **Sales and Marketing (cube)** folder in five languages: English, French, German, Japanese and Chinese

   For the IBM_Cognos_Mobile deployment archive, you must set up a data source connection for the following data source:
   - the Sales and Marketing cube. A separate connection is required for each language.

   The **IBM_Cognos_Office** deployment contains:
   - **GO Data Warehouse (analysis)**, **GO Data Warehouse (query)**, **GO Sales (analysis)** and **Sales and Marketing cube** packages

The IBM_Cognos_DrillThroughSamples deployment archive has the following packages and folders:

- **Sales and Marketing (cube)** package in five languages: English, French, German, Japanese, and Chinese
- **GO Data Warehouse (analysis)** and **GO Data Warehouse (query)** package

For the IBM_Cognos_DrillThroughSamples deployment archive, you must set up data source connections for the following data sources:

- the sales and marketing cube. A separate connection is required for each language.
- the great_outdoors_sales. The database name is GOSALES.
- the great_outdoors_warehouse. The database name is GOSLAESDW.

9. Select the options you want, along with your conflict resolution choice for options that you select, and then click **Next**.
10. In the **Specify the general options** page, select whether to include access permissions and references to external namespaces, and who should own the entries after they are imported.
11. Click **Next**.

    The summary information appears.
12. Review the summary information and click **Next**.
13. Select the action that you want:
    - To run once now or later, click **Save and run once**. Click **Finish**, specify the time and date for the run, then click **Run**. Review the run time and click **OK**.
    - To schedule at a recurring time, click **Save and schedule**. Click **Finish**, and then select frequency and start and end dates. Click **OK**.

      Tip: To temporarily disable the schedule, select the **Disable the schedule** check box.
    - To save without scheduling or running, click **Save only** and click **Finish**.
14. When the import is submitted, click **Finish**.

Results

You can now use the sample packages to create reports and analyses in Report Studio, Query Studio, and Analysis Studio, view extracts in Metric Designer, or create agents in Event Studio. You can also run the sample reports that are available on the Public Folders tab in the portal.

Sample Database Models

Sample models that are included with IBM Cognos Business Intelligence provide information for the fictional company, the Sample Outdoors.

The samples include

- great_outdoors_sales, which refers to the samples database GOSALES
- great_outdoors_warehouse, which refers to the database GOSALESDW
- gosales_scriptplayer, which refers to the samples databases GOSALES

You can use sample database models on different platforms. For information about moving models from one platform to another, see the Framework Manager *User Guide*.

Note: Transformer uses some of the reports in the GO Data warehouse (query) package as source data for various cubes. These reports are meant to be simple list reports with no formatting. The description information for the reports indicates if the report was developed to be source data for Transformer.

GO Sales Model

This model contains sales analysis information for the fictional company, The Sample Outdoors. It also has the query items required by the Event Studio samples. The model accesses three schemas and has two packages. One package is based on the dimensional view and the other is based on the query (relational) view.

GO Data Warehouse Model

This model contains financial, human resources, and sales and marketing information for the fictional company, The Sample Outdoors. The model accesses a dimensional relational data source. The model has two packages. One package is based on the dimensional view, the other is based on the query (relational) view.

GO Sales Scriptplayer

These files can be used to run the action logs in sequence. This action generates a model named gosales_scriptplayer, and publishes a package to the content store.

Example - Running the Sample ELM Returns Agent Against Changed Data

You can change data in the GOSALES database if an Event Studio user wants to test the sample agent ELM Returns Agent. The Event Studio user can then run the sample agent twice and detect a new event.

For more information, see the Event Studio *User Guide*.

Running the sample agent against changed data involves the following steps:

- The Event Studio user runs the sample agent against the default data and then asks you to change the data.
- You simulate the occurrence of some initial events and then ask the Event Studio user to run the sample agent a second time.
- The Event Studio user runs the sample agent against the changed data. The Event Studio user informs you when the agent has completed running.
- You simulate the passage of time and the resolution of some events and then ask the Event Studio user to run the sample agent a third time.
- The Event Studio user runs the sample agent for the final time. The Event Studio user informs you when the agent has completed running.
- You modify the data so that the ELM Returns Agent detects no events.

Example - Simulate the Occurrence of Initial Events

Run part of the Event_Studio_ELM_Agent_Modify_GOSALES.sql script to simulate data changes.

The data changes include the following:

- change the date to the current date
- change the follow-up code to -1 in four records.

A code of -1 indicates that follow-up is required.

Procedure

1. In SQL Query Analyzer, from the **File** menu, click **Open**.
2. Go to *c10_location*/webcontent/samples/datasources/sqlserver and double-click the Event_Studio_ELM_Agent_Modify_GOSALES.sql file.
3. In the toolbar, from the list of databases, click **GOSALES**.
4. In the **Query** window, under **Part 1**, select all sixteen lines of code.
5. From the **Query** menu, click **Execute**.

Results

The database is updated with the changes.

Example - Simulate the Passage of Time and the Resolution of Some Events

Run part of the Event_Studio_ELM_Agent_Modify_GOSALES.sql script to simulate data changes.

First, change it so that two days elapsed since the ELM Returns Agent sample was last run. Second, for three of the four event instances found the last time that the ELM Returns Agent sample ran, change the follow-up code from -1 to +1. This indicates that only one of the these event instances still requires follow-up and the other instances are resolved.

Procedure

1. In SQL Query Analyzer, from the **File** menu, click **Open**.
2. Go to *c10_location*/webcontent/samples/datasources/sqlserver and double-click the Event_Studio_ELM_Agent_Modify_GOSALES.sql file.
3. On the toolbar, click **GOSALES** from the list of databases.
4. In the **Query** window, under **Part 2**, select all lines of code that appear after the comments.
5. From the **Query** menu, click **Execute**.

Results

The database is updated with the changes.

Example - Modify the Data So That the ELM Returns Agent Detects No Events

When the Event Studio user finishes running the sample ELM Returns Agent against changed data, they should notify you.

You can then modify the GOSALES database so that the agent no longer detects any event instances.

Procedure

Run the following sql commands:
UPDATE GOSALES.RETURNED_ITEM SET FOLLOW_UP_CODE = 0
UPDATE GOSALES.RETURNED_ITEM SET ASSIGNED_TO = 0
UPDATE GOSALES.RETURNED_ITEM SET DATE_ADVISED = NULL

Results

The data is modified. The sample ELM Returns Agent is ready to be used by another Event Studio User.

Remove the Samples Databases from IBM Cognos BI

After you finish using the sample reports to learn about IBM Cognos Business Intelligence, including Framework Manager, you can delete the packages on which the samples are based. This action permanently removes the samples from the content store.

Procedure

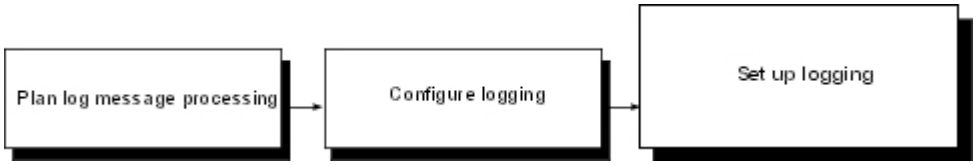
1. Open IBM Cognos Connection by connecting to the IBM Cognos BI portal and clicking **IBM Cognos Content** on the **Welcome** page.
2. Click the **Public Folders** tab.
3. Select the check box for the sample package you want to delete.
4. Click the delete button on the toolbar, and click **OK**.

Chapter 5. Setting up Logging

In addition to error messages, log messages provide information about the status of components and a high-level view of important events. For example, log messages can provide information about attempts to start and stop services, completion of processing requests, and indicators for fatal errors. Audit logs, which are available from a logging database, provide information about user and report activity.

The IBM Cognos services on each computer send information about errors and events to a local log server. A local log server is installed in the *c10_location*/logs folder on every IBM Cognos BI computer that contains Content Manager or Application Tier Components. Because the log server uses a different port from the other IBM Cognos BI components, it continues to process events even if other services on the local computer, such as the dispatcher, are disabled.

The following workflow shows the tasks that are required to prepare for logging.



- During planning, determine the logging configuration that is suitable for your environment. For example, evaluate various log message repositories, such as remote log servers and log files, such as the UNIX or Linux syslog or the Windows NT Event log, in addition to the local log file. You can also send only audit logging information to a database. Consider security, such as methods available for protecting log files from system failures and user tampering. For information about planning, see the *Architecture and Deployment Guide*.
- During configuration, define the startup properties for logging, such as connection settings for databases. You must also create a logging database if you plan to collect audit logs. If communication between a local log server and a remote log server must be secured, make the appropriate configuration changes on both IBM Cognos BI computers. You can also enable certain logging features, such as user-specific logging. For information about configuring logging, see the *IBM Cognos Business Intelligence Installation and Configuration Guide*.
- When setting up logging, specify the level of detail to log to focus messages on the information that is relevant in your organization. Audit reports may also be set up to track user and report activity. For information about setting up logging, see the *IBM Cognos Business Intelligence Administration and Security Guide*.

For information about using log messages to solve problems and resolving logging-related issues, see the *IBM Cognos Business Intelligence Troubleshooting Guide*.

Log Messages

You specify the location of the log messages and the size and number of log files, and configure the properties of the log server in the configuration tool.

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By default, log messages are saved to the cogserver.log file located in c10_location/logs. They can also be saved in a database. For more information, see the Installation and Configuration Guide.

Use log messages for troubleshooting only. If you want to track usage, use audit reports, see ("Audit Reports" on page 75.

For more information about the log service, see "Dispatchers and Services" on page 103.

Logging Levels

You set logging levels to specify the events and messages to record in the log file or in the log database.

An event is an occurrence in your IBM Cognos environment that is significant enough to be tracked, such as starting or stopping a service.

You can set a different logging level for each dispatcher service. You can do this for each dispatcher or for all dispatchers in the same folder. By setting different logging levels for different services you can reduce the amount of irrelevant logging information. For example, if you must troubleshoot the batch report service, you can select a detailed logging level for just that service, keeping log messages to a minimum. The logging level for a service applies to all its components.

Note: The log service does not have logging levels associated with it.

The following table indicates the details that each logging level logs.

Details	Minimal	Basic	Request	Trace	Full
System and service startup and shutdown, runtime errors	✔	✔	✔	✔	✔
User account management and runtime usage		✔	✔	✔	✔
Use requests		✔	✔	✔	✔
Service requests and responses			✔		✔
All requests to all components with their parameter values				✔	✔

Details	Minimal	Basic	Request	Trace	Full
other queries to IBM Cognos components (native query)				✔	✔

You can maintain system performance by managing the amount of logging performed by the server. Since extensive logging affects server performance, increasing the logging level may negatively affect the performance of IBM Cognos software.

The default logging level is Minimal. Use Full logging and Trace levels only for detailed troubleshooting purposes, under the guidance of Customer Support. They may significantly degrade server performance.

If you are using audit reporting, refer to "Setting Up Audit Reporting" on page 75 for guidelines on setting the logging level. For information on setting logging levels for audit reports, see "Audit Reports" on page 75.

Report Validation Levels and Logging Levels

You can collect information about report validation levels by setting the corresponding logging level. Report validation messages can be included in system log messages.

You can use the validation information in different ways. If the system is delivering a generally poor response, you can set logging to a higher level. The additional information can help you determine which reports are at fault and why. If you see warning messages in the logs, this may mean that users are receiving questionable results. You can alert the owners of the offending reports.

There are four report validation levels and five logging levels. The following table shows the correspondence between them.

Report validation level	Logging level
Error	Minimal, Basic
Warning	Request
Key Transformation	Trace
Information	Full

The higher you set the logging level, the more it degrades system performance. Normally, you set the level to Minimal or Basic to collect errors, or to Request to collect errors and warnings.

For information about reports and report validation, see the IBM Cognos Report Studio *User Guide*.

Native Query Logging

If you want to create audit reports that include the queries that are run against your reporting data source, you must enable native query logging. You can use native query logging to learn what kinds of information users want or whether a report is running efficiently. For information on creating audit reports, see "Audit Reports" on page 75.

Native query logging is part of Request level logging. However, if you are using audit reports, you can enable native query logging independently from Request level logging, as described in the following steps.

Set Logging Levels

You set logging levels to specify the events and messages to record in the log file or in the log database.

An event is an occurrence in your IBM Cognos environment that is significant enough to be tracked, such as starting or stopping a service.

Logging levels that you set for the system apply to all dispatchers and services. Logging levels that you set at the dispatcher level apply to all services that are associated with the dispatcher. Logging levels that you set for individual services apply to the service across all dispatchers.

Logging levels that are set for dispatchers override logging levels that are set for the system level. Logging levels that are set for services override logging levels that are set for dispatchers or the system.

If you are using logging for troubleshooting purposes, see "Logging Levels" on page 72 for guidelines on setting the logging levels. If you are using audit reports, see "Setting Up Audit Reporting" on page 75.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper left corner of the **Scorecard** pane, click the arrow to view the Change view menu, and then click **All dispatchers** or **Services**, depending on where you want to set logging levels.
5. Click the arrow next to the item to view the **Actions** menu, and then click **Set properties**. For example, to set logging levels for the system, click the arrow next to the Actions menu.
6. Click the **Settings** tab.
7. From the **Category** menu, click **Logging**.
8. From the **Value** menu, select the logging level you want for the service.
9. If native query logging is available for the service and you want to use it, select the audit the native query check box. For more information on native query logging, see "Native Query Logging."

10. Click **OK**.

Audit Reports

You use audit reports to view the information in a logging database about user and report activity.

You may find this useful for such things as:

- capacity planning
- licensing conformance
- performance monitoring
- identifying unused content

The information in this section is intended to help you model the audit logging database in FrameWork Manager and create reports based on your logging data. First, you must set up audit reporting, see "Setting Up Audit Reporting."

To understand the benefit of audit reports, you may want to refer to the sample model and sample audit reports. For more information, see "Sample Audit Model and Audit Reports." For information on the database schema for audit reports, see Appendix G, "Data Schema for Log Messages," on page 737. For information on metric maintenance tasks such as clearing the Metric Studio audit history, clearing the data store metric history and calendar data, and clearing the data store metric history data, see "Metric Maintenance Tasks" on page 465

Setting Up Audit Reporting

Before you can create audit reports or use the sample audit reports that come with IBM Cognos software, you must set up audit reporting.

Procedure

1. Direct log messages to a database.

   Set up a logging database and configure log messages to be sent to the database. For information about configuring log messages, see the *Installation and Configuration Guide*.

   Important: The logging database must be separate from the Content Store database.
2. Set the logging level for audit reports.

   For audit reporting, set the logging level to Basic (auditing enabled) or Request. If you set the logging level to Minimum, auditing is disabled. Use Full logging and Trace levels only for detailed troubleshooting purposes, under the guidance of Customer Support. They may significantly degrade server performance.

   For more information about logging levels, see "Set Logging Levels" on page 74.
3. Enable native query logging. For more information, see "Native Query Logging" on page 74.

Sample Audit Model and Audit Reports

IBM Cognos software includes a sample model and sample audit reports that you can use.

Sample Audit Model

IBM Cognos software includes a sample audit model in Framework Manager. The default location is *c10_location*/webcontent/samples/models/Audit/Audit.cpf.

Sample Audit Reports

The following table lists the sample audit reports and describes the content of each report.

The default location is *c10_location*/webcontent/samples/content/IBM_Cognos_Audit.zip.

Before you can use them, you must set up the sample audit reports. For more information, see "Setting Up the Sample Audit Reports" on page 79.

Audit report name	Description
Agent execution history by user	Lists agent execution history by user and date and time range and includes a bar chart. It also includes the total number of times each agent was executed and the total number of agents that were executed. You can select a date and time range.
Daily average and poor exceptions - all services	Shows how to monitor daily average and poor exceptions of thresholds set in **IBM Cognos Administration** for all services using an agent. An email with attached report output is sent to the administrator when average and poor exceptions occur. To run this report properly, you must first set thresholds in **IBM Cognos Administration** (see Chapter 6, "System Performance Metrics," on page 87). To receive an email, you must specify a mail server account. For more information, see the IBM Cognos Business Intelligence *Installation and Configuration Guide* For more information on setting thresholds in **IBM Cognos Administration**, see Chapter 6, "System Performance Metrics," on page 87.
Daily metric exceptions	Lists daily metric exceptions for all services.
Execute reports by package and report	Lists the reports that were run, by package. It also includes the user, timestamp, and execution time in milliseconds for each report. You can select a date and time range, one or more users, one or more packages, and one or more reports.

Audit report name	Description
Execute reports by user	Lists the reports that were run, by user and by package. It also includes the timestamp and execution time in milliseconds for each report. You can select a date and time range, one or more users, one or more packages, and one or more reports.
Execution history by user	Lists the reports that were run alphabetically, along with the package and timestamp, by user, since the logging database was created. It includes the total number of reports each user ran and the total number of times each user ran each report. It also includes the total number of reports run by all users. You can select one or more users for the report. After you run the audit report, you can choose to view the statistics for a particular report or for all reports.
Failed report executions - by package	Lists report failure executions by package and includes a pie chart, which also shows the failed percentage of each package.
Failed service requests detect agent - all services	Detects preset thresholds for service request failures that are exceeded. An email is sent to the administrator with service failure metrics information. The report Service requests metrics - day report is run. To run this report properly, you must first set thresholds in **IBM Cognos Administration** (see Chapter 6, "System Performance Metrics," on page 87). To receive an email, you must specify a mail server account. For more information, see the IBM Cognos BI *Installation and Configuration Guide*.
Logon operations by time stamp	Shows logon and logoff timestamps and operations, by user. It also includes the total number of logons and the total number of logons for each user. You can select the time period and one or more users for the report.

Audit report name	Description
Logon operations by user name	Shows logon and logoff timestamp by user, along with the type of logoff operation that occurred. It includes the total number of logons and the total number of logons for each user. You can select one or more users for the report.
Migration exceptions	A list report shows exceptions for migration tasks.
Operations by selected object and users	Shows the operations that are performed on target objects, by user. It includes the target object path, timestamp, and the status of the operation. You can select one or more objects, operations, or users for the report.
Report execution history (detailed report)	Lists reports alphabetically along with the associated package and the timestamp for each time the report was executed. It also shows the total number of times each report was executed and the total number of reports that were executed. It also includes a color-coded pie chart that gives an overview of how often the reports are used.
Report execution history (summary report)	Lists reports alphabetically along with the timestamp for each time the report was run since the logging database was created.
Report usage	Lists reports by frequency of use. For each report, it lists the user and the number of times it was run by the user since the logging database was created. This report can help you determine if there are any reports that are not being used. If so, you may want to remove them.
Service requests metrics - day report	Shows percentage of successful and failed requests for IBM Cognos services for the current day. Includes a bar chart.
User session - abnormal termination	Shows logon date and time of abnormally terminated user sessions. It also includes a total of session termination for all dates. You can select a date and time range.

Audit report name	Description
User session - details	Shows user session details, including the logon time, logoff time, logoff operation, and session duration. It also includes the total amount of session time for each user and the total amount of session time for all users. You can select a date and time range and one or more users.
User session - logon errors for past 30 days chart	This audit report shows a bar graph of logon failures for the past 30 days.
User session - summary	This audit report shows the average session duration by user. It also shows the total average session duration by user. You can select a date and time range and one or more users.
View reports by package and report	This audit report lists users and timestamps for reports for the package that you select. You can select a date and time range, one or more users, and one or more reports.

Setting Up the Sample Audit Reports

You must set up sample audit reports before you can use them.

Before you begin

Before you begin, see "Setting Up Audit Reporting" on page 75

Procedure

1. Create a data source connection to the logging database. The logging database and data source in IBM Cognos Connection must be named Audit.

   Follow the procedure "Add or Modify a Data Source Connection" on page 200. For the data source name and database name, enter the name Audit. Confirm that the connection is working.
2. "Set Up the Sample Report Usage Audit Report" on page 80 to create new data source named url_xml and using the URL as the connection string. This data source is only used by the Report Usage audit report.
3. Import the sample audit reports.

   The file IBM_Cognos_Audit.zip is included with your installation and is located at *c10_location*/webcontent/samples/content.

   Copy the file to *c10_location*/deployment, and then follow the procedure "Import the Samples" on page 65 to import the sample IBM_Cognos_Audit.zip. In the public folders content list, select the check box for **Audit**.

   The audit reports reside in the Public Folders area of IBM Cognos Connection.
4. Run the sample audit reports.

Tip: In IBM Cognos Connection, click **Public Folders**, click **Audit**, and click the audit report that you want to run.

Depending on the audit report that you select, you are prompted for report criteria.

Set Up the Sample Report Usage Audit Report

The Report Usage Audit Report lists reports by frequency of use. Before it can be used, it must be set up.

Procedure

1. If you are using the default application server (Tomcat) that is provided with IBM Cognos Business Intelligence, then in a text editor, open the web.xml file located at *c10_location*\webapps\p2pd\WEB-INF, and add the following XML fragment:

   ```
   <servlet>
    <servlet-name>DSServlet</servlet-name>
      <servlet-class>com.cognos.demo.DSServlet</servlet-class>
   </servlet>
   <servlet-mapping>
    <servlet-name>DSServlet</servlet-name>
    <url-pattern>/cognos/DSServlet.jsp</url-pattern>
   </servlet-mapping>
   ```

   Note that the url-pattern value can be anything you choose.
2. If you are using an application server other than Tomcat, or if Content Manager and Application Tier Components are installed in separate locations, add the XML fragment from step 1 to the following files:
   - *c10_location*\webapps\p2pd\WEB-INF\web.xml.noCM
   - *c10_location*\webapps\p2pd\WEB-INF\web.xml.withCM
3. If you do not have the following directory on your system, create it: *c10_location*\webapps\p2pd\WEB-INF\classes\com\cognos\demo.
4. Copy the file build.bat for Microsoft Windows operating system or build.sh for UNIX operating system located in *c10_location*\webapps\Audit to *c10_location*\webapps\p2pd\WEB-INF\classes\com\cognos\demo.

   Edit the build file to ensure the JAVA_HOME definition points to your JDK and ensure the CRN_HOME definition points to your IBM Cognos location.
5. If it is not already there, copy the DSServlet.java file from the *c10_location*\webapps\Audit directory to *c10_location*\webapps\p2pd\WEB-INF\classes\com\cognos\demo.
6. Do one of the following in the DSServlet.java file:
   - If you are allowing anonymous logon, comment out the following line: `binding.logon(...)`
   - If you are not allowing anonymous logon, make sure that the username, password, and namespace are correct and uncomment the following line: `binding.logon(...)`
7. At a command prompt, run build.bat or build.sh from *c10_location*\webapps\p2pd\WEB-INF\classes\com\cognos\demo.
8. Restart IBM Cognos software and open IBM Cognos Connection.
9. If you are using an application server other than Tomcat, rebuild the application file and then redeploy IBM Cognos BI to the application server.

   For instructions, see the *Installation and Configuration Guide*.
10. Create a data source connection to the XML data source by doing the following:

a. In the upper-right corner of IBM Cognos Connection, click **Launch**, **IBM Cognos Administration.**
b. On the **Configuration** tab, click **New Data Source**.
c. Under Name, type url_xml.
d. Click **Next**.
e. Under **Type**, select XML.
f. Click **Next**.
g. In the **Connection string** field, enter the connection string. If you used the defaults, the connection string is http://localhost:9300/p2pd/cognos/DSServlet.jsp.
h. Click **OK**.

View Full Details for Secure Error Messages

You can view full error details, which may contain sensitive information.

Some IBM Cognos error messages may contain sensitive information such as server names. By default, the IBM Cognos Application Firewall secure error messages option is enabled. Users are presented with information that indicates only that an error has taken place.

If you have the appropriate permissions, you can retrieve full error details. You may also want to see log messages, refer to "Log Messages" on page 71.

Procedure

1. Find the error code ID in the user error message. For example, the error number in the following message is secureErrorID:2004-05-25-15:44:11.296-#9:

   An error has occurred. Please contact your administrator. The complete error has been logged by CAF with SecureErrorID:2004-05-25-15:44:11.296-#9
2. Open the cogserver.log file using a text editor.

   The file is located in *c10_location*/logs.
3. Search for the error code ID to locate the applicable error message.

Disable the Creation of Core Dump Files

Core dump files are created when there is a serious problem, such as an unhandled exception or when an IBM Cognos process terminates abnormally.

Since core dump files are big and a new one is created each time the problem recurs, you may want to disable them. You can enable core dump files again if you encounter problems that require it.

If such a problem occurs, you receive the following error message: `Report Server not responding`. See the *IBM Cognos Business Intelligence Troubleshooting Guide* immediately.

You may also want to delete any existing core dump files from the `\bin` directory of the IBM Cognos server installation, if they are not required for troubleshooting purposes. In a Microsoft Windows environment, core dump files have a .dmp extension and the file name *processID*.dmp, such as BIBusTKServerMain_seh_3524_3208.dmp. In a UNIX environment, the files are named core. In a Linux environment, the files are named core.*processID*.

In some IBM Cognos hotsite builds, core file creation is automatically enabled. The configuration file that controls this is different for IBM Cognos 8.1 MR1 and later versions of the product. During an upgrade, configuration settings are not overwritten.

Turn Off Core File Creation for IBM Cognos BI MR1

The procedure to turn off core file creation for IBM Cognos BI MR1 is as follows.

Procedure

1. On the server where IBM Cognos BI is installed, open the rsvpproperties.xml file from the *c10_location*\configuration directory.
2. Change the `Win32StructuredExceptionHandling` property to 0 (zero) so that it reads

   ```
   <property>Win32StructuredExceptionHandling</property>
   <value type="long">0</value>
   ```
3. Save the file.

Turn Off Core File Creation for IBM Cognos BI MR2 and Later Versions

The procedure to turn off core file creation for IBM Cognos BI MR2 and later versions is as follows.

Procedure

1. On the server where IBM Cognos BI is installed, open the cclWin32SEHConfig.xml file from the *c10_location*\configuration directory.
2. In the configuration element, change the value of the environment variable setting to 0 (zero) so that it reads

   ```
   <env_var name="CCL_HWE_ABORT" value="0"/>
   ```
3. Save the file.

Use Logging to Diagnose a Problem for a Specific User

You can use logs to diagnose a problem that is occurring for one or more specific users.

You temporarily set logging to occur for the specified users only. After the problem is resolved, you disable the user-specific logging and resume normal logging without interfering with existing logging settings.

You enable and disable logging for specific users by using the Remote Process service for Java Management Extensions (JMX), a technology that supplies tools to manage and monitor applications and service-oriented networks. You connect to the JMX Remote Process service using the jconsole executable that is provided with the Java JDK. By default, output from the user-specific logging is saved in the *c10_location*\logs directory.

Before you begin

You must first enable user-specific logging for IBM Cognos Business Intelligence. For more information, see the *Installation and Configuration Guide*.

You must have the required permissions to access **IBM Cognos Administration** functionality to complete the tip in step 4 below. See Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Connect to the JMX Remote Process service by launching the jconsole executable and specifying the following information:
   - The URL to connect to the data. For example,

     service:jmx:rmi://*Content_Manager_server*/jndi/rmi://*monitoring_server*:<*JMXport*>/proxyserver

     where *JMXport* is the value from **External JMX port** in IBM Cognos Configuration, and *Content_Manager_server* and *monitoring_server* are computer names. Do not use localhost, even if connecting locally.
   - The user ID and password to secure the connection.
   - The values from **External JMX credential** in IBM Cognos Configuration.
2. In the remote process server connection window, expand **com.cognos**, **Metrics**, **camAsyncAA**, **http://*c10_server_name:port*/p2pd** and select the **Operations** node.
3. Copy the user's CAMID into the **enableDyeTrace** field and click the **enableDyeTrace** button.

   Tip: In IBM Cognos Administration, you can find the CAMID by doing the following:
   - Click the **Security** tab and then click**Users, Groups, and Roles**.
   - Click **Set properties** for the user and then click **View the search path, ID and URL**
4. To verify that you enabled the user correctly, navigate to **Attributes** and view the contents of the **DyeTracedUsers** setting.

Disable Logging for a Specific User

You can disable logging for a specific user.

Procedure

Delete the ipfclientconfig.xml file that you created in "Use Logging to Diagnose a Problem for a Specific User" on page 82.

Results

Normal logging of all users resumes. It could take up to 30 seconds for the user-specific logging to stop.

Running logging for a specific user by editing component specific ipf files

You can start logging for a specified user and implement dye tracing by editing component specific ipf files.

Procedure

1. Add a <filter> element to an existing <appender> definition or add a new <appender> definition.

   Note: You need to ensure that categories make reference to an <appender> definition which uses the <filter> element.

2. In cases where an <appender> definition specifies a log server, change the port values to your configured log server port.

Running logging for a specific user by using selected categories

You can start logging for a specified user, implement dye tracing, and customize output by using selected categories and distributing output to one or more appender definitions.

Procedure

1. In the c10_location\configuration directory, locate the ipf trace file for the component you want to trace. The files are named ipf<component>clientconfig.xml.sample. For example, ipfAAAclientconfig.xml.
2. Create a copy of the identified ipf<component>clientconfig.xml.sample file using the name ipfclientconfig.xml.off.
3. Using a text editor, open the ipfclientconfig.xml.off file and make the following changes:
   - add or change the loglevel of the <categories> you require.
   - add a new <appender> section, below the last existing <appender> element, as follows:

     <appender name="DyeTraceOutput"
     class="org.apache.log4j.RollingFileAppender">

     <param name="File" value="../logs/dyetrace_output.log"/>

     <param name="MaxBackupIndex" value="1"/>

     <param name="MaximumFileSize" value="10485760"/>

     <layout class="org.apache.log4j.PatternLayout"/>

     <param name="ConversionPattern" value="%m%n"/>

     </layout>

     <filter class="com.cognos.indications.LogIPFDyeTraceFilter"/>

     </appender>

     or
   - modify one of the existing appender definitions by adding the line

     <filter class="com.cognos.indications.LogIPFDyeTraceFilter"/>

     before the closing </appender> tag.
4. For the <categories> sections that you want to apply the dye trace filter to, edit the <appender-ref> property to refer to the DyeTraceOutput appender or to the appender which had the filter added to it.

   For example,

   <category name="Audit.RTUsage.CAM.AAA"
   class="com.cognos.indications.LogTypedLogger"

   additivity="false">

   <level value="debug"/>

   <appender-ref ref="DyeTraceOutput"/>

   </category>
5. Save the ipfclientconfig.xml.off file.
6. To activate this file, rename it to ipfclientconfig.xml.
7. You can disable user-specific logging and resume normal logging by renaming the ipfclientconfig.xml file back to ipfcliencofig.xml.off. Reset the users you applied DyeTracing to after restarting the product.

Results

Within 60 seconds, user-specific logging automatically activates and output is generated. For the appender described here, the output is stored in *c10_location*\logs\dyetrace_output.log. For other appenders, it will be the destination configured for that appender. When an authenticated session is established with IBM Cognos, only actions by the specified user are logged.

Note: You might receive some indications that are not related to the specified user. For example, this might occur when you start the product or when indications are logged before the user's authentication is complete.

Tip: You can change the log level of categories to avoid an overwhelming number of indications.

Chapter 6. System Performance Metrics

You can monitor system performance using metrics in IBM Cognos Administration, which allows you to diagnose and fix problems quickly.

For example, you may want to know if there are more than 50 items in a queue or if any item has been waiting in a queue for longer than a specified amount of time.

You must have the required permissions to access **IBM Cognos Administration** Chapter 16, "Secured Functions and Features," on page 261.

Using metrics, you can assess the status of the system as a whole, along with the status of individual servers, dispatchers, and services. You can view the attributes for each metric score, set the threshold values that are used to calculate metric scores, and reset metrics. You may want to refresh report service connections if a PowerCube has been rebuilt.

You can also perform functions such as starting and stopping dispatchers or services "Stop and Start Dispatchers and Services" on page 106, and unregistering dispatchers "Remove Dispatchers from the Environment" on page 109.

You can use log files to analyze long-range performance and usage Chapter 5, "Setting up Logging," on page 71.

You can create a metric dump file for troubleshooting purposes.

How Metric Data is Gathered

Data for metrics is gathered differently depending on the metric change type, time scope, and gathering time associated with the metric.

For more information on how these apply to individual metrics, see "System Metrics" on page 88.

Metric Change Type

The value that is displayed for a metric depends on the change type, as shown in the following table.

Change Type	Description
Counter	The value is a sum that increases with each change. For example, number of requests is a counter change type.
Gauge	The value may increase or decrease over time, depending on events. For example, the number of processes running at any time is a gauge change type.

Metric Time Scope

The interval over which a metric value is gathered differs by metric, as shown in the following table.

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Time Scope	Description
Point in time	The value is gathered at a specific point in time, such as when you reset a metric group or restart a service
Since reset	The value is gathered over the interval since the last reset of the metric

Metric Gathering Time

The time at which a metric value is gathered differs by metric, as shown in the following table.

Gathering Time	Description
On change	The value is collected when a change occurs, such as when the number of requests changes
On demand	The value is gathered when you select a new item in the Scorecard pane, or reset a metric group. For more information, see “Panes on the Status System Page” on page 97 and “Reset Metrics” on page 101.
Unknown	The gathering time is unknown

System Metrics

There are a wide variety of metrics available to help you monitor the performance of your IBM Cognos software installation.

For more information, see “How Metric Data is Gathered” on page 87.

Some metrics are reset when the service restarts. You can also reset some metrics manually “Reset Metrics” on page 101.

At the system and server levels, the metrics include all associated dispatchers. At the dispatcher level, metrics include all associated services. For server groups, metrics are for all the dispatchers in the group.

Session Metrics

You can use session metrics to monitor user sessions. This is useful for monitoring system trends such as usage patterns by time of day and day of week. Session metrics are also useful for understanding the context of other metrics. For example, if the number of sessions is extraordinarily high, it could account for the queue length metrics being higher than normal. For more information, see “Queue Metrics” on page 89

The following session metrics are available:

- **Number of sessions**

  Specifies the number of currently active user sessions.

Entry	Change Type	Time Scope	Gathering Time
System	Gauge	Point in time	On demand

- **Number of sessions high watermark**

  Specifies the maximum number of active user sessions since the last reset.

Entry	Change Type	Time Scope	Gathering Time
System	Gauge	Since reset	On change

- **Number of sessions low watermark**

  Specifies the minimum number of active user sessions since the last reset.

Entry	Change Type	Time Scope	Gathering Time
System	Gauge	Since reset	On change

Queue Metrics

You can use queue metrics to determine if the system is keeping up with demand. For example, if requests spend too much time in a queue, you may not have enough resources to meet demand.

Queue metrics are available for services that use queues, such as the report service and report data service.

At the system level, queue metrics are available for the following entries:

- Job

  Job queue contains metrics related to the internal queue used by all event management services.
- Task

  Task queue contains metrics related to the internal queue used by all monitor services. This queue contains tasks until they are successfully completed.
- SMTP

  SMTP queue contains metrics related to the internal queue used by all delivery services. This queue contains e-mail messages until they are sent.

Some of the metrics available for these queue metric groups must be enabled to be displayed. For more information, see ⌂"Enable Job, SMTP, and Task Queue Metrics" on page 161.

The following queue metrics are available:

- **Latency**

  Specifies the average amount of time that requests have spent in the queue (in seconds).

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Service	Gauge	Since reset	On change

- **Number of queue requests**

  Specifies the number of requests that have passed through the queue.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Service	Counter	Since reset	On change

- **Queue length**

  Specifies the number of items currently in the queue.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Service	Gauge	Point in time	On demand

- **Queue length high watermark**

  Specifies the maximum number of items in the queue since the last reset.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Service	Gauge	Since reset	On change

- **Queue length low watermark**

  Specifies the minimum number of items in the queue since the last reset.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Service	Gauge	Since reset	On change

- **Time in queue**

  Specifies the cumulative amount of time that requests have spent in the queue (in days, hours, minutes, and seconds).

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Service	Counter	Since reset	On change

- **Time in queue high watermark**
  Specifies the maximum length of time that a request waited in the queue (in days, hours, minutes, and seconds).

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Service	Gauge	Since reset	On change

- **Time in queue low watermark**
  Specifies the minimum length of time, in days, hours, minutes, or seconds, that a request waited in the queue.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Service	Gauge	Since reset	On change

JVM Metrics

You can use JVM metrics to monitor the Java Virtual Machine and the associated heap size, which specifies the amount of memory that is currently in use. For example, if a dispatcher has been running for a long time and heap usage is high, you may want to restart the dispatcher. The maximum heap size metric tells you if you have allocated a suitable amount of memory to the JVM based on the amount of hardware memory available. The current heap size, in relation to the maximum heap size, lets you know if available memory is being used. If current heap size is close to the maximum heap size, you may want to adjust tuning settings to reduce the load on a particular JVM. The current heap size may vary widely depending on the current load on the system.

For more information on tuning, see “Tune Server Performance” on page 126.

The following JVM metrics are available:

- **Current heap size (bytes)**
  Specifies the current size of the JVM heap (in bytes).

Entry	Change Type	Time Scope	Gathering Time
Dispatcher	Gauge	Point in time	On demand

- **Initially requested heap size (bytes)**

  Specifies the initial amount of memory that the JVM requests from the operating system during startup (in bytes).

Entry	Change Type	Time Scope	Gathering Time
Dispatcher	Gauge	Point in time	On demand

- **Maximum heap size (bytes)**

  Specifies the maximum amount of memory that can be used by the JVM (in bytes).

Entry	Change Type	Time Scope	Gathering Time
Dispatcher	Gauge	Point in time	On demand

- **Up time**

  The length of time that the JVM has been running (in days, hours, minutes, and seconds.

  At the system, server, and server group levels, this is the highest value from all associated dispatchers.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher	Counter	Point in time	On demand

- **Committed heap size**

  Specifies the amount of memory that is guaranteed to be available for use by the JVM (in bytes).

Entry	Change Type	Time Scope	Gathering Time
Dispatcher	Gauge	Point in time	On demand

Request Metrics

You can use request metrics to monitor volume of requests, operational status of services, response times, and processing times. General request metrics include data for all services and are a consolidation of metrics for all dispatchers. Request metrics specific to a service include only data for that service.

At the system, server, and server group levels, the metrics include data from all associated dispatchers. At the dispatcher level, metrics include all associated services.

The following request metrics are available:

- **Current time**

  Specifies the current date and time used by the service to interpret time values. Use only if the service has no clock synchronization mechanism.

Entry	Change Type	Time Scope	Gathering Time
Service	Counter	Point in time	On demand

- **Last response time**

  Specifies processing time for the most recent successful or failed request (in days, hours, minutes, and seconds).

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Gauge	Point in time	On change

- **Number of failed requests**

  Specifies the number of service requests that failed (a fault was returned).

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Counter	Since reset	On change

- **Number of processed requests**

  Specifies the number of processed requests.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Counter	Since reset	On change

- **Number of successful requests**

Specifies the number of service requests that succeeded (no fault was returned).

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Counter	Since reset	On change

- **Percentage of failed requests**

  Specifies the percentage of processed requests that failed.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Gauge	Since reset	On change

- **Percentage of successful requests**

  Specifies the percentage of processed requests that succeeded.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Gauge	Since reset	On change

- **Response time high watermark**

  Specifies the maximum length of time taken to process a successful or failed request (in days, hours, minutes, and seconds).

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Gauge	Since reset	On change

- **Response time low watermark**

  Specifies the minimum length of time taken to process a successful or failed request (in days, hours, minutes, and seconds).

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Gauge	Since reset	On change

- **Seconds per successful request**

  Specifies the average length of time taken to process a successful request (in seconds).

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Gauge	Since reset	On change

- **Service time**

  Specifies the time taken to process all requests (in days, hours, minutes, and seconds).

Entry	Change Time	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Counter	Since reset	On change

- **Service time failed request**

  Specifies the time taken to process all failed service requests (in days, hours, minutes, and seconds).

Entry	Change Time	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Counter	Since reset	On change

- **Service time successful requests**

  Specifies the time taken to process all successful service requests (in days, hours, minutes, and seconds).

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Counter	Since reset	On change

- **Successful requests per minute**

  Specifies the average number of successful requests processed in one minute.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Dispatcher Service	Gauge	Since reset	On change

Process Metrics for Report and Batch Report Service and Metadata Service

The following process metrics are available for report service and batch report service and metadata service:

- **Number of processes**

  Specifies the number of processes currently running.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Report service and Batch report service Metadata service	Gauge	Point in time	On demand

- **Number of configured processes**

  Specifies the same value that was configured for the following properties of affected services:

  – "Maximum number of processes for the [service_name] during peak period"

  – "Maximum number of processes for the [service_name] during non-peak period" to be a non-default value

  This value cannot be reset.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Report service and Batch report service Metadata service	Gauge	Point in time	On demand

- **Number of processes high watermark**

  For system, server, and server group, the total of all Number of processes high watermark metrics for all associated resources is specified.

  For services, the maximum number of processes that ran at any one time since the last reset is specified.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Report service and Batch report service Metadata service	Gauge	Since reset	On change

- **Number of processes low watermark**

  For system, server, and server group, the total of all Number of processes low watermark metrics for all associated resources is specified.

  For services, the minimum number of processes that ran at any one time since the last reset is specified.

Entry	Change Type	Time Scope	Gathering Time
System Server/Server group Report service and Batch report service Metadata service	Gauge	Since reset	On change

Panes on the Status System Page

The System page has three panes, Scorecard, Metrics, and Settings, that you use to evaluate system status.

You can sort some columns by clicking on the title. By default, columns are sorted in ascending order. To sort in ascending order, click once. To sort in descending order, click again. To return to default order, click a third time. You can refresh each pane independently.

Scorecard Pane

The **Scorecard** pane lists entries: system, servers, server groups, dispatchers, and services. For each entry, it shows a metric score and operational status so that you can assess system performance. For more information, see "Assess System Performance" on page 99.

Each metric score is represented by one of the following icons:

- a green circle for good 
- a yellow diamond for average 
- a red square for poor 

You must set metric thresholds before metric scores appear. For more information, see "Set Metric Threshold Values" on page 100.

If a service is disabled in IBM Cognos Configuration, it is not listed.

The metric score for each entry is based on the performance of individual child entries. The status that is displayed for each entry is the lowest status of the child entries. For example, if all the metrics for a dispatcher are good, but one service on that dispatcher has a poor metric, the metric score shown for the dispatcher is poor.

Status is one of the following:

- **Available** if all components are available
- **Partially available** if at least one component is available and at least one component is unavailable or partially unavailable.
- **Unavailable** if all components are unavailable

The Group actions menu lets you perform functions, such as starting and stopping dispatchers or services "Stop and Start Dispatchers and Services" on page 106, unregistering dispatchers "Remove Dispatchers from the Environment" on page 109, and testing dispatchers "Test Dispatchers" on page 115. Each entry also has an Actions menu associated with it, which you access by clicking the arrow next to the entry.

You use the **Scorecard** pane to navigate to the entry that you want to view. You can select the view that you want from the Change view menu in the upper-left corner. You can click on entries to select them and display the next level of entries. For example, click a server to see associated dispatchers, or click a dispatcher to see associated services.

You can maximize the **Scorecard** pane to see a consolidated view of information that is displayed in the **Scorecard** pane and important metrics from the **Metrics** pane. The consolidated view includes the following information:

- For servers and server groups: metric score, operational status, up time, service time, number of processed requests and percentage of successful requests.
- For dispatchers: metric score, operational status, number of processes, service time, current heap size (bytes), number of processed requests, and percentage of successful requests.

- For services the information depends on the service.

Metrics Pane

The **Metrics** pane shows the metrics for the selected entry. You can expand metric groups to see the individual metric scores and values. You can reset each metric group independently "Reset Metrics" on page 101

You can select the metrics that you want to display by clicking a check box at the top of the pane. By default, all metrics are displayed. Metrics with no metric score include ones that you cannot set thresholds for and ones that you have not yet set metric thresholds for. For the latter, you must display them by clicking the **No metric score** check box before you can set them.

Settings Pane

The **Settings** pane shows settings associated with the selected entry in view only mode. To change the settings, click the set properties button  .

For more information on the settings in the **Settings** pane, see Chapter 7, "Server Administration," on page 103.

Assess System Performance

To evaluate how IBM Cognos software is performing, you can view metric scores that are based on thresholds that you set. You can also view the operational status of system components.

You must set metric thresholds before metric scores appear. For more information, see "Set Metric Threshold Values" on page 100. If dispatchers and services are not performing as they should, you can tune server performance "Tune Server Performance" on page 126. For more information on logging settings, see Chapter 5, "Setting up Logging," on page 71.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.

   The metric score icon next to **System** shows overall system status. The metric score icon next to each server shows the status of that server. In the **Metrics** pane, individual metrics are listed.
4. In the upper left corner of the **Scorecard** pane, click the arrow to view the Change view menu, and then click the view that you want.

   If you choose **All server groups**, display dispatchers that are not grouped by server by clicking **Default server group**.
5. To view the metrics for a displayed item, click the icon to the left of the entry.
6. To view the children of a displayed entry, click the entry itself.

   Tip: You can refresh individual panes by clicking the refresh button in the pane.
7. To view or change the properties of an entry, click the actions menu button next to the entry, and then click **Set properties**.
8. To see the consolidated view, click the maximize button on the **Scorecard** pane.

Tip: To return to the previous view, click the restore button.

View Attributes for Metric Scores

You can view the last time a metric was reset and updated. You can also view the current threshold setting for each metric score for which a threshold is set. For metrics that are collected at regular intervals, you can also view the period of time to which the value applies.

Before you begin

For more information on threshold settings, see "Set Metric Threshold Values."

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper left corner of the **Scorecard** pane, click the arrow to view the Change view menu, and then click the view that you want.
5. In the **Metrics** pane, expand  the metric group that you want to view.
6. In the **Value** column of the **Metrics** pane, pause your pointer over the value for the metric that you want to view.

   The name of the metric is displayed.
7. To view more information about some metrics, click **More**.

Set Metric Threshold Values

You can set threshold values that are used for some metric scores.

Acceptable threshold values depend on your operating environment. When a threshold is crossed, the state of the metric score changes.

For example, you determine that the maximum acceptable queue length is 50 items. You select **Low values are good**. You set the upper value to 50 and the lower value to 40. If the queue remains below 40 items in length, the metric score is green (good). If the queue length goes above 40 items, the metric score is yellow (average). If the queue length goes above 50 items, the metric score is red (poor).

Or for percentage of successful requests, you select **High values are good**. You set the upper value to 98 and the lower value to 95. If the percentage of successful requests goes below 95 percent, the metric score is red (poor). If the percentage of successful requests is between 95 and 98 percent, the metric score is yellow (average). If the percentage of successful requests remains above 98, the metric score is green (good).

Changes to thresholds are effective immediately.

There are no threshold defaults. You must set thresholds for metric scores to display.

If you want to be notified when thresholds are exceeded, you can create an agent Chapter 28, "Agents," on page 441. Sample agents that monitor the audit database

for threshold violations and perform common actions when violations are detected are included in the audit samples package.

Before you begin

Log entries Chapter 5, "Setting up Logging," on page 71 occur in the following circumstances:

- when metric thresholds are violated
- when enumerated metrics, such as operational status, change

Logs are not generated when metric values change but remain in the same range.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper left corner of the **Scorecard** pane, click the arrow to view the Change view menu, and then click the view that you want.
5. To change the threshold for a metric, in the **Metrics** pane, click the Edit thresholds button  next to the metric.
6. Click the performance pattern that you want: **High values are good**, **Middle values are good**, or **Low values are good**.
7. To specify a threshold value, click in the threshold box and enter the threshold number you want.
8. Click the arrow beside the threshold value to specify which range the value itself falls into.

   For example, if your maximum value is 50 and you want values of 50 to fall into the average category rather than the poor category, click the arrow to move the threshold value into the average category.
9. Click **OK.**

Reset Metrics

You can reset a group of metrics at any time.

When you reset a group of metrics, all the metrics in the group are reset. For example, for a server, you can reset the Queue - Report service group of metrics.

Some metrics cannot be reset. For example, JVM metrics cannot be reset because they were re-calculated after the last reset.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper left corner of the **Scorecard** pane, click the arrow to view the Change view menu, and then click the view that you want.
5. In the **Metrics** pane, click the reset button  for the group of metrics that you want to reset.

Reset Metrics for the System

You can reset all metrics for the system at the same time.

Some metrics cannot be reset. For example, JVM metrics cannot be reset because they were re-calculated after the last reset.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the **Scorecard** pane, click **Actions**, **Reset all metrics of the system**.

Refresh Report Service Connections

If a PowerCube has been rebuilt, you can update the connection information without affecting current users.

You must first update the connection information to the rebuilt PowerCube, and then refresh the report servers to use the rebuilt PowerCube for new connections.

For more information, see "Deploy Updated PowerCubes" on page 200.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch, IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. With all servers displayed, click the check box for the servers you want, and from the Group actions menu, click Refresh report service connections.

   Tip: You can also do this from the Actions menu next to System, servers, and dispatchers. You can also click the Configuration tab, and then click Dispatchers and Services, and then click the **Refresh Report Service Connections - Configuration** button.
5. When the View the results page appears, ensure that the operation has been successful and then click Close.

Chapter 7. Server Administration

You can perform the server administration tasks that help you manage and maintain your IBM Cognos system and tune performance.

You should be familiar with the IBM Cognos components and with how they are installed and configured. If you installed IBM Cognos servers or components on more than one computer, all functionality can be controlled through system administration. For information about the IBM Cognos environment, see the *Installation and Configuration Guide* and the *Architecture and Deployment Guide*.

For some server administration tasks, you use **IBM Cognos Administration** and must have the required permissions to the access administration functionality Chapter 16, "Secured Functions and Features," on page 261.

Dispatchers and Services

The dispatcher is the entry point for IBM Cognos service requests sent by a Web server gateway or other software. The dispatcher handles the routing requests and balances the load of user requests to the various IBM Cognos services.

You can have more than one dispatcher in your IBM Cognos environment. In such distributed installations one dispatcher is configured for every instance of the Content Manager or Application Tier Components that are installed and configured in your environment.

After you install and configure IBM Cognos software, one dispatcher is available on each computer by default. Each dispatcher has a set of associated services, listed in the following table.

IBM Cognos services

After you install and configure IBM Cognos BI, one dispatcher is available on each computer by default. Each dispatcher has a set of associated services, listed in the following table.

Table 7. IBM Cognos services

Service	Purpose
Agent service	Runs agents. If the conditions for an agent are met when the agent runs, the agent service asks the monitor service to run the tasks.
Annotation service	Enables the addition of commentary to reports via the IBM Cognos Workspace. These comments persist across versions of the report.
Batch report service	Manages background requests to run reports and provides output on behalf of the monitor service.

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Table 7. IBM Cognos services (continued)

Service	Purpose
Content Manager cache service	Enhances the overall system performance and Content Manager scalability by caching frequent query results in each dispatcher.
Content Manager service	• Performs object manipulation functions in the content store, such as add, query, update, delete, move, and copy • Performs content store management functions, such as import and export
Data movement service	Manages the execution of data movement tasks in IBM Cognos BI. Data movement tasks, such as Builds and JobStreams, are created in Data Manager Designer and published to IBM Cognos BI.
Delivery service	Sends emails to an external SMTP server on behalf of other services, such as the report service, job service, agent service, or data integration service
Event management service	Creates, schedules, and manages event objects that represent reports, jobs, agents, content store maintenance, deployment imports and exports, and metrics
Graphics service	Produces graphics on behalf of the Report service. Graphics can be generated in 4 different formats: Raster, Vector, Microsoft Excel XML or PDF.
Human task service	Enables the creation and management of human tasks. A human task such as report approval can be assigned to individuals or groups on an ad hoc basis or by any of the other services.
Index data service	Provides basic full-text functions for storage and retrieval of terms and indexed summary documents.
Index search service	Provides search and drill-through functions, including lists of aliases and examples.
Index update service	Provides write, update, delete, and administration functions.
Job service	Runs jobs by signaling the monitor service to run job steps in the background. Steps include reports, other jobs, import, exports, and so on.

Table 7. IBM Cognos services (continued)

Service	Purpose
Log service	Records log messages generated by the dispatcher and other services. The log service can be configured to record log information in a file, a database, a remote log server, Windows Event Viewer, or a UNIX system log. The log information can then be analyzed by customers or by Cognos Software Services, including: • security events • system and application error information • selected diagnostic information
Metadata service	Provides support for data lineage information displayed in Cognos Viewer, Report Studio, Query Studio, and Analysis Studio. Lineage information includes information such as data source and calculation expressions.
Metric Studio service	Provides the Metric Studio user interface for monitoring and entering performance information
Migration service	Manages the migration from IBM Cognos Series 7 to IBM Cognos BI.
Monitor service	• Manages the monitoring and execution of tasks that are scheduled, submitted for execution at a later time, or run as a background task • Assigns a target service to handle a scheduled task. For example, the monitor service may ask the batch report service to run a report, the job service to run a job, or the agent service to run an agent. • Creates history objects within the content manager and manages failover and recovery for executing entries
Planning administration console service	Manages communication with the Contributor Administration Console.
Planning data service	Manages communications for real-time reporting from Contributor plan data in IBM Cognos BI.
Planning job service	Manages communications with the Planning Job Server subsystem.
Planning web service	Manages communications with Contributor Web and Contributor Add-in for *Excel* users.
PowerPlay service	Manages requests to run PowerPlay reports.

Table 7. IBM Cognos services (continued)

Service	Purpose
Presentation service	• Transforms generic XML responses from another service into output format, such as HTML or PDF • Provides display, navigation, and administration capabilities in IBM Cognos Connection
Query service	Manages Dynamic Query requests and returns the result to the requesting batch or report service.
Report data service	Manages the transfer of report data between IBM Cognos BI and applications that consume the data, such as IBM Cognos BI for Microsoft Office and IBM Cognos Mobile.
Report service	Manages interactive requests to run reports and provides output for a user in IBM Cognos Connection or a studio.
Statistics service	If you install IBM Cognos Statistics, the optional Statistics service is available in IBM Cognos Administration. The Statistics service computes statistical results using the integrated IBM SPSS® statistics engine. This service generates textual statistics and statistical visualizations.
System service	Defines the Business Intelligence Bus API-compliant service used to obtain application-wide IBM Cognos BI configuration parameters. It also provides methods that normalize and validate locale strings and map locale strings to locales supported by your application.

Stop and Start Dispatchers and Services

You can stop and start dispatchers and services manually. If a service stops responding, you must stop and restart it.

Each dispatcher and service can be

- started
- stopped immediately and delete all the requests that are running or queued, without completing those requests
- stopped after running and queued requests are processed

You can stop or start all dispatchers and services in the IBM Cognos environment at once.

When you start IBM Cognos software using the configuration tool, all dispatchers and services start unless they are disabled in the configuration tool. For more information, see the *Installation and Configuration Guide*.

By default, all services start when you restart the computer on which they are installed.

Before you begin

Stopping a service also stops all its processes. When you stop a dispatcher, all its services are stopped. If the suspended dispatcher has an active Content Manager, all users except administrators are locked out.

After a service is stopped, it has a suspended status Chapter 6, "System Performance Metrics," on page 87.

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu and find the dispatchers or services that you want.

   Click **All servers**, **All server groups**, or **All dispatchers**. To select a service, pause your pointer over **Services** and click the required service.
5. Click the arrow next to the dispatcher or service, and choose the action that you want to perform.

   Depending on the dispatcher or service, you can do the following:

Goal	Action
Start all dispatchers in system	With all servers displayed, in the upper right corner of the **Scorecard** pane, click the arrow to view the Group actions menu, and then click **Start dispatchers**. **Tip:** To apply an action to only some entries, select check boxes for one or more entries and then click the action that you want.
Start all dispatchers for a server group	With all server groups displayed, click the arrow to view the Actions menu next to the server group, and then click **Start dispatchers**.
Start all dispatchers for a server	With all servers displayed, click the arrow to view the actions menu next to the server, and then click **Start dispatchers**.
Start a specific dispatcher	With all dispatchers displayed, click the arrow to view the Actions menu next to the dispatcher, and then click **Start**.

Goal	Action
Start a specific service	With all services displayed, click the arrow to view the Actions menu next to the service, and then click **Start**.
Stop all dispatchers in system	With all servers displayed, in the upper right corner of the **Scorecard** pane, click the arrow to view the Group actions menu, and then click **Stop dispatchers immediately** or **Stop dispatchers after running and queue processed**.
Stop all dispatchers for a server group	With all server groups displayed, click the arrow to view the Actions menu next to the server group, and then click **Stop dispatchers immediately** or **Stop dispatchers after running and queue processed**.
Stop all dispatchers for a server	With all servers displayed, click the arrow to view the Actions menu next to the server, and then click **Stop dispatchers immediately** or **Stop dispatchers after running and queue processed**.
Stop a specific dispatcher	With all dispatchers displayed, click the arrow to view the Actions menu next to the dispatcher, and then click **Stop immediately** or **Stop after running and queue processed**.
Stop a specific service	With all services displayed, click the arrow to view the Actions menu next to the service, and then click **Stop immediately** or **Stop after running and queue processed**.

A dialog box appears and confirms the action.

6. Click **Close**.

Active Content Manager Service

You can manually activate a Content Manager service that is in standby mode.

One Content Manager service is designated to become active at startup. All other Content Manager services start up in standby mode. Only one Content Manager service can be active at any time.When you activate a service, any currently active service switches to standby mode.

You can also specify a Content Manager service which is currently standby as the default active service at startup.

You must have the required permissions to access **IBM Cognos Administration**. See Chapter 16, "Secured Functions and Features," on page 261.

Specify a Default Content Manager Service

You can specify a default content manager service.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **Services**, and then click **Content Manager**.
5. Click the arrow for the Actions menu next to the Content Manager service and click **Set as active by default**.

   Tip: Only Content Manager services that are not already the default have **Set as active by default** displayed in the Actions menu.

Activate a Content Manager Service

You can activate a specific content manager service.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Under **Services**, click **Content Manager**
5. Click the arrow to view the Actions menu next to the Content Manager service, and then click **Start**.

Remove Dispatchers from the Environment

You can remove a dispatcher if you no longer need it in the IBM Cognos environment.

You can stop the IBM Cognos service using IBM Cognos Configuration. This will stop the dispatcher as well. If you delete a dispatcher without stopping the IBM Cognos service first, the dispatcher will automatically be reinstated in 30 seconds.

Before you begin

To remove a dispatcher, you must first stop the dispatcher from the computer where it is installed. After stopping the dispatcher, you must then remove the dispatcher from the content store by unregistering it in IBM Cognos Administration.

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, “Secured Functions and Features,” on page 261.

Procedure

1. Stop the IBM Cognos service using IBM Cognos Configuration.

   This also stops the dispatcher. For information about stopping the IBM Cognos service, see the *Installation and Configuration Guide*.
2. Start IBM Cognos Connection.
3. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
4. Click the **Status** tab, and then click **System**.
5. Determine the dispatchers that you want to unregister. You can unregister all dispatchers in the system, unregister all dispatchers for a server, or unregister all dispatchers for a server group.

6. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Depending on the dispatchers you want to unregister, click **All servers**, **All server groups**, or **All dispatchers**.

Goal	Action
Unregister all dispatchers in system	With all dispatchers displayed, in the upper-right corner of the **Scorecard** pane, click the arrow to view the Group actions menu, and then click **Unregister dispatchers**. **Tip:** To apply an action to only some entries, select check boxes for one or more entries and then click the action that you want.
Unregister all dispatchers for a server	With all servers displayed, click the arrow next to a server to view the Actions menu, and then click **Unregister dispatchers**.
Unregister all dispatchers for a server group	With all server groups displayed, click the arrow next to a dispatcher to view the **Actions** menu, and then click **Unregister dispatchers**.
Unregister a specific dispatcher	With all dispatchers displayed, click the arrow next to a dispatcher to view the **Actions** menu, and then click **Unregister**.

   A dialog box appears to confirms the action.
7. Click **OK**.
   The dispatcher information is removed from the content store.

Group Dispatchers in Configuration Folders

Configuration folders are useful to organize dispatchers if your installation includes many dispatchers. You can group dispatchers so that you can apply the same configuration settings once to all the dispatchers and services in the folder.

When you add a dispatcher to a configuration folder, it automatically inherits the configuration settings of the folder. However, if you previously changed the default values of that dispatcher or service, the changed values are kept.

When you change the configuration settings of a dispatcher or configuration folder, the services for the dispatcher and any child entries for the folder automatically acquire the new values. However, if you change the values of the services, the changed values are kept.

You can create a new configuration folder at the root of the Configuration area or in an existing configuration folder.

Tips

- To view and edit the configuration properties of the parent of an entry shown in the path on the toolbar, click the **Set properties - Configuration** button  .

You can change and apply configuration settings for all the dispatchers and services in the Configuration area when you are in the root of the Configuration area.

- Use the path on the toolbar to explore the different levels of your configuration. The path starts with Configuration and, when the path becomes too long, it wraps.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.
4. Click the new folder button.
5. Type a name and, if you want, a description, and specify where to save the configuration folder.
6. Click **Finish**.

   You can now add dispatchers to the configuration folder by cutting them from their original location and then pasting them inside the folder. You can also change settings at the configuration folder level.

   Tip: To move a dispatcher to another folder, click **More** next to the dispatcher and then click **Move**.

Advanced Dispatcher Routing

Depending on how your system is set up, you may want to control how reports are distributed among servers.

For example, you have different departments that maintain their own servers, or you have specific servers set up for specific data access, such as Microsoft Windows servers for Microsoft SQL Server databases and Linux servers set up for DB2 access. You can set up IBM Cognos software so that report requests are processed by specific servers by applying routing rules.

Affinity settings take precedence over advanced routing settings. For more information, see "Maximum Number of Processes and Connections" on page 132.

When you define the routing rules, you must select a server group. Server group names are a property of a dispatcher or the configuration folders into which the dispatchers are organized. For more information to set server group names, see "Set Server Group Names for Advanced Dispatcher Routing" on page 127.

To determine which server groups process certain reports, you must associate keywords with packages and user roles or groups, and then specify how the keywords are distributed among the dispatchers in your environment. The distribution is controlled by routing rules that you create for the routing keywords. The report request will be processed by a specific server depending on the keywords associated with the package from which the report was created and/or the user or group running the report.

When you create the routing rules, you create conditions that determine the server groups by which the reports are to be processed. For example, you can set up routing rules so that reports from a Finance package made by a user in the Finance group are processed by Finance servers. Alternatively, you can set up routing rules so that reports by any Sales users, regardless of which package was used to create the report, are processed by Sales servers. In the first example, you would specify keywords for both user role or group and package, but in the second you would only specify a keyword for user role or group and leave the package keyword blank. You do not have to specify a keyword for both package and user role or group in your routing rules.

You set up the routing keywords and the routing rules using IBM Cognos Connection.

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Set Routing Keywords for Packages

You can set routing keywords for packages.

Procedure

1. In IBM Cognos Connection, click the **Public Folders** tab.
2. Click the set properties button  for a package.
3. Under **Advanced routing**, click **Set**.

   The **Assign routing sets** page appears.
4. Type a routing keyword for the package in **Type routing sets**, and click **Add**.
5. Repeat step 4 to add other routing keywords that you want to apply to the package. Separate each keyword with a semi-colon, for example, Red;Blue;Green;

   The order in which the routing keywords are added does not matter.
6. Click **OK**.

   The routing keywords are displayed under **Advanced routing**.
7. On the **Set properties page**, click **OK**.

Set Routing Keywords for User Roles or Groups

You can set routing keywords for user roles or groups.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. Click the **Security** tab, and then click **Users, Groups, and Roles**.
4. Click the namespace to display the roles.
5. Click the set properties button  for a role or group.
6. Under **Advanced routing**, click **Set**.

   The **Assign routing sets** page appears.
7. Select a routing keyword for the users role or group in **Select routing sets**, or type it in **Type Routing Sets**, and click **Add**. If you are typing, separate each keyword with a semi-colon, for example, Red;Blue;Green;.

8. Repeat step 7 to add other routing keywords that you want to apply to the users role or group.

   The order in which the routing keywords are added does not matter.
9. Click **OK**.

   The routing keywords are displayed under **Advanced routing**.
10. On the **Set properties page**, click **OK**.

Set Routing Keywords for Server Groups

You can set routing keywords for server groups.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.

   The dispatchers and any configuration folders that have been created are shown.

   Note: You can only apply routing rules to server groups. Server groups are a property of dispatchers or configuration folders, and must be set up before you can set routing keywords for server groups. For more information, see "Set Server Group Names for Advanced Dispatcher Routing" on page 127.
4. Click the specify routing rules button  .

   The **Specify the routing rules** page appears.
5. Click **Add a rule**.
6. Select the **Package routing set**, **Group routing set**, **Role routing set**, and **Server group** that you want.
7. In the **Actions** column, click the View the members button to see an overview of the members.
8. To change the order of routing rules, click Modify the sequence, and then the item you want to move and click **Up**, **Down**, **To top**, or **To bottom**.

   Note: Unlike routing keywords, the order in which the routing rules are listed affects how they are applied. A rule is matched when properties associated with the package and/or the user or group involved in the request satisfy the criteria of the rule. The rules are evaluated in order until the first one is matched, and the request is routed to the server group named by the first rule that was matched. You can change the order of the rules by clicking **Modify the sequence**.
9. Click **OK**.

Specify Gateway Mappings for IBM Cognos Series 7 PowerPlay Data

You can specify the location of a Series 7 PowerPlay server.

IBM Cognos for Microsoft Office users may send requests to Report data service (RDS) for data that resides on a Series 7 PowerPlay server. Report data service (running on the IBM Cognos application server) communicates with Series 7 PowerPlay through the Series 7 PowerPlay Enterprise Server gateway.

If the network configuration prohibits application server access to the Web tier server that hosts the Series 7 PowerPlay Enterprise Server gateway, then a second

internal Series 7 PowerPlay Enterprise Server gateway must be installed in the application server tier. In this type of configuration, you can specify the location of the Series 7 PowerPlay server.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **Services**, and then click **Report data**.
5. Click the arrow next to **reportDataService** to view the Actions menu, and then click **Set properties**.
6. Click the **Settings** tab.
7. In the **Value** column, click **Edit** for Gateway mappings.
8. Click the check box **Override the settings acquired from the parent entry**.
9. Click **Add a mapping**.
10. For **Application gateway (external)**, type the address of the Web server.
11. For **Application gateway (internal)**, type the address of the Series 7 PowerPlay server.
12. Click **OK**.

Rename Dispatchers

As a security measure, you can rename dispatchers if you do not want to reveal the host computer name, port number, servlet, or path of the dispatcher.

For more information, see “Securing Dispatchers” on page 117

Typically, server administrators can view and change the name of dispatchers.

We recommend that when renaming a dispatcher, you do not use any information that reveals the host computer name or port, or other system or path information. However, it is important to remember where the dispatcher is installed, for monitoring purposes.

Tip: If you rename a dispatcher and need to access the host, port, and path information, you can use the Software Development Kit methods to find this information in the dispatcherPath property of the Dispatcher Object.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **All dispatchers**.
5. Click the arrow next to the dispatcher to view the Actions menu, and then click **Set properties**.
6. In the **Name** box, type the new name for the dispatcher.

   Use a meaningful name to help you distinguish dispatchers. Do not reveal system information in the name.
7. If you want, add a screen tip and description information.

8. Click **OK**.

Test Dispatchers

To evaluate how IBM Cognos software is performing, you can test the status of dispatchers.

You can also ensure that the dispatchers are responding and view the uptime, which is the time in seconds during which the dispatchers are working without failure.

You can view the status of dispatchers and service and review log messages.

Before you begin

When you test a dispatcher, you also test the services that belong to that dispatcher.

You must have the required permissions to access **IBM Cognos Administration** Chapter 16, “Secured Functions and Features,” on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. Determine the dispatchers that you want to test then follow the instructions in this table. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu and then click the items you want to display.

Goal	Action
Test all dispatchers in system	With all servers displayed, in the upper right corner of the **Scorecard** pane, click the arrow to view the Group actions menu, and then click **Test**. **Tip:** To apply an action to only some entries, select check boxes for one or more entries and then click the action that you want.
Test all dispatchers for a server group	With all server groups displayed, in the upper right corner of the **Scorecard** pane, click the arrow to view the Group actions menu, and then click **Test dispatchers**.
Test all dispatchers for a server	With all servers displayed, click the arrow next to the server to view the Actions menu, and then click **Test**.
Test a specific dispatcher	With all dispatchers displayed, click the arrow next to the dispatcher to view the Actions menu, and then click **Test**.

   A dialog box appears and confirms the action.
5. Click **OK**.

If dispatchers are not performing as they should, you can tune server performance by changing their configuration settings. For more information, see "Tune Server Performance" on page 126.

Failover for Multiple Dispatchers

In a distributed IBM Cognos software installation, you can configure each of your gateway components to communicate with more than one dispatcher for failover purposes.

The gateway components scan their associated dispatchers to ensure that requests are routed to dispatchers that are in service and responding correctly. You can set the frequency with which these scans are executed.

For information about configuring multiple dispatcher, see the "Configuring Gateway Computers" topic in the *Installation and Configuration Guide*.

Set the Frequency of Dispatcher Status Scans

You can specify how often dispatchers are scanned to determine their current status for failover purposes.

Use the following parameters:

- ConnectionCheckingSleepTime

  Specifies, in seconds, the interval between scans for the state of dispatchers.

  Valid settings are 1 to 2147483647. Settings less than 5 may consume too many resources (CPU time and network bandwidth). The default setting is 30.
- ConnectionCheckingQuickSleepTime

  Specifies, in seconds, the interval between scans when no operational dispatchers are found. This value of this parameter must be less than ConnectionCheckingSleepTime.

  Valid settings are 1 to 2147483647. Settings less than 5 may consume too many resources (CPU time and network bandwidth). The default setting is 5.

Procedure

1. Copy the *c10_location*/cgi-bin/cognoscgi.conf.sample file to *c10_location*/bin and rename it cognoscgi.conf.
2. Open the cognoscgi.conf file in an editor that can save files in UTF-8 format.
3. Add the following lines to the file:

   ```
   ConnectionCheckingSleepTime=time in seconds
   ConnectionCheckingQuickSleepTime=time in seconds
   ```
4. Save the cognoscgi.conf file in UTF-8 format.

Set the Frequency of Dispatcher Scans for a Servlet Gateway

If you use Servlet Gateways, you can specify how often they scan dispatchers for their current status. Traffic is routed to another dispatcher if the first one fails.

Use the following parameters:

- pingPeriod

  Specifies, in seconds, the interval between scans for the state of dispatchers.

  Valid settings are 1 to 2147483647. Settings less than 5 may consume too many resources (CPU time and network bandwidth). The default setting is 180.
- fileCheckPeriod

Specifies, in seconds, the interval between startup configuration file checks for new dispatchers.

Valid settings are 1 to 2147483647. The default is 30.

For information about gateways and URIs, see the *Installation and Configuration Guide*.

Procedure

1. Open the Servlet Gateway web.xml file, located either in *c10_location*/war/gateway/ or in the deployment directory of the servlet, depending on which server you are using, in an editor that supports saving files in UTF-8 format.
2. Change the values for the parameters as required.

```
<!-- The number of seconds between pings to dispatcher
-->
   <param-name>pingPeriod</param-name>
   <!-- A non-zero positive integer -->
   <param-value>180</param-value>
  </init-param>
  <init-param>
   <!-- The number of seconds between checking the startup file
for changed dispatchers -->
   <param-name>fileCheckPeriod</param-name>
   <!-- A non-zero positive integer -->
     <param-value>30</param-value>
      </init-param>
```

3. Save the web.xml file in UTF-8 format.

Securing Dispatchers

You can change the default dispatcher name to avoid security risks.

Users of IBM Cognos software can enter XPath search paths in the address field of a Web browser or in hyperlinks. The users can input any search path syntax against search path parameters in the user interface. IBM Cognos software relies on the Content Manager Access Control List (ACL) to check the objects that are returned to the user.

In some cases, malicious users could see the dispatcher name in IBM Cognos Connection. This can pose a security risk, even though the users cannot click the dispatcher name or perform any actions on it.

To avoid this type of security risk, change the default dispatcher name. The default dispatcher name is *computer_name*:9300 and it can be changed to, for example, *server1* to mask the port number and host name. For more information, see "Rename Dispatchers" on page 114

For more information about other security technics used in IBM Cognos Connection, see the *Architecture and Deployment Guide*.

Specifying the dispatchers to host the JMX proxy server

Administrators can create a list of one or more dispatchers as candidates to host the Java Management Extensions (JMX) proxy server. This helps reduce the number of threads required to collect JMX metrics and increases the number of threads that are available for content manager.

The JMX Proxy server communicates with dispatchers and collects their JMX metrics. This communication requires approximately four threads per dispatcher. A

distributed install with a large number of dispatchers requires a large volume of threads, which impacts the performance of content manager. To resolve this issue and enhance the performance of content manager, administrators can choose one or more dispatchers as candidates to host the Java Management Extensions (JMX) proxy server.

Choosing dispatchers

Since IBM Cognos Administration uses the presentation service and has a connection to the proxy server, choose dispatchers that are running the presentation service. This provides local calls to the proxy server.

Use IBM Cognos Administration to create a list of one or more dispatchers to host the Java Management Extensions (JMX) proxy server. The dispatcher that is at the top of the list and is currently running is the dispatcher that is chosen to host the JMX proxy service.

If none of the dispatchers in the preferred list are running then any random available dispatcher is chosen to host the JMX proxy server. Note that this is the default behaviour if you do not create a list of dispatchers.

Editing JMX Host Dispatchers

Use IBM Cognos Administration to add one or more dispatchers to the list of dispatcher candidates that can be the host for the Java Management Extensions (JMX) proxy server.

Procedure

1. Launch IBM Cognos Administration.
2. On the **Status** tab, click **System**.
3. In the upper left corner of the **Scorecard** pane, click the arrow to view the Change view menu, and click **System**.
4. From the drop-down list, click **Set properties**. The **Set properties** page appears.
5. Click the **Settings** tab.
6. Click **Edit** to set the **JMX Proxy host dispatchers**. The **Set JMX Proxy host dispatchers configuration** page appears.
7. Click **Add** to add a dispatcher.
8. Select the dispatchers that you want to add.
9. Click the right-arrow button and when the entries you want appear in the **Selected entries** box, click **OK**.
10. Click **OK**.
11. Click **Up**, **Down**, **To top**, or **To bottom** to order the dispatchers.
12. Click **OK**.

Results

The dispatcher that is at the top of the list and is currently running is the dispatcher that is chosen to run the JMX proxy service. You can change the order of the dispatchers at any time. If none of the dispatchers in this list are running, then any random available dispatcher is chosen to host the JMX proxy server.

Content Manager Locations

Your installation may include more than one Content Manager, each on a different location. One Content Manager computer is active and one or more Content Manager components are on standby.

Ensure that the clocks on each computer where Content Manager is installed are synchronized. If they are not, you may experience odd behavior if a failover occurs. For example, there may be a delay before the status of a newly disabled server is updated in IBM Cognos Administration. For more information about Content Manager, see the *Installation and Configuration Guide*.

For more information on setting Content Manager parameters, see "Setting Advanced Content Manager Parameters."

You must have the required permissions to access **IBM Cognos Administration** functionality Chapter 16, "Secured Functions and Features," on page 261.

Setting Advanced Content Manager Parameters

You can set advanced Content Manager parameters.

Advanced Content Manager parameters include settings for the database connection pool, sorted entries for non-English locales, synchronization, and browsing of external namespaces.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **Services**, and then click **Content Manager**.
5. Click the arrow next to **ContentManagerService** to display the Actions menu, and then click **Set properties**.
6. Click the **Settings** tab.
7. Click **Edit** next to **Advanced Settings**.
8. Select **Override the settings acquired from the parent entry**.
9. In the **Parameter** column, type the parameter name.
   For example, type **CM.DbConnectPoolCleanUpPeriod**.
10. In the **Value** column, type the associated value for the setting.
11. Continue typing setting names and values as required.
12. Click **OK**.
13. On the **Set properties** page, click **OK**.

Managing Database Connection Pool Settings for Content Manager

Content Manager uses database connections to access the content store. You can change connection pool settings for Content Manager to increase performance.

With pooled connections, Content Manager does not have to create and open connections for new requests. This provides faster response times. However, pooled connections reserve database resources, so idle connections should be closed if they are not needed.

You can manage the number of connections to the content store by limiting the maximum number of connections and by specifying how long connections stay in the pool before they are automatically closed.

The following parameters are available:

- **CM.DbConnectPoolMax**

  Specifies the maximum number of concurrent database connections that the content store allows.

  This parameter applies only to the Content Manager connection pool settings. If you have other services that access the same content store, there may be more concurrent database connections than specified in this parameter.

  The valid settings are -1, or 5 to 2147483647, or the database setting, whichever is less. The default is -1 (unlimited).

- **CM.DbConnectPoolTimeout**

  Specifies in milliseconds the maximum length of time that a thread waits for a connection to be available from the pool.

  The valid settings are -1 to 2147483627. A setting of 0 specifies that threads never wait for a connection if one is not available immediately. The default is -1 (unlimited).

- **CM.DbConnectPoolIdleTime**

  Specifies in milliseconds the minimum length of time that a connection stays idle in the pool. This parameter is used only if the value of the DbConnectPoolCleanUpPeriod setting is positive.

  The valid settings are -1 to 2147483647. A setting of 0 or -1 specifies that idle connections are closed when Content Manager restarts. The default is 300000 (5 min).

- **CM.DbConnectPoolCleanUp Period**

  Specifies in milliseconds the length of time between invocations of a cleanup thread that closes idle connections in the pool that exceed the setting of DbConnectPoolIdleTime.

  The valid settings are -1 to 2147483647. The default is 300000 (5 min).

Sorting Entries for Non-English Locales

You can correct sorting problems in IBM Cognos Connection in locales other than English for an Oracle or Microsoft SQL content store..

To correct a sorting problem, use the CM.SortCollation parameter. For example, to sort entries in an Oracle database using a Chinese phonetic collation, set CM.SortCollation parameter to SCHINESE_PINYIN_M.

For information about supported collations, see the Oracle and SQL Server documentation. Setting the CM.SortCollation value has no effect on Content Manager running against DB2 or Sybase databases.

Managing Content Manager Synchronization

If your installation includes standby Content Manager computers, you can set parameters that specify Content Manager standby activities.

You can specify how often checks occur to ensure that the active dispatcher has not failed, how long it takes to determine which Content Manager is active when failover occurs and at startup, how often an active Content Manager sends a response when it is busy, and how long a short network interruption can be without causing a failover.

The following parameters are available:

- **CM.CMSync_NegotiationTime**

  Specifies in milliseconds the length of time that it takes to determine the active Content Manager when a failover occurs.

  The valid settings are 1 to 9223372036854775807. The default is 2000.
- **CM.CMSync_NegotiationTimeForStartUp**

  Specifies in milliseconds the length of time that it takes to determine the active Content Manager at startup.

  The valid settings are 1 to 9223372036854775807. The default is 60000.
- **CM.CMSync_CheckActive Time**

  Specifies in milliseconds the length of time that it takes for an active Content Manager to become standby when another Content Manager becomes active.

  The default is 10000.
- **CM.CMSync_PingTimeout**

  Specifies in milliseconds the length of time that it takes for a busy Content Manager to send a response if it is running.

  The valid settings are 1 to 9223372036854775807. The default is 120000.
- **CM.CMSync_ShortNetworkInterruptionTime**

  Specifies in milliseconds the length of time that a short network interruption can occur without causing a failover.

  The valid settings are 1 to 9223372036854775807. The default is 3000.

Control Browsing of External Namespaces

You can control whether users can browse external namespaces.

When the CM.SecurityQueryRequiresRead setting is set to true, the Content Manager prevents browsing of external namespaces when the external namespace policy is updated to deny read permissions to users or groups. This setting controls whether the Content Manager forces a read permission filter for external namespace query results. The default is false.

Set the Cache Size Limit for the Content Manager Cache

You can specify the upper limit of the cache size, as a percentage of the JVM heap size.

The default is 10%. Valid values are 0 to 100. Increasing the cache size can reduce the load on the Content Manager, allowing it to serve more distributed nodes. However, setting this value too high may cause out-of-memory errors in the dispatcher.

Setting the value to 0 (zero) disables the cache system-wide, sending all query requests directly to the Content Manager, which may degrade system performance. However, this is useful for comparing performance with and without the cache.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow next to **All servers** to view the **Change view** menu, then select **Services**, **Content Manager Cache**.

5. Click the arrow next to **ContentManagerCacheService** to display the **Actions** menu, and then click **Set properties**.
6. Click the **Settings** tab.
7. In the **Value** column, change the number for **Heap limit for the content manager cache service**.
8. Type the setting that you want, and click **OK**.

Reduce the Content Manager Load by Storing User Session Files Locally

You can change the location where user session files are stored.

When a user runs an interactive report, the report server sends a request to the Content Manager, asking it to store the report output in the session cache for the user. Such report output may be in one of the following formats: PDF, HTML with images, Microsoft Excel speadsheet software, CSV, or XML.

To reduce the processing load on the Content Manager, user session files are stored on the report server local file system. By default, this location is on the report server. You can change the location to a remote computer, such as a shared directory on Microsoft Windows operating system or a common mounted directory on UNIX operating system. For more information, see the topic about changing the location of temporary report output in the *Installation and Configuration Guide*.

If you're upgrading, user session files are stored in Content Manager. You will need to change the report server local file system if you want to reduce the Content Manager load.

Storing temporary files might result in increased disk usage. Make sure to allocate sufficient space for the files.

This will not interfere with older versions of applications, such as Software Development Kit, which still send requests to the Content Manager.

The following parameters are available:

- **Temporary objects location**

  Specifies the location of temporary cache files. To store the temporary cache files on the report server, select **ServerFileSystem**. To store the temporary cache files on the Content Manager, select **ContentStore**.

  The default is **ServerFileSystem**.

- **Temporary objects lifetime**

  Specifies in hours the length of time that temporary cache files are kept. If you set this to zero, files are kept until they are manually deleted.

  This setting is used only by the dispatcher. The report server deletes temporary cache files when the browser is closed or when the user clicks the back button in the browser. If the report server does not delete the files, the dispatcher uses this setting to delete the files.

  The default is 4 hours.

There is also a setting in Cognos Configuration for encrypting temporary files, which is not affected by the **Temporary objects lifetime** or the **Temporary objects location** settings. For more information, see the *Installation and Configuration Guide*.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.
4. Click the **Set Properties - Configuration** button  in the upper right corner then click **Settings**.
5. From the **Category** menu, click **Tuning**.
6. Change the settings for **Temporary objects location** and **Temporary objects lifetime**, as required.
7. Click **OK**.

Override the (Default) Locale Processing in the Prompt Cache

You can override the locale processing in the prompt cache for all reports.

When the RSVP.PROMPTCACHE.LOCALE parameter is set, the specified locale is used instead of the locale specified in the report whenever prompt cache data is created, updated, or used. This means that a single prompt cache is used for each report regardless of the report user's locale.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu, and then click **Services** and click **Report**.
5. Click the arrow next to **ReportService** to display the Actions menu and click **Set properties**.
6. Click the **Settings** tab.
7. Click **Edit** next to **Advanced Settings**.
8. Select **Override the settings acquired from the parent entry**.
9. In the **Parameter** column, type **RSVP.PROMPTCACHE.LOCALE**.
10. In the **Value** column, type the associated value for the setting.
11. Click **OK**.
12. On the **Set properties** page, click **OK**.

Maintain the Content Store

You can create content maintenance tasks and run them on demand, at a scheduled time or based on a trigger.

For example, a database refresh or an email “Trigger-based Entry Scheduling” on page 349. You can schedule content maintenance tasks as part of a job “Use Jobs to Schedule Multiple Entries” on page 346, or as part of an agent Chapter 28, “Agents,” on page 441. You can also view the run history of content maintenance tasks “View the Run History for Entries” on page 338.

You can find and fix inconsistencies within the content store or between the content store and external namespaces.

Content maintenance tasks can check for inconsistencies within the content store due to missing data or obsolete data or between the content store and external namespaces.

If necessary, you can also start and stop background tasks that are running in the content store.

Before You Start Internal Content Store Maintenance

To ensure that you do not lose any data that you wanted to keep, you should choose the find mode first and check the results before fixing the content store.

Missing data within the content store may cause updates to fail. Obsolete data may prevent you from creating new objects. When a content store maintenance task fixes the content store, it adds default values for the missing data, which you can update later. It also permanently deletes any obsolete data.

When you find and fix the data, the content store is not fixed while the content maintenance task is running. Instead, Content Manager fixes the inconsistencies in the content store the next time it starts up.

Important: After you run a content maintenance task to find and fix the content store, back up your content store before you restart Content Manager.

We recommend that you perform internal maintenance checks regularly, but it is particularly important to do so before you upgrade, to ensure the consistency of the content stores.

Content Store Maintenance on External Namespaces

You can use IBM Cognos Administration for content store maintenance on external namespaces.

When you delete users in your authentication provider, the user account information remains in the content store. You can use the IBM Cognos Administration to find user information that still exists in the content store and fix the content store by deleting any users that do not exist in your external namespaces. You can also delete individual user profiles from the content stores.

If you want to run a content maintenance task on more than one namespace, do one of the following:

- If you want to run the content maintenance task now, simply log on to the namespaces and create the content maintenance task.
- If you want to schedule a content maintenance task to run in the future or on a recurring basis, keep in mind that a scheduled content maintenance task runs against the namespaces that you select when you create the content maintenance task. Before you schedule a content maintenance task, ensure that your credentials contain logon information for each namespace by renewing the credentials after you log on to every namespace that you select to run the content maintenance task against.

  Tip: Click **My Area Options**, **My Preferences**, click the **Personal** tab, and then click **Renew the credentials**.

You must have access permissions for each selected external namespace and read permissions for all user accounts in each external namespace. If you do not have read permissions for a user account, it is assumed that the user was deleted from

the namespace. When you run a content maintenance job, the user information in the content store is either listed as inconsistent (for **Find only** or automatically deleted (for **Find and fix**).

You must have the required permissions to access **IBM Cognos Administration**. For more inforamtion, see Chapter 16, "Secured Functions and Features," on page 261.

Create a Content Store Maintenance Task

You can create a content store maintenance task.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Content Administration**.
4. Click the arrow on the new content maintenance button  on the toolbar, and then click **New Consistency Check**.
5. Type a name and, if you want, a description and screen tip, and click **Next**.
6. Choose the consistency check that you want:
   - To check the content store for inconsistencies, click **Internal references**.
   - To run content maintenance on namespaces, click **References to external namespaces** and select the namespaces that you want.
7. Click **Next**.
8. Choose the action that you want:
   - To run the task now or later, click **Save and run once** and click **Finish**. Specify a time and date for the run. Click **Find only** or **Find and fix**, and then click **Run**. Review the run time and click **OK**.
   - To schedule the task at a recurring time, click **Save and schedule** and click **Finish**. Then, select frequency and start and end dates. Click **Find only** or **Find and fix** and click **OK**.

     Tip: To temporarily disable the schedule, select the **Disable the schedule** check box. To view the schedule status, see "Manage Scheduled Activities" on page 335.
   - To save the task without scheduling or running, click **Save only** and click **Finish**.

Run a Content Store Maintenance Task

You can run a content store maintenance task.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Content Administration**.
4. Click **Run with options** next to the content maintenance task.
5. Select the **Now** check box to run the content maintenance task immediately or the **Later** check box to set a day and time.
6. Click **Find** or **Find and fix**.
7. Click **Run**.

Starting and stopping background activities

You can start and stop background activities that are running on content manager. Stopping background decreases the processing load on content manager, allowing performance to increase. You can start background activities after content manager completes the job that required a higher volume of resources.

About this task

The stage needs to be set just so.

Procedure

1. Launch IBM Cognos Administration.
2. On the **Status** tab, click **System**.
3. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Under **Services**, click **Content Manager**
4. Click the arrow to view the Actions menu next to the Content Manager service, and then click **Start**.

Migrating PowerPlay Reports Published to IBM Cognos BI

You can migrate IBM Cognos Series 7 PowerPlay reports published to IBM Cognos Connection to Report Studio or Analysis Studio.

Use the Open With Analysis Studio or Open With Report Studio functionality. The migration tools must already be installed.

For information about migrating PowerPlay reports or installing migration components, see the IBM Cognos Business Intelligence Migration Assistant or the IBM Cognos PowerPlay documentation.

Tune Server Performance

You should include performance tuning as a regular part of administering servers.

By tuning the configuration settings of dispatcher and services, you can optimize the speed and efficiency of IBM Cognos software. For users, optimal performance means that their reports run fast and without errors. For you, it means that IBM Cognos software is stable and that the users are happy.

Ideally, you want to tune the servers to meet the user demand at the peak usage times.

You may need to add dispatchers to your installation to meet the demands of users. Or, you may need to distribute your installation or upgrade the computer on which IBM Cognos software is installed. For more information, see the *Installation and Configuration Guide* and the *Architecture and Deployment Guide*.

The level of logging "Set Logging Levels" on page 74 can affect performance. When IBM Cognos software logs more detail, more resources are allocated to logging and fewer resources are then available to run reports.

Before you change any settings, ensure that you tested dispatchers, and reviewed the pertinent log messages "Log Messages" on page 71. For more information on

testing dispatchers, see "Test Dispatchers" on page 115. You should also understand your performance requirements.

Models

Ensure that your models are optimized for reporting. For more information, see the Framework Manager *User Guide*.

Operating Systems

How IBM Cognos software performs is tightly related to the performance of the operating system of the computer where IBM Cognos software is installed. Therefore, it is important to ensure that your operating system is tuned.

Set Server Group Names for Advanced Dispatcher Routing

If you intend to define routing rules for reports, you must set server group names for the dispatchers or configuration folders to which you want reports to be routed.

For information defining routing rules, see "Advanced Dispatcher Routing" on page 111.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **All dispatchers**.
5. Click the arrow for the Actions menu next to the dispatcher and click **Set properties**.
6. Click the **Settings** tab.
7. Select **Tuning** from the **Category** list.
8. Type a name in the **Value** column for the **Server Group** property.
9. Click **OK**.

   You can use this server group name when you define routing rules.

Balance Requests Among Dispatchers

If your installation includes more than one dispatcher, you can specify the proportion of requests that each dispatcher handles by changing their processing capacity.

This is commonly referred to as load balancing. You typically set the capacity for a dispatcher based on the CPU speed of the computer where it is installed.

For example, a first dispatcher is installed on a 2 GHz computer and a second dispatcher on a 1 GHz computer. You set the processing capacity of the first dispatcher to 2.0 and the second to 1.0. The first dispatcher handles two-thirds of the requests while the second handles one-third of the requests. If you set the capacity of both dispatchers to 1.0, requests are sent to each dispatcher alternately.

The default processing capacity for each dispatcher is 1.0.

Affinity settings take precedence over balance request settings. For more information, see “Maximum Number of Processes and Connections” on page 132.

You can also control dispatcher load balancing by setting the in-progress request factor. See “Balance Dispatcher Load with In-Progress Request Factor.” You can also turn off the weighted round robin format of load balancing for the dispatcher. See “Use Cluster Compatible Mode for Dispatchers” on page 130.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, “Secured Functions and Features,” on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. Click the arrow for the Actions menu next to **System** and click **Set properties**.
5. Click the **Settings** tab.
6. Select **Tuning** from the **Category** list.
7. In the **Value** column, type a new value for the **Processing capacity**, and then click **OK**.

   The new value takes effect immediately.

Balance Dispatcher Load with In-Progress Request Factor

You can set the in-progress request factor to provide feedback to the round robin algorithm, telling it how well each dispatcher is doing.

The weighted round robin format of load balancing treats all requests as equal, and all dispatchers as equally capable of handling the number of requests that they receive. However, different requests require more or less processing power. Dispatchers also run on different servers, with different processing capabilities. For example, if a dispatcher falls behind because it is running on a slower server or because it is getting a lot of requests that require a lot of processing power, the round robin format still treats all dispatchers the same. Dispatchers that start to fall behind have a higher number of in-progress requests in their queue. The round robin algorithm can use this information to avoid sending new requests to those dispatchers until they're no longer overloaded.

The inProgressRequestFactor advanced setting controls how much feedback is sent to the round robin algorithm. The larger the value, the less likely it is that a node with more in-progress requests will be used. Our research shows that the ideal amount of feedback is the default value of 2.0. To use a simple round robin format, set it to 0.0 at a system level.

You can set the value at the system level or at the service level. The system level setting is used as the default for all services. The service settings take precedence over the system level setting.

You can also control dispatcher load balancing by setting capacity processing. See “Balance Requests Among Dispatchers” on page 127. You can also turn off the weighted round robin format of load balancing for the dispatcher. See “Use Cluster Compatible Mode for Dispatchers” on page 130. You must have the required

permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Set the In-Progress Request Factor Property System-Wide

You can set the in-progress request factor property for all services.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. Next to **System,** click the arrow for the Actions menu, and click **Set properties**.
5. Click the **Settings** tab.
6. Next to **Advanced Settings**, click **Edit**.
7. Select **Override the settings acquired from the parent entry**.
8. To set a system-wide default to be used by all services, in the **Parameter** column, type **DISP.default.inProgressRequestFactor**
9. In the **Value** column, type the associated value that will be used as a default for all services.
10. Click **OK**.
11. On the **Set properties** page, click **OK**.

    The new value takes effect immediately.

Set the In-Progress Request Factor Property for a Specific Service

You can set the in-progress request factor property for a specific service.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the **Change view** menu. Click **Services**, then click the service that you want.
5. Next to the dispatcher, click the arrow for the **Actions** and click **Set properties**.
6. Click the **Settings** tab.
7. Next to **Advanced Settings**, click **Edit**.
8. Select **Override the settings acquired from the parent entry**.
9. In the **Parameter** column, type **DISP.<service_name>.inProgressRequestFactor**, where <service_name> is the name of the service.

   For example, for report service, type **DISP.reportService.inProgressRequestFactor**.
10. In the **Value** column, type the associated value that will be used as a default for the service.
11. Click **OK**.
12. On the **Set properties** page, click **OK**.

    The new value takes effect immediately.

Use Cluster Compatible Mode for Dispatchers

If your IBM Cognos servers operate within a load balancing infrastructure, you can turn off the weighted round robin format of load balancing for the dispatcher.

If you don't set this parameter, load balancing may be duplicated by the cluster and by IBM Cognos software, which can degrade performance.

You can set the dispatcher property named loadBalancingMode either to weightedRoundRobin or clusterCompatible.

In weightedRoundRobin mode, the dispatcher sprays requests in a weighted round fashion, according to the configuration settings for the dispatcher. For more information, see "Balance Requests Among Dispatchers" on page 127. This is the default mode.

In clusterCompatible mode, non-affinity requests are processed locally if possible. If there is no service on the local dispatcher, the request fails. This ensures that IBM Cognos software respects any load balancing performed by your own load balancing infrastructure.

You can set the loadBalancingMode property for single dispatchers or for a group of dispatchers in a configuration folder. For more information, see "Group Dispatchers in Configuration Folders" on page 110. Because it is an inherited property, you can move dispatchers to a configuration folder and set the loadBalancingMode property for the folder to quickly set the property for a group of dispatchers.

You can also control dispatcher load balancing by setting the in-progress request factor, see "Balance Dispatcher Load with In-Progress Request Factor" on page 128, or by setting capacity processing, see "Balance Requests Among Dispatchers" on page 127.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. Click the arrow for the Actions menu next to **System** and click **Set properties**.

   Tip: You can also change the load balancing setting at the dispatcher level.
5. Click the **Settings** tab.
6. Select **Tuning** from the **Category** list.
7. In the **Value** column, select the value for the **Load Balancing Mode**, either Weighted Round Robin or Cluster Compatible, and then click **OK**.

   The new value takes effect immediately.

Balance the Data Movement Task Execution Load

To improve server performance, you can balance the execution load when more than one IBM Cognos software instance is running the Data movement service.

Some data movement tasks, such as JobStreams, are comprised of multiple processes. When such a task runs, the default is for all processes to run on a single instance of the Data movement service.

You can use the DMS.DistributeBuilds setting to distribute the DM Fact Build and Dimension Build JobStream nodes over several instances of the Data movement service. For more information, refer to your Data Manager documentation.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **Services**, and then click **Data Movement**.
5. Click the arrow next to **Data Movement** to view the Actions menu, and then click **Set properties**.
6. Click the **Settings** tab.
7. Click **Edit** next to **Advanced Settings**.
8. Select **Override the settings acquired from the parent entry**.
9. In the **Parameter** column, type **DMS.DistributeBuilds**.
10. In the **Value** column, type **TRUE** to enable data movement load balancing.
11. Click **OK**.
12. On the **Set properties** page, click **OK**.

Set Usage Peak Periods

You can specify the start and end hours of the peak demand period for your organization.

Most organizations have a period of peak demand. This period is usually during business hours when employees are at work and run interactive reports.

During the peak period, you may want to set the number of connections and processes low enough so that jobs can run faster and system resources can process interactive requests from users. For more information, see “Maximum Number of Processes and Connections” on page 132. During the non-peak period, you can set the number of connections and processes higher because demands on the system are lower.

The default peak period is from 07:00 to 18:00. The default number of connections for each service during the peak period and during the non-peak period is four.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, “Secured Functions and Features,” on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.

4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **All dispatchers**.
5. Click the arrow for the Actions menu next to the dispatcher and click **Set properties**.
6. Click the **Settings** tab.
7. Select **Tuning** from the **Category** list.
8. In the **Value** column, type new values for the following settings:
   - **Peak period start hour**
   - **Non Peak period start hour**

   Tip: If you want to reset a configuration setting to its default value, select its check box and click **Reset to default value**.
9. Click **OK**.

Maximum Number of Processes and Connections

You can set the maximum number of processes and connections.

For the report service, the batch report service, and the data movement service, you can set the maximum number of processes and the maximum number of high affinity and low affinity connections that the dispatcher can open to handle requests. For the agent, Content Manager, data movement, delivery, job, and report data services, you can set the maximum number of connections.

There are separate settings for peak and non-peak hours. For more information, see "Set Usage Peak Periods" on page 131.

Maximum Number of Connections

There is a maximum of one of each of these services per dispatcher: agent, Content Manager, data movement, delivery, job, report data. Connections handle one request from one service at a time.

You can specify the maximum number of connections for each service during peak periods and non-peak periods using the following settings:

- **Maximum connections for** <*service_name*> **service during non-peak period**
- **Maximum connections for** <*service_name*> **service during peak period**

The default number of connections is four.

Maximum Number of Processes

There can be multiple report service, batch report service, and data movement processes on each dispatcher. You can specify the maximum number of processes during peak periods using the following settings:

- **Maximum number of processes for the** <*service_name*> **during peak period**
- **Maximum number of processes for the** <*service_name*> **during non-peak period**

The default number of processes for each service is two.

Affinity Connections

In addition, report servers accept low and high affinity connections to process requests from the batch report and report services. Servers also accept low and high affinity connections to process requests from the data movement service.

Low affinity requests can be handled by any report server. Typically, low affinity requests are used when a report or data movement run is initially requested.

High affinity requests are ideally handled by a specific report server. Typically, high affinity requests are for reports that were already requested and may include actions, such as going to the next page in a report. If the specific report server is not available or busy, then the report is rerun (low affinity request) on any report server and the next page (high affinity request) is directed to that server.

Affinity settings take precedence over balance request settings and advanced routing settings. For more information, see "Balance Requests Among Dispatchers" on page 127 and "Advanced Dispatcher Routing" on page 111.

If affinity settings are changed for a service while entries are running, the number of server processes could double. The number of processes may temporarily exceed the maximum setting while the change takes effect. This may cause problems if your system does not have enough memory for the interim period.

For more information about affinity connections, see the *Architecture and Deployment Guide*.

You can specify the number of low and high affinity connections for the report service, the batch report service, and the data movement service using the following settings:

- **Number of high affinity connections for the** <*service_name*> **during peak period**
- **Number of high affinity connections for the** <*service_name*> **during non-peak period**

For batch report service, the default number of low affinity connections is two. For the data movement service and report service, the default number of low affinity connections is four. The default number of high affinity connections for all services is one.

Set the Maximum Number of Processes and Connections

You can set the maximum number of processes and connections.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **Services** and then click the service you want.

5. Click the arrow for the Actions menu next to the service and click **Set properties**.

   Tip: For report service and batch report service, you can also set some settings at the system or dispatcher level.
6. Click the **Settings** tab.
7. Select **Tuning** from the **Category** list.
8. In the **Value** column, type new values for the processes and connections that you want to change.

   Tip: If you want to reset a configuration setting to its default value, select its check box and click **Reset to parent value**.
9. Click **OK**.

Specify Queue Time Limits

You can specify the maximum number of seconds that interactive requests made by users wait in the queue for an available report service or data movement connection.

If a request cannot be processed within the time limit, the request fails and users receive an error message. If your operating system has adequate resources and IBM Cognos software is properly configured, requests should not take longer than the time limit.

When you specify a time limit, consider the maximum number of seconds that you want users to wait for a response. The default queue time limit is 240 seconds.

Requests for the batch report service stay in the queue indefinitely.

If you have a high user load (over 165 users) and interactive reports are running continuously in a distributed installation, increase the queue time limit to 360 to avoid getting error messages. You may also want to increase the asynchronous timeout setting to avoid getting error messages. For more information, see the IBM Cognos Business Intelligence *Installation and Configuration Guide*.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, “Secured Functions and Features,” on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. Click the arrow for the Actions menu next to **System** and click **Set properties**.

   Tip: You can also change the queue time limit settings at the dispatcher or service level.
5. Click the **Settings** tab.
6. Select **Tuning** from the **Category** list.
7. In the **Value** column, type a new value for the **Queue time limit of report service (seconds)** or **Queue time limit of data movement service (seconds)** setting.

   Tip: If you want to reset a configuration setting to its default value, select its check box and click **Reset to default value**.

8. Click **OK**.

PDF File Settings

There are four settings for PDF files that together determine the speed at which PDF files are created and the size of PDF files.

The ideal settings are different for different environments. For example, if you create PDF files as part of batch jobs overnight, you may not care about speed. You may choose settings that create small files that can be easily distributed but take longer to generate. If you create ad hoc PDF files or complex PDF files with many charts and graphics, you may care more about speed than file size.

You can use different PDF file settings for report service and for batch report service.

PDF Character Encoding

PDF character encoding determines the character set that is used to create PDF files. You can choose to use Windows1252 encoding, the standard Microsoft Windows operating system single-byte encoding for Latin text in Western writing systems, or unicode (UTF-16) encoding. By default, PDF character encoding is determined automatically, based on the characters found in the file.

The settings names are:

- **PDF Character Encoding for report service**
- **PDF Character Encoding for batch report service**.

Value	Purpose
Windows1252	If you know your files contain only Windows1252 characters, use this setting for faster PDF file creation. Any unicode (UTF-16) character without a Windows1252 equivalent is converted to an indeterminate Windows1252 character.
Font	If you know your files contain non-Windows1252 characters (for example, Chinese characters), use this setting for faster PDF generation than with the Auto setting. PDF built-in fonts are all Windows1252 character encoded. Almost all other fonts use the UTF-16 character set. This setting typically creates larger PDF files than the Windows1252 setting. It is possible for UTF-16 encoded files to gain better compression (see “Content Compression Type” on page 137.

Value	Purpose
Auto	Use this setting to automatically determine if Windows1252 or UTF-16 should be used to encode the text in the document. If large bodies of text must be analyzed, this is the slowest of the three settings. If speed is a concern you may choose to try the other values with various reports to determine the best setting for your environment. This is the default.

Font Embedding

To ensure that the fonts that are used in a report are available to all readers, fonts can be embedded in PDF files. In IBM Cognos Configuration, there are two font embedding lists, one for the report service and one for the batch report service.

Fonts can be specified as always embedded or never embedded. For example, fonts that you do not have a legal right to redistribute may be specified as never embedded. Fonts that are not available at your remote sales offices but are required to read PDF reports may be specified as always embedded.

For more information about the font embedding lists, see the *Installation and Configuration Guide*.

In **IBM Cognos Administration**, you can allow or disallow font embedding in report service and batch report service PDF files. You can also choose automatic font embedding. Keep in mind that files with embedded fonts are larger and take more time to generate. Embedding fonts can cause a strain on network resources. Fewer embedded fonts can reduce network resource consumption.

The license for some fonts prohibits embedding. Ensure that you have permission from the vendor to embed licensed fonts.

The settings names are:

- **Option to allow the report service to embed fonts in generated PDF documents**
- **Option to allow the batch report service to embed fonts in generated PDF documents**.

There are specialized fonts, such as bar-code fonts, that are always embedded when used. These settings do not control embedding of specialized fonts. PDF built-in fonts are never embedded.

Value	Purpose
Allow	If you know that your audience does not have all the fonts they need to view PDF reports, use this setting. Files are larger and PDF output is generated more slowly. Fonts that are in the never embed list in IBM Cognos Configuration are prevented from being embedded. This is the default.
Disallow	If you know that your audience has all the fonts they need to view PDF reports, use this setting. Files are smaller and are generated faster. Fonts are not embedded unless they're in the always embed list in IBM Cognos Configuration.
Auto	Automatically determines which fonts to embed. This setting takes the longest time to generate PDF reports. If the data contains only Windows1252 characters, both the always embed and the never embed list in IBM Cognos Configuration are used. If there is a conflict, the never embed list is used. Except for specialized fonts, unlisted fonts are usually embedded only if UTF-16 characters from that font are used in the file.

Content Compression Type

You can set the compression type to use when PDF reports are created. It takes longer to create PDF output for files with a higher compression type but the resulting files are smaller.

The content compression type specifies which data is compressed. The “Specify PDF File Settings” on page 138 specifies how much the data is compressed. The combination of the two settings determines the final file size.

The settings names are:

- **The PDF compression type for PDF documents created by the report service**
- **The PDF compression type for PDF documents created by the batch report service**.

The choices for this setting, from lowest to highest compression type, are: **Classic**, **Basic**, **Improved**, **Advanced**, and **Full**. **Classic** is the default.

Compression type refers to the amount of data that is compressed within a PDF report. Typically, less compression means faster compression and a larger

document. Versions of the Adobe PDF Acrobat Reader earlier than version 6.0 do not support compression types higher than Classic.

There are rare cases where compression causes small files to become slightly larger.

Compression Algorithm Level

The content compression type specifies which data is compressed. The "Content Compression Type" on page 137 specifies how much the data is compressed. The combination of the two settings determines the final file size.

The settings names are:

- **Content Compression level for PDF documents created by the report service**
- **Content Compression level for PDF documents created by the batch report service**

Valid choices for compression algorithm level are 0 (no compression) to 9 (maximum compression). The default is 9.

Specify PDF File Settings

You can specify PDF file settings.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **Service**, and the service you want.
5. Click the arrow for the Actions menu next to the service and click **Set properties**.
6. Click the **Settings** tab.
7. Select **Tuning** from the **Category** list.
8. In the **Value** column, type the value that you want for each of the PDF file settings.

   Tip: If you want to reset a configuration setting to its default value, select its check box and click **Reset to default value**.
9. Click **OK**.

Set Maximum Execution Time

You can set the maximum execution time for the report service, batch report service, and data movement service.

For example, you may want to limit execution time if you know that there is something wrong because tasks are taking longer. You may also want to ensure that no one task monopolizes server time to the detriment of others.

If the time limit is exceeded, the execution is canceled. The default is zero, which specifies no limit on execution time.

This setting has priority over the governor limit setting. For more information, see "Set the Report Size Limit for the Report Data Service" on page 142.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **Services** and the service you want.

   Tip: You can also change the queue time limit settings at the dispatcher or service level.
5. Click the arrow for the Actions menu next to the service and click **Set properties**.

   Tip: You can also set these service settings at the **System** level.
6. Click the **Settings** tab.
7. Select **Tuning** from the **Category** list.
8. In the **Value** column, type a new value for the **Maximum execution time for the** <*service_name*> **(seconds)** setting.
9. Click **OK**.

Specify How Long to Keep Watch List Report Output

You can keep watch list report output for a specific number of runs or for a specific number of days or months.

For example, you can keep up to 10 versions or you can keep the report output versions for 2 days or 6 months.

There are two settings:

- If you want to specify the maximum length of time to keep watch list report output, use the **Periodical document version retention age** setting. The default is 1 day. In the **Settings** pane, this appears as 1 Day(s).
- If you want to specify the maximum number of copies to keep, use the **Periodical document version retention count** setting. There is no default.

If you specify both settings, whichever is reached first determines how many versions are kept.

The settings that you choose depend on how often watch list report output is generated and your system resources. For example, if a report runs nightly to provide output during the day on demand via the portal and watch lists are updated on a weekly basis, you may only want to keep four version each month, but no more than 5 versions during that time. If a job is used to run reports and watch lists are updated only when the job is run, you may only want to keep 1 version each day.

For more information on watch lists, see "Enable Watch Rules for a Report" on page 423.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. Click the arrow for the Actions menu next to **System** and click **Set properties**.
5. Click the **Settings** tab.
6. Select **Tuning** from the **Category** list.
7. In the **Value** column, type a new value for the **Periodical document version retention age** setting and select **Day(s)** or **Month(s)** from the drop-down menu.
8. In the **Value** column, type a new value for the **Periodical document version retention count** setting.
9. Click **OK**.

Limit Hotspots That are Generated in an Analysis Studio or Report Studio Chart

To improve performance, you can limit the number of hotspots that are generated for Analysis Studio and Report Studio charts.

A hotspot in a chart appears when you pause a pointer over it. For example, a hotspot on a drill-down symbol or a tooltip gives details about the column, line, or pie slice. The browser response time increases with the number of hotspots. When charts with many members are generated, the hotspots can become an additional burden for the system resources, which can freeze the browser.

When you limit the number of hotspots, priority is given to items such as axis labels and legend labels before individual graphical elements such as bars, pie slices, and so on. Depending on the number of items in a chart and the setting for maximum number of hotspots, some axis items may have hotspots while other axis items and all graphical elements do not, or all axis items and some graphical elements may have hotspots while other graphical elements do not.

The maximum hotspot setting in Report Studio overrides this setting. For more information, see the IBM Cognos Report Studio *User Guide*.

The default is an unlimited number of hotspots.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. Click the arrow for the Actions menu next to **System** and click **Set properties**.

   Tip: You can also change the hotspot setting at the dispatcher or service level.
5. Click the **Settings** tab.
6. Select **Tuning** from the **Category** list.
7. Locate the **Number of hotspots generated in a chart by the Batch report service** or the **Number of hotspots generated in a chart by the Report service**

setting. In the **Value** column, click the arrow next to **Unlimited** and then click **<Number>**. Type a new value for the maximum number of hotspots

8. Click **OK**.

Setting E-mail Attachment Maximum Size Configuration Parameters

You can limit the size of e-mail attachments to avoid potential problems with abnormally large items.

The allowable range is from 0-2047 MB. If you do not specify a value, then no restrictions are applied to the size of the e-mail attachment.

Before setting the e-mail size limit, you must know the e-mail size limit set in the e-mail server. The limit typically set by an e-mail server administrator is from 10 to 25 MB. If you need to deliver reports with a larger file size, consider using a different file transfer method, like FTP or secure copy.

If the limit you set is lower than in the e-mail server, then it overrides the e-mail server setting. For example, if you set it to 10 MB and the e-mail server limit is 20 MB, then a 15 MB attachment is replaced with a plain text file containing a warning message by the Cognos BI server. It is accepted by the e-mail server and delivered to the recipient. The plain text warning message informs the e-mail recipient that the oversized attachment has been removed and replaced with a warning message. The recipient then has to view the report in Cognos Connection.

If the limit you set is higher than the limit in the e-mail server, it does not override the e-mail server setting. For example, if you set it to 20 MB and the e-mail server limit is 10 MB, then a 15 MB attachment is sent by the Cognos BI sever to the e-mail server, but is rejected by the e-mail server.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.
4. Click the **Set Properties - Configuration** button in the upper right corner.
5. Click the **Settings** tab.
6. For the **Environment** category, next to the **Advanced settings** name, click the **Edit** link.
7. Select **Override the settings acquired from the parent entry** checkbox, if available.
8. For **Parameter**, type **mail.attachment.limit**.
9. Specify a **Value** for the **mail.attachment.limit** setting. The following settings are available.

Goal	Action
Default Setting	Type **0** (zero). This is the default setting.
Setting E-mail attachment size	Type *n*, where *n* is the maximum size of the attachment in MB.

10. Click **OK**.

11. Using IBM Cognos Configuration, you must stop and restart the IBM Cognos software.

    For information about stopping IBM Cognos software, see the *Installation and Configuration Guide*.

Set Compression for Email Attachments

You can compress email attachments above a specific size or disable compression.

By default, compression is disabled. If you want email attachments compressed, change the default behavior using the configuration setting, Maximum size of an uncompressed email attachment in MB. This setting is available for the following services:

- AgentService
- BatchReportService
- DeliveryService
- ReportService

An email attachment must be at least 1MB to be compressed.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatcher and Services**.
4. Click the dispatcher you want.
5. Click the set properties button of the service that you want to configure.
6. Click the **Settings** tab.
7. To filter the settings, in the **Category** box, click **Tuning**.
8. Specify a value for the **Maximum size of an uncompressed email attachment in MB** setting. The following settings that are available.

Goal	Action
Disable compression	Type **0** (zero). This is the default setting.
Compress email attachments if the attachment is greater than *n*. *N* is the size of the attachment in MB.	Type *n*, where *n* is the size of the attachment in MB.

9. Click **OK**.
10. Click the **Configuration** link in the path at the top of the page.

    You return to the list of dispatchers.
11. If you have more than one dispatcher configured, perform steps 4 to 10 for each remaining dispatcher.
12. Using IBM Cognos Configuration, stop and then restart IBM Cognos software.

    For information about stopping IBM Cognos software, see the *Installation and Configuration Guide*.

Set the Report Size Limit for the Report Data Service

You can increase the size limit for report data.

To limit the resources, such as memory, that are used by Report data service, IBM Cognos software restricts the size of the report data that can be sent out. If you receive errors in IBM Cognos for Microsoft Office that a report result is too large, you can increase the size limit for report data by changing the Governor limit setting.

The maximum execution time setting has priority over this setting. For more information, see "Set Maximum Execution Time" on page 138.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **Services**, and then click **Report Data**.
5. Click the arrow next to **ReportDataService** to view the Actions menu, and then click **Set properties**.
6. Click the **Settings** tab.
7. In the **Value** column, change the number for **Governor limit (MB)**.
8. Click **OK**.

Exclude the context ID for an agent from IBM WebSphere web service tasks

By default, when the agent service interacts with a web service, the context ID of the agent is included.

If you are running an agent that includes a web service task in IBM WebSphere, you should exclude this context ID to avoid a conflict with WebSphere's own context IDs.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatcher and Services**.
4. Click the dispatcher for which you want to change the agent service setting.

   You must change the setting on every agent service instance that you are running.
5. Click the set properties button for the agent service.
6. Click the **Settings** tab.
7. For the **Environment** category, next to the **Advanced Settings** name, click the **Edit** link.
8. Select **Override the settings acquired from the parent entry** checkbox, if available.
9. For **Parameter**, type **asv.webservice.useRunContext**.
10. In the **Value** box, type **true**.
11. Click **OK**.
12. Using IBM Cognos Configuration, stop and then restart IBM Cognos software.

    For information about stopping IBM Cognos software, see the IBM Cognos Business Intelligence *Installation and Configuration Guide*.

Tune Metric Studio Connections

You can set Metric Studio parameters that control the number of established connections to the database server and how long unused connections are left open.

Unused data source connections can affect Metric Studio performance and performance of other applications on your server.

To determine the settings that you should use, monitor connections to the database server during low, typical, and high use periods. For specific instructions, refer to your data source documentation.

For example, you have 500 users. Because keeping 500 connections open all the time could affect the performance of the database server, you set the initial number of connections to 100 and the maximum number of connections to 500. You set the timeout for unused connections to 10 minutes and set the period of time between unused connection checks to 5 minutes.

You set increment connections to 10. The number of open database connections changes in increments of 10 to match the user load as it increases and decreases throughout the day.

The following parameters are available:

- **initialConnections**

  The number of connections that Metric Studio service opens when a database is first accessed. These connections are never closed. They remain available to service the typical user load. Valid settings are 0 to 30,000. The default is 5. If you want all connections be closed when not in use, set to zero.
- **incrementConnections**

  The number of connections that Metric Studio service opens when more than initial connections are required to handle the user load. Connections are opened and closed in a block. Connections in a block are not closed until all connections in the block are unused. Valid settings are 1 to 30,000. The default is 5.
- **maximumConnections**

  The maximum number of connections that the Metric Studio service opens. The user receives an error when the maximum number of connections is reached, and all the allocated connections are processing other requests. Valid settings are 1 to 30,000. The default is 200. This setting must be greater than the **initialConnections** setting.
- **connectionIdleTimeout**

  The time in seconds that a connection is unused before it is closed. Valid settings are 1 to 30,000. The default is 3600 (1 hour).
- **connectionMaintenanceInterval**

  The time in seconds that the Metric Studio service waits before checking for unused connections that it will close. Valid settings are 1 to 30,000. The default is 3600 (1 hour).

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality, see Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the **Change view** menu. Click **Services**, and then click **Metric Studio**.
5. Click the arrow next to **MetricStudioService** to display the **Actions** menu, and then click **Set properties**.
6. Click the **Settings** tab.
7. Click **Edit** next to **Advanced Settings**.
8. Select **Override the settings acquired from the parent entry**.
9. In the **Parameter** column, type the parameter name.

   For example, type **connectionIdleTimeout**.
10. In the **Value** column, type the associated value for the setting.
11. Continue typing setting names and values as required.
12. Click **OK**.
13. On the **Set properties** page, click **OK**.
14. Restart the Metric Studio service for the new settings to take effect. For instructions, see "Stop and Start Dispatchers and Services" on page 106.

Query Execution

There are three settings that you can use for query execution.

Concurrent Query Execution

Depending on your environment, you may be able to improve report run performance by enabling concurrent query execution.

By default, IBM Cognos software executes queries in a report sequentially. You can do this by setting advanced server properties for the report service, the batch report service, or both. When concurrent query execution is enabled, the report server determines which queries in the report can be run concurrently.

The report author must specify the queries in a report that are candidates for concurrent execution. For more information, see the IBM Cognos Report Studio *User Guide*.

RSVP.CONCURRENTQUERY. NUMHELPERSPERPROCESS

Use this parameter to enable concurrent query execution and set the maximum number of query execution helpers for each report service or batch report service process.

The default value is 0, meaning that the concurrent query execution disabled.

Each query execution helper results in an additional data source connection. For example, a report service has four processes with two high affinity connections and two low affinity connections:

- If the maximum number of query execution helpers is set to 0 (disabled), the maximum number of data source connections created by the report service is 16 (two low affinity connections plus two high affinity connections plus zero query execution helpers times four processes).
- If the maximum number of query execution helpers is set to 2, the maximum number of data source connections created by the report service is 24 (two low affinity connections plus two high affinity connections plus two query execution helpers times four processes).

RSVP.CONCURRENTQUERY. MAXNUMHELPERSPERREPORT

Use this parameter to specify the maximum number of query execution helpers for each report. This parameter is used to prevent a single report from consuming all available query execution helpers.

For example, a report has eight queries that can run concurrently:

- If RSVP.CONCURRENTQUERY.NUMHEL PERSPERPROCESS and RSVP. CONCURRENTQUERY.MAXNUMHELPERSPER REPORT are both set to four, the report consumes all query helpers when executed. No other report is able to run queries concurrently until the report has finished executing.
- If RSVP.CONCURRENTQUERY.MAXNUM HELPERSPERREPORT is set to two instead, the report consumes two query helpers, leaving two for other reports to use.

The default value for this parameter is 1.

This setting has no effect unless RSVP.CONCURRENTQUERY.NUMHELPERSPER PROCESS is set to greater than 0.

RSVP.CONCURRENTQUERY. ENABLEDFORINTERACTIVEOUTPUT

Use this parameter to enable concurrent query execution when the report service is producing interactive output.

For interactive reports, if concurrent query execution is enabled, some queries may be unnecessarily executed because the results are not used. For example, all the queries for a multi-page report may execute with at least one query on each page, but the user may view only the first page. If you do not want to use resources for results that are not used in interactive reports, disable this parameter.

Authored prompt pages are not interactive output and are not affected by this setting.

The default value for this parameter is false, meaning disabled.

RSVP.PROMPT.EFFECTIVEPROMPTINFO.IGNORE

Use this parameter to disable the issuing of effectivePromptInfo attribute in metadata requests and effectively disable moving the prompt information from under the caption attribute of a level to the level itself.

The default value for this parameter is false, meaning disabled.

Set Parameters for Concurrent Query Execution

You can set parameters for concurrent query execution.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **Services**, and then click **(All)**.
5. Click the arrow for the Actions menu next to a Report or Batch report and click **Set properties**.
6. Click the **Settings** tab.
7. Click the set properties button  for the report or the batch report service.
8. Click the **Settings** tab.
9. Click **Edit** next to **Advanced Settings**.
10. Select **Override the settings acquired from the parent entry**.
11. In the **Parameter** column, type a parameter name.
12. In the **Value** column, type the setting that you want to use.
13. Click **OK**.
14. On the **Set properties** page, click **OK**.

Set Query Prioritization

You can set parameter that specify how query prioitization works.

When you run a report with prompt controls defined, all parameter information is retrieved, including parameter information defined in the report, the model, and the data source. This is required for data typing and to align capabilities for prompt controls with those of its associated parameter. This operation can impact performance, especially when there are many or complex queries. From the user perspective, it can take too long to present the first prompt page or report page.

To increase speed, report authors can set a query hint in Report Studio to give a query priority in determining parameter information. Queries are prioritized based on where they are used and whether they contain filters. A priority group is the set of queries sharing similar attributes, such as a filter. Instead of retrieving the parameters for all the queries at the same time, parameters for queries with author-defined priority are retrieved first, regardless of how automated query prioritization is set. For more information about parameters, filters, and prompt controls, see the IBM Cognos Report Studio *User Guide*.

Queries are grouped by priority as shown in the following table. When a query group has sub-groups, the first sub-group has priority over the second.

Query group	Priority
Queries with the **Use for Parameter Info** property set to Yes in Report Studio	1
Queries with defined filters that are not used to populate prompt controls • First reference to such queries • Subsequent references to such queries	2
Queries with defined filters that are used to populate prompt controls • First reference to such queries • Subsequent references to such queries	3
Queries with no defined filters that are not used to populate prompt controls • First reference to such queries • Subsequent references to such queries	4
Queries with no defined filters that are used to populate prompt controls • First reference to such queries • Subsequent references to such queries	5

To specify a system-wide configuration that defines how queries and query groups are processed, you can assign either a setting value or name to the report server advanced setting, RSVP.PROMPT.RECONCILIATION. This allows you to specify the degree of reconciliation between prompt control capabilities and data type to that of the associated parameter. The setting you choose determines whether reconciliation accuracy or speed is more important. For example, if the report author ensures that parameters are defined with the same datatype and capabilities (i.e., optionality, cardinality, and discreteness), across all queries, specifying CHUNKED or 3 would likely achieve the best performance in the widest variety of situations.

RSVP.PROMPT.RECONCILIATION.CHUNKSIZE lets you specify chunk size. This setting is applicable when you use CHUNKED GROUPED and CHUNKED. The default chunk size is 5.

The report server advanced properties and Report Studio query hints work cooperatively to provide the best performance.

You can use the settings shown in the following table to configure RSVP.PROMPT.RECONCILIATION.

Setting	Name	Purpose
0	COMPLETE	All queries are sent at once. This is the slowest, most accurate form of reconciliation. This is the default setting.
1	GROUPED	Queries are sent by priority group. This setting works best for reports that have many unfiltered queries and few filtered queries. It provides medium speed and high reconciliation accuracy.
2	CHUNKED GROUPED	Queries are sent by priority group with a maximum number per request. The queries do not span groups. This setting works best on reports that have many queries with similar filter expressions. It provides maximum speed and low reconciliation accuracy.
3	CHUNKED	Queries are sent by priority group with a maximum number per request. The queries can span groups.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** Chapter 16, “Secured Functions and Features,” on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu.

   Click **Services**, and then click **(All)**.
5. Click the arrow for the Actions menu next to a Report or Batch report and click **Set properties**.
6. Click the **Settings** tab.
7. Click **Edit** next to **Advanced Settings**.
8. Select **Override the settings acquired from the parent entry**.
9. In the **Parameter** column, type a parameter name.
10. In the **Value** column, type the setting that you want to use.
11. Click **OK**.

12. On the **Set properties** page, click **OK**.

Conversion of Numeric Search Keys to Strings in Queries

Some data sources, such as Teradata, do not make the conversion, which causes an error.

An error may occur if your data source does not convert numeric data items to strings. A search prompt is associated with a query that does not get executed when the search prompt is rendered the first time. Typing a search string filters the query and the results are displayed in a list box. The report server does not check the data type of the filtered query item because most data sources convert the data item to a string (varchar) and the filter becomes valid. However, some data sources, such as Teradata, do not make the conversion, which causes an error.

You can use the RSVP.PROMPT.CASTNUMERICSEARCHKEYTOSTRING setting to convert numeric data items into a string (varchar) format. The default value for the setting is False (no conversion). To enable conversion, set it to True.

The associated error message occurs when a Report Studio or Query Studio report runs:

RQP-DEF-0177 An error occurred while performing operation 'sqlPrepareWithOptions' status='-69' UDA-SQL-0043 The underlying database detected an error during processing the SQL request.[NCR][ODBC Teradata Driver][Teradata Database] Partial string matching requires character operands

Example of Unconverted Data Item

```
[data item] starts with '20'

[data item] contains '123'
```

Or a boolean combination:

```
[data item] starts with '2' AND [data item] contains '009' OR [data item]
contains '119'
```

Example of Unconverted Data Item with Lower Function

If the search is case insensitive then these expressions will contain the lower function, which makes more sense when searching on string data items than on numeric:

```
lower([data item]) starts with lower('20')

lower([data item]) contains ('123')lower

([data item]) starts with lower('2') AND lower([data item]) contains
lower('009') OR lower([data item]) contains lower('119')
```

Example of Data Item Converted to a String

```
cast([data item], varchar(128)) starts with '20'

cast([data item], varchar(128)) contains '123'
```

```
cast([data item], varchar(128)) starts with '2' AND cast([data item],
varchar(128)) contains '009' OR cast([data item], varchar(128)) contains
'119'
```

Enable Conversion of Numeric Search Keys to Strings in Queries

You can enable conversion of numeric search keys to strings in queries.

Before you begin

You must have the required permissions to access **IBM Cognos Administration.**

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **Services**, and then click **Report**.
5. Click the arrow for the Actions menu and click **Set properties**.
6. Click the **Settings** tab.
7. Click **Edit** next to **Advanced Settings**.
8. Select **Override the settings acquired from the parent entry**.
9. In the **Parameter** column, type RSVP.PROMPT.CASTNUMERICSEARCHKEYTOSTRING.
10. In the **Value** column, type the setting that you want to use.
11. Click **OK**.
12. On the **Set properties** page, click **OK**.
13. Repeat steps 4 to 12 for batch report system (**Batch Report**).

Session Caching

In Report Studio, Query Studio, and IBM Cognos Viewer the results for previous requests to the database are cached for the duration of a session when session caching is enabled.

To increase performance, for subsequent queries, IBM Cognos software uses cached results for some actions rather than accessing the database. This applies when the same results can be used or when the new results are a subset of the cached results. You can disable session caching at the server level or at the package or report level.

Because performance may be affected, you may want to disable session caching at the server level in the following situations:

- users expect up-to-date results directly from the database for every query, for example new records that were added to the database in the interim
- you want to limit the number of times the cache is accessed during a session

You may also want to disable session caching for individual reports because of high resource consumption, for example, reports that use bursting.

You can also enable and disable session caching for specific queries in reports in Report Studio (see the IBM Cognos Report Studio *User Guide*) and for models in Framework Manager (see the Framework Manager *User Guide*).

Session caching for new models and reports is enabled by default. Existing packages and reports retain existing session caching settings.

Disable Session Caching at Server Level

You can disable session caching at the server level.

Procedure

1. Copy the *c10_location*/configuration/CQEConfig.xml.sample file to c10_location/bin and rename it CQEConfig.xml.
2. Open the *c10_location*/bin/CQEConfig.xml in an editor.
3. Ensure that your editor supports saving files in UTF-8 format.
4. Find the `queryReuse` parameter and change the value to 0.
5. Save the CQEConfig.xml file.
6. Using IBM Cognos Configuration, stop and then restart IBM Cognos software. For information, see the *Installation and Configuration Guide*.

Disable Session Caching at the Package or Report Level

You can disable session caching at the package or report level.

Procedure

1. Copy the *c10_location*/configuration/CQEConfig.xml.sample file to c10_location/bin and rename it CQEConfig.xml.
2. Open the *c10_location*/bin/CQEConfig.xml in an editor.
3. Ensure that your editor supports saving files in UTF-8 format.
4. Find the `queryReuse` parameter and remove it.
5. Save the CQEConfig.xml file.
6. Using IBM Cognos Configuration, stop and then restart IBM Cognos software. For information, see the *Installation and Configuration Guide*.

Secure the CAM Passport Cookie

Administrators can set the HTTPOnly attribute to block scripts from reading or manipulating the CAM passport cookie during a user's session with their web browser. CAM passport identifies a user's web browser session with the server.

Malicious scripts can be inserted into the web browser using a Cross Site Scripting (XSS) attack on the server or web application of an authenticated user. Enabling the HTTPOnly attribute prevents malicious scripts from stealing a user's session identity.

When an administrator sets this attribute, the web browser can only use the session cookie to send HTTP requests to the server.

Administrators that want to enable this attribute must ensure that users have a web browser that supports the HTTPOnly attribute.

Enabling the HTTPOnly parameter

Enabling the HTTPOnly attribute prevents malicious scripts from stealing a user's session identity.

About this task

Administrators that want to enable this attribute must ensure that users have a web browser that supports the HTTPOnly attribute.

Procedure

1. Launch IBM Cognos Administration.
2. On the **Status** tab, click **System**.
3. In the upper left corner of the **Scorecard** pane, click the arrow to view the Change view menu, point to **Services**. The **Set properties** page appears.
4. Click to enable the **Disallow browser scripts from accessing the passport session cookie**.
5. Click **OK**.

Reduce Decimal Precision

You can set decimal precision in crosstab reports.

In a crosstab report, values support a maximum of 18 digits, plus the decimal point. Decimal precision determines the number of the digits that are reserved to express the decimal component of a number. The remaining digits are reserved to express the integer component of the number. By default, the decimal precision is set to 7 digits, which restricts the length of integers to 11 digits.

If you want to reserve more than 11 integers to express the integer component of a number, you must reduce the decimal precision. For example, you may set the decimal precision to 2, which allows you to reserve up to 16 digits for the integer component of a number.

Procedure

1. In the *c10_location*\configuration directory, locate the qfs_config.xml file.
2. Copy the qfs_config.xml file, and rename the copied file to qfs_config.xml.backup.
3. Open the original qfs_config.xml file, and find the following line of code:

   ```
   <provider name="CubeBuildProvider"libraryName="qfsCubeBuildProvider"
   serviceProvider="true">
       <providerDetails>
   ```

4. For the `providerDetails` element, add the following line:

   ```
   <scaleOfFloatDouble value="n"/>
   ```

   where "n" represents the decimal precision value that you want to specify.

   The default value is 7.
5. Save the qfs_config.xml file.
6. Restart the IBM Cognos service.

Saved Report Output

You can select where you save report output files.

By default, the report output files are saved in the content store. You also have the following choices for saving report output files:

- A location outside of IBM Cognos software

You can share the report output files saved to this location with external applications or with people who do not have IBM Cognos software. For more information, see "File Location to Save a Copy of Report Output in IBM Cognos Software" on page 155. Most report output files are saved this way.

- Another location within IBM Cognos software

  The report output files saved to this location can be used again in IBM Cognos software. For more information, see "Set File Location to Save a Copy of Report Output Outside of IBM Cognos Software." This option may be useful for archive purposes, since the files saved in the content store may be deleted regularly due to retention rules.

A descriptor file with an _descr extension is also saved. Saved files are not managed by IBM Cognos software.

Set File Location to Save a Copy of Report Output Outside of IBM Cognos Software

You can specify that an additional copy of report output be saved in a file system outside of IBM Cognos software.

In IBM Cognos Connection, if users select **Save to the file system** as the report delivery method "Save Report Output" on page 415 when they run or schedule a report, the files are saved in the specified location each time the report runs.

For example, users may want to share a report with an external application, such as a web site, and have it saved there every time it is updated so that current content is always available. Users may also want to save reports on a Local Area Network for people who do not have access to IBM Cognos software.

Before you begin

There are two associated properties in IBM Cognos Configuration that must be set first: one enables saving file output to a file system, the other specifies the root directory for saving files. For more information, see the IBM Cognos Business Intelligence *Installation and Configuration Guide*.

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.
4. On the toolbar, click the Define File System Locations button  .
5. Click **New**.
6. Type a name, description, and screen tip.
7. In **File systems location** box, type the location where you want to save report output files.

   The location that you type is appended to the **File system root location**.
8. Click **Finish**.

File Location to Save a Copy of Report Output in IBM Cognos Software

You can save a copy of single-file report output in a file location in IBM Cognos software so that you can use it again.

By default, report output files are saved in the content store. Also saving the output in IBM Cognos software may be useful for archive purposes, since files that are saved in the Content Store may be deleted regularly due to retention rules. The following formats can be saved: PDF, .csv, XML, Microsoft Excel spreadsheet software 2002, and HTML that does not have embedded graphics. You cannot save HTML fragment, XMTML, or Excel 2000 or 2007 single sheet formats.

The file location applies to saved output originating from the selected Content Manager service.

If users select **Save to the file system** as the report delivery method "Save Report Output" on page 415 when they run or schedule a report in IBM Cognos Connection, the files are saved in the specified location each time the report runs.

Use the following parameters to set the file location.

- CM.OutputLocation

  Specifies the location where you want to store copies of report output files.

  Old report versions are not deleted when a new one is saved. You must manage the content of the output directory to keep the report versions you want.
- CM.OutputScript

  Specifies the location and name of a shell script, such as a .bat or .sh file, that runs after a report output is saved to the target directory. The full file names of the output file and descriptor are passed to the script.
- CM.OutputByBurstKey

  When report output is distributed by bursting, it is assigned a burst key. Specify whether to store output in a subdirectory with the same name as the burst key.

  Default: false (output not stored by burst key).

Report Output Descriptor File

When you save report outputs files to a file system in IBM Cognos software, a report output descriptor file is also created. The descriptor file is an XML file that contains information about the report output, such as the name, locale, creation time, the associated report search path, burst key information, and the report version contact.

The descriptor file takes the same name as the output file, with the suffix _descr added. For example, a saved PDF report with the name 158_1075940415360.pdf has a descriptor file with the name 158_1075940415360_desc.xml.

Post-processing Scripts

You can also specify a script so that you can run post-processing commands each time a report output is copied to the file system. For example, if your report output files are ultimately stored in an archiving system, you can use a script to perform this action.

Set File Location to Save a Copy of Report Output in IBM Cognos Software

You can set a file location to save a copy of report output in IBM Cognos software.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu. Click **Services**, and then click **Content Manager**.
5. Click the arrow next to **ContentManagerService** to display the Actions menu, and then click **Set properties**.
6. Click the **Settings** tab.
7. Click **Edit** next to **Advanced Settings**.
8. Select **Override the settings acquired from the parent entry**.
9. In the **Parameter** column, type the parameter name.
   For example, type **CM.OutPutLocation**.
10. In the **Value** column, type the associated value for the setting.
11. Continue typing setting names and values as required.
12. Click **OK**.
13. On the **Set properties** page, click **OK**.

Supporting large worksheets in Microsoft Excel

Administrators provide support to users that need to use large Microsoft Excel 2007 worksheets by setting the advanced server property, RSVP.EXCEL.EXCEL_2007_LARGE_WORKSHEET, to a value of true. This enables the large worksheets. You must set this property for the ReportService and the BatchReportService.

When RSVP.EXCEL.EXCEL_2007_LARGE_WORKSHEET is enabled the large worksheet property supports worksheets up to 1 048 576 rows and the following two properties can then be used:

Parameter	Description
RSVP.EXCEL.EXCEL_2007_WORKSHEET_MAXIMUM_ROWS	Use this parameter to specify the number of rows to output before moving to a new worksheet.
RSVP.EXCEL.EXCEL_2007_OUTPUT_FRAGMENT_SIZE	Use this parameter to adjust the internal memory fragment size, in rows, that the IBM Cognos Business Intelligence server generates before flushing to a disk. If this value is not specified, then the default value is approximately 45 000 rows. You can use this property when there an issue generating reports with the default value, such as running out of memory. In this situation, you may be required to lower the value to allow the report to run successfully.

Configuring report and batch report services to use large worksheets

Set the advanced server property, RSVP.EXCEL.EXCEL_2007_LARGE_WORKSHEET, to a value of true to enable large worksheets. You must set this property for the ReportService and the BatchReportService.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Launch, **IBM Cognos Administration**.
2. On the **Status** tab, click **System**.
3. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu.

   Click **Services**, and then click **(All)**.
4. Click the arrow for the Actions menu next to a Report or Batch report and click **Set properties**.
5. Click the **Settings** tab.
6. Click **Edit** next to **Advanced Settings**.
7. Select **Override the settings acquired from the parent entry**.
8. In the **Parameter** column, type a parameter name. For example, type RSVP.EXCEL.EXCEL_2007_LARGE_WORKSHEET.
9. In the **Value** column, type the setting that you want to use. For example, type true.
10. Click **OK**.
11. On the **Set properties** page, click **OK**.

Enable Accessible Report Output Using System-wide Settings

You can specify system-wide settings for accessible report output that apply to all entries, including reports, jobs, and scheduled entries.

Accessible reports contain features, such as alternate text, that allow users with disabilities to access report content using assistive technologies, such as screen readers.

Accessibility settings in the user preferences and report properties can overwrite the system-wide settings in IBM Cognos Administration. For information about enabling accessibility support in user preferences or report properties, see "Enabling Accessible Report Output" on page 416.

Accessible reports require more report processing and have a larger file size than non-accessible reports. Consequently, accessible reports affect performance negatively. By default, support for accessible report output is disabled.

Accessible report output is available for the following formats: PDF, HTML, and Microsoft Excel spreadsheet software 2007.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.
4. From the toolbar in the upper-right corner of the page, click the set properties button  .
5. Click the **Settings** tab.
6. Under **Category**, click **Administrator Override**.
7. For the **Administrator Override** category, next to **Accessibility support for reports**, in the **Value** column, click **Edit**.
8. In the **Accessibility support for reports** page, select one of the following options:

Option	Description
Disable	Accessible report output is denied.
Make mandatory	Accessible report output is always created.
Allow the user to decide	Accessible report output is specified by the user. If you set this option to **Not selected**, then accessible report output is not created automatically. This is the default. If you set this option to **Selected**, then accessible report output is created by default.

Configure the Lineage Solution

Lineage provides details about data in a report, such as the data source and calculation expressions. You can configure the default IBM Cognos software lineage solution, the IBM InfoSphere Metadata Workbench lineage tool, or a custom lineage solution.

You can access lineage information in IBM Cognos Viewer, Report Studio, Query Studio, and Analysis Studio.To use the default solution or IBM InfoSphere Metadata Workbench, ensure that the value for the **Metadata Information Service URI** parameter of the **Environment** category is configured as specified in the steps in this section.

To implement a custom lineage solution, you must

- create a Web interface that translates the IBM Cognos software lineage request parameters and invokes the custom lineage solution.

  For more information, see the section about integrating a custom lineage solution in the Software Development Kit *Developer Guide*.
- change the value for the **Metadata Information Service URI** parameter of the **Environment** category to the URL of your lineage server.

Before you begin

The **lineage** capability must be enabled. For more information, see Chapter 16, “Secured Functions and Features,” on page 261, and Chapter 17, “Object Capabilities,” on page 271.

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Status** tab, click **System**.
3. Click the arrow next to **System** to display the Actions menu, and then click **Set Properties**.
4. Click the **Settings** tab.
5. For the **Environment** category, **Metadata Information Service URI**, type one of the following values.
   - If you want to configure the default IBM Cognos software lineage solution, type **/lineageUIService**.

     If this value is already specified, click **Cancel** at the bottom of the page. You do not need to change anything.
   - If you want to configure IBM InfoSphere Metadata Workbench as your lineage solution, type the url as follows

Metadata Workbench version	**URL**
version 8.1.1	/lineageUIService?iis=http://workbench_server_name:9080/workbench/cognosLineage.do
version 8.5	/lineageUIService?iis=http://workbench_server_name:9080/workbench/cognosLineage[cognos_server_name].do

     where **http://workbench_server_name:9080/workbench/cognosLineage.do** is the URL where IBM InfoSphere Metadata Workbench can be accessed on the network.

     workbench_server_name represents the server name where IBM InfoSphere Metadata Workbench is installed.

     – To leverage a combination of Cognos lineage and InfoSphere Metadata Workbench lineage, there is an additional parameter to be configured. A "launchPoint" parameter set with a value of "indirect" will indicate that Cognos lineage should be used for Cognos level lineage (i.e. report and model level information) and Metadata Workbench can be used to explore lineage for the data source. Clicking on the data source object in the Cognos lineage viewer will invoke IBM InfoSphere Metadata Workbench to explore in-depth data source level lineage information.

       /lineageUIService?iis="Metadata WorkbenchURL"&launchPoint=indirect

       eg: **/lineageUIService?iis=http://workbench_server_name:9080/workbench/cognosLineage[cognos_server_name].do &launchPoint=indirect**

       workbench_server_name represents the server name where IBM InfoSphere Metadata Workbench is installed.
   - If you want to configure a custom lineage solution, replace the existing value with the URI that represents your lineage Web interface.

     For example, type **http://mycompany.com/ourLineageService.cgi**
6. Click **OK**.

Configure the IBM InfoSphere Business Glossary URI

If your organization uses the IBM InfoSphere Business Glossary, you can also access the Glossary in IBM Cognos software from IBM Cognos Viewer, and from the metadata tree in Report Studio, Query Studio, and Analysis Studio.

To access IBM Business Glossary, you must specify the URI of the Glossary Web page. By default, the Glossary search results in IBM Cognos software return all terms that contain the keyword specified in the search.

Before you begin

For more information to access the IBM InfoSphere Business Glossary, see "Access the IBM InfoSphere Business Glossary" on page 408.

To access the Glossary, users must have permissions for the **Glossary** capability. For more information, see Chapter 16, "Secured Functions and Features," on page 261, and Chapter 17, "Object Capabilities," on page 271.

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Status** tab, click **System**.
3. Click the arrow next to **System** to display the Actions menu, and then click **Set Properties**.
4. Click the **Settings** tab.
5. For the **Environment** category, **IBM Business Glossary URI**, type the following URI:

   http://*server_name*:*port_number*/bg/popup/popupSearch.do

   For example, type

   http://myserver:9080/bg/popup/popupSearch.do

   All terms that contain the keyword specified in the search are returned.
6. Click **OK**.

Configuring the Collaboration Discovery URI

You can configure IBM Cognos Business Intelligence and IBM Cognos Business Insight to use IBM Connections for collaborative decision-making. Integration with IBM Connections allows business users to collaborate while creating or viewing reports, performing analysis, or monitoring workspaces. Users have access to IBM Connections activities from within Business Insight and to the IBM Connections homepage from within IBM Cognos BI and Business Insight.

The Collaboration discovery URI specifies the IBM Connections server to use as the collaboration provider. When a URI is specified, collaboration-related support is added to IBM Cognos BI as follows:

- a link is added to the Cognos Connection Welcome page. If the user has access to the IBM Connections homepage, the link is named **Access my social network** and links the user to the homepage. If the user has access to IBM Connection activities, but not the homepage, the link is named **My Activities** and links the user to the activities page.
- a link to the IBM Connections homepage is added to the Launch menu in Cognos Connection

- a link to the IBM Connections homepage is added to the Actions menu in Business Insight
- the Collaborate menu button is added on the workspace application bar in Business Insight. This allows the user to create or view a workspace activity in IBM Connections.

To access the IBM Connections homepage and activities page, the administrator must enable the **Collaborate** capability. For more information, see Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services** to view the list of dispatchers.
4. From the toolbar in the upper-right corner of the page, click the set properties - configuration button.
5. Click the **Settings** tab.
6. For the **Environment** category, **Collaboration discovery URI**, specify the URI as follows:

   http://*server_name*:*port_number*/activities/serviceconfigs.

   For example, **http://*server_name*:9080/activities/serviceconfigs**

   where **server_name** represents the server name where IBM Connections is installed.
7. Click **OK**.

Enable Job, SMTP, and Task Queue Metrics

By default, only the queue length metric for job, task, and SMTP queue metrics is enabled. Other metrics are also available for each but are set to zero and do not appear in the user interface unless you enable them.

- **Time in queue high water mark**
- **Time in queue low water mark**
- **Time in queue**
- **Number of queue requests**
- **Queue length high water mark**
- **Queue length low water mark**

For more information about these metrics, see Chapter 6, "System Performance Metrics," on page 87. Note that enabling these settings may affect performance.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.

4. Click the arrow next to **System** to display the Actions menu, and then click **Set Properties**.
5. Click the **Settings** tab.
6. For the **Environment** category, next to **Advanced settings**, click the **Edit** link.
7. If it appears, select the **Override the settings acquired from the parent entry** check box. Otherwise, proceed to the next step.
8. In the **Parameter** column, type the following settings: **enable.tide.metrics.smtpqueue**, **enable.tide.metrics.jobqueue**, and **enable.tide.metrics.taskqueue**.
9. Beside each parameter, in the **Value** column, type **True** to enable the metric.
10. Click **OK**.
11. Open the *c10_location*/webapps/p2pd/WEB-INF/classes/iManage-metadata.xml file in an editor.

    Ensure that your editor supports saving files in UTF-8 format.

    For a distributed install, you must edit the iManage-metadata.xml file on every computer, otherwise, the global metrics may display initially but not persist after navigating away from the page.
12. Uncommment the sections that begin with `<!-- These metrics have been explicitly disabled. Please consult documentation on how to enable them. -->`
13. Save the file.
14. Using IBM Cognos Configuration, stop and then restart IBM Cognos software.

    For information about stopping IBM Cognos software, see the *Installation and Configuration Guide*.

Set Lifetime of Completed Human Tasks and Annotations (Comments)

You can set the lifetime of completed annotations and human tasks.

The lifetime is the length of time after the associated entry is deleted. For example, if the lifetime for an annotation is set to 60 days, the annotation is deleted 60 days after the associated report is deleted. If the lifetime for a human task is set to 120, the human task might be deleted 120 days if all linked reports or dashboards are deleted.

The default lifetime is 90 days for completed human tasks and 180 days for completed annotations.

For more information about human tasks, see Chapter 29, "Managing Human Tasks," on page 449. For more information about annotations (comments), see the IBM Cognos Dashboard *User Guide*.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu, and then click **Services**.
5. Click **Human Task Service** or **Annotation Service**.
6. Click the arrow next to the service to display the **Actions** menu and click **Set properties**.

7. Click the **Settings** tab.
8. For annotations, find the setting **Completed annotation lifetime**. For **HumanTaskService**, find the setting **Completed human task lifetime**. Set the lifetime in days or months and click **OK**.

Results

Completed annotations or human tasks are deleted after the number of days that you specify.

Changing Drill-Through Filter Behavior

You can change the dynamic drill-through filter behavior if you want drill-through to generate a filter using the Member Business Key instead of the default Member Caption.

Set the RSVP.DRILL.DynamicFilterUsesBusinessKey parameter to 0 to use Member Caption. Set it to 1 to use the Business Key.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** functionality. See Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the **Change view** menu. Click **Services**, then **Report** or **Batch Report**.
5. Next to **ReportService** or **BatchReport Service**, click the arrow for the **Actions** menu and click **Set properties**.
6. Click the **Settings** tab.
7. Click **Edit** next to **Advanced Settings**.
8. Select **Override the settings acquired from the parent entry**.
9. In the **Parameter** column, type **RSVP.DRILL.DynamicFilterUsesBusinessKey**.
10. In the **Value** column, type the associated value for the setting.
11. Click **OK**.
12. On the **Set properties** page, click **OK**.

Restricting searches of IBM Cognos content

To avoid system degradation caused by unrestricted searches of large Content Manager data stores, administrators can restrict search activity so that only index search is available to users.

About this task

In the IBM Cognos portal, the following search options are available by default: Name field, Description field, Name or description field and Full text and all fields. The Full text and all fields option requires a search index that is created by the administrator and which can be used to refine the search. For more information, see "Refine the Scope of the Index" on page 474.

To restrict search so that only the Full text and all fields option is available in the portal, you must set the portal.disablecmsearch advanced setting to true.

The ability to leverage the enhanced search (index search) is restricted by the Execute Indexed Search capability. Users with the Execute Indexed Search capability can perform enhanced search functions. Users without the Execute Indexed Search capability can perform only basic search functions. Enhanced index search is available by default.

Procedure

1. In Cognos Administration, on the **Configuration** tab, click **Dispatchers and Services**.
2. Click a dispatcher and for the **PresentationService**, click **Set properties**.
3. On the **Settings** tab, for the **Environment** category, **Advanced settings**, click **Edit**.
4. Click the **Override the settings acquired from the parent entry**.
5. In the **Parameter** column type **portal.disablecmsearch** and in the **Value** column type **true**.
6. Click **OK**.

Results

Only the Full text and all fields search option is available in the portal. By default, the Full text and all fields option provides enhanced indexed search. To restrict enhanced indexed search to basic indexed search, disable the Execute Indexed Search capability. For information about setting the Execute Indexed Search capability, see "Set Access to a Secured Function or Feature" on page 267.

Tip: To restore the default search options, delete the portal.disablecmsearch advanced setting. If the search options do not display in the portal, click the Refresh icon to the right of the Search icon.

Related concepts

Chapter 16, "Secured Functions and Features," on page 261
The secured functions and secured features within the functions, which are also referred to as capabilities, control access to different administration tasks and different functional areas of the user interface in IBM Cognos software.

Printing from UNIX operating systems

Use the advanced server property, RSVP.PRINT.POSTSCRIPT, to control which interface you want to use to print a PDF from a UNIX operating system.

RSVP.PRINT.POSTSCRIPT

The default setting for this property is true, and only applies to UNIX operating systems. Keeping the default setting, true, provides users with the ability to print PDFs using the internal postscript interface from a UNIX operating system.

If you want to continue to use the (unsupported) Adobe Acrobat PDF interface, then you can set the default to false. Before you do this, ensure that you have downloaded the latest version of Adobe Acrobat Reader for your operating system.

You can change the value for RSVP.PRINT.POSTSCRIPT to false by editing advanced settings for the Batch Report service on the **System** page in IBM Cognos Administration.

Editing RSVP.PRINT.POSTSCRIPT

If you want to continue to use the (unsupported) Adobe Acrobat PDF interface, then you can set the value for RSVP.PRINT.POSTSCRIPT to false. The advanced server property, RSVP.PRINT.POSTSCRIPT, is used to control which interface you want to use to print a PDF from a UNIX operating system.

About this task

Before you change the value to false, ensure that you have downloaded the latest version of Adobe Acrobat Reader for your operating system.

Procedure

1. Launch IBM Cognos Administration.
2. On the **Status** tab, click **System**.
3. In the upper left corner of the **Scorecard** pane, click the arrow to view the Change view menu, point to **Services** and then click **Batch Report**.
4. Click the arrow next **BatchReportService**, and then click **Set properties**.
5. Click the **Settings** tab.
6. Click **Edit** next to **Advanced Settings**.
7. Select **Override the settings acquired from the parent entry**.
8. In the **Parameter** column, type RSVP.PRINT.POSTSCRIPT.
9. In the **Value** column, type false.
10. Click **OK**.
11. On the **Set properties** page, click **OK**.

Controlling whether URL parameters sent to Content Manager

For performance considerations, IBM Cognos Connection does not automatically forward URL parameters with queries to Content Manager. However, URL parameters may be required, for example, to avoid single signon failure with 3rd party authentication providers. If URL parameters are required, you can include them by setting the forwardURLParamsToCM to true.

The default setting for the **forwardURLParamsToCM** parameter is false.

Procedure

1. In IBM Cognos Administration, click **Configuration** > **Dispatchers and Services**.
2. To specify the **forwardURLParamsToCM** setting for a single dispatcher, do the following:
   a. In the **Name** column, click a dispatcher, and click **Set properties**.
   b. Go to the **PresentationService**, and click **Set properties**.
   c. Click the **Settings** tab, and for **Environment**, **Advanced settings**, click **Edit**.
   d. Click **Override the settings acquired from the parent entry**. Now, go to step 4.
3. To specify the **forwardURLParamsToCM** parameter globally, for multiple dispatchers, do the following:

a. On the **Configuration** toolbar, in the upper-right corner, click **Set properties - Configuration**.
b. Click the **Settings** tab, and for **Environment**, **Advanced settings**, click **Edit**.

4. In the **Parameter** field, type **forwardURLParamsToCM**, and in the **Value** field, type **true**.
5. Click **OK**.

Chapter 8. Data Sources and Connections

A data source is necessary to create models in Framework Manager, the IBM Cognos software modeling tool, run reports or analyses from IBM Cognos software, and archive content.

A data source defines the physical connection to a database. The data source connection specifies the parameters needed to connect to the database, such as the location of the database and the timeout duration.

A data source connection can include credential information and signon, see Create or Modify a Data Source Signon. You can also add new connections to a data source and modify existing connections, see Add or Modify a Data Source Connection.

You can make more than one data source connection available by combining them, along with other elements, in packages created and published using Framework Manager. For information specific to the data source that you are using, see the pertinent section in this chapter. For instructions on creating the package, see the Framework Manager *User Guide*. You can also create and edit packages in IBM Cognos software for some data sources. For more information, see Chapter 24, "Packages," on page 379.

You can secure data sources using IBM Cognos security. IBM Cognos software also respects any security that is defined within the data source, see Securing Data Sources.

You move data sources from one environment to another environment by deploying the entire content store, see Chapter 23, "Deployment," on page 351.

Dynamic Query Mode

Dynamic query mode provides communication to data sources using Java/XMLA connections.

For supported relational databases, a type 4 JDBC connection is required. A type 4 JDBC driver converts JDBC calls directly into the vendor-specific database protocol. It is written in pure Java and is platform-independent. It offers improved performance over type 2 drivers because it does not have to convert calls to ODBC or database API calls.

For supported OLAP data sources, Java/XMLA connectivity optimizes access by providing customized and enhanced MDX for the specific source and version of your OLAP technology and it harnesses the smarts of the OLAP data source.

You can use the dynamic query mode with the following OLAP data sources:

- IBM Cognos TM1
- IBM Cognos Real-time Monitoring
- SAP Business Information Warehouse (SAP BW)
- Oracle Essbase
- Microsoft Analysis Services

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You can use the dynamic query mode for OLAP over relational (dimensionally-modeled relational) models with the following relational data sources:

- IBM DB2
- IBM DB2 for z/OS
- IBM Cognos Real-time Monitoring
- Oracle
- Microsoft SQL Server
- Teradata
- Netezza

For more information about the dynamic query mode, see the IBM Cognos Business Intelligence *Dynamic Query Guide*.

To review an up-to-date list of environments supported by the IBM Cognos Business Intelligence, including the data source versions supported by the dynamic query mode, see http://www-01.ibm.com/support/docview.wss?uid=swg27019126.

DB2 Data Sources

IBM Cognos Business Intelligence supports DB2 data sources.

DB2 connection types can be used to connect to DB2 Linux/UNIX/Microsoft Windows operating systems, Db2 zOS, and DB2 i5OS.

DB2 Connection Parameters

You specify connection parameters when you create a data source or modify a data source connection.

For more information, see "Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200.

Parameter	Description
DB2 database name	Enter the name (alias) of the DB2 database that was used when the DB2 client was configured.
DB2 connect string	Optional. Enter name/name value pairs that DB2 or ODBC vendors can accept.
Collation sequence	Enter the collation sequence to be included in the database connection string. Collation sequences are required only in rare cases where there may be sorting discrepancies between IBM Cognos BI and a database. We recommend that you contact customer support before using a collation sequence.
Open asynchronously	Not used.

Parameter	Description
Trusted context	Select this check box to allow IBM Cognos BI to attempt a trusted connection to an appropriately configured DB2 server. For more information, refer to the DBA/DB2 documentation. If you select this check box with a client or server that does not support the feature, you may get a connection error or a report execution error.
Timeouts	Specify the time in seconds within which you want the database to connect or wait for your reply before timing out. Valid entries are zero to 32,767. To have the database wait indefinitely, enter zero, which is the default.
Signon	For more information on signon, see "Securing Data Sources" on page 218. If no authentication is required, click **No authentication**. If authentication is required, click **Signons**. If a user ID and password is required in the connection string, select the **User ID** check box. If a password is required, select the **Password** check box and enter the password in the **Password** and **Confirm password** boxes. To create a user ID and password that automatically connects to the data source, click **Create a signon that the Everyone group can use**. Enter the **User ID** and then enter the password in the **Password** and **Confirm password** boxes.

IBM Cognos Cubes

The IBM Cognos cubes that can be used as data sources in IBM Cognos Business Intelligence include IBM Cognos Finance, IBM Cognos Now! --Real-time Montioring Cube, IBM Cognos Planning Contributor, IBM Cognos Planning - Series 7 , and IBM Cognow PowerCubes.

If you have problems creating data source connections to Cognos cubes, see the *IBM Cognos Business Intelligence Troubleshooting Guide*.

For information about integrating IBM Cognos Finance multidimensional cubes in your IBM Cognos environment, see the IBM Cognos Finance *User Guide*. For information about connecting to the IBM Cognos Planning - Contributor

unpublished (real-time) data, see the IBM Cognos Planning *Installation Guide*. For information about real-time monitoring, see the IBM Cognos Real-time Monitoring Dashboard *User Guide*.

IBM Cognos Finance

IBM Cognos Business Intelligence supports IBM Cognos Finance as a data source.

You can make an IBM Cognos PowerCube data source connection available by creating a connection to live Cognos Finance data.

When you create a package, select a specific IBM Cognos Finance submission. This does not limit reporting to that single submission. IBM Cognos Finance submissions can have different hierarchies within each submission. Selecting a submission designates the reporting view of the hierarchy and does not affect how data is calculated within IBM Cognos Finance.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see "Data Source Creation" on page 197 and"Add or Modify a Data Source Connection" on page 200.

Parameter	Description
Server name	Enter the name of the IBM Cognos Finance server.
Port number	Enter the port number of the IBM Cognos Finance server. Use the port number that is specified on the IBM Cognos Finance Server Configuration page. The default is 8800.
Signon	Select the namespace to use for authentication.

IBM Cognos Now! - Real-time Monitoring Cube

IBM Cognos Business Intelligence supports IBM Cognos Now! - IBM Real-time Monitoring cubes as data sources.

Both cubes and view objects are supported. For cubes, use the parameters listed below. For views, you can download an ODBC driver from the Cognos Real-time Monitoring appliance under References and Downloads. Follow the instructions that come with the ODBC driver to set up your IBM Cognos environment.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see "Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200.

Parameter	Description
Server name	Enter the IP address or host name of the server.

Parameter	Description
Port number	Enter the port number of your Real-time Monitoring server that is configured for interoperability with IBM Cognos BI.
IBM Cognos Now! - Real-time Monitoring Cube connection string:	Enter the path to the cube. The path should match what is configured in your Web server.

IBM Cognos Planning Contributor

IBM Cognos Business Intelligence supports IBM Cognos Planning Contributor as a data source.

You can use IBM Cognos BI to report on and analyze real-time Contributor data.

You can create an IBM Cognos Contributor package in one of the following ways:

- Using the Contributor Administration Console, you can create a package that contains all the cubes in the application. When a user opens the package in a studio, they are presented with metadata for all the cubes in the application and can choose from multiple cubes to create reports. However, users may be at risk of inadvertently building queries that attempt to use values from more than one cube, resulting in reports with no data. For more information, refer to the IBM Cognos Planning Contributor *Administration Guide*.
- Using Framework Manager, you can determine how many cubes to expose in a package. By default, you get one cube in each package. However, this may result in a large number of packages in Cognos Connection, which could be difficult to manage. For more information, refer to the Framework Manager *User Guide*.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see"Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200.

Parameter	Description
External namespace	Select the external namespace.

IBM Cognos Planning - Series 7

IBM Cognos Business Intelligence supports IBM Cognos Planning - Series 7 as a data source.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see "Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200.

Parameter	Description
Server name	Enter the name of the server.

Parameter	Description
Planning Administration Domain (PAD ID)	If the cube was created using IBM Cognos Planning - Contributor version 7.3, indicate the Planning Administration Domain (PAD ID).
Port number	Enter the port number. The default is 8800.
External namespace	Select the external namespace for authentication.

IBM Cognos PowerCubes

IBM Cognos Business Intelligence supports PowerCubes generated by Transformer 7.3 and later versions.

You make a PowerCube available to end users by creating a package and publishing it from Transformer or Framework Manager. You can also create PowerCube packages in IBM Cognos BI (see Chapter 24, "Packages," on page 379. You create a data source connection to a PowerCube in Transformer or in Framework Manager while publishing the cube, or in IBM Cognos Administration after the cube is published.

PowerCubes can be created in Linux operating system and HPUX Itanium environments using Transformer. You can use IBM Cognos security with these types of cubes, but not Series 7 security. However, you can deploy secured Series 7 PowerCubes to Linux and HPUX Itanium computers running as report servers in the IBM Cognos environment if the Cognos content store is running on a Series 7 -compliant server.

You cannot build cubes on Linux or HPUX Itanium if you are using Impromptu® Query Definition (.iqd) files as data sources because the Series 7 IQD Bridge is not supported on those platforms.

After a connection to a PowerCube is created, you can:

- create a package for a PowerCube, see "Create a Package for a PowerCube" on page 381
- deploy updated PowerCubes, see "Deploy Updated PowerCubes" on page 200

For more information about PowerCubes, see the Transformer *User Guide*.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see "Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200.

Parameter	Description
Read cache size	**Note:** The default value for this parameter is 80 MB. You can set this parameter to a value between 1 MB and 1 GB, as required for optimal query performance. The optimal read cache size may be higher or lower than the default value of 80 MB. This is to be expected, as PowerCubes in production vary widely in type and query characteristics. Note that the read cache size has no effect on the initial time required to open a cube. The typical profile for query performance, or processing time, follows a pattern whereby performance increases with the read cache size and then levels off beyond the optimal setting. To determine the optimal setting, we recommend that you lower the default by 10 MB (or 5 MB, or 1 MB, depending on the level of fine tuning desired) and use the resulting query performance results as a guide for establishing whether further reductions, or increases, are required. The optimal read cache size will change as the cube grows and changes in the production environment. As a result, you should review the optimal read cache size when changes to the user's query performance pattern, or changes in the PowerCube characteristics, occur.

Parameter	Description
Location	If all your report servers are installed on Microsoft Windows operating system computers, specify the **Windows location**. If all report servers are installed on UNIX operating system computers, specify the **Unix or Linux location**. Type the full path and file name for the cube. For example, for a local cube type C:\cubes\sales_and_marketing.mdc. For a network cube type *servername*\cubes\sales_and_marketing.mdc **Note:** For cubes that reside on UNIX computers, specify the correct UNIX location and type any characters in the Windows location because the Windows location cannot be empty. **Note:** If the report servers are installed on Windows and UNIX computers, and you want the report server running a request to access the PowerCube in both environments, specify the Windows and UNIX locations. To ensure that the same data is returned regardless of the environment in which the report server accesses the cube, the same cube file must be saved in both locations.
Signon	If you are using IBM Cognos security, click **Restrict PowerCube authentication to a single namespace**, and select a namespace from the list. If you are connecting to a password-protected PowerCube, click **Cube password**, and type the password in the **Password** and **Confirm password** boxes. **Note:** Select **All applicable namespaces (including unsecured PowerCubes)** only if you are migrating Series 7 PowerCubes to IBM Cognos BI in your development or test environment. This setting can also be used for unsecured PowerCubes in a production environment. If a cube password is required, click **Cube password**, then enter the password in the **Password** and **Confirm password** boxes. To create a user ID and password that automatically connects to the data source, click **Create a signon that the Everyone group can use**. For more information, see "Securing Data Sources" on page 218.

Recommendation - Using PowerCubes in IBM Cognos Software

There are recommendations if you use PowerCubes in IBM Cognos Software.

Specifically:

- When testing the migration of Series 7 PowerCubes to IBM Cognos BI version 10.1, you can select the signon option to authenticate with **All applicable namespaces**.

  This option is only used for the migration of namespaces in Transformer models. It does not change the fact that multiple namespaces are not supported in a production environment.
- When you use Series 7 PowerCubes as data sources, we recommend that you optimize them for IBM Cognos BI.

  Optimized PowerCubes provide faster data retrieval at runtime. You optimize PowerCubes using a command line utility named pcoptimizer, which is supplied with IBM Cognos software.

  For more information about optimizing PowerCubes, see the *IBM Cognos Business Intelligence Troubleshooting Guide*.
- When you publish a PowerCube to IBM Cognos Connection and the cube contains custom views, you must be authenticated in IBM Cognos software using a valid user ID and a password.

  Anonymous access is not supported in this situation.

Securing PowerCubes

PowerCubes supported by IBM Cognos software can be secured using IBM Cognos security namespaces. Security can be applied to an entire cube or to its custom views. Before accessing a cube secured against an IBM Cognos namespace, you must log on to the applicable namespace.

In production environments, IBM Cognos software supports only PowerCubes secured against a single namespace. Therefore, when you deploy PowerCubes for use in a production environment, you must select the signon option **Restrict PowerCube authentication to a single namespace**.

Note: Instead of using IBM Cognos security, you can add password protection to a PowerCube or decide not to use security.

Oracle Essbase Data Source

Before connecting to an Oracle Essbase data source, some configuration is required if the data source uses scenario dimensions, hierarchies, or measures.

When a Oracle Essbase System 9 Data Source is configured with an LDAP namespace, single signon is supported. The user ID and password used to log on to the LDAP namespace automatically connects to the data source. For more information about configuring an LDAP namespace, see the IBM Cognos *Installation and Configuration Guide*.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see “Data Source Creation” on page 197 and “Add or Modify a Data Source Connection” on page 200.

Parameter	Description
Server name	Enter the name of the server where the database is located. For UNIX operating system, this can be the TCP/IP address of the server.
Signon	For more information on signon, see "Securing Data Sources" on page 218. If no authentication is required, click **No authentication**. For Essbase Server System 9 and IBM Cognos 8.4, single signon is supported if your Essbase server is configured for an LDAP namespace. • Select **An external namespace** and select **LDAP** from the list. • The user ID and password used to log on to the LDAP namespace automatically connects to the data source. If a user ID and password is required in the connection string, click **Signons**. • If a password is required, select the **Password** check box and enter the password in the **Password** and **Confirm password** boxes. • To create a user ID and password that automatically connects to the data source, click **Create a signon that the Everyone group can use**. Enter the **User ID** and then enter the password in the **Password** and **Confirm password** boxes.

Configure Scenario Dimensions

If you connect to an Oracle Essbase data source and it contains a scenario dimension, you must manually configure the scenario dimension so that IBM Cognos Business Intelligence recognizes it. Otherwise, IBM Cognos BI treats the scenario dimension as a regular dimension.

Procedure

In the Oracle Essbase, assign a User Defined Attribute (UDA) named COGNOS_SCENARIO_DIMENSION to the scenario dimension.

Specify Balanced Hierarchies

Oracle Essbase Provider does not determine if a hierarchy is balanced or unbalanced. It considers all hierarchies as being unbalanced by default.

In a balanced hierarchy, each path descends to the same depth while the branches in an unbalanced hierarchy descend to different levels.

Procedure

1. In the Hyperion Solutions Essbase Administration Services tool, create a special User Defined Attribute (UDA) named COGNOS_HIERARCHY_BALANCED in the outline of the Essbase database. The UDA is created for the root member of the corresponding dimension containing a balanced hierarchy.
2. Set the attribute to 1.

Specify Measure Formats

To improve the readability of the values reported, you can specify an alternative format string for any measure.

Define a UDA for the appropriate members in the Account dimension:

`COGNOS_FORMAT=`*`format_string`*

The *format_string* value can be any one of the predefined number formats listed in the table below. You can use a preset numeric format to show values as millions (M) or thousands (K). For example, 1,801,791 can be shown as 1.8M or 1,801.8K.

The predefined format strings are as follows:

Format Option	Sample Value	Example
General	1000000	1000000
0	1000000	1000000
#,##0	1000000	1,000,000
$0	1000000	$1000000
$#,##0	1000000	$1,000,000
0%	1000000	100000000%
%0	1000000	%100000000
0E+000	1000000	1E+006
0K	1000000	1000K
#,##0K	1000000	1,000K
K0	1000000	K1000
K#,##0	1000000	K1,000
$0K	1000000	$1000K
$#,##0K	1000000	$1,000K
0M	1000000000	1000M
#,##0M	1000000000	1,000M

Format Option	Sample Value	Example
M0	1000000000	M1000
M#,##0	1000000000	M1,000
$0M	1000000000	$1000M
$#,##0M	1000000000	$1,000M

With the exception of the General format string, you can also preset the number of decimal places to show, using the format_string ~n, where n is the number of decimal places. For example, 1,801,791 can be shown as $1,801,791.00 using the format string $#,##0~2. If you do not want any decimal places, end the format string with ~0.

If your client application uses a different locale, you must replace the Currency ($), Thousands (,) and Decimal (.) symbols in the format_string value for the COGNOS_FORMAT UDA with the corresponding locale symbols in effect for the client application.

If you do not specify the number of decimal places to show, or if the format string does not match one of the predefined values (including locale symbols), the General format string is used by default.

You can apply a different format for each measure. The following illustrates some examples of how you can apply different formatting to different measures:

Measure	Applied Format
Measures (Account dimension)	COGNOS_FORMAT=#,##0
Units	COGNOS_FORMAT=#,##K
Costs	COGNOS_FORMAT=$#,###
Profits	COGNOS_FORMAT=0%

IBM InfoSphere Warehouse Cubing Services

IBM Cognos software provides support for accessing the cubing services technology of IBM InfoSphere Warehouse for version 9.5.2 and greater. No IBM Cognos components need to be installed on the cubing services server.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see “Data Source Creation” on page 197 and “Add or Modify a Data Source Connection” on page 200.

Parameter	Description
Server URL	Enter the URL of the server in the format http://<hostname>:<cube server xmla port>/IBMXmlAnalysis/ or https://<hostname>:<cube server xmla port>/IBMXmlAnalysis/. An example of the <hostname>:<cube server xmla port> is wottcub1:80.
Open SSL Connection	To use secure sockets, select this check box. To use unsecure sockets, do not select it. The setting must be the same as the setting on the server.
Signon	If a user ID and password is required in the connection string, select the **User ID** check box. If a password is required, select the **Password** check box and enter the password in the **Password and Confirm** password boxes.

Informix Data Sources

IBM Cognos software provides support for Informix data sources.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see "Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200.

Parameter	Description
Informix database name	Enter the database name.
Host name	Enter the host name.
Server name	Enter the server name.
Collation sequence	Enter the collation sequence to be included in the database connection string. Collation sequences are required only in rare cases where there may be sorting discrepancies between IBM Cognos software and a database. We recommend that you contact customer support before using a collation sequence.
Service	Select or enter the service name that the remote database server uses for incoming requests.

Parameter	Description
Signon	For more information on signon, see "Securing Data Sources" on page 218. If a user ID or password are required in the connection string, select the **User ID** check box. If a password is required, select the **Password** check box and enter the password in the **Password** and **Confirm password** boxes. To create a user ID and password that automatically connects to the data source, select **Create a signon that the Everyone group can use**. Enter the **User ID** and then enter the password in the **Password** and **Confirm password** boxes.

Microsoft Analysis Services Data Sources

IBM Cognos software supports connectivity to Microsoft Analysis Services from a Microsoft Windows operating system platform.

When you install Microsoft SQL Server, you can choose to add Analysis Services. Connectivity requires the Microsoft Pivot Table client Libraries, which are installed with Microsoft SQL Server client components

There are three supported versions of the Microsoft SQL Server Client component install, one for each of the following versions of SQL Server:

- Microsoft Analysis Service 2000 (ODBO)
- Microsoft Analysis Service 2005
- Microsoft Analysis Service 2008

You must install a matching version of SQL Server client software on each computer running Application Tier Components for the IBM Cognos Business Intelligence Server or IBM Cognos Framework Manager.

You must enable the TCP protocol for Microsoft SQL Server and Microsoft SQL Server client components.

The IBM Cognos BI Server supports three different types of authentication for Analysis Services data sources:

- "Authentication using Signons" on page 181
- "Authentication using Service Credentials" on page 182
- "Authentication using an External Namespace" on page 183

There are special considerations if you are using Framework Manager, see "Framework Manager Considerations " on page 184 and for multidimensional expression (MDX) queries, see "Multidimensional Expression (MDX) Queries" on page 184.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see "Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200.

Parameter	Description
Server Name	**Note:** Enter the server name where the databases are located.
Named instance	Enter the named instance if one was specified during installation. **Note:** This parameter applies to Microsoft Analysis Services 2005 and 2008 only.
Language	Select the language. For Microsoft Analysis Services 2005 and 2008, this is used as a design locale by the report author for retrieving metadata from the cube to display in reports. Once the reports are created, they can be run in any locale. For Microsoft Analysis Services (ODBO), this is also the run locale.
Signon	For more information on signon, see "Securing Data Sources" on page 218. To authenticate using the credentials of the Windows domain account that is running the IBM Cognos service, select **IBM Cognos software service credentials**. For more information, see "Authentication using Service Credentials" on page 182 To use an external namespace, select **An external namespace** and select a namespace. For more information, see "Authentication using an External Namespace" on page 183. When modifying an existing data source that previously used signons, after you switch to an external namespace, delete the signons. Otherwise, the signons take precedence. To create a static signon that everyone can use, select **Signons** and **Create a signon that the Everyone group can use**. Select the **Password** checkbox and enter a valid Windows domain **User ID**, and then enter the password in the **Password** and **Confirm password** boxes. For more information, see "Authentication using Signons."

Authentication using Signons

When you want to store and maintain credentials to authenticate to Microsoft Analysis Services data sources in IBM Cognos software, use a signon when you

create the data source. You can define a signon which is used by everyone (default) or you can grant access to specific users. You can also create multiple signons and use permissions to grant access for specified users, groups or roles.

The signon stores valid Windows domain credentials, which are used to authenticate to Analysis Services. They must be specified in the following syntax:

<DOMAIN>\<USERNAME>

For Microsoft Analysis Services 2005 and 2008, users with credentials should be a part of the local OLAP users group that exists on the computer where Analysis Services is running. This group, which is created when Analysis Services is installed, is called SQLServerMSASUser$<SERVERNAME>$MSSQLSERVER.

On every installation of an IBM Cognos Application Tier component, ensure that IBM Cognos software is run as a LocalSystem built-in account or that IBM Cognos software is run as a valid domain account which has been granted the **Act as part of the operating System** privilege in the local security policy.

IBM Cognos users must be granted read and execute permission for that signon.

Authentication using Service Credentials

When you want to use the credentials of the account that is executing the IBM Cognos service to authenticate to Microsoft Analysis Services, use service credentials. Every connection to Microsoft Analysis Services data sources uses the service credentials regardless of which user executes the request.

To use service credentials, IBM Cognos software must be started as a Windows service. The service must be run as a valid Windows domain user. The built-in accounts of LocalSystem or NetworkService are not applicable. For information on how to start the IBM Cognos service under an account, see information about configuring a user account or network service account in the *Installation and Configuration Guide*.

The account running the IBM Cognos service must fulfill the following requirements:

- The account must either be a member of the same Active Directory Forest as Analysis Services or Forest trust must be established for cross-forest setups.
- The account must be granted the **Log on as a service** privilege in the local security policy of all Windows computers running IBM Cognos Application Tier components
- For multi-node setups, the same account must be used on all computers running IBM Cognos Application Tier components.
- For Microsoft Analysis Services 2005 and 2008, the service account must be granted sufficient privileges in SSAS security to attach to the desired cubes and retrieve data.
- For Microsoft Analysis Services 2005 and 2008, the account should be a part of the local OLAP Users group, existing on the computer where Analysis Services is running. This group, which is created when Analysis Services is installed, is called SQLServerMSASUser$<SERVERNAME>$MSSQLSERVER.

Authentication using an External Namespace

If you want IBM Cognos users to access Microsoft Analysis Services data sources with their own credentials (user pass-through authentication, signon), use an external namespace. The credentials that are used to authenticate to Analysis Services are taken from the specified namespace to which the user authenticated previously.

The credentials provided by a user who is logged on to the namespace are passed to Analysis Services. Due to the authentication methods supported by Analysis Services, you can only choose a namespace of type Microsoft Active Directory.

Depending on how the user is authenticated to the Active Directory namespace specified for external namespace authentication, you can have the following sign-on setups that provide a seamless user experience:

- If a user authenticated explicitly by providing a domain user name and a password, pass-through authentication is possible. The domain credentials that are provided are passed to Analysis Services.
- If a user authenticated to the Active Directory namespace by a signon which is not based on Kerberos, user pass-through authentication is not possible. This applies to setups where IBM Cognos software is integrated with any third-party portal or where the Active Directory Namespace is configured for identity mapping mode.

To configure user pass-through authentication to Analysis Services, ensure that the following conditions are met:

- All computers running IBM Cognos Application Tier components must run IBM Cognos BI as a Windows service under a valid domain account or LocalSystem.
- All computers running IBM Cognos software must have a Microsoft Windows server operating system. (Pass-through authentication is not supported for Windows XP.)
- The computers running Analysis Services and IBM Cognos software must be part of the same Active Directory Forest.
- The domain account (user account) or the computer account (LocalSystem) must be trusted for delegation.
- All user Windows accounts that require access to Analysis Services through IBM Cognos software must not have the **Account is sensitive and cannot be delegated** property set.

Analysis Services are configured for Kerberos authentication. For details, contact your Analysis Services Administrator.

For SSAS 2005 and SSAS 2008, Windows accounts for all users must be a part of the local OLAP users group on the computer where Analysis Services is running. This group, which is created when Analysis Services is installed, is called SQLServerMSASUser$<SERVERNAME>$MSSQLSERVER.

Note that there is a Microsoft issue that hinders user pass-through authentication when Analysis Services and the clients accessing it are both run on AES-aware operating systems (Windows 2008, Microsoft Vista, Windows 7). Refer to Microsoft documentation for details.

Note that you cannot test a data source which is configured for external namespace authentication. To verify that it is working, access the data source in a query.

Framework Manager Considerations

IBM Cognos Framework Manager accesses Analysis Services data sources directly without using the Report or Metadata services. This has important implications, especially for configurations with user pass-through authentication for Analysis Services.

If Kerberos-based signon is enabled for the Active Directory namespace that is configured, as an external namespace authentication source for the Analysis Services data source, ensure that the users running Framework Manager meet the following criterion:

- has the **Act as part of the operating System** privilege set in the local security policy on the computer running Framework Manager or is a member of the Local Administrators group on the Framework Manager computer with the **log on locally** privilege
- is trusted for delegation

Multidimensional Expression (MDX) Queries

You must install the following Microsoft Office components for Microsoft Excel Visual Basic for Applications (VBA) functions, such as ROUNDDOWN for MDX queries:

- Office Excel
- Microsoft Visual Basic for Applications (a shared feature in Office)

Install these components on the IBM Cognos Server for MSAS and on the Analysis Services server computer for SSAS 2005 or SSAS 2008, then restart the server machine.

Microsoft SQL Server Data Sources

IBM Cognos software supports the following types of Microsoft SQL Server data sources: ODBC, OLE DB, SQL 2005 Native Client, and SQL 2008 Native Client.

Depending on the types of Microsoft SQL Server data sources you are using, there are considerations you should keep in mind when defining some types of authentication.

Authentication Using IBM Cognos Service Credentials

When connecting to Microsoft SQL Server using OLE DB, you can select **IBM Cognos software service credentials** as the signon type for the data source connection. This property instructs IBM Cognos software to log on to the SQL Server database using the logon specified for the IBM Cognos service. Users do not require individual database signons. However, all users will authenticate to the database with the same credentials and will have the same view of the data. For production environments, individual database signons are generally more appropriate.

You should not use a Microsoft Windows local system account for the IBM Cognos server logon with a Microsoft SQL Server OLE DB data source.

Authentication Using an External Namespace

You can configure IBM Cognos software to use a Microsoft Active Directory namespace, where users are prompted for credentials as part of the IBM Cognos logon process. You can configure IBM Cognos software to use these same credentials automatically when accessing the Microsoft SQL Server data source. The data source connection for Microsoft SQL Server must be configured for **An external namespace** and that namespace must be the Active Directory namespace.

You can configure IBM Cognos software to use a Microsoft Active Directory namespace and to authenticate users for IBM Cognos software using Kerberos authentication and delegation. You can configure IBM Cognos software to automatically authenticate the user when accessing the Microsoft SQL Server data source. The following configuration is required:

- The IBM Cognos gateway must be installed on an IIS Web server that is configured for Windows Integrated Authentication.
- Content Manager must be installed on a Windows 2003 or Windows XP server.
- Content Manager, the report server (Application Tier Components), IIS Web server, and the data source server (Microsoft SQL Server) must belong to the same Active Directory domain.
- The data source connection for Microsoft SQL Server must be configured for **An external namespace** and that namespace must be the Active Directory namespace.
- The report servers are trusted for delegation.

For more information about installation options for the gateway and Content Manager, as well as configuring the namespace and delegating trust, see the IBM Cognos *Installation and Configuration Guide*.

Microsoft SQL Server Connection Parameters

The following parameters are used by Microsoft SQL Server (OLE DB).

Parameter	Description
Server name	Enter the server name. If there are multiple instances of Microsoft SQL Server, specify *server_name*\ *instance_name*.
Database Name	Enter the database name.
Application Name	Enter the application name.
Collation Sequence	Enter the collation sequence to be included in the database connection string. Collation sequences are required only in rare cases where there may be sorting discrepancies between IBM Cognos software and a database. We recommend that you contact customer support before using a collation sequence.

Parameter	Description
MARS Connection	Select the Multiple Active Results Set (MARS) connection. This parameter is used only by Microsoft SQL Server (SQL 2005 Native Client). Click **Yes** to allow applications to have more than one pending request per connection and more than one active default result set per connection.
Signon	For more information on signon, see "Securing Data Sources" on page 218. If no authentication is required, select **No authentication**. For more information on **IBM Cognos BI**, see "Authentication Using IBM Cognos Service Credentials" on page 184. If you use a Microsoft Active Directory namespace and you want to support single signon, select **An external namespace**, and select the Active Directory namespace. For more information, see "Authentication Using an External Namespace" on page 185. If authentication is required, select **Signons**. If a user ID and password is required in the connection string, select the **User ID** check box. If a password is required, select the **Password** check box and enter the password in the **Password** and **Confirm password** boxes.

You can include database commands in the connection information for this type of data source. For more information, see "Passing IBM Cognos Context to a Database" on page 207.

For information about Microsoft SQL Server (ODBC) connection parameters, see "ODBC Data Source Connections."

ODBC Data Source Connections

IBM Cognos software supports ODBC data sources.

IBM Cognos software divides ODBC connections into two categories: vendor-specific ODBC data sources connections, which use driver-specific capabilities for query creation and generic ODBC data source connections, which use general capabilities.

IBM Cognos software supports the ODBC data sources listed in the following table. The database code appears in the connection string, but can not be edited.

ODBC Data Source	Database code
ODBC	OD
Composite (ODBC)	CS
IBM Cognos Virtual View Manager (ODBC)	VM
Microsoft SQL Server (ODBC)	SS
Netezza® (ODBC)	NZ
Progress OpenEdge (ODBC)	PG
Red Brick® (ODBC)	RB
Teradata (ODBC)	TD

Any ODBC data source connection not listed should be created using the generic ODBC data source, database code OD.

Using Virtual View Manager to Retrieve Data

Virtual View Manager replaces Composite ODBC data source. However, Composite ODBC data sources are still supported for existing customers.

Virtual View Manager is a data query application which provides access to distributed JDBC, LDAP, flat files and WSDL data sources. In addition to providing the functionality to model these data sources into homogeneous views, it allows the views to be modified via calculations, joins, and filters. IBM Cognos software is then used to access the views using the IBM Cognos Virtual View Manager ODBC driver.

ODBC Connection Parameters

You specify connection parameters when you create a data source or modify a data source connection.

For more information, see "Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200.

Parameter	Description
ODBC data source	Enter the data source name (DSN) as defined in the ODBC.ini file. For more information about the ODBC.ini file, see the IBM Cognos *Installation and Configuration Guide*.
ODBC connect string	Enter any text that must be appended to the connection string. This parameter is typically left blank.

Parameter	Description
Collation sequence	Enter the collation sequence to be included in the database connection string. Collation sequences are required only in rare cases where there may be sorting discrepancies between IBM Cognos software and a database. We recommend that you contact customer support before using a collation sequence.
Open asynchronously	Select if you want the connection to process requests independent of each other. Do not select if you want the connection to complete the current request before starting another one.
Unicode ODBC	Select if you want IBM Cognos software to use the Unicode data standard to interpret data. Leave it unselected if you want IBM Cognos software to use ANSI to interpret data. This selection applies only to Composite, Virtual View Manager, Progress OpenEdge, Teradata, and generic ODBC data source connections.
Timeouts	Specify the time in seconds within which you want the database to connect or wait for your reply before timing out. Valid entries are zero to 32,767. To have the database have wait indefinitely, enter zero, which is the default.

Parameter	Description
Signon	For more information on signon, see "Securing Data Sources" on page 218. For Teradata, Composite, Virtual View Manager, Microsoft SQL, and generic ODBC: • If no authentication is required, select **No authentication**. • If the credentials to the database match the credentials used to logon to the IBM Cognos environment, for single signon, select **An external namespace** and select the appropriate namespace. • If authentication is required, select **Signons**. If a password is required, select the **Password** check box and enter the password in the **Password** and **Confirm password** boxes. To create a user ID and password that automatically connects to the data source, select **Create a signon that the Everyone group can use**. Enter the **User ID** and then enter the password in the **Password** and **Confirm password** boxes. For RedBrick, and Progress OpenEdge: • If a user ID and password are required in the connection string, select the **User ID** check box, then select the **Password** check box and enter the password in the **Password** and **Confirm password** boxes. • To create a user ID and password that automatically connects to the data source, select **Create a signon that the Everyone group can use**. Enter the **User ID** and then enter the password in the **Password** and **Confirm password** boxes.

Oracle Data Sources

IBM Cognos software supports Oracle data sources.

Oracle Connection Parameters

You specify connection parameters when you create a data source or modify a data source connection.

For more information, see "Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200.

Parameter	Description
SQL*Net connect string	**Note:** Enter the SQL*Net connect string.

Parameter	Description
Collation sequence	Enter the collation sequence to be included in the database connection string. Collation sequences are required only in rare cases where there may be sorting discrepancies between IBM Cognos software and a database. We recommend that you contact customer support before using a collation sequence.
Signon	For more information on signon, see "Securing Data Sources" on page 218. If a user ID or password are required in the connection string, select the **User ID** check box. If a password is required, select the **Password** check box and enter the password in the **Password** and **Confirm password** boxes. To create a user ID and password that automatically connects to the data source, select **Create a signon that the Everyone group can use**. Enter the **User ID** and then enter the password in the **Password** and **Confirm password** boxes.

SAP Business Information Warehouse (SAP BW) Data Sources

IBM Cognos software supports access to SAP BW data sources.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see "Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200. The parameter types that you specify are different depending on the type of SAP BW logon you choose:

- Application server logon type
- Destination logon type
- Message server logon type

Application Server Logon Type Connection Parameters

If you select **Application server** as the **SAP logon type**, specify the parameters in the following table.

Parameter	Description
Application server	Enter the SAP application server name. For more information, contact your SAP system administrator.

Parameter	Description
System number	Enter the system number. For more information, contact your SAP system administrator.
Client number	Enter the client number. For more information, contact your SAP system administrator.
SAP server code page	Select the SAP server code page. IBM Cognos software follows the SAP internationalization rules, providing a compatible application that supports multiple scripts and languages without modifying SAP BW in IBM Cognos software. For more information, contact your SAP system administrator.
SAP router string	Enter the SAP router string. The router string describes the stations of a connection required between two hosts. For more information, contact your SAP system administrator.
Signon	For more information on signon, see "Securing Data Sources" on page 218. If a trusted signon namespace is configured using IBM Cognos Configuration, you can select **An external namespace** and select the namespace you want to use. To create a user ID and password that automatically connects to the data source, select **Create a signon that the Everyone group can use**. Enter the **User ID** and then enter the password in the **Password** and **Confirm password** boxes.

Destination Logon Type Connection Parameters

If you select **Destination** as the **SAP BW logon type**, specify the parameters in the following table.

Parameter	Description
Client number	Enter the client number. For more information, contact your SAP system administrator.

Parameter	Description
SAP server code page	Select the SAP server code page. IBM Cognos software follows the SAP internationalization rules, providing a compatible application that supports multiple scripts and languages without modifying SAP BW in IBM Cognos software. For more information, contact your SAP system administrator.
Signon	For more information on signon, see "Securing Data Sources" on page 218. If a trusted signon namespace is configured using IBM Cognos Configuration, you can select **An external namespace** and select the namespace you want to use. To create a user ID and password that automatically connects to the data source, select **Create a signon that the Everyone group can use**. Enter the **User ID** and then enter the password in the **Password** and **Confirm password** boxes.

Message Server Logon Type Connection Parameters

If you select **Message server** as the **SAP BW logon type**, specify the parameters in the following table.

Parameter	Description
System ID	Enter the system ID of the SAP system that you want to connect to. For more information, contact your SAP system administrator.
Logon Group	Enter the SAP group. For more information, contact your SAP system administrator.
Client number	Enter the client number. For more information, contact your SAP system administrator.

Parameter	Description
Signon	For more information on signon, see "Securing Data Sources" on page 218. If a trusted signon namespace is configured using IBM Cognos Configuration, you can select **An external namespace** and select the namespace you want to use. To create a user ID and password that automatically connects to the data source, select **Create a signon that the Everyone group can use**. Enter the **User ID** and then enter the password in the **Password** and **Confirm password** boxes.

Sybase Adaptive Server Enterprise Data Sources

IBM Cognos software supports the following Sybase Adaptive Server Enterprise data sources: CT-Lib and CT-15.

You specify connection parameters when you create a data source or modify a data source connection.

Parameter	Description
Server name	Enter the name of the server.
Database name	Enter the database name. Select **Master** if you want the Sybase server to determine the default database. To override the default, enter a valid database name.
Application name	Enter the application name. If you leave this blank, the default is the name of the Cognos executable, for example, BiBustkservermain or DataBuild.
Collation sequence	Enter the collation sequence to be included in the database connection string. Collation sequences are required only in rare cases where there may be sorting discrepancies between IBM Cognos software and a database. We recommend that you contact customer support before using a collation sequence.

Parameter	Description
Packet size	Enter the packet size. For CT-Lib, the default is 512. For CT-15, the default is 2048. Increase the packet size to reduce the number of packets that must be sent. Decrease the packet size if larger packet size is an issue. The size that you can request can not be larger than the Sybase server allows. Contact your database administrator for more information.
Asynchronous levels	Select the asynchronous level.
Polling time slice	Enter the polling time slice. The default is 100.
Timeouts	Specify the time in seconds within which you want the database to connect or wait for your reply before timing out. Valid entries are zero to 32,767. To have the database wait indefinitely, enter zero, which is the default.
Signon	For more information on signon, see "Create or Modify a Data Source Signon" on page 203 If a user ID or password are required in the connection string, select the **User ID** check box. If a password is required, select the **Password** check box and enter the password in the **Password** and **Confirm password** boxes. To create a user ID and password that automatically connects to the data source, select **Create a signon that the Everyone group can use**. Enter the **User ID** and then enter the password in the **Password** and **Confirm password** boxes.

TM1 Data Sources

IBM Cognos software provides support for accessing TM1 servers and cubes.

You must install the TM1 client on the same computer as the IBM Cognos Business Intelligence installation. When you create a TM1 data source connection, consider how you would like to set up authentication.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see "Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200.

Parameter	Description
Administration Host	Enter the name of a machine that can be identified by the network.
Server Name	Enter the server name as configured in the TM1S.cfg file. For more information, see your TM1 documentation.
Signon	For more information on signon, see "Securing Data Sources" on page 218. If no authentication is required, select **No authentication**. If an external namespace is used, select **An external namespace** and then select the namespace. If authentication is required, select **Signons**. If a user ID is required in the connection string, select the **User ID** check box. If a password is required, select the **Password** check box and enter the password in the **Password** and **Confirm password** boxes. To create a user ID and password that automatically connects to the data source, select **Create a signon that the Everyone group can use**. Enter the **User ID** and then enter the password in the **Password** and **Confirm password** boxes.

Authentication

Your choice must meet the TM1 server authentication requirement. For example, if you do not create a user ID and password, but the TM1 server requires a log on, the user is prompted to log on.

You can use an external namespace (third-party directory service provider) as an authentication method. The TM1 server must be configured to authenticate with IBM Cognos BI. For more information, see your TM1 documentation on Cognos Access Manager Authentication.

Unexpected Results When Using Aggregation with TM1 Data Sources

TM1 data sources can include rule-derived cells. IBM Cognos BI cannot identify these rule-derived cells ahead of time, so performing an aggregation on these cells may yield unexpected results. For example, aggregating a set containing a rule-derived value may produce unexpected results in Report Studio and Analysis Studio.

Note: Explicit aggregation operations like sum, average, count, minimum, and maximum are not affected.

If you are using TM1 data cubes with rule-derived cells in IBM Cognos BI, we recommend that you install TM1 build number 9.4.00001.576, which identifies aggregation errors by marking the error cells with dashes (--).

Administration Host Must be Fully Qualified to Support TM1 Data Sources

Your installation includes IBM Cognos 8 Business Intelligence Server and TM1 data sources. After upgrading or when creating or changing a TM1 data source connection, you may receive the following error message:

COGCQ00223094 - TM1-ERR-0060 the TM1 server is configured with an unsupported security mode.

To resolve the issue, change the Administration Host name to a fully qualified domain name in the Data Source Connections wizard.

XML Data Sources

When you create an XML data source, you must use XML as the type of connection and specify the location of the XML document in the connection string.

You can specify the connection string for an XML data source as:

- an HTTP URL that identifies the content store required to connect to the XML document.

  An example is HTTP://xmltestserver.cognos.com/XML/countryregion.xml.

  Ensure that you create a Web alias for the directory that contains the XML file and that you enable directory browsing.
- a file path

  A Microsoft Windows operating system file path example is *servername*\XML\countryregion.xml.

  A UNIX operating system file path example is */mount name*/XML/countryregion.xml.
- a local file

  An example is C:\XML\countryregion.xml;VALIDATE=ON.

To access a local file, use a file path that uses platform-specific syntax.

To test an XML connection string, you must type the following code at the end of the string:

```
;VALIDATE=ON
```

The text of this code is not case sensitive.

You specify connection parameters when you create a data source or modify a data source connection. For more information, see "Data Source Creation" on page 197 and "Add or Modify a Data Source Connection" on page 200.

Parameter	Description
Connection string	Enter the connection string.

Parameterized XML Connection Strings

In an HTTP URL connection string for an XML data source, you can use parameters to send additional information. You can embed a prompt definition string in the parameter component.

If the prompt definition is specified in the report, that value is used. Otherwise, the user is prompted to supply a value. Prompting is not supported for other types of connection strings.

An example of a URL component is addressing_scheme://*network_location*/path;parameters?query#fragment_identifier

Encode the parameter component with the definition string in between two sets of question marks. A prompt cannot cross a component boundary.

An example of a parameterized XML string is http://*My_Network_Location*/*My_Path*/myxml.asp?countryregionsid=??CanadaPrompt??

Parameterized XML connection strings have these restrictions:

- When a URL component is a prompt, it cannot contain other data.
- Prompts embedded in XML connection strings do not work in Framework Manager. You cannot import data from a parameterized XML connection string.
- When you set up a parameterized XML connection string in IBM Cognos Connection, the Test button does not work.
- Validation of the query specification in Report Studio does not work if you are connected to a parameterized XML connection string.

Data Source Creation

You can create data source connections to databases.

A data source defines the physical connection to a database. A data source connection specifies the parameters needed to connect to a database, such as the location of the database and the timeout duration. These parameters form a connection string for the data source.

You can create data sources in the portal or in Framework Manager. Because they are stored on the server, data sources appear in both places, regardless of where they were created. Existing data source connections can be edited only in the portal.

If you are an administrator, you can set up all required data sources before models are created in Framework Manager so that all connections are available in the Framework Manager Metadata wizard.

Data sources are stored in the Cognos namespace and must have unique names. For example, you cannot use the same name for a data source and a group.

You can include authentication information for the database in the data source connection by creating a signon. Users need not enter database authentication information each time the connection is used because the authentication information is encrypted and stored on the server. The signon produced when you create a data source is available to the Everyone group. Later, you can modify who can use the signon or create more signons.

Before creating data sources, you must have write permissions to the folder where you want to save the data source and to the Cognos namespace. You must also have execute permissions for the **Data Source Connections** secured feature.

Recommendation - Use Network Paths For File-Based Data Sources

If you have a distributed installation with several servers, we recommend that you use network paths for all file-based data sources rather than local paths. This ensures that the data sources can be accessed by the services that require them, regardless of which server requires the data.

When you create a connection to a file-based data source, such as a PowerCube, you enter a path and file name. To point to the file, use a local path, such as C:\cubes\Great Outdoors Company.mdc, or a network path, such as *servername*\cubes\Great Outdoors Company.mdc.

In a distributed installation, where report servers are running on different computers, using a local path requires that the file and path be valid on each computer where a report server is running. Alternatively, if you use a network path to point to a file, each report server points to the same file on the network without having the file available locally. Also, to ensure that the file is always available, we recommend that you store it in a shared directory that can be accessed on your network.

If you installed IBM Cognos Business Intelligence components on UNIX operating system servers, we recommend that you also locate the file-based data source on a UNIX server. You should then use a UNIX path, such as */servername*/cubes/Great Outdoors Company.mdc to access the file.

If you have installed all components on a single computer, you can use local paths, but you must ensure that the services requesting the data have the appropriate access to the data files on the computer.

For Microsoft Windows operating system distributed installations, we recommend that you use UNC paths to shared directories for any file based data source, such as PowerCubes or XML files.

Create a Data Source

You can create a data source using IBM Cognos Administration.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, select **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, select **Data Source Connections**.

   Tip: To remove a data source, select the check box for the data source and select the delete button.
3. Select the new data source button.
4. In the name and description page, type a unique name for the data source and, optionally, a description and screen tip, and then select **Next**.
5. In the connection page, from the **Type** drop-down list, select the type of data source that you want to create.

   If your data source is not listed, click **Other type**.

6. Specify the isolation level:
   - If **Isolation level** does not appear, select **Next**.
   - If **Isolation level** also appears, select the default object gateway or specify a value, and then select **Next**.
7. Specify the connection parameters for the data source.

   For information about connection parameters for the type of data source that you are using, click the associated item in the following list:
   - "IBM Cognos Finance" on page 170
   - "IBM Cognos Now! - Real-time Monitoring Cube" on page 170
   - "IBM Cognos Planning Contributor" on page 171
   - "IBM Cognos Planning - Series 7" on page 171
   - "IBM Cognos PowerCubes" on page 172
   - "ODBC Data Source Connections" on page 186, including Composite, IBM Cognos Virtual View Manager, Microsoft SQL Server, Netezza, Progress OpenEdge, Red Brick, and Teradata
   - "DB2 Data Sources" on page 168
   - "Oracle Essbase Data Source" on page 175
   - "IBM InfoSphere Warehouse Cubing Services" on page 178
   - "Informix Data Sources" on page 179
   - "Microsoft SQL Server Data Sources" on page 184
   - "Microsoft Analysis Services Data Sources" on page 180
   - "Oracle Data Sources" on page 189
   - "SAP Business Information Warehouse (SAP BW) Data Sources" on page 190
   - "Sybase Adaptive Server Enterprise Data Sources" on page 193
   - "TM1 Data Sources" on page 194
   - "XML Data Sources" on page 196
   - "External repository data sources" on page 230
8. Select **Test the connection**, and then **Test** to test whether parameters are correct.

   In the **Status** column, you can see if the connection was successful. If it was unsuccessful, select **Close**, return to the previous steps, and verify your connection parameters. If it was successful, go to the next step.
9. Click **Finish**.

   If you selected a data source other than IBM Cognos PowerCube or SAP BW, the new data source appears in **Data Source Connections** on the **Configuration** tab, and can be selected when using the Metadata Wizard in Framework Manager.

   If you selected IBM Cognos PowerCube or SAP BW, go to the next step.
10. Click **OK** to return to **Data Source Connections**, or for some data sources, you can click **Create a Package** and **OK**.

    Note: You can create a package with your new data source now or later. For more information, see "Creating a Package" on page 380. The **Create a Package** check box is only available if you have the appropriate capabilities. For more information, see Chapter 16, "Secured Functions and Features," on page 261.)

Results

If you created a signon, you can now modify or add more signons, see "Create or Modify a Data Source Signon" on page 203. You can also add more connections, see "Add or Modify a Data Source Connection."

Deploy Updated PowerCubes

After you rebuild or update a PowerCube, you can use various methods to deploy the cube to the production environment.

To deploy an updated IBM Cognos Transformer PowerCube, use the Copy and Activate method in IBM Cognos Transformer (this is the recommended method), or copy the PowerCube yourself, and use the `pcactivate` command line utility.

To deploy an updated Series 7 Transformer PowerCube, you must copy the PowerCube first. Then, use the `pcactivate` command line utility to activate the cube.

For more information, see the section Copy and Activate a Newer Version of a Published PowerCube in the IBM Cognos Business Intelligence Transformer *User Guide*.

Procedure

1. Copy the Transformer PowerCube to the production environment.
   - The name of the destination directory in the production environment must be the same as the PowerCube name. For example, if the cube is named production.mdc, the destination directory must be named production.
   - The destination directory must be located in the same directory as the PowerCube. For example, if the data source connection specifies that the PowerCube location is D:\Cubes\production.mdc, the destination directory, named production, must be D:\Cubes\production.

   For example, copy the PowerCube to D:\Cubes\production\production.mdc.
2. At the command line prompt, type the `pcativate` command using the following syntax:

   `pcactivate` *`cube_name`*`.mdc`
   `destination_location destination_location`

   You can type more than one destination location.

   For example, type
   - pcactivate TheCube.mdc d:\deploy\cubes
   - pcactivate production.mdc D:\Cubes
   - pcactivate sales.mdc *server_1*\cubes *server_2*\cubes
   - pcactivate "Production Cube.mdc" "d:\Program Files\cognos\c10\ webcontent\cubes"

   Note: If you include a path in the `cube_name` parameter, the path is removed and ignored.

Add or Modify a Data Source Connection

You can add new data source connections or edit string parameters for existing connections.

You can add multiple connections to an existing data source. For example, you want a data source to have two or more connections to the same database that have different properties, such as different timeout values or access permissions. You can also add connections to a data source that point to different databases, but the databases must contain the same schema.

When you create a data source connection, you can create a signon that the Everyone group can use to access the database. Later, you can modify who can use this signon or create more signons. For example, you can control access to data by setting the permissions for each data source connection. For more information, see "Set Access Permissions for an Entry" on page 257.

To add or modify a data source connection, you must have access to the required capabilities to administer data sources, see Chapter 16, "Secured Functions and Features," on page 261.

If you are creating an Oracle, DB2, or Microsoft SQL Server data source, you can include database commands in the connection information. For more information, see "Passing IBM Cognos Context to a Database" on page 207.

If you select Microsoft Analysis Services 2005 or 2008 as the connection type, you can have more than one instance on the same server.

For information about setting the maximum number of data source connections available to the report server, see "Data Source Connection Settings" on page 202.

Create a New Connection

You can create a new connection.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Data Source Connections**.
3. Click the data source for which you want to add a new connection.

   Tip: To remove a data source connection, select its check box and click the delete button.
4. Click the new connection button  .
5. In the name and description page, type a unique name for the connection and, optionally, a description and screen tip, and then click **Next**.
6. Proceed with steps 5 to 10 in "Data Source Creation" on page 197.

Results

If you created a signon, you can now modify or add more signons. For more information, see "Create or Modify a Data Source Signon" on page 203.

Modify a Connection

You can modify an existing connection.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.

2. On the **Configuration** tab, click **Data Source Connections**.
3. Click the data source for which you want to modify the connection.
4. Click the set properties button  for the connection you want to modify.
5. Click the **Connection** tab.
6. If you want to change the data source type, click an item in the **Type** drop-down list.
7. Click the edit icon  to modify the connection string.
8. Proceed with steps 5 to 10 in "Data Source Creation" on page 197.

Data Source Connection Settings

You can set the maximum number of available data source connections, the duration for retaining connections, and how data source connections are reused.

Each instance of the report server has an established pool of database connections. The connections are reused for new requests that match the database, user, and password. Entries remain in the pool until they are idle for a timeout period and then are closed. Once a pool is full, no further connection are added. This results in a request failure.

PoolSize

Set the maximum number of data source connections available to the report server by modifying the PoolSize variable.

Timeout

Set the duration for retaining connections by modifying the Timeout variable. Connections are examined once per minute and any connection that has been inactive longer than the timeout value is removed. The default timeout value is 900 seconds.

Reusable Data Connections

Data source connections are reusable only when the database credentials of the connection match those of the new request. Inactive data source connections can be claimed by a new request. This occurs when the maximum number of connections has been reached and none of the inactive connections can be used by the new request. In this case, the oldest inactive connection is terminated and a new connection is created.

When the maximum number of connections is reached, and all are active, then additional requests fail. The server must be configured to ensure that the concurrent report requests do not exceed the request pool size.

For more information about report service requests, see "Maximum Number of Processes and Connections" on page 132.

Change Data Source Connection Settings

You can change data source connection settings by modifying the CQEConfig.xml.sample file with a text editor.

Procedure

1. On each computer where IBM Cognos Business Intelligence is installed, open the *c10_location*/configuration/CQEConfig.xml.sample file in a text editor.

   Ensure that your editor supports saving files in UTF-8 format.
2. Find the **Timeout** and **PoolSize** parameter and edit them as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<configuration company="Cognos" version="#.#"
rendition="###">
  <component name="CQE">
    <section name="DBConnectionPool">
      <!-- Description: Database connection timeout.
       Default is 900 seconds (15minutes) -->
      <entry name="Timeout" value="number_of_seconds"/>
      <!-- -->
      <!-- Description: Database connection pool size. -->
      <!-- Maximum number of connections managed by the report
           server. Default=50 -->
      <entry name="PoolSize" value="number_of_connections"/>
    </section>
  </component>
</configuration>
```

3. Save the file as CQEConfig.xml to the *c10_location*/bin directory.
4. Using IBM Cognos Configuration, stop and then restart the services.

   For information about stopping services, see the IBM Cognos BI *Installation and Configuration Guide*.

Create or Modify a Data Source Signon

You add signons to existing data source connections so that users do not have to enter database credentials when they run reports.

When you create a signon, you specify the users and groups that can access the signon. The user ID and password that make up the signon must already be defined in the database.

For information about creating groups, see Chapter 14, "Users, Groups, and Roles," on page 247.

You can modify an existing signon if the credentials used to log on to the database change, or if you want to change who can use the signon.

For data source configurations that require each user to have their own signon, it can be unwieldy to administer them all. For information on how users can manage their own data source credentials, see "Manage Your Own Data Source Credentials" on page 259.

Create a Signon

You can create a signon.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Data Source Connections**.
3. Click the data source, and then click the connection to which you want to add a new signon.

4. Click the new signon button  .
5. In the name and description page, type a unique name for the data source signon and, if you want, a description and screen tip, and then click **Next**.
6. Type the **User ID** and **Password** to connect to the database, and click **Next**.

   The **Select the users** page appears.
7. To add users and groups that can use the signon, and click **Add**.
   - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, or roles.
   - To search for entries, click **Search** and in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.
   - To type the name of entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon (;) separates each entry:

     namespace/group_name;namespace/role_name;namespace/user_name;

     Here is an example:

     Cognos/Authors;LDAP/scarter;
8. Click the right-arrow button and when the entries you want appear in the **Selected entries** box, click **OK**.

   Tip: To remove entries from the **Selected entries** list, select them and click **Remove**. To select all entries in a list, click the check box in the upper-left corner of the list. To make the user entries visible, click **Show users in the list**.
9. Click **Finish**.

   The new data source signon appears under the connection.

Modify a Signon

You can modify an existing signon.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Data Source Connections**.
3. Click the data source, and then click the connection for which you want to modify the signon.

   Tip: To remove a signon, select its check box and click the delete button.
4. Click the set properties button  for the signon you want to modify.
5. Click the **Signon** tab.

   A list of users and groups that can use the signon appears.
6. If you want to change the user ID and password that make up the signon click **Edit the signon**, type the new credentials, and click **OK**.
7. If you want to add users or groups to the signon list, click **Add**, and choose how to select users and groups:
   - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, or roles.

- To search for entries, click **Search** and in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.
- To type the name of entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon (;) separates each entry:

  namespace/group_name;namespace/role_name;namespace/user_name;

  Here is an example:

  Cognos/Authors;LDAP/scarter;

8. Click the right-arrow button and when the entries you want appear in the **Selected entries** box, click **OK**.

   Tip: To remove entries from the **Selected entries** list, select them and click **Remove**. To select all entries in a list, click the check box in the upper-left corner of the list. To make the user entries visible, click **Show users in the list**.
9. Click **OK**.

Specifying Isolation Levels

You can specify isolation levels.

The isolation level specifies how transactions that modify the database are handled. By default, the default object gateway is used. Not all types of databases support each isolation level. Some database vendors use different names for the isolation levels.

Queries that are executed by reports and analysis are intended to be read-only operations. The queries execute with a unit of work at the data source known as a transaction with either a default or administrator-defined isolation level. Report authors should not assume that queries that execute stored procedures commit any data written by the procedure. In some environments, changes made by a procedure may be committed due to features of the database. A stored procedure that is marked for-write in Framework Manager commits changes but can only be used by Event Studio.

If you need specific queries to run with different isolation levels, you must define different database connections.

For OLAP data sources, including SAP BW, the transaction unit of work is read-only.

The following isolation levels are in increasing order of isolation:

- Read Uncommitted

  Changes made by other transactions are immediately available to a transaction.

Database type	Equivalent isolation level
Oracle	Not applicable
DB2	Uncommitted read
Microsoft SQL Server	Read uncommitted

Database type	Equivalent isolation level
Sybase Adaptive Server Enterprise	Read uncommitted
Informix	Dirty read

- Read Committed

  A transaction can access only rows committed by other transactions.

Database type	Equivalent isolation level
Oracle	Read committed
DB2	Cursor stability
Microsoft SQL Server	Read committed
Sybase Adaptive Server Enterprise	Read committed
Informix	Committed read

- Cursor Stability

  Other transactions cannot update the row in which a transaction is positioned.

Database type	Equivalent isolation level
Oracle	Not applicable
DB2	Not applicable
Microsoft SQL Server	Not applicable
Sybase Adaptive Server Enterprise	Not applicable
Informix	Cursor stability

- Reproducible Read

  Rows selected or updated by a transaction cannot be changed by another transaction until the transaction is complete.

Database type	Equivalent isolation level
Oracle	Not applicable
DB2	Read stability
Microsoft SQL Server	Repeatable read
Sybase Adaptive Server Enterprise	Repeatable read

Database type	Equivalent isolation level
Informix	Repeatable read

- Phantom Protection

  A transaction cannot access rows inserted or deleted since the start of the transaction.

Database type	Equivalent isolation level
Oracle	Not applicable
DB2	Not applicable
Microsoft SQL Server	Not applicable
Sybase Adaptive Server Enterprise	Not applicable
Informix	Not applicable

- Serializable

  A set of transactions executed concurrently produces the same result as if they were performed sequentially.

Database Type	Equivalent isolation level
Oracle	Serializable
DB2	Repeated read
Microsoft SQL Server	Serializable
Sybase Adaptive Server Enterprise	Serializable
Informix	Not applicable

Passing IBM Cognos Context to a Database

Database administrators want to know details about applications that connect to their database systems.

They use this information for auditing, workload management, and troubleshooting. IBM Cognos software can provide details about its reporting applications and the users accessing them.

These details include the default set of information about authenticated users that is retrieved from authentication providers. This information can be extended by specifying custom namespace mappings in IBM Cognos Configuration. For more information about the mappings, see the *Installation and Configuration Guide*.

Using the mechanisms built into your database and IBM Cognos software, you can implement the most appropriate methods of passing Cognos context to the database. These methods include:

- Using IBM Cognos command blocks, see "Using Command Blocks"

  This method applies to all databases that support command blocks, specifically Oracle, DB2, Microsoft SQL Server, and Teradata data sources
- Using DB2 CLI connection attributes, see "Using DB2 CLI Connection Attributes for DB2" on page 214

  This method applies to DB2 only.
- Adding application context to dynamic SQL, see "Using DB2 CLI Connection Attributes for DB2" on page 214

  This method applies to all database applications that support comments within a dynamic SQL statement.

Support for Macro Functions

The macro functions available in IBM Cognos software can provide information in a command block about users and reporting application objects, such as packages, reports, or queries. All macro functions can return values when referenced from a command block, which allows for application context to be passed to the database from a command block. Macro functions that reference parameter maps in a model may also be used.

Using Command Blocks

You can use database commands for Oracle (OR), DB2 (D2), Microsoft SQL Server (SS), and Teradata (TD) data sources.

Use the connection wizard to specify database commands that run when an Oracle connection or session is opened or closed, or when a DB2, Microsoft SQL Server, or Teradata session is opened.

For example, use a database command to set up proxy connections, see "Example - Using Command Blocks for Proxy Connections" on page 211 or for virtual private databases for an Oracle database, see "Example - Using Command Blocks for Virtual Private Databases for Oracle" on page 212.

You can use commands to run native SQL commands when you open a session, such as running a stored procedure.

When to Use Command Blocks

Command blocks execute as IBM Cognos software opens and closes database connections or a session on a connection. You can use the IBM Cognos session variables and macro functions to parameterize the commands.

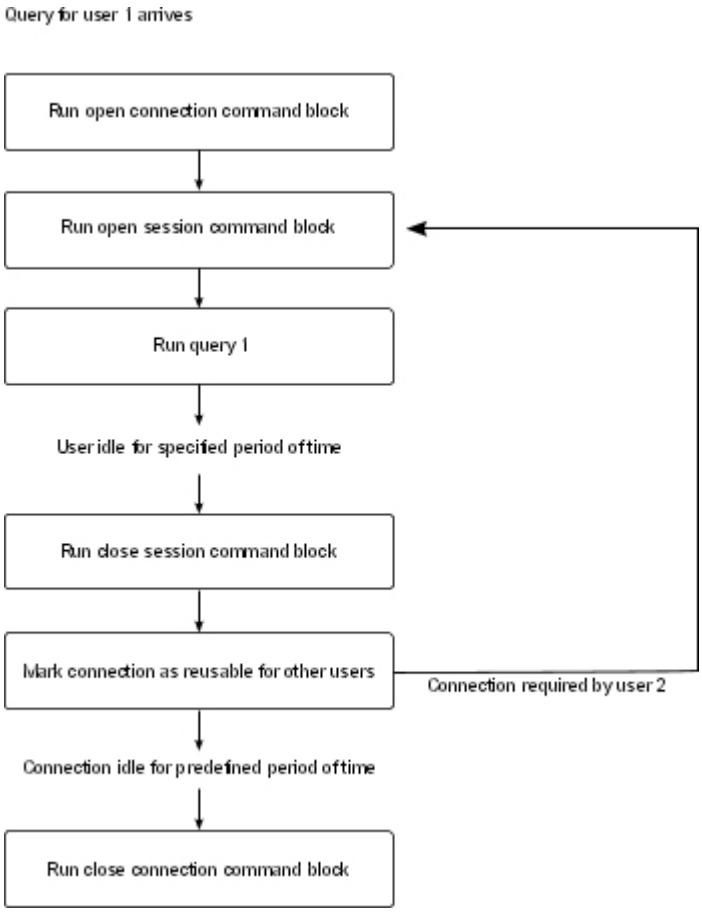
As an administrator, you must know when a command block executes for a database connection. It is often best to define the database statements in an open session command block. Open database connections execute less frequently because IBM Cognos pools and re-uses a database connection. Use open session command blocks if the application context of a database connection changes frequently.

If a database connection times out during testing, it may not indicate that another open database connection is needed. Consider the following questions when deciding how frequently to use open database command blocks:

- What are the database connection pool settings specified for the report servers in the CQEConfig.xml file?
- Does the database have aggressive idle connection timeout settings?
- Does the query engine have aggressive idle connection timeout settings?
- Is the period between requests longer than the timeout settings?
- Are there any requests routed to different report servers that have to create new connections?

Example of interaction between command blocks

Database commands are included in command blocks which are formatted using XML. The following diagram shows an example of the interaction between four command blocks, assuming that a connection to the database does not exist.



Considerations

- You cannot test the command blocks for connections using the **Test the connection** link on the connection string page. If you have Software Development Kit installed, you can ensure that your XML code validates against the schema file named *c10_location*/webapps/p2pd/WEB-INF/classes/DataSource.xsd

- The command structure is the same for all data sources. However, the specific database commands can vary depending on which database you are using. In this section, the examples use Oracle and DB2 commands.
- The commands in the blocks are vendor-specific and must be included in an <sqlCommand> tag.
- Depending on your settings, the query engine may open new connections more rapidly than may occur in a normally loaded application. This may create the false impression that information is being reset for each request that is executed.

Example - Open Connection Command Block

Here is an example of using an open connection command block to set French as the language for an Oracle connection.

```
<commandBlock>
  <commands>
   <sqlCommand>
    <sql>ALTER SESSION SET NLS_LANGUAGE = FRENCH</sql>
   </sqlCommand>
  </commands>
</commandBlock>
```

Example - Close Connection Command Block

Here is an example of using a close connection command block to re-set the language to English before disconnecting from an Oracle database.

```
<commandBlock>
  <commands>
   <sqlCommand>
    <sql>ALTER SESSION SET NLS_LANGUAGE = ENGLISH</sql>
   </sqlCommand>
  </commands>
</commandBlock>
```

Example - Passing Request Information

Here is an example of a DB2 open session command block which, when executed, generates a set of parameters to be passed to a user-defined procedure.

The example combines macro functions to ensure that the values are generated as valid string literals and string concatenations with some literals. The modelPath variable is an example of how to access properties of a request that was processed when the block was executed.

```
<commandBlock>
 <commands>
  <sqlCommand>
   <sql> CALL myproc(#sq($current_timestamp) + ',' +
            sq($machine) + ',' +
            sq(#$modelPath}#) + 'Constant1''''#)
   </sql>
  </sqlCommand>
 </commands>
</commandBlock>
```

After the macro is expanded, the database administrator obtains the following information about the query:

CALL myproc('2009-05-27 08:13:33.425-05:00','USERCOMPUTERNAME','/content/package[@name=''EAPPS'']/model[@name=''model'']', 'Constant1', '')

Example - Using Parameter Maps

This DB2 example shows how a database administrator can obtain model information.

An application standard might be to define a parameter map that appears in all models. The parameter map defines context information about the IBM Cognos application. This approach requires that any application that uses the connection must provide this information to avoid errors.

```
<commandBlock>
 <commands>
  <sqlCommand>
   <sql> CALL myproc(#sq($APP_INFO{APPNAME}) + ',' +
             sq($APP_INFO{'APPMAJOR'}) + ',' +
             sq($APP_INFO{'APPMINOR'}) + ',' +
             sq($APP_INFO{'APPCONTACT'}) + ', ''Constant1'' '#))
   </sql>
  </sqlCommand>
 </commands>
</commandBlock>
```

After the macro is expanded, the database administrator obtains the following information about the query:

```
CALL myproc('ApplicationName','10','1','TradingApp@email.com',
'Constant' )
```

Example - Passing Authentication Provider Details

This DB2 example shows how to include session information, sourced from an authentication provider, into the information passed to the database.

The command block invokes the DB2 procedure SYSPROC.WLM_SET_CLIENT and passes down values derived from the available session variables. This information can be used by database administrators when defining workload management rules in the database that give higher priority to specific user groups when a database connection is shared by multiple user groups.

```
<commandBlock>
 <commands>
  <sqlCommand>
   <sql> CALL SYSPROC.WLM_SET_CLIENT_INFO
   (#$account.personalInfo.userName#,
    'UserComputerName',
#$account.parameters.var1#, 'ApplicationName', 'AUTOMATIC')
   </sql>
  </sqlCommand>
 </commands>
</commandBlock>
```

Example - Using Command Blocks for Proxy Connections

If you are using proxy connections, you can use an existing idle connection with signons for proxy connections.

The physical connection can be used by more than one user. Because the proxy connections run on top of the existing physical connection, fewer physical connections are required.

To create a proxy connection, you create open session command blocks in XML.

The following is a simple example of an open session command block that creates a proxy connection for User1 (Oracle) or switches to User1 (DB2). Note that the sessionStartCommand can only be used with Oracle and DB2.

```
<commandBlock>
  <commands>
    <sessionStartCommand>
      <arguments>
        <argument>
          <name>OCI_ATTR_USERNAME</name>
          <value>PROXY_USER1</value>
        </argument>
      </arguments>
    </sessionStartCommand>
  </commands>
</commandBlock>
```

Another example is a macro that can be substituted if authentication userNames are equivalent to the proxy userid or trusted context user.

```
<commandBlock>
  <commands>
    <sessionStartCommand>
      <arguments>
        <argument>
          <name>OCI_ATTR_USERNAME</name>
          <value>#$account.personalInfo.userName#
          </value>
        </argument>
      </arguments>
    </sessionStartCommand>
  </commands>
</commandBlock>
```

The following is a simple example of a close session command block for a proxy session. The current proxy connection is terminated. Note that sessionEndCommand ends an OCI_session in Oracle and switches the user back to the trusted context owner for DB2.

```
<commandBlock>
  <commands>
    <sessionEndCommand>
      <arguments/>
    </sessionEndCommand>
  </commands>
</commandBlock>
```

Example - Using Command Blocks for Virtual Private Databases for Oracle

Typically, Oracle uses signons to determine the database information that users can access. A virtual private database determines which users can access which information, without further signon information required.

You create a command block for the connection using macros that are substituted at run time for the logged on user. The macros identify the user so that the user need not re-enter signon information.

If all users who access the database are defined as database users and user accounts are used for connections, you can set up the context automatically when the connection is established. For example, the macro can be substituted for the userName.

The XML command block stores a series of commands that are run in the stated sequence. This may include the commands that are described in Appendix F, "Schema for Data Source Commands," on page 731.

The following example shows an XML command block for a virtual private database.

This command block sets up a context (virtual private database) within the connection based on the passed parameter. The passed parameter is retrieved from the environment, which is related to the user's logon at the portal level. These variables can be modified in the configuration tool. Their values are user specific and obtained using the security control mechanism (CAM).

```
<commandBlock>
  <commands>
    <sqlCommand>
      <sql>BEGIN PKG_COUNTRY_CONTEXT.SP_SET_COUNTRY1
       (#$account.parameters.var1#);
END;</sql>
    </sqlCommand>
  </commands>
</commandBlock>
```

This example shows account parameter substitution. You must specify account information as custom properties. For information about session properties, see the Framework Manager *User Guide*.

Note: Command blocks for Oracle proxy connections and virtual private databases at the data source level apply to all connections to that data source.

Trusted Database Connections

You can establish a connection between the database and IBM Cognos software where multiple users connect to the database using the database trusted connection feature.

A data source that is used for trusted application connections should define open session blocks for any user-specific database state that must be defined prior to the proxy users queries being issued. The associated Open Connection block is only executed once when the trusted connection is attempted, while Open Session blocks may execute many times for different users.

The information that a connection is going to proxy a request on behalf of a user, who is allowed to use proxy logons, is provided to the database using the following session command block attached to the trusted database connection:

```
<commandBlock>
 <commands>
  <sessionStartCommand>
   <arguments>
    <argument>
     <name>OCI_ATTR_USERNAME</name>
     <value>#$account.defaultName#</value>
    </argument>
   </arguments>
  </sessionStartCommand>
 </commands>
</commandBlock>
```

Add Command Blocks While Creating a Data Source

You add command blocks using the connection wizard.

By default, connections acquire properties from the parent data source. You can modify this later.

Procedure

1. Create a data source, choosing **Oracle**, **IBM DB2**, or one of the Microsoft SQL Server data sources as the data source type. For more information, see "Oracle Data Sources" on page 189, "DB2 Data Sources" on page 168 and "Microsoft SQL Server Data Sources" on page 184.
2. Click **Next**.
3. In the specify commands page, click **Set** next to the command string that you want to specify.
4. In the set command page, add an XML command block, and click **OK**.

   Note: If you are using DB2 or Microsoft SQL Server, you can only add commands block for opening a session.
5. Continue adding command blocks, as required.
6. Click **Finish**.

Add or Modify Command Blocks for a Connection

Connections acquire properties from their parent data source.

If you have added a command block for a data source, then that command block is available to Oracle, DB2, or Microsoft SQL Server connections in that data source. You can change a command block for a specific connection, and you can remove the command block if you do not want it used for the connection.

Procedure

1. Create a connection or modify a connection, choosing **Oracle**, **IBM DB2**, or one of the Microsoft SQL Server data sources as the data source type.
2. Click **Next**.
3. Click **Set** or **Edit** next to the command block that you want to modify.

   The **Acquired** column shows **Yes** or **No** to indicate whether the connection acquires properties from its parent data source.
4. In the set command page, add or modify the XML code command block, and click **OK**.

   Tip: You can reset command blocks by selecting the check box next to the connections clicking **Reset to parent value** or **Clear**.

   If you are using DB2 or Microsoft SQL Server, you can only add commands block for opening a session.
5. Continue adding or modifying command blocks, as required.
6. Click **Finish**.

Using DB2 CLI Connection Attributes for DB2

DB2 Call Level Interface (DB2 CLI) is a callable SQL interface to DB2 LUW, DB2 for z/OS® and DB2 for i. IBM Cognos Business Intelligence can change some of the DB2 CLI connection attributes to pass application context to DB2 in a format acceptable to the components of IBM Optim™ Integrated Data Management.

This information can later be retrieved from DB2 special registers using SQL statements.

To enable this functionality in IBM Cognos BI, you must modify the CQEConfig.xml file on each IBM Cognos report server computer configured for your IBM Cognos environment. For more information, see "Using DB2 CLI Connection Attributes for DB2" on page 214. Because this functionality is set up at the query level, the information associated with the connection attributes is automatically updated every time the report runs.

The following list shows the DB2 CLI connection attributes that can be changed by IBM Cognos BI, and the type of information that these attributes can pass to DB2:

- SQL_ATTR_INFO_USERID

  Specifies the name of the user running a report.
- SQL_ATTR_INFO_WRKSTNNAME

  Specifies the address of the system on which the user's browser is installed.
- SQL_ATTR_INFO_APPLNAME

  Specifies the package name associated with the query. If the string is longer than 32 characters, it overflows to $SLOT2 in the accounting string.
- SQL_ATTR_INFO_ACCTSTR

  Specifies the prefix or string that associates the request with IBM Cognos BI. The values are:

Value	Description
COG	Associates the request with IBM Cognos products in IBM Optim Integrated Data Management.
ccc	Associates the request with an IBM Cognos solution. For version 8.4, this is set to BI.
vr	Specifies the version of IBM Cognos product, such as 8.4.

Value	Description
Additional accounting information	This information is divided into the following fields (slots): • $SLOT2 - $packageName (overflow section for $SLOT1) • $SLOT3 - $reportName • $SLOT4 - $queryName • $SLOT5 - $reportPath Each slot has a fixed length that accepts strings containing no more than 46 bytes, padded with blanks if necessary. Because report paths, model paths, and so on, are often long, the strings may be shortened to adjust to the space limitations. **Note:** In DB2, values passed to the API cannot contain single quote characters, which are converted to spaces. If the character set encoding is using multiple bytes per character, the character is converted to "?" in order to avoid overflow. This is important where Unicode is used and a character may require more than 2 bytes.

Procedure

1. Copy the *c10_location*/configuration/CQEConfig.xml.sample file to *c10_location*/bin and rename it to CQEConfig.xml.

   Note: If the CQEConfig.xml was used for other purposes, for example to disable session caching, it may already exist in the *c10_location*/bin directory. In this situation, use the existing CQEConfig.xml file to perform the remaining steps.
2. Open the *c10_location*/bin/CQEConfig.xml in an editor.

   Ensure that your editor supports saving files in UTF-8 format.
3. Locate the `<section name="QueryEngine">` element and add the `DB2WFM` entry with a value of 1, as shown below:

   ```
   <section name="QueryEngine">
         <entry name=" DB2WFM" value="1"/>
          ...
   </section>
   ```

   To disable this functionality, set the value to zero or remove the element.
4. Save the CQEConfig.xml file.
5. Repeat the steps for each report server computer configured for your IBM Cognos environment.
6. Restart the IBM Cognos service.

Add Application Context to Dynamic SQL

Database server administrators can log and analyze the dynamic SQL workload generated by IBM Cognos software.

As an IBM Cognos administrator, you can define a custom string that includes application context that is added as a comment marker within SQL generated by

the application. You can use literals, macros, and session variables, such as a user name, server name, qualified report path, and so on, to customize the comment generated by Cognos software.

Note: The Database administrator should check to see if their database client strips comments from statements prior to sending to the server. This option is probably configurable, check with your database client provider.

By using the applicable session variables, you can configure the format of the string for specific tools and products that can extract comments from dynamic SQL. IBM Cognos software includes the comments within any dynamic SQL it generates to a Relational Database Management System (RDBMS) if the vendor supports this functionality.

Use the CQEConfig.xml.sample file included with the product to customize the string specifications. The macro in this file shows the default entries that IBM Cognos software uses for generating the comments. However, you can add other entries as well.

The following example shows kinds of session variables you can specify in the macro in the CQEConfig.xml.sample file:

```
<configuration company="Cognos" version="0.1" rendition="cer2">
 <component name="CQE">
  <section name="QueryEngine">
   <entry name="GenerateCommentInNativeSQL" value="1"/>
   <!-- ( default(off)=0, on=1) -->
   <entry name="GenerateCommentInCognosSQL" value="1"/>
   <!-- ( default(off)=0, on=1) -->
   <!-- The content of the comments is controlled with two entries, their
defaults are specified in the value attribute -->
   <entry name="NativeCommentMacro" value="# 'NC user=' + $account.defaultName
+ 'report=' + $report + 'start=' + $startTime + 'modelPath='  +
$modelPath + 'reportPath=' + $reportPath + ' queryName=' + $queryName
+ ' REMOTE_ADDR=' + $REMOTE_ADDR + 'HTTP_HOST=' + $HTTP_HOST + 'SERVER_NAME='
+ $SERVER_NAME +' requestID=' + $requestID + 'sessionID=' + $sessionID
#"/>
   <entry name="CognosCommentMacro" value="# 'CC user=' + $account.defaultName
+ 'report=' + $report + 'start=' + $startTime + 'modelPath='  +
$modelPath + 'reportPath=' + $reportPath + ' queryName=' + $queryName
+ ' REMOTE_ADDR=' + $REMOTE_ADDR + 'HTTP_HOST=' + $HTTP_HOST + 'SERVER_NAME='
+ $SERVER_NAME +' requestID=' + $requestID + 'sessionID=' + $sessionID
#"/>
  </section>
 </component>
</configuration>
```

At run time, the macro used in the above example would add the following comment to the automatically-generated SQL, or native SQL:

```
/* CC user=Anonymous report=REPORT1
start=2008-08-28T01:59:35.403Z modelPath=/content/package
[@name='New Package']/model[@name='model']
reportPath=/content/package[@name='New Package']/report[@name='REPORT1']
queryName=Query1 REMOTE_ADDR=127.0.0.1 HTTP_HOST=localhost
SERVER_NAME=localhost
requestID=wq2lshM9jGhqdMj9h92MqlqvdMlhyMlGq9lyG9sq
sessionID=010:0d159165-745a-11dd-ac9f-b741aeca4631:2789499633
*/
select distinct
       ALL_TIME.CALENDAR_WEEKDAY  as  CALENDAR_WEEKDAY
 from
       EAPPS..EAPPS.ALL_TIME ALL_TIME
```

Not all information in the generated comment is meaningful in all situations. The request and session ID information provides a link to the auditing facility, perfQFS performance information, and other traces in IBM Cognos 8.4. However, the name of a query in a report and the report itself may be meaningless, for example, when a user is performing an ad-hoc query or analysis as opposed to running a saved query, analysis or report.

By default, an anonymous user cannot see all session variables in the generated comments.

Procedure

1. Copy the *c10_location*/configuration/CQEConfig.xml.sample file to *c10_location*/bin and rename it CQEConfig.xml.

   Note: If the CQEConfig.xml was used for other purposes, for example to disable session caching, it may already exist in the *c10_location*/bin directory. For more information, see "Session Caching" on page 151. In this situation, use the existing CQEConfig.xml file to perform the remaining steps.
2. Open the *c10_location*/bin/CQEConfig.xml in an editor.

   Ensure that your editor supports saving files in UTF-8 format.
3. Locate and uncomment the lines of code that begin with:

   ```
   entry name="GenerateCommentInNativeSQL"...
   entry name="GenerateCommentInCognosSQL"...
   entry name="NativeCommentMacro"...
   entry name="CognosCommentMacro"...
   ```
4. If you want, you can modify `NativeCommentMacro` and `CognosCommentMacro` by specifying the required parameter values and deleting the parameters that you do not need.

   If you leave a parameter value empty, the parameter will not appear in the generated comment.
5. Save the CQEConfig.xml file.
6. Restart the IBM Cognos service.

Securing Data Sources

You can secure data sources using IBM Cognos security or data source-specific security.

The IBM Cognos security for a data source does not override security policies that already exist for the data source. For example, for IBM Cognos cubes, the security may be set at the cube level. For Microsoft Analysis Server data sources, the security may be set using cube roles.

Depending on the data source, one or more of the following authentication methods are available:

- no authentication

  IBM Cognos software logs on to the data source without providing any signon credentials.
- IBM Cognos service credentials

IBM Cognos software logs on to the data source using the logon specified for the IBM Cognos service. Users do not require individual database signons. For production environments, however, individual database signons are generally more appropriate.

- external namespace

  IBM Cognos software logs on to the data source with the credentials used to authenticate to the specified authentication namespace. The namespace must be active, users must be logged on prior to accessing the data source, and the authentication credentials used for the namespace must be relevant for the data source authentication.

All data sources also support data source signons defined for the Everyone group or for individual users, groups, or roles, see Chapter 14, "Users, Groups, and Roles," on page 247. If the data source requires a signon, but you do not have access to a signon for this data source, you are prompted for authentication each time you access the data source.

Chapter 9. Query Service Administration

The query service supports the IBM Cognos Business Intelligence dynamic query mode.

For more information, see Chapter 8, "Data Sources and Connections," on page 167.

Using Cognos Administration, you can perform the following query service administration tasks:

- set query service properties
- administer query service caching

In addition, you can set the audit logging level for the query service. For more information, see "Setting Up Audit Reporting" on page 75.

You must have the required permissions to access **IBM Cognos Administration**. For more information, see Chapter 15, "Access Permissions and Credentials," on page 253. You must also have the query service administration capability. For more information, see Chapter 16, "Secured Functions and Features," on page 261.

Query Service Properties

The Query service uses environment, logging, and tuning configuration settings. A summary of these settings can be viewed on the bottom right pane of the Query Service page. The following table describes the properties that you can set for the query service.

Parameter	Description
Advanced Settings	Click Edit to specify advanced configuration settings. Because an entry acquires advanced settings from a parent, editing these settings overrides these acquired advanced settings.
Audit logging level for query service	Select the level of logging that you want to use for the query service.

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Parameter	Description
Enable query execution trace?	Enables or disables a query execution trace (run tree trace). A query execution trace lets you view queries that are executed against a data source and is used to troubleshoot query-related issues. Select **Yes** or **No**. The default is **No**. You can find execution trace logs in the following location: *c10_location*/logs/XQE/*reportName*/runtreeLog.xml. You can view and analyze runtreeLog.xml files using the Dynamic Query Analyzer. For more information, see the IBM Cognos 10 *Dynamic Query Cookbook* in the Proven Practices section of the IBM Cognos Customer Service Center: http://www.ibm.com/software/data/cognos/customercenter/
Enable query planning trace?	Enables or disables query plan tracing (plan tree), which captures the transformation process of a query. You can use this information to gain an advanced understanding of the decisions and rules that are executed to produce an execution tree. Select **Yes** or **No**. The default is **Yes**. The query planning trace is logged for every query that is executed using dynamic query mode. You can find planning trace logs in the following location: *c10_location*/logs/XQE/*reportName*/plantreeLog.xml Since planning logs are large, there is an impact on query performance when this setting is enabled.
Idle connection timeout	Specifies the number of seconds to maintain an idle data source connection for re-use. The default setting is 300. Valid entries are 0 to 65535. Lower settings reduce the number of connections at the expense of performance. Higher settings might improve performance but raise the number of connections to the data source.

Parameter	Description
Write model to file	Specifies if the query service should write the model to a file when a query is executed. The file is used only for troubleshooting purposes, under the guidance of Customer Support. Select **Yes** or **No**. The default is **No**. You can find the file in the following location: *c10_location*/logs/model/*packageName*.txt
Additional JVM arguments for the query service	Specifies other arguments that control the Java Virtual Machine (JVM). The arguments may vary depending on the JVM.
Initial JVM heap size for the query service	Specifies the initial size, in MB, of the Java Virtual Machine (JVM) heap.
JVM heap size limit for the query service	Specifies the maximum size, in MB, of the Java Virtual Machine (JVM) heap.
Minimum query execution time before a result set is considered for caching	Specify the minimum amount of time to wait for a query before caching the results.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.
4. Click the dispatcher to see a list of services.
5. Next to **QueryService**, click the set properties button  .
6. Click the **Settings** tab.
7. In the **Value** column, type or select the value for the settings that you want to change.
8. Click **OK**.

Query Service Caching Administration

Caching reuses previously executed results and, when possible, avoids new queries to the database.

Caching can improve performance when reports are re-run with small modifications, analyses are performed within the same cube, and repetitive master-detail requests are performed for large reports. The cache maintains the security permissions of the user who executes the request.

Clear Everything in the Cache

To avoid using outdated data that might be stored in the cache, you can clear the cache.

You might want to clear the cache manually if your data source metadata changes infrequently or if you want to clear the cache in between automatically scheduled cache clearing. When you clear the cache using the following steps, it clears everything in the cache.

If you want to clear the cache for a specific data source, catalog, or cube, create a query service administration task. You might also want to create a query service administration task if your data source metadata changes regularly and you want to set an automatic cache clearing schedule. For example, you might want to set a schedule to clear the cache hourly, daily, or weekly. For more information, see "Create and Schedule Query Service Administration Tasks" on page 225.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Query Service Caching**.
4. Select the server groups for cache clearing.
5. Click **Clear cache**.

   The status of the **Clear cache** command is displayed.

   If a cache is being used by one or more pending reports or queries, it is internally flagged as "stale" by this command and is automatically cleared as soon as this usage completes.
6. Click **Close**.

Analyze Cache Usage

You can analyze cache usage by producing a time-stamped XML file showing the state of specified cube caches (number of cache hits and cache misses for different levels of a cube).

This is useful to find out which cubes are in the cache at any point in time. The file includes a list of the data source name, catalog name and cube name for cubes that are currently cached. This can help you decide when to clear the cache.

The report is stored in the *c8_location*/logs directory. The filename has the format SALDump_*prefix_datasource name_category name_cube name_timestamp*.xml.

You can also schedule the cache state writing to run automatically. For more information, see "Create and Schedule Query Service Administration Tasks" on page 225.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Query Service Caching**.
4. Select the server groups for cache clearing.
5. Click **Write cache state**.

   The status of the **Write cache state** command is displayed.
6. Click **Close**.

Create and Schedule Query Service Administration Tasks

You can create query service administration tasks to do several scheduling tasks.

You can

- schedule cache clearing and clear the cache to control memory usage by a specific data source or cube
- schedule the generation of a time-stamped report (write cache state)

You can also clear the entire cache manually and write the cache state to a report manually. For more information see, "Clear Everything in the Cache" on page 223 and "Analyze Cache Usage" on page 224.

You can create query service administration tasks and run them on demand. You can run them at a scheduled time Chapter 22, "Schedule Management," on page 343 or based on a trigger, such as a database refresh or an email "Trigger-based Entry Scheduling" on page 349. You can schedule them as part of a job "Use Jobs to Schedule Multiple Entries" on page 346. You can also view the run history of query service administration tasks "View the Run History for Entries" on page 338.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Content Administration**.
4. Click the New Query service administration task button  in the upper-right corner.
5. Specify a name, description, screen tip, and location. Click **Next**.
6. Select an operation, either **Clear Cache** or **Write Cache State**.
7. Enter the data source, catalog, and cube. Click **Next**.

   Enter an asterisk (*) as a wildcard to specify all.
8. Choose the action that you want:
   - To run the task now or later, click **Save and run once** and click **Finish**. Specify a time and date for the run, and then click **Run**. Review the run time and click **OK**.
   - To schedule the task at a recurring time, click **Save and schedule** and click **Finish**. Then, select frequency and start and end dates. Click **OK**.

     Tip: To temporarily disable the schedule, select the **Disable the schedule** check box. To view the schedule status, see "Manage Scheduled Activities" on page 335.
   - To save the task without scheduling or running, click **Save only** and click **Finish**.

Chapter 10. Back Up Data

We recommend that you regularly back up your IBM Cognos software data and configuration settings, and your Framework Manager projects and models. This prevents the loss of your data should your computer be damaged or stolen. After your computer is operational, you can restore your data.

Because backing up consumes system resources, if IBM Cognos software is running while the database is backed up, its performance will be affected.

If you changed the location of the encryption and signing key settings from the default location, ensure that you back up the directory that contains them. Also, if the key stores are secured with passwords, ensure that you retain these passwords.

Data you back up is meant to be restored to the same computer. For information about moving data from one computer to another, see Chapter 23, "Deployment," on page 351.

For information about backing up data before you upgrade your software, see the upgrade topic in the IBM Cognos Business Intelligence *Installation and Configuration Guide*.

If you use a source control system to store your Framework Manager projects, you do not need to back up your projects.

If you customized any information in IBM Cognos Configuration or in the content store, ensure that it is backed up correctly.

Back Up the Content Store

You can back up the content store.

Procedure

1. Back up the content store.
   For more information, see your database documentation.
2. Copy the *c10_location*/configuration directory to the backup location.
   This directory contains the configuration settings.

Results

If you must ever restore the configuration settings, you can copy the backed-up directory to the correct location.

For information about restoring the content store, see your database documentation.

Back Up Framework Manager Projects and Models

You can back up Framework Manager projects and models.

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Procedure

Copy the Framework Manager project directory and its subdirectories to the backup location.
By default, the projects and models are located in My Documents/My Projects.

Results

If you must ever restore the Framework Manager projects and models, you can copy the backed-up directories to the correct location.

Chapter 11. IBM Cognos Content Archival

Storing archived content in your external repository provides you with the ability to adhere to regulatory compliance requirements, and can enhance the scalability and performance of IBM Cognos products by reducing the size of content in the content store.

Administrators create a data source connection to an external repository to allow content to move from the content store to the repository. Users can view the archived content in the external repository from IBM Cognos Connection. By providing search results for recent and archived content, users can make critical comparisons between current data and historical data. This efficient mechanism allows your company to meet corporate and government requirements while providing a seamless user experience.

There are two workflow scenarios for archiving your content. The first workflow allows administrators archive packages and folders after installing IBM Cognos Content Archival software. The second workflow allows administrators to create repository connections for new packages and folders. The tasks for each workflow scenario are described below.

Workflow 1: Archiving content after installing connectivity software

Administrators can archive saved report output for specific packages and folders or all packages and folders after installing or upgrading IBM Cognos Business Intelligence. This workflow only needs to be completed once since all of your content is currently located in your content store.

- Create a data source connection to the external repository.
- In Cognos Connection, select repository connections for the packages and folders that need to be archived.
- Create and run a content archival maintenance task to select folders and packages to archive in the external repository.

Once you set a repository connection for packages and folders, any new report output is automatically archived, which means that there is no need to run the content archival maintenance task again.

For information about installation and configuration tasks, see the IBM Cognos Business Intelligence *Installation and Configuration Guide*.

Workflow 2: Creating repository connections for new packages and folders

Administrators can create repository connections for new packages and folders by completing these tasks:

- Create a data source connection to the external repository.
- In Cognos Connection, select repository connections for the packages and folders that need to be archived.

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Using content archival content maintenance tasks

The content archival content maintenance task creates a reference to the report versions in the folders and packages that you select and configure. Selecting folders and packages marks the content within and allows it to remain in the content store until it is archived in your external repository.

It is important to note that this task does not move your content from the content store to the external repository. You must select repository connections for your packages and folders in IBM Cognos Connection first ("Specifying an external repository for report output" on page 232). Report versions in folders and packages that are not marked for archiving are available for deletion from the content store.

Once the content is marked, the content archival task is complete. A background task in Content Manager finds the marked items and then copies and saves them in the external repository.

Importing content into a folder or package that is configured for archiving to an external repository does not automatically move and archive the imported content into the repository. An administrator must run a content archival content maintenance task for this folder or package to archive the imported content.

Background tasks

The background XML tasks used to move content from the content store to the external repository are archiveTask.xml and deleteTask.xml. The archiveTask.xml file moves marked content to an external ECM repository. You can also use this file to set thread execution times and archive outputs of selected formats. The deleteTask.xml file is a configuration file that retrieves and deletes marked version objects from the queue.

For more information, see the IBM Cognos Business Intelligence*Installation and Configuration Guide*.

Preserve Content IDs before you archive

If required, you can preserve content IDs before report output is archived.

Objects in the content store have content IDs that are deleted and replaced with new IDs by default when you run an import deployment and move content to a target environment. However, there may be situations when you must preserve content IDs, for example, when moving report output to a external report repository.

For more information, see "Content ID assignment" on page 374.

External repository data sources

You specify connection parameters when you create a data source or modify a data source connection.

IBM Cognos software supports IBM FileNet® Content Manager as an external repository.

Note: You need to install, configure, and set up your IBM FileNet Content Manager repository before you create a Filenet data source connection.

IBM FileNet Content Manager connection parameters

Use the information in the following table to enter the parameter information required when you create an external repository connection for IBM FileNet Content Manager.

For information about creating data sources, see "Create a Data Source" on page 198.

Parameter	Description
FileNet URL	Enter the URL for the Filenet location using the format: http://<server_name>:portnumber/<FileNet CMIS_name>/ <FileNet_archive_location>/ Example: http://server1:9080/fncmis/archive/
Driver class name	The driver class name is automatically populated and does not need to be modified. The driver class name is: com.ibm.cognos.cm.CMISRepository.CMISRepositoryPlugin
Root path	Enter the folder location to store the archived content in IBM FileNet Content Manager. This location must already exist in IBM FileNet. For example, you could have a folder location in Filenet called Report Repository.
Repository Connection Parameters	Optionally, enter parameters to append to the URL for the Driver class name.
Signon	If no authentication is required, do nothing. If authentication is required, select the **User ID** check box. If a password is required, select the Password checkbox. To create a user ID and password that automatically connects to the data source, click Create a signon that the Everyone group can use. Enter the User ID and then enter the password in the Password and Confirm password boxes.

Creating a connection to a file system

Administrators create a data source connection to a file system in a test or proof-of-concept environment only. Connecting to a file system allows you to test or demonstrate IBM Cognos Content Archival.

Before you begin

The value that you enter for the [*AliasRoot_name*] in the connection string is the value that you provided for **Alias Roots** in IBM Cognos Configuration. The aliasRoot name is used to point to the external repository. For more information, see the IBM Cognos Business Intelligence *Installation and Configuration Guide*.

Procedure

1. Launch **IBM Cognos Administration**.
2. On the **Configuration** tab, select **Data Source Connections**.
3. Select the new data source button.
4. In the name and description page, type a unique name for the data source and, optionally, a description and screen tip, and then select **Next**.
5. In the connection page, from the **Type** drop-down list, select External Repository - IBM FileNet Content Manager.
6. In the connection string page, type dummy values in the **FileNet URL** and **Root path** boxes, and then click **Finish**. The **Data Source Connections** page appears.
7. Select the data source connection that you created, and then click the set properties icon.
8. In the Set properties page, select the **Connection** tab.
9. From the **Type** drop-down list, select **Other type** as the data source.
10. Type the following in the **Connection string** box:
    UserID:?Password:;LOCAL;RP-CMIS-FILESYSTEM;URL=;
    DRIVER_NAME=com.ibm.cognos.cm.fileSystemPlugin.
    FileSystemArchivePlugin;ROOT=[*AliasRoot_name*];
11. Select **Test the connection**, and then **Test** to test whether parameters are correct. In the **Status** column, you can see if the connection was successful. If it was unsuccessful, select **Close**, return to the previous steps, and verify your connection parameters. If it was successful, go to the next step.
12. Click **OK**.

Specifying an external repository for report output

Report output can be archived to an external report repository for long-term storage. You must specify a repository at the folder and package level before content can be archived to the repository.

To specify a repository, a connection to the repository must exist and you must have sufficient privileges to select the repository. You must have execute permission for the secured feature **Manage repository connections** for the **External Repositories** capability. When a connection is specified, any new report output versions are automatically copied to the external repository.

If a data source connection to an external repository is specified already, it can be overridden and another repository selected. If you no longer want to archive content in the package or folder, you can remove the reference to the connection using the **Clear** option. Here is an example. A subfolder acquires a repository connection from the parent folder by default. However, either you do not want the contents of the subfolder to be archived, or you do not want the contents of the subfolder archived to the repository specified for the parent folder. To exclude the contents of a subfolder from being archived, use the **Clear** option. To use a different repository from the parent folder, specify a connection for the subfolder.

You can also create a data source connection to an external repository for a folder or package if the repository exists and you have sufficient permission to create a repository connection. For more information, see "External repository data sources" on page 230.

Procedure

1. With a folder or package selected, click Set properties icon.
2. On the **General** tab, go to the **Report repository** section.
3. To specify a data source or change an existing data source, select **Override the report repository acquired from the parent entry**.
4. Under **Connection**, click **Select a connection**.
5. In the **Select the data source (Navigate)** window, select the data source.

Creating content archival content maintenance tasks

Create a content archival content maintenance task to move report output within folders and packages for archiving to your external repository.

About this task

You can create and schedule a content archival task to mark report output versions, which are in folders and packages, for archival. Content that is marked for archival is copied and saved in your external repository.

Folders and packages that are marked for archival cannot be deleted from the content store until successfully moved and saved in the external repository.

Procedure

1. Launch IBM Cognos Administration.
2. On the **Configuration** tab, click **Content Administration**.
3. On the toolbar, click the new content maintenance icon, and then click **Content Archival**.
4. Type a name for the content archival task and, optionally, a description and screen tip. Click **Next**.
5. Select the folders and packages that you want to mark for archival.
6. Select the recording level.
7. Choose one of the following:
   - To run once now or later, click **Save and run once**. Click **Finish**, specify the time and date for the run, then click **Run**. Review the run time and click **OK**.
   - To schedule at a recurring time, click **Save and schedule**. Click **Finish**, and then select frequency and start and end dates. Click **OK**.
   - To save without scheduling or running, click **Save only** and click **Finish**.

Creating a retention rule update maintenance task

Create a retention rule update maintenance task to globally modify the number of report output versions, document content versions, and report history that are currently kept in the content store.

About this task

Administrators use the retention rule update task to specify the number of reports, queries, analyse, and document objects to keep in the content store. You can specify how long to keep the history and output versions in the content store. Anything that is older than the date you specify is deleted from the content store. This update task marks output versions to be deleted from the content store if the output versions do not follow the defined retention rule. A background task in

content manager deletes the marked objects from the content store. To reduce the content in the content store, consider keeping a maximum of two versions in the content store and archiving older versions in your external repository.

Note: Run this task only after creating and running the content archival task. If you run it before, content that was not marked for archival is permanently deleted from the content store.

Procedure

1. Launch IBM Cognos Administration.
2. On the **Configuration** tab, click **Content Administration**.
3. On the toolbar, click the new content maintenance icon, and then click **Retention Rule Update**.
4. Type a name for the retention rule update task and, optionally, a description and screen tip. Click **Next**.
5. Select the folders and packages that you want to include.
6. For **Run history** retention settings, do one of the following:
   - To keep the run history for a specific number of occurrences, click **Number of occurrences** and type the number. To save an unlimited number of report outputs, set this value to 0.
   - To keep run history for a specific length of time, click **Duration** and click either **Days** or **Months**. Type the appropriate value in the box.
7. For **Output versions** retention settings, do one of the following:
   - To keep report output for a specific number of occurrences, click **Number of occurrences** and type the number. To save an unlimited number of report outputs, set this value to 0.
   - To keep report output for a specific length of time, click **Duration** and click either **Days** or **Months**. Type the appropriate value in the box.
8. Select the recording level, and click **OK**.
9. Choose one of the following:
   - To run once now or later, click **Save and run once**. Click **Finish**, specify the time and date for the run, then click **Run**. Review the run time and click **OK**.
   - To schedule at a recurring time, click **Save and schedule**. Click **Finish**, and then select frequency and start and end dates. Click **OK**.
   - To save without scheduling or running, click **Save only** and click **Finish**.

Creating a content removal content maintenance task

Create a new content removal content maintenance task to mark history objects and report output versions, which are in folders and packages, for deletion.

About this task

You can specify how long to keep the history and output versions in the content store. Anything that is older than the date you specify is deleted from the content store.

Note: Run this task only after creating and running the content archival task. If you run it before, content that was not marked for archival is permanently deleted from the content store.

Procedure

1. Launch IBM Cognos Administration.
2. On the **Configuration** tab, click **Content Administration**.
3. On the toolbar, click the new content maintenance icon, and then click **Content Removal**.
4. Type a name for the content removal task and, optionally, a description and screen tip.
5. Click **Select another location** if you want to edit the location. Navigate to select the folder or click **New Folder** to add a new location. Click **OK**.
6. Click **Next**.
7. Select the folders and packages that you want to include.
8. For **Run history** settings, click the **Run history** check box, type the appropriate value in the box, and then select either **Days** or **Months**.
9. For **Output versions** settings, click the **Output versions** check box, type the appropriate value in the box, and then click either **Days** or **Months**.
10. Select the recording level, and click **OK**.
11. Choose one of the following:
    - To run once now or later, click **Save and run once**. Click **Finish**, specify the time and date for the run, then click **Run**. Review the run time and click **OK**.
    - To schedule at a recurring time, click **Save and schedule**. Click **Finish**, and then select frequency and start and end dates. Click **OK**.
    - To save without scheduling or running, click **Save only** and click **Finish**.

Finding content in your external repository

Your archived content can be viewed in IBM Cognos Connection or in your external repository.

After your content is moved and archived, it is stored in the location specified when you created the data source connection to your external repository.

Searching archived content

Retrieving report content is important wherever the location. In IBM Cognos Connection, you can access content stored in the IBM Cognos content store and in an external repository. By providing search results for recent and archived content, users can make critical comparisons between current data and historical data.

When performing searches for archived content, users can search on an element in a report name or a data element in a report, depending on the settings used to build the search index. The archived content can be viewed by clicking the links in the search results. For more information about searching for entries, see “Searching for entries using full text and all fields” on page 303.

To search content in an external report repository, you must have the **Execute Indexed Search** capability. In addition, archived content must exist. For information about setting up enhanced or indexed search, see Chapter 31, “Managing Index Search,” on page 471.

Content that is stored in a report repository is not available to IBM Cognos Business Insight workspaces. When a search is performed in Business Insight, archived report output is not reported.

Chapter 12. Data Movement Entries

The main purpose of Data Manager is to create data warehouses and data repositories for reporting, analysis, and performance management.

Data Manager creates data warehouses and data repositories by

- extracting operational data from multiple sources
- transforming and merging the data to facilitate enterprise-wide reporting and analysis
- delivering the transformed data to coordinated data marts

Data Manager can be used to transfer data into single database tables and, where more complex transformations are required, to populate data warehouse fact tables and dimension tables.

Data Manager integrates with other IBM Cognos Business Intelligence products by delivering metadata to Framework Manager. This allows target data warehouse and data repositories to be modeled and used in IBM Cognos Business Intelligence and Performance Management projects.

For more information, see the Data Manager *User Guide*.

In IBM Cognos software, Data Manager tasks are contained in a data movement entry. After a data movement entry is published to IBM Cognos software, use IBM Cognos Connection to do the following:

- run the entry
- change default properties
- create a data movement view

You can schedule data movement entries to run at a specified time or based on a trigger, such as a database refresh or an email Chapter 22, “Schedule Management,” on page 343. If you want to use an agent Chapter 28, “Agents,” on page 441 for a data movement entry, include the entry as part of a job “Use Jobs to Schedule Multiple Entries” on page 346, and then include the job in an agent.

You can view the run histories for data movement entries “View the Run History for Entries” on page 338, and rerun failed data movement entries “Rerun a Failed Entry Task” on page 340.

Variables

A user-defined variable is a name and value pair that affects the operation of Data Manager programs, stores values for use in builds and JobStreams, and controls the flow of JobStreams. You can edit existing variables and add new variables for data movement entries in IBM Cognos software using the **Variables** tab when you set properties for the entry. For example, you might have a name/value pair of "ROWS/100" that returns 100 rows for a data movement entry.

The name of a variable must

- start with an alphabetic character
- contain only alphanumeric characters, and underscores

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Names of variables are not case sensitive and you can use a mixture of uppercase and lowercase characters in the name of a variable.

Run a Data Movement Entry

You can manually run a data movement entry at any time to perform the Data Manager tasks that it includes.

You can also schedule data movement entries. For more information, see Chapter 22, "Schedule Management," on page 343.

Before you begin

You must have the required permissions for the data movement entry. For more information, see Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. In IBM Cognos Connection, click the run with options button  on the actions toolbar next to the data movement entry you want to run.
2. Under **Time**, select **Now** to run the data movement entry now, or **Later** to specify a later date and time.
3. Click **Run**.

   The confirmation page appears.
4. Click **OK**.

Change Default Data Movement Entry Properties

You can change the defaults that are set for data movement entries in Data Manager, such as the owner, the language, and the variables.

You can run a data movement entry, schedule a data movement entry, and set the number of occurrences and duration of the run history. For more information, see Chapter 22, "Schedule Management," on page 343. You can disable the entry "Disable an Entry" on page 296.

You can view the location and ID of the entry in the portal "General Properties" on page 285.

Before you begin

You must have the required permissions for the data movement entry. For more information, see Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. In IBM Cognos Connection, click the set properties button  on the actions toolbar next to the data movement entry that you want to run.
2. Click the **General** tab.
3. If you want to make yourself the owner of the entry, click **Make me the owner**.
4. If you want to set a contact or an email address for the entry, click **Set the contact** and then click either **Select the contact** or **Enter an email address**.

5. If you want to change the icon associated with the entry, click **Edit**, specify the new icon for the entry, and click **OK**.
6. If you want to select a different language, select from the **Language** menu.
7. If you want, you can enter or change the **Name**, **Description**, and **Screen tip** for the data movement entry.
8. If you want to set **Run history** options, click **Number of occurrences**, and set the number of run repetitions, or click **Duration**, and set the number of days to run the entry.
9. Click **OK**.

   The next time the data movement entry runs, it uses these properties instead of the original defaults.

Create a Data Movement View

You can create a data movement view, which uses the same specifications as the source data movement entry, but has different properties such as schedules and variables.

Creating a data movement view does not change the original data movement entry. You can determine the source data movement entry by viewing the properties of the data movement view. The properties also provide a link to the properties of the source entry.

If the source entry is moved to another location, the data movement view link is not broken. If the source entry is deleted, the view icon changes to indicate a broken link  , and the properties link to the source entry is removed.

You can run a data movement view, schedule a data movement view, and set the number of occurrences and duration of the run history. For more information, see Chapter 22, “Schedule Management,” on page 343. You can disable the entry “Disable an Entry” on page 296.

Before you begin

You must have the required permissions for the data movement entry. For more information, see Chapter 16, “Secured Functions and Features,” on page 261.

Procedure

1. In IBM Cognos Connection, locate the data movement entry that you want to use to create the data movement view.
2. Under **Actions**, click the data movement view button  next to the data movement entry.
3. In the **Name** box, type the name of the entry.
4. If you want, in the **Description** and in the **Screen tip** box, type a description of the entry.

   The description appears in the portal when you set your preferences to use the details view “Personalize the Portal” on page 304. The screen tip, which is limited to 100 characters, appears when you pause your pointer over the icon for the entry in the portal.
5. If you do not want to use the target folder shown under **Location**, click **Select another location** and select the target folder and click **OK**.

6. Click **Finish**.

Results

The data movement view has the same run options and properties as the original entry. To change the default properties, see "Change Default Data Movement Entry Properties" on page 238.

Chapter 13. Security Model

IBM Cognos software security is designed to meet the need for security in various situations. You can use it in everything from a proof of concept application where security is rarely enabled to a large scale enterprise deployment.

The security model can be easily integrated with the existing security infrastructure in your organization. It is built on top of one or more authentication providers. You use the providers to define and maintain users, groups, and roles, and to control the authentication process. Each authentication provider known to IBM Cognos software is referred to as a namespace  .

In addition to the namespaces that represent the authentication providers, IBM Cognos software has a built-in namespace named Cognos . The Cognos namespace enhances your organization security policies and deployment ability of applications.

Security in IBM Cognos software is optional. If security is not enabled it means that no authentication providers are configured, and therefore all user access is anonymous. Typically, anonymous users have limited, read-only access.

Authentication Providers

User authentication in IBM Cognos software is managed by authentication providers. Authentication providers define users, groups, and roles used for authentication. User names, IDs, passwords, regional settings, personal preferences are some examples of information stored in the providers.

If you set up authentication for IBM Cognos software, users must provide valid credentials, such as user ID and password, at logon time. In an IBM Cognos software environment, authentication providers are also referred to as namespaces, and they are represented by namespace entries  in the user interface.

IBM Cognos software does not replicate the users, groups, and roles defined in your authentication provider. However, you can reference them in IBM Cognos software when you set access permissions to reports and other content. They can also become members of Cognos groups and roles.

The following authentication providers are supported in this release:

- Active Directory Server
- IBM Cognos Series 7
- Custom Java Provider
- eTrust SiteMinder
- LDAP
- NTLM
- SAP
- RACF®

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You configure authentication providers using IBM Cognos Configuration. For more information, see the *Installation and Configuration Guide*.

Multiple Namespaces

If multiple namespaces are configured for your system, at the start of a session you must select one namespace that you want to use. However, this does not prevent you from logging on to other namespaces later in the session. For example, if you set access permissions, you may want to reference entries from different namespaces. To log on to a different namespace, you do not have to log out of the namespace you are currently using. You can be logged on to multiple namespaces simultaneously.

Your primary logon is the namespace and the credentials that you use to log on at the beginning of the session. The namespaces that you log on to later in the session and the credentials that you use become your secondary logons.

When you delete one of the namespaces, you can log on using another namespace. If you delete all namespaces except for the Cognos namespace, you are not prompted to log on. If anonymous access is enabled, you are automatically logged on as an anonymous user. If anonymous access is not enabled, you cannot access the IBM Cognos Connection logon page. In this situation, use IBM Cognos Configuration to enable anonymous access.

Hiding Namespaces

You can hide namespaces from users during logon. This lets you have trusted signon namespaces without showing them on the namespace selection list that is presented when users log on.

For example, you may want to integrate single signon across systems, but maintain the ability for customers to authenticate directly to IBM Cognos software without being prompted to choose a namespace.

You can hide Custom Java Provider and eTrust SiteMinder namespaces that you configured.

For more information, see the *Installation and Configuration Guide*.

Deleting or Restoring Unconfigured Namespaces

You can preserve namespaces and all their contents in the content store even if they are no longer configured for use in IBM Cognos software. When a namespace is not configured, it is listed as inactive in the directory tool.

An inactive namespace is one that was configured, but later deleted in IBM Cognos Configuration. The namespace can be deleted from the content store by members of the System Administrators role. You cannot log on to an inactive namespace.

If a new version of IBM Cognos software detects a previously configured namespace that is no longer used, the namespace appears in the directory tool as inactive. You can configure the namespace again if you still require the data. If the namespace is not required, you can delete it.

When you delete a namespace, you also delete all entries in My Folders that are associated with that namespace, and their contents.

An active namespace cannot be deleted, but can be updated.

To recreate a namespace in IBM Cognos Configuration, you must use the original ID of the namespace. For information about configuring and recreating namespaces, see the *Installation and Configuration Guide*.

Delete an Inactive Namespace

If a namespace was removed from IBM Cognos Configuration and is no longer required, a member of the System Administrators role can delete it permanently in the directory tool. Deleting a namespace also deletes all the entries in My Folders that are associated with the namespace.

To access the directory administration tool, you must have execute permissions for the **Data Source Connections** secured feature and traverse permissions for the administration secured function.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.

   If the namespace you want to delete does not have a check mark in the **Active** column, it is inactive and can be deleted.
3. In the **Actions** column, click the delete button.

   If the namespace is active, the delete button is not available.

Results

The namespace is permanently deleted. To use the namespace again in IBM Cognos software, you must add it using IBM Cognos Configuration.

Authorization

Authorization is the process of granting or denying access to data, and specifying the actions that can be performed on that data, based on a user identity.

IBM Cognos software authorization assigns permissions to users, groups, and roles that allow them to perform actions, such as read or write, on content store objects, such as folders and reports. The content store can be viewed as a hierarchy of data objects. These objects include not only folders and reports, but packages for report creation, directories, and servers.

When IBM Cognos administrators distribute reports to users, they can set up folders in which reports and other objects can be stored. They can then secure those folders so that only authorized personnel can view, change, or perform other tasks using the folder contents.

For information about setting access permissions to the IBM Cognos entries, see Chapter 15, “Access Permissions and Credentials,” on page 253. For information about the Content Manager hierarchy of objects and the initial access permissions, see Appendix B, “Initial Access Permissions,” on page 661.

Cognos Namespace

The Cognos namespace is the IBM Cognos software built-in namespace. It contains the IBM Cognos objects, such as groups, roles, data sources, distribution lists, and contacts.

During the content store initialization, built-in and predefined security entries are created in this namespace Chapter 18, "Initial Security," on page 275. You must modify the initial security settings for those entries and for the Cognos namespace immediately after installing and configuring IBM Cognos software "Specify Security Settings After Installation" on page 278.

You can rename the Cognos namespace using IBM Cognos Configuration, but you cannot delete it. The namespace is always active.

When you set security in IBM Cognos software, you may want to use the Cognos namespace to create groups and roles that are specific to IBM Cognos software. In this namespace, you can also create security policies that indirectly reference the security entries in authentication providers so that IBM Cognos software can be more easily deployed from one installation to another "Security and Deployment" on page 352.

The Cognos namespace always exists in IBM Cognos software, but the use of Cognos groups and roles it contains is optional. The groups and roles created in the Cognos namespace repackage the users, groups, and roles existing in the authentication providers to optimize their use in the IBM Cognos environment. For example, in the Cognos namespace, you can create a group called HR Managers and add to it specific users and groups from your corporate IT and HR organizations defined in your authentication provider. Later, you can set access permissions for the HR Managers group to entries in IBM Cognos software.

IBM Cognos Application Firewall

IBM Cognos Application Firewall (CAF) is a security tool used to supplement the existing IBM Cognos software security infrastructure at the application level. The IBM Cognos Application Firewall analyzes, modifies, and validates HTTP and XML requests before the gateways or dispatchers process them, and before they are sent to the requesting client or service. It acts as a smart proxy for the IBM Cognos product gateways and dispatchers, and prevents the IBM Cognos components from malicious data. The most common forms of malicious data are buffer overflows and cross-site scripting (XSS) attacks, either through script injection in valid pages or redirection to other Web sites.

The IBM Cognos Application Firewall provides IBM Cognos components with security features that include data validation and protection, logging and monitoring, and output protection. For more information, see "Data Validation and Protection" on page 245 and "Logging and Monitoring" on page 245.

The IBM Cognos Application Firewall is enabled by default, and should not be disabled.

You can update the IBM Cognos Application Firewall independently of the other IBM Cognos components.

For more information about the IBM Cognos Application Firewall, see the *Installation and Configuration Guide*, and the *Architecture and Deployment Guide*.

Data Validation and Protection

Validation of input data ensures that the data is in the expected format, based on a set of pre-defined variable rules. HTML variables, XML data, cookie values, and parameters are checked against this set of rules.

IBM Cognos Application Firewall (CAF) performs positive validation of parameters instead of only searching for known script injection tags or common SQL injection signatures. Each parameter is validated against a rule that expects a certain data type in a certain format. If the data does not match the CAF rule, it is rejected.

To provide even stronger validation, CAF matches regular expression patterns to protect data inputs that use complicated formats.

A common type of attack is to trick a user into going to a harmful site by modifying the form parameters. The back button and error URL features of a product provide a prime target for this type of attack.

CAF limits the list of hosts and domains that a back URL can access. CAF can be configured with a list of host names, including port numbers and domains. If a back URL contains a host or a domain that does not appear in the list, the request is rejected. By default, the host name of the dispatcher is added to the list. You can configure the list using IBM Cognos Configuration.

For more information, see the *Installation and Configuration Guide*.

Logging and Monitoring

IBM Cognos Application Firewall (CAF) can monitor and log all access to IBM Cognos gateways and dispatchers. Use logging to track possible attacks or misuse of your IBM Cognos applications.

You can configure CAF to log access to a specific file or to use IBM Cognos log application (IPF) logging. If logging is enabled, all requests that fail validation by CAF are logged.

For more information, see the *Installation and Configuration Guide*.

You can use the Web server request log to obtain detailed information about the IP address of the source client in a suspected attack.

Cross-Site Scripting (XSS) Encoding

Many customers use other applications, such as eTrust SiteMinder, to check for cross-site scripting vulnerabilities. These products block HTTP get requests that contain specific characters.

CAF encodes characters in Cascading Style Sheets (CSS) with URLs to prevent other cross-site scripting tools from blocking the characters.

The CAF XSS encoding feature applies only to customers who use the IBM Cognos Connection portal.

CAF XSS encoding is disabled by default. To enable this feature, use IBM Cognos Configuration.

For more information, see the *Installation and Configuration Guide*.

Filtering of Error Messages

Some error messages may contain sensitive information, such as server names. By default, error message details in IBM Cognos software are routed to IPF log files, and the secure error message option is enabled. The information presented to users indicates only the occurrence of an error, without any details.

You can specify who can retrieve full error details that may include sensitive information by changing the **Detailed Errors** capability in IBM Cognos administration. Typically, this capability is assigned to directory administrators, but you can assign it to other users as well. For more information, see Chapter 16, "Secured Functions and Features," on page 261.

For information about retrieving full error details, see "View Full Details for Secure Error Messages" on page 81.

Parameter Signing

Parameter signing protects parameter values against tampering when they are sent to a Web browser. CAF can sign parameters or specific parts of data. Signing is used only in specific situations. It is enabled when CAF is enabled.

Chapter 14. Users, Groups, and Roles

Users, groups, and roles are created for authentication and authorization purposes.

You can use groups and roles created in IBM Cognos software, and users, groups, and roles created in authentication providers. The groups and roles created in IBM Cognos software are referred to as Cognos groups and Cognos roles.

Users

A user entry is created and maintained in an authentication provider to uniquely identify a human or a computer account. You cannot create user entries in IBM Cognos software.

Information about users, such as first and last names, passwords, IDs, locales, and email addresses, is stored in the providers. However, this may not be all the information required by IBM Cognos software. For example, it does not specify the location of the users' personal folders, or format preferences for viewing reports. This additional information about users is stored in IBM Cognos software, but when addressed in IBM Cognos software, the information appears as part of the external namespace.

Series 7 Users

If you configured the IBM Cognos Series 7 authentication provider, a user from that namespace must belong to at least one Access Manager user class for the user to be usable in IBM Cognos software. For more information, see "Authentication Providers" on page 241.

For example, if you create a new user in Series 7 Access Manager and assign the user to a user class, but then remove the user from that user class, you cannot log on as that user in IBM Cognos software.

Deleting and Recreating Users

For Series 7 and NTLM authentication providers, you cannot maintain associated properties and items when you delete and re-create a user. For example, if a user creates an object in **My Folders**, and then that user is deleted, the **My Folders** objects are no longer associated with that user. If a user with the same name is re-created, the objects are not reinstated.

If you use an LDAP server, the stability of **My Folders** objects depends on how you use the IDs. If the configuration of the LDAP provider uses the default attribute of dn for the Unique identifier parameter, a reinstated user with the same name keeps the **My Folders** objects of the original user. If you change the Unique identifier parameter to a unique attribute set by the LDAP server, for example, nsuniqueid for Sun Java System, the association of **My Folders** objects is lost for a deleted user and a new **My Folders** will be created for a user of the same name.

You can delete, copy, and change user profiles. For more information, see Chapter 25, "Managing User Profiles," on page 387.

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User Locales

A locale specifies linguistic information and cultural conventions for character type, collation, format of date and time, currency unit, and messages. You can specify locales for individual products, content, servers, authors, and users in IBM Cognos software.

User locale refers to the product and content locales for each IBM Cognos user. Requests from users arrive with an associated locale. IBM Cognos software must determine the language and locale preferences of users and enforce an appropriate response locale when you distribute reports in different languages.

A user locale specifies the default settings that a user wants to use for formatting dates, times, currency, and numbers. IBM Cognos software uses this information to present data to the user.

IBM Cognos software obtains a value for user locale by checking these sources, in the order listed:

- user preference settings

  If the user sets the user preference settings in IBM Cognos Connection, IBM Cognos software uses these settings for the user's product and content locale and for default formatting options. The user preference settings override the values obtained from the authentication provider.
- authentication provider

  If the authentication provider has locale settings that are configured, IBM Cognos software uses these values for the user's product and content locale.
- browser setting

  Anonymous and guest users cannot set user preference settings. For these users, IBM Cognos software obtains a user locale from the browser stored on the user's computer.

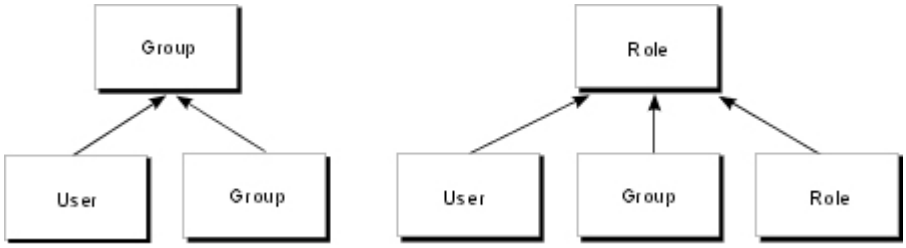
Groups and Roles

Groups and roles can be defined as follows.

Groups  and roles represent collections of users that perform similar functions, or have a similar status in an organization. Examples of groups are Employees, Developers, or Sales Personnel. Members of groups can be users and other groups. When users log on, they cannot select a group they want to use for a session. They always log on with all the permissions associated with the groups to which they belong.

Roles  in IBM Cognos software have a similar function as groups. Members of roles can be users, groups, and other roles.

The following diagram shows the structure of groups and roles.



Users can become members of groups and roles defined in IBM Cognos software, and groups and roles defined in authentication providers. A user can belong to one or more groups or roles. If users are members of more than one group, their access permissions are merged.

You create Cognos groups and roles when

- you cannot create groups or roles in your authentication provider
- groups or roles are required that span multiple namespaces
- portable groups and roles are required that can be deployed

  Create the required groups and roles in your authentication provider, and add them to the appropriate Cognos groups and roles.
- you want to address specific needs of IBM Cognos administration
- you want to avoid cluttering your organization security systems with information used only in IBM Cognos software

Series 7 Roles

If you have configured the IBM Cognos Series 7 authentication provider, user collections known as user classes in Series 7 appear as roles in IBM Cognos software. You can access Series 7 and IBM Cognos software using a single logon. If you start your session by logging on to Series 7, and then access IBM Cognos software, you automatically assume the roles that were in effect for you in Series 7 when you first logged on. You cannot assume different Series 7 roles. For more information on configuring the authentication provider, see "Authentication Providers" on page 241.

Users can assume different roles in Series 7 after they access IBM Cognos software.

Roles Used to Run Reports and Jobs

The roles used to run reports and jobs are associated with the users who run the reports interactively, who are the report owners, and whose credentials are used to run scheduled reports and jobs . Depending on the options selected to run reports, different roles can be assumed by the process. For more information, see "View, Run, or Open a Report" on page 398 and Chapter 22, "Schedule Management," on page 343.

- When a report runs that has the run as the owner option selected, the process assumes all the roles associated with the report owner "Ownership of Entries" on page 255.
- When a scheduled report or job runs, the session assumes all the roles associated with the user whose credentials were used to process the request "Trusted Credentials" on page 258.

Distribution Lists as Members of Groups and Roles

In some namespaces, such as Microsoft Active Directory, a distribution list may appear on the **Members** tab of the **Set properties** page for a group or role. However, you cannot add distribution lists to a group or role membership, and you cannot use them to set access permissions for entries in the IBM Cognos user interface.

You can add an IBM Cognos distribution list to a Cognos group or role membership using the Software Development Kit. However, the Software Development Kit cannot be used to add an Active Directory distribution list to an Active Directory group. The Active Directory management tools must be used to do this.

IBM Cognos Controller Groups and Roles

For IBM Cognos software, use IBM Cognos Controller groups and roles to configure security. For information about using these groups and roles to configure security, see the IBM Cognos Controller *Installation and Configuration Guide*.

Create a Cognos Group or Role

You can add entries from multiple namespaces, created both in the authentication providers and in IBM Cognos software, as members of Cognos groups. You can also create empty groups that do not have any members.

The members of Cognos groups can be users or other groups. The members of Cognos roles can be users, groups, or other roles.

If you plan to create groups or roles that reference entries from multiple namespaces, you must log on to each of those namespaces before you start your task. Otherwise, you will not have full administrative rights for the entries you want to reference.

We recommend that you use the Cognos groups and roles when you set up access permissions to entries in IBM Cognos software because it simplifies the process of deployment. For more information, see "Security and Deployment" on page 352.

When you delete a Cognos group or role, users' access permissions based on it are no longer active. You cannot restore access permissions by creating a group or role with the same name.

To administer users, groups, and roles, you must have execute permissions for the **Users, Groups, and Roles** secured feature, and traverse permissions for the **Administration** secured function. For more information, see "Capabilities" on page 663.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Click the **Cognos** namespace.

   Tip: If you want to delete a Cognos group or role, select the check box next to it and click the delete button.

4. On the toolbar, click the new group  or new role  button.
5. In the **Specify a name and description** page, type a name and, if you want, a description for the new group or role, and then select a destination folder and click **Next**.
6. If you want to create a group without members, click **Finish**.
7. If you want to add members to the new group or role, click **Add** and choose how to select the users, groups, or roles:
   - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, or roles.
   - To search for entries, click **Search** and in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.
   - To type the name of entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon (;) separates each entry:

     namespace/group_name;namespace/role_name;namespace/user_name;

     Here is an example:

     Cognos/Authors;LDAP/scarter;
8. Click the right-arrow button and when the entries you want appear in the **Selected entries** box, click **OK**.

   Tip: To remove entries from the **Selected entries** list, select them and click **Remove**. To select all entries in a list, click the check box in the upper-left corner of the list. To make the user entries visible, click **Show users in the list**.
9. Click **Finish**.

Add or Remove Members of a Cognos Group or Role

You can modify the membership of a Cognos group or role by adding or removing members.

When you remove users, groups, or roles from a Cognos group or role, you do not delete them from the authentication provider or from IBM Cognos software.

If you plan to modify groups or roles that reference entries from multiple namespaces, you must log on to each of those namespaces before you start your task. Otherwise, you will not have full administrative rights for the entries you want to modify.

To administer users, groups, and roles, you must have execute permissions for the **Users, Groups, and Roles** secured feature, and traverse permissions for the **Administration** secured function. For more information, see “Capabilities” on page 663.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Click the **Cognos** namespace.
4. In the **Actions** column, click the properties button for the group or role whose membership you want to modify.

5. Click the **Members** tab.
6. If you want to add members, click **Add** and choose how to select members:
   - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, or roles.
   - To search for entries, click **Search** and in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.
   - To type the name of entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon (;) separates each entry:

     namespace/group_name;namespace/role_name;namespace/user_name;

     Here is an example:

     Cognos/Authors;LDAP/scarter;
7. Click the right-arrow button and when the entries you want appear in the **Selected entries** box, click **OK**.

   Tip: To remove entries from the **Selected entries** list, select them and click **Remove**. To select all entries in a list, click the check box in the upper-left corner of the list. To make the user entries visible, click **Show users in the list**.
8. To remove members from a Cognos group or role, in the **Set Properties** page, specify which users, groups, or roles to remove, and click **Remove**.
9. Click **OK**.

Chapter 15. Access Permissions and Credentials

You use access permissions and credentials to secure your organization's data.

You can perform the following tasks:

- set access permissions for your organization's data, which specify the users who can have access to entries such as reports
- create trusted credentials to authorize other users to use your credentials when those users do not have sufficient access permissions to perform specific tasks
- manage your own data source credentials

Set Access Permission for Entries

You can secure your organization's data by setting access permissions for the entries. You specify which users and groups have access to a specific report or other content in IBM Cognos software. You also specify the actions they can perform on the content.

When you set access permissions, you can reference both authentication provider users, groups, and roles and Cognos groups and roles. However, if you plan to deploy your application in the future, we recommend that you use only the Cognos groups and roles to set up access to entries in IBM Cognos software to simplify the process.

Permissions and Permitted Actions

You can grant or deny the following access permissions.

Permissions	Icons	Permitted Actions
Read	  	View all the properties of an entry, including the report specification, report output, and so on, which are properties of a report. Create a shortcut to an entry.
Write	  	Modify properties of an entry. Delete an entry. Create entries in a container, such as a package or a folder. Modify the report specification for reports created in Report Studio and Query Studio. Create new outputs for a report.

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Permissions	Icons	Permitted Actions
Execute		Process an entry. For entries such as reports, agents, and metrics, the user can run the entry. For data sources, connections, and signons, the entries can be used to retrieve data from a data provider. The user cannot read the database information directly. The report server can access the database information on behalf of the user to process a request. IBM Cognos software verifies whether users have execute permissions for an entry before they can use the entry. For credentials, users can permit someone else to use their credentials. **Note:** Users must have execute permissions for the account they use with the run as the owner report option.
Set policy		Read and modify the security settings for an entry.
Traverse		View the contents of a container entry, such as a package or a folder, and view general properties of the container itself without full access to the content. **Note:** Users can view the general properties of the entries for which they have any type of access. The general properties include name, description, creation date, and so on, which are common to all entries.

Access Permissions for Users

Users must have at least traverse permissions for the parent entries of the entries they want to access. The parent entries include container objects such as folders, packages, groups, roles, and namespaces.

Permissions for users are based on permissions set for individual user accounts and for the namespaces, groups, and roles to which the users belong. Permissions are also affected by the membership and ownership properties of the entry.

IBM Cognos software supports combined access permissions. When users who belong to more than one group log on, they have the combined permissions of all the groups to which they belong. This is important to remember, especially when you are denying access.

Tip: To ensure that a user or group can run reports from a package, but not open the package in an IBM Cognos studio, grant the user or group execute and traverse permissions on the package. Users also require read permissions on the package to launch studios.

Access Permissions Required for Actions

To perform specific actions, each user, group, or role needs the right combination of access permissions granted for the entry, its parent entry, and its source and target entry. The following table lists permissions required for specific actions.

Action	Permissions required
Add an entry	Write permissions for a parent entry
Query the entry properties	Read permissions for an entry
View the children of the entry	Traverse permissions for an entry
Update an entry	Write permissions for an entry
Delete an entry	Write permissions for an entry, and write permissions for a parent entry
Copy an entry	Read permissions for an entry and any child entries, traverse permissions for all of the children, and write and traverse permissions for the target parent entry
Move an entry	Read and write permissions for an entry, write permissions for both the source parent entry and the target parent entry, and traverse permissions for the target parent entry

Ownership of Entries

If the user is an owner of an entry, the user has full access rights for the entry. This ensures that users can always access and modify the entries they own. By default, the owner of the entry is the user who creates the entry. However, any other user who has set policy permissions for the entry can take ownership of the entry.

Granted and Denied Access

You can grant access or deny access to entries. An icon that represents the type of access appears next to the entry name on the **Permissions** tab. For example, when a group has execute permissions for a report, this icon  appears next to the group name on the **Permissions** tab for the report. When a group has execute permissions denied for a report, this icon  appears next to the group name.

Denied access has precedence over granted access. When you deny specific users or groups access to an entry, you replace other security policies that grant access to the entry.

If the grant and deny permissions are in conflict, access to the entry is always denied. For example, a user belongs to two groups. One group has access granted to a report and the other group has access denied to the same report. Access to this report is denied for the user.

Deny access only when it is really required. Typically, it is a better administrative practice to grant permissions than to deny them.

Parent/Child Permissions

Access permissions are acquired from parent entries. If access permissions are not defined, the entry acquires permissions from its parent entry. You can replace parent permissions by defining permissions for the child entry.

Objects that exist only as children of other objects always acquire permissions from their parents. Examples of such objects are report specifications and report outputs. They are visible through the Software Development Kit. You cannot set permissions specifically for those objects.

Permissions and Deployment

If you are an administrator who is deploying to a target environment, see Chapter 23, "Deployment," on page 351.

Capabilities Permissions

If you are an administrator, you set access to the secured functions and features by granting execute permissions for specified namespaces, users, groups, or roles. For more information, see Chapter 16, "Secured Functions and Features," on page 261.

Deleting Cognos Groups and Roles

When you delete a Cognos group or role, access permissions based on it are also deleted. You cannot restore them by creating a new group or role with the same name because this entry has a different internal ID.

If your groups or roles are created by authentication providers, check how your authentication provider deals with such situations. Typically, you cannot recreate access permissions if they are based on IDs but you can if they are based on names.

Accessing Entries Associated with Data Sources Secured Against Multiple Namespaces

Data sources in IBM Cognos software can be secured against multiple namespaces. In some environments, the namespace used to secure the data source is not the primary namespace used for access to IBM Cognos Connection. When you try to access an entry, such as a report, a query, or an analysis, that is associated with a data source secured against multiple namespaces, and you are not logged on to all of the required namespaces, a prompt for authentication appears. You must log on to the namespace before you can access the entry.

When single signon (SSO) is enabled, the prompt for authentication does not appear. You are automatically logged on to the namespace.

This functionality applies to IBM Cognos Viewer only. If a similar situation occurs in an IBM Cognos studio, you must quit your task and log on to all the namespaces that you want to use in the current session.

Set Access Permissions for an Entry

Setting access permissions for an entry includes creating new permissions or updating existing permissions. You can specify access permissions for all entries in IBM Cognos software. Some examples of such entries are reports, queries, analyses, packages, agents, metrics, namespaces, groups, users, or dispatchers. You can reference users, group and roles from different namespaces in a security policy for an entry.

If you plan to reference entries from multiple namespaces, log on to each namespace before you start setting access permissions. Otherwise, entries in namespaces to which you are not logged on are shown as **Unavailable**.

Entries referenced by a security policy may also be shown as **Unavailable** when

- the entries were recently deleted from an external namespace.

  IBM Cognos software has no control over the content of security providers.
- the entries are associated with an external namespace that was recently deleted.

  To avoid this issue, run the consistency check type of content maintenance task selecting the option **References to external namespaces**. Content Manager deletes entries associated with the deleted namespaces from security policies. For more information, see "Maintain the Content Store" on page 123.

To administer security, you must have set policy permissions. For more information, see Chapter 15, "Access Permissions and Credentials," on page 253.

Procedure

1. In IBM Cognos software, locate the entry for which you want to set access permissions.
2. In the **Actions** column, click the set properties button  for the entry.
3. In the **Set properties** page, click the **Permissions** tab.
4. Choose whether to use the permissions of the parent entry or specify permissions specifically for the entry:
   - To use the permissions of the parent entry, clear the **Override the access permissions acquired from the parent entry** check box, then click OK if you are prompted to use the parent permissions. Click **OK**.
   - To set access permissions for the entry, select the **Override the access permissions acquired from the parent entry** check box, then proceed to step 5.
5. If you want to remove an entry from the list, select its check box and click **Remove**.

   Tip: If you want to select all entries, select the check box at the top of the list in the upper-left corner. Clear the check box to deselect all entries.
6. To specify the entries for which you want to grant or deny access, click **Add**, then choose how to select entries:
   - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, or roles.

- To search for entries, click **Search** and in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.
- To type the name of entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon (;) separates each entry:

  namespace/group_name;namespace/role_name;namespace/user_name;

  Here is an example:

  Cognos/Authors;LDAP/scarter;

7. Click the right-arrow button and when the entries you want appear in the **Selected entries** box, click **OK**.

   Tip: To remove entries from the **Selected entries** list, select them and click **Remove**. To select all entries in a list, click the check box in the upper-left corner of the list. To make the user entries visible, click **Show users in the list**.
8. For each entry in the list, in the box next to the list, select or clear check boxes to specify what type of access you want to grant or deny.
9. Click **Apply**.

   In the **Permissions** column, an icon appears next to the user, group, or role. This icon represents the type of access granted or denied to the entry.
10. If you want to remove access permissions that were previously set for the child entries so that the child entries can acquire permissions set for this entry, in the **Option** section, select the **Delete the access permissions of all child entries** check box.

    This option appears only with entries that are containers. You can use it to restrict access to a hierarchy of entries.

    Warning: Select this option only when you are certain that changing access permissions of the child entries is safe.
11. Click **OK**.

Trusted Credentials

Trusted credentials are used for users who must perform a task or process, but do not have sufficient access permissions for entries that contain sensitive data, such as database signons and group memberships. Users with more extensive access permissions, who own the entries, can authorize a trusted user to use their credentials to access the entries.

Trusted credentials are also used to run scheduled requests when users are not logged on to IBM Cognos software, for example, overnight. When the request runs, a user session is created. The trusted credential is used to log on to IBM Cognos software as the user the trusted credential represents and the user's access permissions are used to run the report or the job.

The credentials are stored as part of the account object in the namespace.

Create Trusted Credentials

You can create trusted credentials when you want to authorize other users to use your credentials when those users do not have sufficient access permissions to perform specific tasks.

Before you begin

For users to use trusted credentials, traverse permissions must be granted for the namespace.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click the my area options button  , **My Preferences**.
2. On the **Personal** tab, under **Credentials**, if you have not created credentials before, click **Create the Credentials**.
3. Select the users, groups, or roles you want to authorize to use your credentials.

   If you are prompted for your credentials, provide your user ID and password.
4. If you want to add entries, click **Add** then choose how to select entries:
5. If you want to remove an entry from the list, select the check box next to it and click **Remove**.
6. Ensure that the list contains only the users, groups, or roles that you want, and click **OK**.

Manage Your Own Data Source Credentials

It is important to manage data source credentials for your users because these credentials are required for certain tasks.

You may be prompted for your data source credentials when you perform the following actions:

- view, run, or open an entry (seeChapter 27, “Reports and Cubes,” on page 397)
- use a schedule or a job (seeChapter 22, “Schedule Management,” on page 343)
- select the data sources that can be used to create a package “Select Which Data Sources Can Be Used to Create a Package” on page 385

You may also be prompted for data source credentials when you use Framework Manager (see the Framework Manager *User Guide*).

If you are an administrator, you can also create or modify data source signons “Create or Modify a Data Source Signon” on page 203, but if you have a lot of users, it can be unwieldy for data source configurations that require each user to have their own signon since the credentials for each user must be done individually. You can also view the data source credentials for other users.

Note that credentials are checked in the following order:

- first, the signons that you create as an administrator are checked
- if no credentials are found for the user, the user's profile is checked to see if they have stored their own credentials
- if no credentials for the user are found in either place, the user is prompted for credentials

This is important because if you create credentials after a user has saved their own credentials, they get data associated with the credentials that you created for them, which might not be what they are expecting.

Before you begin

If you are a user, your administrator must give you execute permissions for the **Manage own data source signons** capability and traverse permissions for its ancestors. You must also have read and traverse permissions on your account. You can then save credentials to your personal profile, as long as you do not have access to any predefined signons for the data source. You are not prompted for your credentials if you have permission to access an existing data source credential and you have saved the personal credential in your profile. You can view and delete your data source credentials from the **My Preferences** page.

To view another user's credentials, you must have read and traverse permissions on the user's account. To remove data source credentials, you must have read, write, and transverse permissions on the user's account.

Save Data Source Credentials

You can save your data source credentials so that you are not prompted for them every time.

Procedure

1. When you are prompted to enter your data source credentials, enter your user ID and password.
2. Select the **Remember my user ID and password when connecting to this data source** check box.
3. Click **OK**.

Results

The next time you perform an action that requires those data source credentials, you are not prompted for them unless they have been removed or deleted, or have expired.

View and Remove Your Data Source Credentials

You can view and delete your data source credentials.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **My Area Options**, **My Preferences**.
2. Click the **Personal** tab.

   Your data source credentials are listed under **Data source credentials**. You can sort the list by **Data Source Name** or **Data Source Connection Name**.
3. To remove a data source credential, select the check box for it, then click **Remove**.

Chapter 16. Secured Functions and Features

The secured functions and secured features within the functions, which are also referred to as capabilities, control access to different administration tasks and different functional areas of the user interface in IBM Cognos software.

Examples of the secured functions are **Administration** and **Report Studio**. Examples of the secured features are **User Defined SQL** and **Bursting** Chapter 16, "Secured Functions and Features."

Content Manager reads the users' permissions at logon time. Depending on the permissions for the secured functions and features, users can access specific components and perform specific tasks in IBM Cognos software.

When a content store is initialized, the initial permissions for the secured functions and features are created. For more information, see "Capabilities" on page 663. The permissions define which of the predefined and built-in Cognos groups and roles have access to which secured functions and features, and the type of access. The initial permissions grant unrestricted access to IBM Cognos software because the built-in role System Administrators includes the group Everyone in its membership. You must remove the group Everyone from the membership of System Administrators before you start setting access to capabilities. For more information, see Chapter 18, "Initial Security," on page 275.

When running a report using the **Run as the owner** option, the capabilities of the owner are used for bursting and report layout properties in the HTML format. All other capabilities are based on the user who runs the report.

Administrators can set up access to the secured functions and features using the **Capabilities** page on the **Security** tab in **IBM Cognos Administration** . Users can see a list of the secured functions and features available to them in My Area Options  of the portal, in **My Preferences**, **Personal**, the **Capabilities** section.

The secured functions and features include the following.

Adaptive Analytics

This secured function controls access to the reports packaged using Adaptive Analytics.

Administration

This secured function contains the secured features that control access to the administration pages that you use to administer IBM Cognos software. System administrators can use this capability to delegate administration tasks to different administrators.

The secured features associated with this function are

- **Adaptive Analytics Administration**

  Users can access Adaptive Analytics to perform administrative tasks.
- **Administration tasks**

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Users can access **Content Administration** on the **Configuration** tab in **IBM Cognos Administration** to administer exports, imports, index updates, consistency checks, and report updates.

- **Configure and manage the system**

  Users can access **System** on the **Status** tab and **Dispatchers and Services** on the **Configuration** tab in **IBM Cognos Administration** to configure dispatchers and services, and to manage the system.
- **Controller Administration**

  Users can use the administrative functions of IBM Cognos Controller.
- **Data Source Connections**

  Users can access **Data Source Connections** on the **Configuration** tab in **IBM Cognos Administration** to define data sources, connections, and signons.
- **Distribution Lists and Contacts**

  Users can access **Distribution Lists and Contacts** on the **Configuration** tab in **IBM Cognos Administration** to manage distribution lists and contacts.
- **Metric Studio Administration**

  Users can create new metric packages using the new metric package wizard in IBM Cognos Connection, and access the **Tools** menu in Metric Studio.
- **Planning Administration**

  Users can access IBM Cognos Planning Contributor Administration Console and IBM Cognos Planning Analyst to perform administration tasks.
- **PowerPlay Servers**

  User is given limited access to the IBM Cognos Administration pages. This includes access to the PowerPlay page and the ability to set PowerPlay properties.
- **Printers**

  Users can access **Printers** on the **Configuration** tab in **IBM Cognos Administration** to manage printers.
- **Run activities and schedules**

  Users can access **Current Activities**, **Past Activities**, **Upcoming Activities** and **Schedules** on the **Status** tab in **IBM Cognos Administration** to monitor the server activities and manage schedules. To grant access to the scheduling functionality independently from the monitoring functionality, use the Scheduling capability.
- **Set capabilities and manage UI profiles**

  Users can access **Capabilities** and **User Interface Profiles** on the **Security** tab in **IBM Cognos Administration** to manage the secured functions and features and the Report Studio user interface profiles.
- **Styles and portlets**

  Users can access **Styles** and **Portlets** on the **Configuration** tab in **IBM Cognos Administration** to manage styles and portlets.
- **Users, Groups and Roles**

  Users can access **Users, Groups and Roles** on the **Security** tab in **IBM Cognos Administration** to manage namespaces, users, groups, and roles.

Analysis Studio

This secured function controls access to Analysis Studio.

The secured feature associated with this function is

- **Open PowerPlay Reports with Analysis Studio**

  From PowerPlay Studio, users can open PowerPlay Studio reports in Analysis Studio.

IBM Cognos Viewer

This secured function controls access to IBM Cognos Viewer, which you use to view reports.

The secured features associated with this function are

- **Context Menu**

  Users can use the context menu in IBM Cognos Viewer.

  Note: To see the context menu, users must have access to both the **Selection** and **Context Menu** secured features.
- **Run With Options**

  Users can change the default run options.
- **Selection**

  Users can select text in lists and crosstabs.
- **Toolbar**

  Users can see the IBM Cognos Viewer toolbar.

Collaborate

This secured function controls access to IBM Connections from within IBM Cognos.

The secured features associated with this function are:

- **Launch Collaboration Tools**

  The secured feature allows users to launch IBM Connections from any Launch menu within the IBM Cognos Business Intelligence environment, including the Business Insight Getting Started Page, and the Actions Menu. The links will go to the user's IBM Connections home page, if it is configured, or to Activities.
- **Allow Collaboration Features**

  This secured feature controls access to the **Collaborate** icon and to IBM Connections Search Results within Business Insight. Users must have access to create or view activities from within Business Insight.

Controller Studio

This secured function controls access to IBM Cognos Controller.

Data Manager

This secured function controls access to IBM Cognos Data Manager.

Detailed Errors

This secured function controls access to viewing detailed error messages in the Web browser.

Drill Through Assistant

This secured function controls access to the drill-through debugging functionality in the drill-through **Go To** page and the drill-through definitions. Users who have this capability see additional information in the **Go To** page for each drill-through target. This information can help to debug a drill-through definition, or can be forwarded to the Cognos Software Services representative.

Event Studio

This secured function controls access to Event Studio.

Execute Indexed Search

This secured function controls access to the search of indexed content. This secured function does not appear until the Index Update Service has been started.

By default, Execute Indexed Search allows enhanced indexed search. When Execute Indexed Search is disabled, basic indexed search is provided.

Executive Dashboard

This secured function controls access to IBM Cognos Business Insight.

The secured feature associated with this function is

- **Publish Dashboards to Collaboration Spaces**

External Repositories

This secured function controls access to external repositories. External repositories provide long-term storage for report content. When a connection to an external repository is specified for a package or folder, report output versions are copied to the repository automatically.

The secured features associated with this function are

- **Manage repository connections**

  Users can set a repository connection on a package or folder if a data source connection already exists.
- **View external documents**

  Users can view the report output stored in an external repository.

Glossary

This secured function controls access to the IBM InfoSphere Business Glossary.

Hide Entries

This secured function specifies that a user can hide entries and view hidden entries in IBM Cognos software.

The **Hide this entry** check box appears on the **General** tab of the entries' properties pages. The **Show hidden entries** check box appears on the **Preferences** tab in user profiles, and on the **General** tab in My Area Options  , **My Preferences**.

Import Relational Metadata

Specifies that a group can import relational metadata into a Framework Manager project using dynamic query mode.

By default, the System Administrator, Directory Administrator, and Report Administrators groups belong to this secured function.

If other groups require the ability to import relational metadata to a dynamic query mode project they must be added to the capability. For example, if you create a Framework Manager Users group and add your Framework Manager users to that group, you also need to add the group to the Import relational metadata secured function.

Lineage

This secured function controls access to the **Lineage** action. Use this to view information about data or metadata items from IBM Cognos Viewer, or from the source tree in Report Studio, Query Studio, and Analysis Studio.

Manage Own Data Source Signons

This secured function controls the ability to manage data source credentials on the **Personal** tab in **My Preferences**.

Metric Studio

This secured function controls access to Metric Studio.

The secured feature associated with this function is

- **Edit View**

  Use the edit features of Metric Studio to edit metric content.

Planning Contributor

This secured function controls access to IBM Cognos Planning Contributor and IBM Cognos Planning Analyst.

PowerPlay Studio

This secured function controls access to PowerPlay Studio.

Query Studio

This secured function controls access to the Query Studio, which you use to create simple, ad hoc reports.

The secured features associated with this function are

- **Create**

  Create new reports and use the Save as option for new reports and custom views.
- **Advanced**

  Use advanced authoring features, such as creating complex filters, formatting style, and multilingual support.

Report Studio

This secured function controls access to Report Studio, which you use to author professional reports.

The secured features associated with this function are

- **Allow External Data**

  Users can use external data in reports.
- **Bursting**

  Users can author and run burst reports.
- **Create/Delete**

  Users can create new reports, use the Save as option for new reports and report views, and change models.
- **HTML Items in Report**

  Users can use the button, HTMLItem, and hyperlink elements of the report specification when authoring reports.
- **Open PowerPlay Reports with Report Studio**

  From PowerPlay Studio, users can open PowerPlay Studio reports in Report Studio.
- **User Defined SQL**

  Users can edit the SQL statements directly in the query specification and run the query specifications that contain the edited SQL statements.

  Note: Restrictions on who can use this feature are not enforced in Framework Manager. For example, a Framework Manager user who does not have **User Defined SQL** rights in **IBM Cognos Administration** can still create a query subject and use manually created SQL queries to search a database.

Scheduling

This secured function controls access to the scheduling functionality for items that can be run, such as reports.

The secured features associated with this function are

- **Schedule by day**

  Users can schedule entries daily.
- **Schedule by hour**

  Users can schedule entries by the hour.
- **Schedule by minute**

  Users can schedule entries by the minute.

  If a user is denied access to the **Schedule by minute** capability, 'by minute' scheduling is also denied for other capabilities that allow 'by minute' scheduling, for example, the **Schedule by month** capability.
- **Schedule by month**

  Users can schedule entries monthly.
- **Schedule by trigger**

  Users can schedule entries based on a trigger.
- **Schedule by week**

  Users can schedule entries weekly.
- **Schedule by year**

Users can schedule entries yearly.

- **Scheduling Priority**

  Users can set up and change the processing priority of scheduled entries.

Self Service Package Wizard

This secured function controls the ability to select which data sources can be used to create a package. For more information, see "Select Which Data Sources Can Be Used to Create a Package" on page 385.

Set Entry-Specific Capabilities

This secured function specifies that a user can set up capabilities at an entry level.

The **Capabilities** tab appears in the **Set properties** pages for packages and folders for users who have this capability and who have set policy permissions for the entry or who own the entry.

Specification Execution

This secured function specifies that a user or Software Development Kit application can use an inline specification.

IBM Cognos BI studios and some services use inline specifications internally to perform tasks. The service running the specification tests a number of capabilities to ensure that the user is entitled to use the inline specification. For more information, see the runSpecification method in the *Developer Guide*.

This capability is required to author Data Manager tasks.

Statistics

This secured function controls the ability to author statistical objects and statistical charts in IBM Cognos reports.

Watch Rules

This secured function controls access to the **Rules** tab in **My Watch Items** in IBM Cognos Connection. Use this secured function to create and run watch rules.

Related tasks

"Restricting searches of IBM Cognos content" on page 163
To avoid system degradation caused by unrestricted searches of large Content Manager data stores, administrators can restrict search activity so that only index search is available to users.

Set Access to a Secured Function or Feature

You set access to the secured functions and features by granting execute permissions for them to specified namespaces, users, groups, or roles.

If you set permissions for a secured feature, you must grant execute permissions for the feature and traverse permissions for its parent secured function. For example, to grant access to Report Studio and all its functionality, you grant execute permissions for the **Report Studio** secured function. If you want to grant access only to the **Create/Delete** secured feature within Report Studio, grant

traverse permissions for the **Report Studio** secured function and execute permissions for the **Create/Delete** secured feature.

Before you begin

You must have set policy permissions to administer secured functions and features. Typically, this is done by directory administrators.

Before you start setting permissions on capabilities, ensure that the initial security settings are already changed.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **Capabilities**.

   A list of available secured functions appears.
3. Choose whether to set access for a function or for a feature:

   - To set access for a function, click the actions button  next to the function name, and click **Set properties**.
   - To set access for a feature, click the actions button next to the feature name, and click **Set properties**.

   Tip: Functions that have secured features have links.
4. Click the **Permissions** tab.
5. Choose whether to use the permissions of the parent entry or specify different permissions:
   - To use the permissions of the parent entry, clear the **Override the access permissions acquired from the parent entry** check box, and click **OK**.
   - To set access permissions explicitly for the entry, select the **Override the access permissions acquired from the parent entry** check box, and then perform the remaining steps.
6. If you want to remove an entry from the list, select its check box and click **Remove**.

   Tip: To select or deselect all entries in a page, click **Select all** or **Deselect all** at the bottom of the list.
7. If you want to add new entries to the list, click **Add** and choose how to select entries:
   - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, or roles.
   - To search for entries, click **Search** and in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.
   - To type the name of entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon (;) separates each entry:

     namespace/group_name;namespace/role_name;namespace/user_name;

     Here is an example:

     Cognos/Authors;LDAP/scarter;
8. Click the right-arrow button and when the entries you want appear in the **Selected entries** box, click **OK**.

Tip: To remove entries from the **Selected entries** list, select them and click **Remove**. To select all entries in a list, click the check box in the upper-left corner of the list. To make the user entries visible, click **Show users in the list**.

9. Select the check box next to the entry for which you want to set access to the function or feature.
10. In the box next to the list, select the proper check boxes to grant execute permissions  for the entry.
11. Click **Apply**.

    In the **Permissions** column, an icon that denotes the execute permissions granted appears next to the namespace, user, group, or role.
12. Repeat steps 8 to 10 for each entry.
13. Click **OK**.

Set Access to User Interface Profiles for Report Authors

To meet the needs of both professioinal report authors and business users, IBM Cognos software provides distinct custom user interfaces that contain reporting features relevant to these roles.

To use the custom interfaces for report authoring, you must grant **Execute** and **Traverse** permission for the **Report Studio** capability to the users, groups, and roles that require access. Additionally, you must ensure that there is no group or role that has the **Deny** setting explicitly set on the **Execute** and **Traverse** permissions because the **Deny** setting overrides the grant permissions settings. For more information about setting access permissions for a capability, see "Set Access to a Secured Function or Feature" on page 267.

The following user interfaces are supported:

- Professional Authoring Mode

  Professional authoring mode is available in Report Studio.

  The Professional authoring mode gives users access to a full range of functionality. In this mode, you can create any report type, including charts, maps, lists, and repeaters, using any data source (relational or multi-dimensional). Professional authoring mode supports the use of external data.
- Express Authoring Mode

  Express authoring mode is available in Business Insight Advanced.

  The Express authoring mode provides an interface that is designed for the business user. Users can create list, crosstab, and chart reports to explore and analyze data according to specific information needs. Express authoring mode supports the use of external data, and both dimensional and relational data sources.

To support the different authoring modes, IBM Cognos Administration provides two **User Interface Profiles** named **Professional** and **Express**. Use the **Professional** profile to set access to the Professional mode, and the **Express** profile to set access to the Express mode.

Users can have access to both the Professional and Express authoring modes, however, they must use Report Studio for Professional authoring mode and Business Insight Advanced for Express authoring mode. To switch from

Professional authoring mode to Express authoring mode, the user must exit Report Studio and launch Business Insight Advanced. Similarly, if a user wants to switch from Express authoring to Professional authoring, they must exit Business Insight Advanced and launch Report Studio. For more information, see the Report Studio *User Guide* and the Business Insight Advanced *User Guide*.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **User Interface Profiles**.
3. Specify access permissions for the user interface profile you want
   - To grant access to the Professional authoring mode, click the actions button  next to **Professional**, and click **Set properties**.
   - To grant access to the Express authoring mode, click the actions button next to **Express**, and click **Set properties**.

   The **Permissions** page appears.
4. Select the **Override the access permissions acquired from the parent entry** check box.
5. In the box on the left, select the check box next to the user, group, or role for which you want to grant access to this user interface profile.
6. In the box on the right, grant execute  and traverse  permissions for the selected users, groups, or roles.

   No other permissions are required.
7. Click **OK**.
8. Now, for each newly-added user, group, or role that was added to the **Professional** or **Express** profile, you must grant **Traverse** permission to the report profiles container object. In the toolbar in the upper-right corner of the **User Interface Profiles** page, click the Set properties - User Interface Profiles icon. For each new entry, ensure that the **Traverse** permission is granted.

Results

For more detailed information about setting access permissions, see "Set Access Permissions for an Entry" on page 257.

Chapter 17. Object Capabilities

Object capabilities specify the secured functions and features that users, groups, or roles can use with different packages. For example, the capabilities define the studio to open a package and the studio features available while working with this package.

The secured functions and their features, also referred to as global capabilities, control access to the different components and functionality in IBM Cognos software. For object capabilities to work, you must combine them with applicable global capabilities. For example, when setting up object capabilities for a package that contains Report Studio and Query Studio reports, ensure that the user also has access to the **Report Studio** and **Query Studio** secured functions and their applicable secured features.

Republishing an existing package from a client tool, such as Framework Manager, does not overwrite or modify object capabilities previously specified in IBM Cognos Connection.

Control object capabilities with the **Set Entry-Specific Capabilities** secured function "Set Entry-Specific Capabilities " on page 267.

You can set up the following object capabilities for individual packages "Set Up Object Capabilities for a Package" on page 273.

Adaptive Analytics

This secured function controls access to the reports packaged using Adaptive Analytics.

Analysis Studio

This secured function controls access to Analysis Studio.

The secured feature associated with this function is

- **Open PowerPlay Reports with Analysis Studio**

  From PowerPlay Studio, users can open PowerPlay Studio reports in Analysis Studio.

Administration

This secured function controls access to the administrative pages in IBM Cognos software. You can specify object capabilities for the following secured features within **Administration**.

- **Adaptive Analytics Administration**

  Users can access Adaptive Analytics to perform administrative tasks.
- **Planning Administration**

  Users can access IBM Cognos Planning Contributor Administration Console and IBM Cognos Planning Analyst to perform administration tasks.
- **Metric Studio Administration**

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Users can create new metric packages using the new metric package wizard in IBM Cognos Connection, and access the **Tools** menu in Metric Studio.

Event Studio

This secured function controls access to Event Studio.

Glossary

This secured function controls access to the IBM InfoSphere Business Glossary.

Metric Studio

This secured function controls access to Metric Studio.

The secured feature associated with this function is

- **Edit View**

  Use the edit features of Metric Studio to edit metric content.

Planning Contributor

This secured function controls access to IBM Cognos Planning Contributor and IBM Cognos Planning Analyst.

Query Studio

This secured function controls access to the Query Studio, which you use to create simple, ad hoc reports.

The secured features associated with this function are

- **Create**

  Create new reports and use the Save as option for new reports and custom views.
- **Advanced**

  Use advanced authoring features, such as creating complex filters, formatting style, and multilingual support.

Report Studio

This secured function controls access to Report Studio, which you use to author professional reports.

The secured features associated with this function are

- **Allow External Data**

  Users can use external data in reports.
- **Bursting**

  Users can author and run burst reports.
- **Create/Delete**

  Users can create new reports, use the Save as option for new reports and report views, and change models.
- **HTML Items in Report**

Users can use the button, HTMLItem, and hyperlink elements of the report specification when authoring reports.

- **Open PowerPlay Reports with Report Studio**

  From PowerPlay Studio, users can open PowerPlay Studio reports in Report Studio.

- **User Defined SQL**

  Users can edit the SQL statements directly in the query specification and run the query specifications that contain the edited SQL statements.

  Note: Restrictions on who can use this feature are not enforced in Framework Manager. For example, a Framework Manager user who does not have **User Defined SQL** rights in **IBM Cognos Administration** can still create a query subject and use manually created SQL queries to search a database.

Lineage

This secured function controls access to the **Lineage** action. Use this to view information about data or metadata items from IBM Cognos Viewer, or from the source tree in Report Studio, Query Studio, and Analysis Studio.

Specification Execution

This secured function specifies that a user or Software Development Kit application can use an inline specification.

IBM Cognos BI studios and some services use inline specifications internally to perform tasks. The service running the specification tests a number of capabilities to ensure that the user is entitled to use the inline specification. For more information, see the runSpecification method in the *Developer Guide*.

This capability is required to author Data Manager tasks.

Watch Rules

This secured function controls access to the **Rules** tab in **My Watch Items** in IBM Cognos Connection. Use this secured function to create and run watch rules.

Set Up Object Capabilities for a Package

Use this functionality to specify the secured functions and features that users, groups, or roles can use with specific packages.

You can specify object capabilities at the package level or, if the package is stored in a folder, at the folder level. Capabilities specified at the folder level apply only to packages in that folder and in its subfolders, and not to any other entries, including reports. For example, if a folder contains packages, reports and a subfolder that contains other packages and reports, only the packages in the folder and in the subfolder are affected by the capabilities settings.

Before you begin

To use object capabilities, the users must

- have access to the secured functions and features associated with the package Chapter 16, “Secured Functions and Features,” on page 261

- have access to the **Object Capabilities** secured function "Set Entry-Specific Capabilities " on page 267
- have set policy permissions for the package Chapter 15, "Access Permissions and Credentials," on page 253 or own the package

When setting up object capabilities for the first time after installing IBM Cognos software, we recommend that you start with **Public Folders**, and that the capabilities for **Public Folders** mirror the global capabilities. This provides an accurate baseline on which object capabilities can be further refined.

Procedure

1. In IBM Cognos Connection, click the properties button  for the package that you want, or the folder that contains the package.

   Tip: When setting up object capabilities for **Public Folders**, click the properties button  in the product toolbar.
2. Click the **Capabilities** tab.
3. Select the **Override the capabilities acquired from the parent entry** check box.
4. In the box on the left, select the check box next to the user, group, or role for which you want to specify object capabilities.

   If the user, group, or role is not in the list, click **Add**. If you want to remove the user, group, or role from the list, select its check box, and click **Remove**.

   For more information about adding or removing entries from this list, see the steps in "Set Access Permissions for an Entry" on page 257.
5. In the box on the right, select or clear the applicable check boxes to grant or deny the required object capabilities for users, groups, or roles.

   An icon that represents a granted or denied capability appears next to the name of the user, group, or role. When you deny access to a secured function, you automatically deny access to all its secured features.
6. If applicable, select the **Delete the capabilities of all child entries** check box.

   Use this option to specify object capabilities for a hierarchy of entries, for example, for all packages in a folder.
7. Click **OK**.

Chapter 18. Initial Security

When a content store is initialized, a set of security objects is created and stored in the Cognos namespace. They are designed to simplify the IBM Cognos administration. The initial security policies grant unrestricted access to all objects in the content store to all users.

The security administrator must modify the initial security settings to secure the content store. For more information, see "Specify Security Settings After Installation" on page 278.

To see a summary of the initial access permissions for the Content Manager objects, see Appendix B, "Initial Access Permissions," on page 661.

Built-in Entries

The built-in entries include the Anonymous user account, the groups All Authenticated Users and Everyone, and the role System Administrators. You cannot delete the built-in entries. They appear in both secured and non-secured environments.

Anonymous

This entry represents a user account shared by members of the general public who can access IBM Cognos software without being prompted for authentication. For example, this type of access is useful when distributing an online catalog.

Anonymous users can see only those entries for which access permissions are not set, or are set specifically for this account or for the Everyone group.

You can disable the Anonymous user account by changing the configuration parameters in the configuration tool.

All Authenticated Users

This group represents users who are authenticated by authentication providers. The membership of this group is maintained by the product and cannot be viewed or altered.

You cannot deploy this group. For more information, see "Including Cognos Groups and Roles" on page 358.

Everyone

This group represents all authenticated users and the Anonymous user account. The membership of this group is maintained by the product and cannot be viewed or altered.

You can use the Everyone group to set default security quickly. For example, to secure a report, you grant read, write, or execute permissions to the report for the Everyone group. After this security is in place, you can grant access to the report

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to other users, groups, or roles, and remove the group Everyone from the security policy for this report. Then, only users, groups, and roles that you specified have access granted to the report.

You can use the Everyone group to apply security during deployment, see "Security and Deployment" on page 352, but you cannot deploy the group itself. For more information, see "Including Cognos Groups and Roles" on page 358.

System Administrators

This is a special role in IBM Cognos software. Members of this role are considered root users or super users. They may access and modify any object in the content store, regardless of any security policies set for the object. Only members of the System Administrators role can modify the membership of this role.

The System Administrators role cannot be empty. If you do not want to use System Administrators, you can create an empty group in the Cognos namespace or in your authentication provider, and add this group to the membership of the System Administrators role.

When this role is created during the content store initialization, the group Everyone is included in its membership. This means that all users have unrestricted access to the content store. Immediately after installing and configuring IBM Cognos software, you must modify the initial security settings for this role and remove the group Everyone from its membership. For more information, see "Specify Security Settings After Installation" on page 278.

You can deploy this role, including Cognos Groups and Roles. For more information, see "Including Cognos Groups and Roles" on page 358.

Predefined Entries

The predefined entries include several Cognos roles. Each of the roles has a specific set of access permissions, and can be used to secure different components and functions in IBM Cognos software. You can use the predefined roles, or delete them.

When the predefined roles are created during the content store initialization, the group Everyone is a member of some of them. Some of such roles are Consumers, Query Users, Analysis Users, and Authors. If you want to use the predefined roles, we recommend that you modify their initial membership immediately after installing and configuring IBM Cognos software "Specify Security Settings After Installation" on page 278.

The predefined roles include the following.

Role	Description
Adaptive Analytics Administrators	Members can administer reports packaged using Adaptive Analytics.
Adaptive Analytics Users	Members can use reports packaged using Adaptive Analytics.

Role	Description
Analysis Users	Members have the same access permissions as Consumers. They can also use the IBM Cognos Analysis Studio.
Authors	Members have the same access permissions as Query Users and Analysis Users. They can use Report Studio, IBM Cognos Business Insight Advanced, Query Studio, and Analysis Studio, and save public content, such as reports and report outputs.
Consumers	Members can read and execute public content, such as reports.
Controller Administrators	Members have full access to IBM Cognos Controller menus and can create individual IBM Cognos Controller users and define their limitations.
Controller Users	Members have general access to IBM Cognos Controller menus.
Data Manager Authors	Members can use Data Manager to create data warehouses and data repositories for reporting, analysis, and performance management.
Directory Administrators	Members can administer the contents of namespaces. In the Cognos namespace, they administer groups, accounts, contacts, distribution lists, data sources, and printers.
Metrics Administrators	Members can administer metric packages and tasks in IBM Cognos Connection.
Metrics Authors	Members can create and edit scorecard applications in Metric Studio.
Metrics Users	Members can monitor performance in Metric Studio.
Portal Administrators	Members can administer the Cognos portlets and other portlets in IBM Cognos Connection. This includes customizing portlets, defining portlet styles, and setting access permissions for portlets.
Planning Contributor Users	Members can access the Contributor Web client, Contributor Add-in for Microsoft Excel, or Analyst.
Planning Rights Administrators	Members can access Contributor Administration Console, Analyst, and all associated objects in the application.

Role	Description
Query Users	Members have the same access permissions as Consumers. They can also use the IBM Cognos Query Studio.
Readers	Members have read-only access to IBM Cognos software. They can navigate some portions of the content store, view saved report outputs in the portal, select cells in saved report outputs in IBM Cognos Viewer, and use the IBM Cognos Viewer context menu to perform actions, such as drill-through.
Report Administrators	Members can administer the public content, for which they have full access. They can also use IBM Cognos Report Studio and IBM Cognos Query Studio.
Server Administrators	Members can administer servers, dispatchers, and jobs.

Specify Security Settings After Installation

Your IBM Cognos software installation must already be configured to use an authentication provider, which is documented in the Installation and Configuration Guide.

When the predefined roles are created during the content store initialization, the group Everyone is a member of the System Administrators role. This means that all users have full access to the content store. To limit that access, you must add trusted users as members of this role, and then remove the group Everyone from its membership.

You must also modify the membership for the predefined roles that include the group Everyone such as Consumers, Query Users, and Authors. Make similar modifications for them as you do for the System Administrators role. These modifications should also take the license terms into consideration.

If you do not want to use the predefined roles, you can delete them.

To secure the Cognos namespace, modify its initial access permissions by granting access for the users you want.

When you set access permissions, you should not explicitly deny access to entries for the group Everyone. Denying access overrides any other security policies for the entry. If you denied access to the entry for Everyone, the entry would become unusable.

To maintain a secure installation, users should be granted only the permissions and capabilities required to allow them to complete their assigned tasks. For example, readers would normally be restricted to read and traverse permissions for Public Folders, and this role would not be allowed to create reports using any studio. Consumers would normally be restricted to read, traverse and execute.

Certain capabilities such as HTML Item In Report and User Defined SQL should be tightly managed. These capabilities are checked during the authoring process as well as when running reports. If a consumer needs to run a report that requires these capabilities, you may be able to use the **Run as Owner** feature to limit the number of system users that require these capabilities. The **Run as Owner** feature uses the report owner's credentials to perform some capability checks and to access data.

For information on granting capabilities, see Object Capabilities.

System Administrators and Predefined Roles

You can setup System Administrators and predefined roles as follows.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Click the **Cognos** namespace.
4. For the role you want, in the **Actions** column, click the set properties button.
5. On the **Members** tab, modify the membership list:
   - Ensure that one or more users defined in your authentication provider are members.
   - Remove the group Everyone.
6. Click **OK**.
7. On the **Permissions** tab, set access permissions for this role to prevent unauthorized users from creating, updating, or deleting the content, and then click **OK**.

   For each role, repeat steps 3 to 6.

Cognos Namespace

You can setup the Cognos Namespace as follows.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. In the **Actions** column next to the Cognos namespace, click the set properties button.
4. On the **Permissions** tab, set access permissions for the **Cognos** namespace to prevent unauthorized users from creating, updating, or deleting the content.

   We recommend that you remove the group Everyone. However, you may leave it, depending on your requirements.
5. If you want, select the **Delete the access permissions of all child entries** check box.
6. Click **OK**.

Securing the Content Store

To ensure its security and integrity, the content store is accessed by the Content Manager service using single database signon specified in IBM Cognos Configuration. The database signon is encrypted according to your encryption standards. However, the content store security relies not only on the IBM Cognos BI security but also on the native database security, operating system security, and network security.

For securing your database, follow these guidelines:

- Secure the database and the database API using the mechanisms provided by the database, the network, and the operating system.
- Assign a limited number of users to maintain the database.
- Use your database native security to grant only minimum permissions to the user accounts that access the database, as follows:
  - Microsoft SQL Server

    Users must have create and drop table permissions for the database. Ensure that the user account is a member of the db_ddladmin, db_datareader, and db_datawriter roles, and the owner of their default schema.
  - ORACLE

    Users must have permissions to connect to the database. Also, they must be able to create, alter, and drop tables, triggers, views, procedures, and sequences, as well as insert, update, and delete data in the database tables. The permissions must be granted to the user account directly, and not through a group or role membership.
  - DB2

    Users must have the create, drop table, CREATETAB, CONNECT and IMPLICITSCHEMA permissions for the database. Also, they must have USE permissions for the USER TEMPORARY tablespace and other appropriate tablespaces associated with the database.
  - Sybase Adaptive Server Enterprise

    Users must have create, drop table, create default, create procedure, create rule, create table, and create view permissions for the database.
- Limit the number of users who have read or write access for the Content Manager tables.
- Follow other recommendations on securing the database. For information, see the database documentation.

Chapter 19. IBM Cognos Connection

IBM Cognos Connection is the portal to IBM Cognos software. IBM Cognos Connection provides a single access point to all corporate data available in IBM Cognos software.

You can use IBM Cognos Connection to work with entries such as reports, analyses, queries, agents, metrics, and packages. You can use IBM Cognos Connection to create shortcuts, URLs, and pages, and to organize entries. You can personalize IBM Cognos Connection for your own use.

You can use IBM Cognos Connection to create and run reports and cubes and distribute reports. You can also use it to create and run agents and schedule entries.

As an administrator, you can use IBM Cognos Connection to administer servers, optimize performance, and set access permissions. You can also use it for entry administration, including such things as scheduling and distributing reports, agents, and metrics. For more information, see Chapter 15, "Access Permissions and Credentials," on page 253.

If you use a customized user interface, you may not have access to all the features documented.

Related concepts

"Distributing Reports" on page 430
You can distribute reports to other users to share information with them.

Chapter 27, "Reports and Cubes," on page 397
You can use reports, cubes, and documents to analyze data and help you make informed and timely decisions.

Chapter 28, "Agents," on page 441
You can create agents in Event Studio to monitor your organization's data for occurrences of business events. After an agent is published to the portal, use IBM Cognos Connection to manage it.

Chapter 22, "Schedule Management," on page 343
You can schedule IBM Cognos entries to run at a time that is convenient for you. For example, you may want to run reports or agents during off hours when demands on the system are low. Or you may want to run them at a regular weekly or monthly interval.

Log On

IBM Cognos software supports authenticated and anonymous user access. To use IBM Cognos software as an authenticated user, you must successfully log on. During the logon process, you must provide your credentials, such as user ID and password, as required by your organization. Anonymous users do not log on.

Tip: If you want to see a summary of your logon information for the current session, in the portal, click **My Area Options**, **My Preferences** and then click the **Personal** tab. This is not available to anonymous users.

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Procedure

1. In the portal, click **Log On**.
2. If the namespace **Logon** page appears, in the **Namespace** box, click the namespace you want to use.
3. Click **OK** and type your user ID and password.
4. Click **OK**.

   Your session starts.

Log Off

You log off to end your session. Even if you used multiple namespaces in the session, you log off only once.

If you close your Web browser without logging off, your session ends.

Procedure

1. In the portal, click **Log Off**.

   You are now logged out of all the namespaces you were using.
2. Choose whether to log on again:
   - If you do not want to log on again, close your Web browser.
   - If you want to log on as an authenticated user, click **Log on again**.
   - If you want to log on as an anonymous user, click **Open a session as an anonymous user**. This is available only if your administrator set it up.

Create a Shortcut

A shortcut is a pointer to another entry such as a report, report view, folder, job, agent, page, or URL.

You can use shortcuts to organize information that you use regularly. For example, if you frequently use a report in Public Folders, you can create a shortcut in My Folders.

If you want to make a new entry, it might be easier to make a copy of an existing entry and modify it. For more information, see “Copy an Entry” on page 294. If you want to run an existing agent or report with some minor changes, create an agent view “Create an Agent View” on page 442 or a report view “Create a Report View” on page 407. For example, to change the format, language, or delivery method of a report, create a report view.

You cannot update the source entry by clicking the shortcut. Updating the source automatically updates all shortcuts to the entry.

Tip: If the source entry was deleted or moved to another location, the shortcut icon  changes to indicate a broken link.

You can change access permissions for a shortcut entry, but it does not change the access permissions for the source entry.

Procedure

1. In IBM Cognos Connection, locate the entry you want to create a shortcut to.
2. Under **Actions**, click **More** and then click **Create a shortcut to this entry**  .
3. In the **Name** box, type the name of the shortcut.
4. If you want, in the **Description** and in the **Screen tip** box, you can type a description of the entry.

   The description appears in the portal when you set your preferences to use the details view. For more information, see "Personalize the Portal" on page 304. The screen tip, which is limited to 100 characters, appears when you pause your pointer over the icon for the entry in the portal.
5. If you do not want to use the target folder shown under **Location**, choose another location:
   - Click **Select another folder**, select the target folder, and click **OK**. If the folder box is empty, go back one folder level using the path at the top of the dialog box.
   - Click **Select My Folders** as the location.
6. Click **Finish**.

Results

In the portal, shortcut entries are identified by the shortcut icon  .

Create a URL

A URL is a standard way of identifying the location for any external file or Web site. Create URLs to keep the files and Web sites you use most frequently at your fingertips. Clicking a URL opens the file or Web site in the browser. After opening a URL, click the back button in your browser to return to the portal.

The URL must contain a valid server name that is included in the valid domains list, as specified by your administrator. Otherwise, you cannot create the URL.

Administrators maintain the list of valid domains in IBM Cognos Configuration, in the **IBM Cognos Application Firewall** category, the **Valid domains or host** property. For more information, see the *Installation and Configuration Guide*.

Procedure

1. In IBM Cognos Connection, go to the folder where you want to create the new URL.
2. Click the new URL button  on the toolbar.
3. In the **Name** box, type the name of the new URL.
4. If you want, in the **Description** and in the **Screen tip** box, you can type a description of the entry.

   The description appears in the portal when you set your preferences to use the details view "Personalize the Portal" on page 304. The screen tip, which is limited to 100 characters, appears when you pause your pointer over the icon for the entry in the portal.
5. In the **URL** box, type the URL location.

If the URL points to a Web site address, the protocol must be included. For example, to create a URL for the IBM Cognos Web site, type http://www.cognos.com.

The URL must use a valid domain, as specified by your administrator. To view a list of acceptable domains, click **View acceptable domains**.

6. If you do not want to use the target folder shown under **Location**, choose another location:
   - Click **Select another folder**, select the target folder, and click **OK**. If the folder box is empty, go back one folder level using the path at the top of the dialog box.
   - Click **Select My Folders** as the location.
7. Click **Finish**.

Results

In the portal, URL entries are identified by the URL icon  .

Bookmark an Entry

You can bookmark an IBM Cognos entry in your Web browser so that later you can quickly perform the default action associated with the entry. For example, using a report bookmark, you can view the most recent report output, run the report, or open it in an authoring tool.

For more information, see "Set Default Report Options" on page 399.

The bookmark saves the URL of the entry and its default action at the time when the bookmark was created.

Some default actions are available only to users who

- have the required access permissions for the entries.
- have the required product components installed.
- have access to specific, secured functions and features.

  For example, the capabilities to use a specific IBM Cognos Business Intelligence studio.
- use specific Web browsers.

For example, to open an agent, users must have read and traverse permissions for the agent, have Event Studio installed and the permissions to use it, and use Microsoft Internet Explorer as their Web browser.

Using Any Web Browsers

The procedure to add a bookmark for any web browser is as follows.

Procedure

1. In IBM Cognos Connection, locate the entry for which you want to create a bookmark.
2. In the **Actions** column, click the set properties button  for the entry.
3. On the **General** tab, click **View the search path, ID and URL**.

4. Right-click the link that appears under **Default action URL**.

   The link shows the entry name and the action that will be performed. If the entry has no default actions, the link is replaced by **None**. The text below the link shows the URL used by the link.

   A menu box specific to your Web browser appears.
5. From the menu, click the option for creating bookmarks.

   For example, if you are using Internet Explorer, click **Add to Favorites**. If you are using Firefox, click **Bookmark This Link**.
6. Create the bookmark as you normally do in your Web browser.

Using Internet Explorer

The procedure to add a bookmark using Internet Explorer is as follows.

Procedure

1. In IBM Cognos Connection, locate the entry for which you want to create a bookmark.
2. In the **Actions** column, click **More**.
3. In the list of actions available for this entry, click **Add to bookmarks**  .

   The Internet Explorer box for adding favorites appears.
4. Create the bookmark as you normally do in Internet Explorer.

Entry Properties

You can control the way an entry appears and behaves by modifying its properties. The properties for entries vary depending upon the type of entry selected and your privileges. For example, reports have properties to control run options while folders do not. If a property is not applicable to the type of entry you are customizing, it will not appear in the **Set properties** page.

General Properties

General properties appear on the **General** tab of the **Set properties** page.

Property	Description
Type	The type of entry.
Owner	The owner of the entry. By default, the owner is the person who created the entry. When the owner no longer exists in the namespace, or is from a different namespace than the current user, the owner shows as **Unknown**. If you have Set policy permissions, click **Make me the owner** to become the owner of the entry.

Property	Description
Contact	The person responsible for the entry. Click **Set the contact** and then click **Select the contact** to set the contact for the entry or click **Enter an email address** to enter the contact's email address.
Location	The location of the entry in the portal and its ID. Click **View the search path, ID and URL** to view the fully qualified location and the ID of the entry in the content store. Entries are assigned a unique identification (ID) number. For more information, see “Organizing Entries” on page 293.
Created	The date the entry was created.
Modified	The most recent date that the entry was modified.
Icon	The icon for the entry. Click **Edit** to specify an alternative icon. For more information, see “Specify an Alternative Icon for an Entry” on page 301.
Indexed	The timestamp indicating when the entry was last indexed. The property does not appear if the entry has not been indexed.
Disable this entry	When selected, users that do not have write permissions for this entry cannot access it. The entry is no longer visible in the portal. If an entry is disabled and you have write access to it, the disabled icon appears next to the entry.
Hide this entry	Select this property to hide reports, packages, pages, folders, jobs, and other entries. Hide an entry to prevent it from unnecessary use, or to organize your view. The hidden entry is still accessible to other entries. For example, a hidden report is accessible as a drill-through target. A hidden entry remains visible, but its icon is faded. If you clear the **Show hidden entries** check box in my area options  , **My Preferences**, the entry disappears from your view. You must have access to the **Hide Entries** capability granted by your administrator to see this property.

Property	Description
Language	A list of languages that are available for the entry name, screen tip, and description according to the configuration set up by your administrator. Click **Remove values for this language** to remove the entry name, screen tip, and description for a specified language.
Name	The name of the entry for the selected language.
Screen tip	An optional description of the entry. The screen tip appears when you pause your pointer over the icon for the entry in the portal. Up to 100 characters can be used for a screen tip.
Description	An optional description of the entry. It appears in the portal when you set your preferences to use the details view. Details view appears only in Public Folders and My Folders.
Run history	The number of occurrences or period of time to retain run histories for the entry.
Report output versions	The number of occurrences or period of time to keep report outputs. Setting this value to zero (0) saves an unlimited number of versions.
Package	The package that is associated with the entry. If the source package was moved or deleted, the text reads "Unavailable." Click **Link to a package** to link the entry to a different package. For more information, see “Select a Link for an Entry” on page 298.
URL	A URL to either a file or Web site address. For more information, see “Create a URL” on page 283. This field is visible only if you have read permissions for the entry. If you have write permissions without read permissions, this property is not visible.

Property	Description
Source report	A path to the source entry for a report view. If the source entry was moved or deleted, the text reads "Unavailable." Click **Report Properties** to view the properties of the source report. Click **Link to a report** to link the entry to a different package. For more information, see “Select a Link for an Entry” on page 298.
Source agent	A path to the source entry for an agent view. If the source entry was moved or deleted, the text reads "Unavailable." Click **Agent Properties** to view the properties of the source report. Click **Link to an agent** to link the entry to a different package. For more information, see “Select a Link for an Entry” on page 298.
Shortcut to	A path to the entry that the shortcut points to. If the referred entry no longer exists, the text reads "Source entry not found." Click **Source Properties** to view the properties of the source entry.
Advanced routing	A list of keywords used to direct requests by package, user group, or user role to dispatchers in identified server groups. Click **Set** to add routing keywords for packages, user roles, or user groups. The rules used to direct the requests are part of **IBM Cognos Administration**.
Gateway	The location of the web server where the originating IBM Cognos product resides. Applies only to Series 7 PowerPlay reports.

Permissions

Permissions appear on the **Permissions** tab of the **Set properties** page.

Property	Description
Override the access permissions	Whether to replace the permissions that are inherited from the parent entry.

Property	Description
Access permissions (Name, Type, Permissions)	The permissions that are set for the entry. You can grant or deny read, write, execute, set policy, and traverse permissions. For more information, see Chapter 15, "Access Permissions and Credentials," on page 253. Click **Add** to add more names to the list. Click **Delete** to delete names from the list.
Delete the access permissions of all child entries	Whether to remove the existing access permissions for all child entries so that they will use the access permissions for this entry.

Report, Query, Analysis, and PowerPlay Report Properties

Report properties appear on the following tabs of the **Set properties** page:

- the **Report** tab for Report Studio reports
- the **Query** tab for Query Studio reports
- the **Analysis** tab for Analysis Studio reports
- the **PowerPlay Report** tab for Series 7 PowerPlay reports

You can select the available paper sizes. In IBM Cognos Connection, click **IBM Cognos Administration** and then click **Configuration**. Click **Dispatchers and Services** and then click the define paper sizes button  . To add new paper sizes, click **New**. To delete paper sizes, click **Delete**.

Property	Description
Default action	The default action when the report is run.
Report options: Override the default values	Whether to override default run options for the report. When selected, the values that you can override appear.
Format	The default format, orientation, and paper size to use when the report runs. Appears only if **Override the default values** is selected.
Accessibility	Whether to create report output that supports accessibility. Enabling support creates report output that can be read by a screen reader.
Language	The default language to use for the report data when the report runs. Appears only if **Override the default values** is selected.

Property	Description
Prompt values	The values that are used to filter data when a report is run. For more information, see “Specify the Default Prompt Values for a Report” on page 414.
Run as the owner	Whether to use the owner credentials when the report is run. For more information, see “Trusted Credentials” on page 258.
Run as the owner: Capabilities only	Whether to use only the owner capabilities and not the owner credentials when the report is run. For more information, see “Running reports with report owner capabilities” on page 405.
HTML options: Open in design mode	Whether to open an HTML-format Series 7 PowerPlay report in design mode.
Number of rows per Web page in HTML reports	The number of rows you want to appear per Web page in HTML reports
Enable selection-based interactivity in HTML reports	Whether to enable the following in HTML reports that are viewed in IBM Cognos Viewer: drill up and drill down, drill through, IBM Cognos Search, watch rules, and agent notification. For more information, see “Disable Selection-based Interactivity” on page 429. Note that to have watch rules evaluated in saved report output, you must select the **Enable enhanced user features in saved output versions** check box.
Enable alerts about new versions	Whether to allow report consumers to receive alerts about new versions of a saved report. If this check box is cleared, you are prompted whether to remove all users from the alert list.
Enable enhanced user features in saved output versions	Whether to create additional output formats so that watch rules can be evaluated and saved output versions can be imported into IBM Cognos for Microsoft Office. Note that to enable watch rules, you must select the **Enable selection-based interactivity in HTML reports** check box.
Enable comments in saved output versions	Whether to allow users to add comments to saved reports. For more information, see “Comments in Saved Reports” on page 426.
Refresh the report cache	Create new cache data if none is available, when the report runs interactively.

Property	Description
Cache duration	The number of days or months before the report cache data expires. To enable the cache duration, select the **Refresh the report cache** check box.

Job Properties

Job properties appear on the **Job** tab of the **Set properties** page.

Property	Description
Steps	A list of steps in the job.
Submission of steps	Whether to run job tasks all at once or in sequence.
Defaults for all steps	Set default values at the job level. Click **Set**, then specify the defaults for all steps of the job. If no defaults are set, the defaults for the individual steps are used.
Run history details level	Click **All** to save the complete history details for the job steps when the run activity completes successfully. The complete history details for the job steps includes **Name**, **Request time**, **Start time**, **Completion time**, **Status**. Click **Limited** to save limited run history details for the job. The limited run history details include the job start time, completion time, status and messages. If the job run fails, the complete history details are saved. The default is **All**. The Run history details level setting for the job overrides the settings of the job steps.

Agent Properties

Agent properties appear on the **Agent** tab of the **Set properties** page.

Property	Description
Tasks	A list of tasks in the agent.
Default action	The default action when the agent is run.
Prompt values	The values that are used to filter data when an agent is run. For more information, see “Run an Agent” on page 441.
Run as the owner	Whether to use the owner credentials when the agent is run. For more information, “Trusted Credentials” on page 258.

Property	Description
Run as the owner: Capabilities only	Whether to use only the owner capabilities and not the owner credentials when the report is run. For more information, see “Running reports with report owner capabilities” on page 405.
Alert list	Whether to allow users to add themselves to the alert list for an agent.

Page Properties

Page properties appear on the **Layout and Content** and **Page Style** tabs of the **Set properties** page.

Property	Description
Number of columns	The number of columns used to organize the content of a page. Up to three columns can be used.
Content	Type of content added to a page. Use to add and remove portlets, distribute the portlets between the columns, change the order of columns and specify their width.
Language	The language in which the page title and instructions can be typed. It should match the product language.
Title	The page title. You can format the title by changing the font and character style, and the text alignment. To return to the default browser settings, click **Return to default**. To modify the default settings, click **Custom**. You can hide the title.
Instructions	Additional information about the page. You can format the text of instructions by changing the font and character style, and the text alignment. To return to the default browser settings, click **Return to default**. To modify the default settings, click **Custom**. You can hide the instructions.
Portlet style	The way a portlet appears on a page. To avoid cluttering the page, you can hide the portlet borders, title bars, and the edit button on the title bar.

Rule Properties

Use the rule properties to define or modify a watch rule. You can access the rule properties from the **My Watch Items**, **Rules** tab by clicking the set properties icon for a watch rule entry. The properties are located on the **Rule** tab of the **Set Properties** page.

The rule properties specify conditions in saved HTML report output so that when the report is saved and the conditions are satisfied, you are alerted.

For information about creating watch rules, see "Create a Watch Rule for a Specific Condition" on page 423.

The following table describes the rule properties that are available.

Property	Description
Disable the rule	Whether to disable the watch rule. When disabled, the watch rule is not applied when report output is generated.
Send an alert when the report *reportname* contains:	The name of the report and the rule defined for the watch rule. To edit the definition, click the existing filter condition, such as greater than (>), and in the list that appears, click a different condition. Specify a different value in the box.
For the selected context	The objects in the report to which the rule applies.
Alert type	The type of alert you receive when the rule is satisfied. You can be alerted by email or news item.

Organizing Entries

Organize entries such as reports, analyses, agents, and packages in a meaningful way so that you can easily find them. It is important to plan how you can best organize entries in the portal. Review the entries and attempt to group them in a logical way. Consider grouping the entries by type or frequency of use.

You may decide to create a folder hierarchy by using nested folders. The folder structure should be logical and should support the chosen method of grouping.

Use meaningful names and detailed descriptions to identify entries in the portal.

You can copy, move, rename, or delete entries. You can create copies of entries and store them in multiple folders for easy access. You can disable entries and specify the order of entries. You can select a link for an entry. For example, if a report is deleted, you may want to link an associated report view to a different report. You can also hide an entry to prevent it from unnecessary use.

Remember that an entry often refers to other entries such as packages, reports, analyses, or queries. In addition, there may be references to entries in job steps, agents tasks, drill-through targets, or metrics. Reference IDs are hard-coded in the specification for each entry.

Note that references to deployment objects are based on search paths, not IDs. IDs are installation-specific while search paths are not.

Copy an Entry

When you create a copy of an entry, you create a replica of that entry in another location in the portal. For example, create a copy if you want to use a generic report as the underlying structure for additional reports. The copy of the entry has a new ID. If there is another entry of the same name in the target location, you are prompted to replace the existing entry with the copied entry. If you choose to replace the existing entry, the ID of the existing entry is used.

If you copy a folder, references for entries in the folder that reference each other are updated to reference entries in the copied folder.

If you want to run an existing agent or report with some minor changes, create an agent view "Create an Agent View" on page 442 or a report view "Create a Report View" on page 407. For example, to change the format, language, or delivery method of a report, create a report view. You can copy multiple entries at the same time to the same location.

If you want a report to appear in more than one location, create a shortcut "Create a Shortcut" on page 282.

You must have read permissions for an entry you are attempting to copy. You must also have traverse permissions for the current folder, and write and traverse permissions for the target folder Chapter 15, "Access Permissions and Credentials," on page 253.

Procedure

1. In IBM Cognos Connection, select the check boxes next to the entry or entries you want to copy.
2. Click the copy button  on the toolbar.
3. Go to the desired location for the new entry or entries and click the paste button  on the toolbar.
4. If an entry name is the same as an entry name in the destination folder, choose whether you want to replace the existing entry with the one that you are copying:
   - To replace the existing entry, click **Yes**.
   - To cancel the copy, click **No**.

Move an Entry

When you move an entry, you remove it from the current folder and place it in another folder.

You may decide to move an entry if your folder becomes so full that it is difficult to locate particular entries. You can create a series of subfolders and move the entries to support your new folder hierarchy. For example, a folder containing weekly sales reports can be divided into sales reports by month or by author.

When you move an entry, the ID stays the same. References to the entry from other entries are not broken. However, shortcuts to the entry no longer work.

For example, a report has several report views associated with it. When you move the report to another location in IBM Cognos Connection, the references in the associated report views are not broken. However, shortcuts to the entry no longer work.

When you move an entry, if there is another entry of the same name in the target location, you are prompted to replace the existing entry with the moved entry. If you choose to replace the existing entry, the ID of the existing entry is kept. References to the moved entry are broken. Shortcuts to the entry no longer work.

If you want to use a generic entry as the underlying structure for additional entries, make a copy of the entry "Copy an Entry" on page 294. If you want an entry to appear in more than one location, create a shortcut "Create a Shortcut" on page 282. If you want to run an existing agent or report with some minor changes, create an agent view "Create an Agent View" on page 442 or a report view "Create a Report View" on page 407. For example, to change the format, language, or delivery method of a report, create a report view.

Before you begin

You must have read permissions for the entry you are attempting to move. You must also have write and traverse permissions for the current folder and for the target folder.

Procedure

1. In IBM Cognos Connection, select the check boxes next to the entry or entries you want to move.
2. Click the cut button  on the toolbar.
3. Go to the desired location for the entry or entries and click the paste button  on the toolbar.
4. If an entry name is the same as an entry name in the destination folder, choose whether you want to replace the existing entry with the one that you are copying:
   - To replace the existing entry, click **Yes**.
   - To cancel the copy, click **No**.

Rename an Entry

You may decide to rename an entry. Perhaps the current name for an analysis is confusing or the purpose of a report changed.

When you rename an entry, the ID stays the same. However, the search path changes. References to the entry from other entries are not broken. Shortcuts to the entry no longer work.

For example, a package has reports, agents, and drill-through definitions associated with it. When you rename the package, the references in the associated reports, agents, and drill-through definitions are not broken.

You cannot rename an entry to the same name as another entry that already exists in the same location.

Before you begin

You must have read permissions for the entry you are attempting to rename. You must also have write and traverse permissions for the current folder and for the target folder.

Procedure

1. In IBM Cognos Connection, locate the entry you want to rename, and in the **Actions** column, click the set properties button  .
2. Click the **Properties** tab.
3. In the **Name** box, type a new name for the entry.
4. Click **OK**.

Disable an Entry

You can disable entries to prevent users from accessing them.

Disabling entries is useful when you want to perform maintenance operations. For example, you may want to disable a folder while you reorganize its content. When you disable a folder, the folder content is also disabled.

If an entry is disabled, the disabled icon  appears beside the entry to indicate that it is disabled.

If the source entry is disabled, all shortcuts to the entry appear with the source disabled icon  , indicating that it no longer works.

Before you begin

You must have read and write permissions for an entry Chapter 15, "Access Permissions and Credentials," on page 253 to enable or disable it. You must also have traverse permissions on the folder that contains the entry.

Procedure

1. In IBM Cognos Connection, locate the entry you want to disable and, in the **Actions** column, click the set properties button  .
2. Click the **General** tab.
3. Select the **Disable this entry** check box.

   Tip: To enable a disabled entry, clear the **Disable this entry** check box.
4. Click **OK**.

Results

If you have only read, execute, or traverse permissions for a disabled entry, you cannot see the entry in the portal. If you have write or set policy permissions for a disabled entry, it appears in the portal with the disabled icon  .

Hide an Entry

You can hide entries in IBM Cognos Connection and IBM Cognos Administration such as reports, packages, pages, folders, jobs, data sources, portlets, and so on, to ensure that the entries are not accessed or run unnecessarily. This specifically applies to drill-through reports that, when they run, could have negative impact on system performance. For example, running drill-through reports that have optional prompts, or no prompts, could result in database queries that use considerable resources. When these reports are hidden in the portal, users cannot run them and the system is not overloaded with unnecessary requests.

Hiding an entry does not affect its properties, including security permissions. You can access hidden entries using different methods, such as using a URL.

Depending on the user preferences specified in my area options  , **My Preferences**, a hidden entry either entirely disappears from the user interface or remains visible, but its icon fades. For more information, see "View a Hidden Entry."

You cannot hide users, groups, or roles in external namespaces.

Before you begin

An administrator controls which users, groups, or roles can hide entries by granting the users access to the **Hide Entries** capability in IBM Cognos Administration. Only users who have access to this capability can perform the following steps.

Procedure

1. In IBM Cognos software, locate the entry that you want to hide, and click its set properties button  .
2. On the **General** tab, select the **Hide this entry** check box.
3. Click **OK**.

   The entry is now hidden; however, it may still appear in the user interface with a faded icon. To remove the entry from your view, see "View a Hidden Entry."

View a Hidden Entry

Users can change their preferences to either show or remove hidden entries from the user interface. Icons that represent hidden entries are faded.

Depending on the preferences, a hidden entry may or may not appear in search pages, wizards, save as boxes, and so on. For example, when the user interface does not show hidden entries, hidden packages do not appear in the list of available packages when users try to open the applicable studio, and the search results do not include the packages.

The following are the rules that apply to viewing hidden entries:

- A hidden report is accessible as a drill-through target.

  Drill-through targets include parameter values to avoid resource-intensive query operations. However, the user still requires read and execute permissions to use this target report in a drill-through activity.

- A hidden drill-through definition is not displayed in the **Go To** page if the user interface does not show hidden entries.
- A visible shortcut can point to a hidden entry. If the shortcut points to a hidden folder, any hidden entries in the folder are not visible.
- Search pages do not return hidden entries if the user interface does not display the entries.

The following, are examples of situations when hidden entries are always visible, regardless of the user preferences for viewing hidden entries.

- Hidden entries on the **Permissions** and **Personal** tabs

  The entries icons are faded.
- Portal tabs associated with hidden pages
- Portlets in a page
- Job steps that refer to hidden entries already in a job

  The entries icons are faded.
- Agent tasks that refer to hidden entries already in an agent

  The entries icons are faded.
- Details in a report run history

  The icons that represent hidden entries do not change.

Before you begin

Setting the default option for viewing hidden entries in IBM Cognos software is part of managing user profiles.

Only users who have access to the **Hide Entries** capability in IBM Cognos Administration can perform the following steps.

Procedure

1. Go to my area options  and click **My Preferences**.
2. On the **General** tab, select or clear the **Show hidden entries** check box.

   If you select this check box, the hidden entries appear in the user interface with faded icons. If you clear this check box, the hidden entries disappear from the user interface.
3. Click **OK**.

Select a Link for an Entry

Some entries are linked to other entries when they are created. For example, a report view is linked to a report and a report or agent is linked to a package. Metrics are linked to a metrics package.

You can change the link for an entry. For example, if a report is deleted, you may want to link an associated report view to a different report. After you change the link, the report view reflects the content of the new report.

Select a link that is appropriate for the entry. For example, the package that a report is linked to must contain a valid model for the report to run correctly.

If the link associated with the entry is not available, **Unavailable** appears. For example, **Unavailable** appears if the package that a report is linked to is deleted.

Before you begin

You must have write permissions for the entry you are attempting to select a link for. You must also have write and traverse permissions for the current folder.

Procedure

1. In IBM Cognos Connection, locate the entry you want and click the set properties button  .
2. Click the **General** tab and find the current link for the entry.
   For example, for a report, look in **Package**. For a report view, look in **Source report**.
3. Click the link.
   For example, for a report, click **Link to a package**. For a report view, click **Link to report**.
4. Select the new entry that you want to link the entry to and click **OK**.

Delete an Entry

When you delete an entry, you permanently remove it from the portal and its ID is deleted. You may decide to delete an entry because it is outdated or may no longer satisfy your requirements.

Deleting the source entry for a shortcut removes only the source entry. The shortcut entries remain but have an invalid reference icon  and are not accessible.

Deleting a shortcut or a report or agent view removes only the selected entry and not the source entry. References from other entries no longer work.

Before you begin

You must have write permissions or set policy permissions for the entry you are attempting to delete. You must also have write and traverse permissions for the current folder.

Procedure

1. In IBM Cognos Connection, select the check boxes next to the entries you want to delete.
2. Click the delete button  on the toolbar.
   A confirmation box appears.
3. Click **OK**.

Specify the Order of Entries

You can specify the order of folders and entries in the portal. You may decide to organize entries by level of usage and place entries that you use daily at the top of the list.

By default, existing entries are sorted alphabetically. Entries added after the order is specified are shown at the end of the list.

To specify the order of entries, you must have read and write permissions for all entries in the folder and read and traverse permissions for the folder containing the entries.

Procedure

1. In IBM Cognos Connection, click the tab you want.
2. Click the order button  on the toolbar.
3. Select the entries in the **Shown in default order** list box and click the right-arrow button  to move them to the **Shown first** list box.

   Note: You specify the order of folders and entries independently.
4. Click the **Up**, **Down**, **To top**, and **To bottom** links to move the folders and entries within the list.
5. Click **OK**.

Create a Folder

You can organize entries into folders. Having folders that are logically labeled and organized helps you easily locate reports. For example, you might want to create folders in **My Folders** or **Public Folders** to help you organize your entries.

You can create folders in the following locations:

- Public Folders

  Entries that are placed in Public Folders are of interest to and can be viewed by many users. When the focus is on the Public Folder tab, the content is grouped by packages or folders. Each package contains a single model and all related entries, such as folders, reports, jobs, report views, agents, metrics, URLs, and shortcuts.
- My Folders

  You create personal folders and use them to organize entries according to your preferences. My Folders are accessible by you only when you are logged on.

You must have write access to a folder to create entries in it.

Tips: Click **More** to view a full list of actions that can be performed on an entry.

Click **Set Properties**  to change the general properties, defaults, permissions, and job properties for an entry. Not all properties are available for each type of entry.

Procedure

1. In IBM Cognos Connection, go to the location for the new folder.
2. Click the new folder button  on the portal toolbar.
3. In the **Name** box, type the name of the new folder.
4. If you want, in the **Description** and in the **Screen tip** box, you can type a description of the entry.

   The description appears in the portal when you set your preferences to use the details view "Personalize the Portal" on page 304. The screen tip, which is limited to 100 characters, appears when you pause your pointer over the icon for the entry in the portal.

5. If you do not want to use the target folder shown under **Location**, choose another location:
   - Click **Select another folder**, select the target folder, and click **OK**. If the folder box is empty, go back one folder level using the path at the top of the dialog box.
   - Click **Select My Folders** as the location.
6. Click **Finish**.

Results

The new folder has the same permissions as the parent folder. For information about changing access permissions, see Chapter 15, "Access Permissions and Credentials," on page 253.

Specify an Alternative Icon for an Entry

In the portal, the standard icons that appear next to entries help identify the class to which the entry belongs. To better identify an entry among several similar entries, you can replace the standard icon with an alternative icon.

When you specify an alternative icon, use a screen resolution of 16 x 16 pixels to ensure that the icon is properly aligned and spaced in the portal.

Customizations, such as alternative icons, are not maintained automatically. As a result, alternative icons must be ported manually upon upgrade.

Procedure

1. In IBM Cognos Connection, locate the entry you want and click the set properties button.
2. Click the **General** tab and next to **Icon**, click **Edit**.
3. Click **Specify an icon**, and in the edit box, specify a name for the image, for example, myicon.gif.

   The image must exist in the folder c10_location/webcontent/ps/portal/images.
4. Click **OK**.

Results

Wherever the entry appears in the portal, the alternative icon appears instead of the standard icon.

Search options in IBM Cognos Connection

You can search for entries whose name, description, or both match the string entered in the search criteria. Or, you can search an index of entries created by your administrator using the Full text and all fields option.

By default, the following options are available.

- Full text and all fields
- Name field
- Description field
- Name or description field

The administrator can restrict searching for entries by making only the Full text and all fields option available. Full text and all fields search can also be restricted using the Execute Indexed Search capability. Without the Execute Indexed Search capability, you can do basic indexed search. With the Execute Indexed Search capability, you can do enhanced index search.

Searching for entries using name, description, and name or description

You can search for entries whose name, description, or both match the string entered in the search criteria. Name, description, and name or description searches do not require a search index.

When the Name, Description, and Name or description options are used for searching, search ignores capitalization. The following table shows examples of search criteria and results.

Method	Search criteria	Results
Contains the exact string	Report 1	"Report 1", "Report 100", "Copy of Report 1"
Starts with the exact string	report	"report 1", "Report 100"
Matches the exact string	Report	"Report", "report"

Entries for which you have access permissions are included in the search results.

For information about multilingual searches, see "Search for an Entry in Multiple Languages" on page 303.

Procedure

1. For name, description, or name and description searches, go to the highest level folder you want to include in your search.

   Tip: You can increase or limit the folders to include in your search by changing the **Scope** when you enter the search criteria.
2. From the **Search Options**, specify one of the following:
   - **Name field**
   - **Description field**
   - **Name or description field**
3. Click the search button  on the toolbar.
4. In the search box, type the phrase you want to search for.
5. Click **Advanced**.
6. Choose the type of match between the search string and the results:
   - To return entries that include the search string somewhere in the name or description, click **Contains the exact string**.
   - To return entries whose name or description begins with the search string, click **Starts with the exact string**.
   - To return entries whose name or description matches the search string word for word, click **Matches the exact string**.

7. In the **Type** box, click the type of entry to search for.

   Tip: To search for all shortcuts in the selected location, click **Shortcuts**.
8. In the **Modified** box, click the date that the entry was last modified.

   For example, if you want the search to return entries that were updated in the last week, click **In last week**.

   Note: This option is only available in the Cognos namespace.
9. In the **Scope** box, click the folders you want to include in the search.
10. Click the **Search** button  .

    The entries matching the search criteria and for which you have permissions to view appear at the bottom of the screen under **Results**.

    Tip: To open an entry, click its link.

Searching for entries using full text and all fields

When you search for entries using the Full text and all fields option, you search for entries in an index that has been created by your administrator. The search results can be refined after the initial search results are generated.

Before you begin

Before you can search for an entry, the search index must be created.

Procedure

1. From the **Search Options**, select the **Full text and all fields** search option.
2. Click the search button  on the toolbar.
3. In the search box, type the phrase you want to search for.
4. Click **Advanced**.
5. In the **Search for type** box, click the type of entry to search for.
6. To refine your search further, use the options in the **Refine by** column, for example, **Type**, **Owner**, or **Creation Date**.

   The options that are available to you to refine your search depend on the search privileges granted by your administrator.

Search for an Entry in Multiple Languages

The user's locale sets the default language for a search. You can customize this setting by changing the Content language option in the Set Preferences page, in My Preferences. If the Content language is English, then the search results are delivered in English.

For information about searching for an entry, see "Searching for entries using name, description, and name or description" on page 302.

When you perform a search, you can use a search term that is in a different language from the language specified by the Content language setting. To search in multiple languages, use the following syntax:

```
<search_term> +language: <locale>
```

Example: ventes +language: fr

Although you can search in different languages, you only receive search results if the search index supports that language. Your administrator specifies the languages that are supported.

For information about specifying the locales available for searches, see "Limit Index by Language" on page 476.

Procedure

1. Click the search button  on the toolbar.
2. In the search box, type the phrase you want to search for. Use the following syntax:

   ```
   <search_term> +language: <locale>
   ```

Results

The search returns a list of entries.

Personalize the Portal

You can personalize the way data appears in IBM Cognos Connection by changing your preferences. For example, you can set the product language and the preferred output format of reports.

Changes take effect immediately in the current session. The preferences are stored and used for future sessions unless you change them.

You can change the following settings:

General	Description
Number of entries in list view	The maximum number of rows that appear in a list before scrollbars are required. This applies to rows where scrolling is allowed.
Separators in list view	The method of separating entries in lists in Public Folders and My Folders. Choose from no separator, grid lines, or alternating backgrounds. This setting applies to all lists with the exception of the output versions list. This setting is available only if you use Microsoft Internet Explorer Web browser or Firefox.
Style	The uniform look and feel applied to all components of IBM Cognos software. You can choose from the styles available to you.

General	Description
Show hidden entries	Use this setting to show or remove hidden entries from your view in IBM Cognos Connection. When you select this check box, the hidden entries remain visible, but their icons are faded. When you clear this check box, the hidden entries disappear from your view. For example, hidden packages are not visible in IBM Cognos Connection and in the associated studios. You must have access to the **Hide Entries** capability granted by your administrator to see this setting.
Default view	The decision to use list view or details view by default. List view shows the name, modified date, and actions. Details view shows the name, description, modified date, and possible actions. Details view works only in Public Folders and My Folders in IBM Cognos Connection. In other components, list view is used.
Number of columns in details view	The maximum number of columns per row for the details view.
Report format	The preferred format to view the report. Choose between HTML, PDF, Delimited Text (CSV), Microsoft Excel spreadsheet software, and XML.
Show a summary of the run options	The option to show a summary of the run options when a report is not run interactively.
Show the Welcome page at startup	The option to show or hide the Welcome page at the beginning of a session.
Enable accessibility support for reports I run or schedule	The option to create accessible report output whenever I run or schedule a report.
Product language	The language used by the IBM Cognos user interface. It applies to all IBM Cognos components, such as IBM Cognos Connection, IBM Cognos Viewer, and Report Studio.
Content language	The language used to view and produce content in IBM Cognos software, such as names and descriptions of entries, or data in reports.

General	Description
Time zone	The time zone used. Select the default server time zone set by your administrator. For more information, see the *IBM Cognos Business Intelligence Installation and Configuration Guide*. Or you can select another time zone.

Personal settings appear if you have read permissions for your account.

Personal	Description
Primary logon	The namespace and credentials that you used to log on to IBM Cognos software. Also shows the given name, surname, and email address if they have been defined.
Secondary logon	A list of secondary logons. The secondary logons exists if you logged on to multiple namespaces.
Alerts	Use to specify an email address for alerts. When the delivery service processes the alert list, it uses the email address specified in the **Email** box to send alerts to the user. If there is no email address specified, the email address specified in the **Primary logon** section is used.
Credentials	Authorization to other users, groups, and roles to run entries using the credentials. Click **Renew the credentials** after you change your password, or to ensure that all credentials are available if you are logged on to multiple namespaces.
Groups and roles	A list of groups and roles associated both with your primary and secondary logons.
Capabilities	A list of secured functions and features that you can use based on both your primary and secondary logons. To create trusted credentials, see "Trusted Credentials" on page 258.

Portal tabs settings appear if you have read permissions for your account.

Portal Tabs	Description
List of entries	Represents the tabs, including Public Folders and My Folders, in your IBM Cognos Connection environment.
Add	Use to add a tab for a specified page in IBM Cognos Connection. Each tab represents Public Folders, My Folders, or a page.
Remove	Use to remove a tab from IBM Cognos Connection.
Modify the sequence	Use to change the order of tabs in IBM Cognos Connection.

Procedure

1. In IBM Cognos Connection, click **My Area Options**, **My Preferences**, and click the required tab.
2. Choose the appropriate settings.
3. Click **OK**.

My Watch Items

Use the **My Watch Items** area of the portal to view and manage watch items from a single location. Watch items include alert lists and watch rules that help you monitor business events that are important to you.

The **Alerts** tab shows the alert lists to which you belong. Use this tab to remove yourself from the alert list for a report or agent.

The **Rules** tab shows the watch rules you created in saved HTML report output. Use this tab to

- edit a watch rule.
- enable or disable a watch rule. For information, see "Disable an Entry" on page 296.
- organize watch rules in folders. For information, see "Create a Folder" on page 300.
- delete a watch rule. For information, see "Delete an Entry" on page 299.
- edit the My Watch Items page properties. For information, see "Edit a Page" on page 314.

You can also add yourself to the alert list for a report "Adding or Removing Yourself from the Alert List for a Report" on page 421, add yourself to the alert list for an agent "Adding Yourself to or Remove Yourself from an Alert List for an Agent" on page 445, and create a watch rule for a report "Create a Watch Rule for a Specific Condition" on page 423.

The report owner must allow report users to receive alerts and create watch rules for the report.

View Watch Items

To view the alerts lists to which you belong and the watch rules you created, use the **My Watch Items** area of the portal.

You can also remove yourself from an alert list "Remove Yourself from an Alert List," and edit a watch rule "Edit a Watch Rule."

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **My Area Options**  , **My Watch Items.**
2. To view your alerts lists, click **Alerts**.
3. To view your watch rules, click **Rules**.

Remove Yourself from an Alert List

To remove yourself from an alert list for a report or agent, use the **My Watch Items** area of the portal.

When you are added to an alert list, you receive an email notification when the report, or report associated with the agent task, is saved. After removing yourself from an alert list, you are no longer alerted.

Tip: You can also add or remove yourself from an alert list for a report using the **Report** tab of the **Set Properties** page "Adding or Removing Yourself from the Alert List for a Report" on page 421. For an agent, you can use the **Agents** tab of the **Set Properties** page "Adding Yourself to or Remove Yourself from an Alert List for an Agent" on page 445.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **My Area Options**  , **My Watch Items**.
2. Click the **Alerts** tab, and in the **Source** column, click the alert list to remove.
   You can select multiple alert lists.
3. Click the remove me from the alert list button.
4. Click the refresh button.
   Note that the alert list is removed from the **Source** column.

Edit a Watch Rule

After creating watch rules in saved HTML report output, you can edit them from the My Watch Items area of the portal. For example, you can change the general properties, such as name, language, and description. You can also change the properties, such as the conditional expression for the rule, the items to which the rule applies, and the alert type.

For information about creating a watch rule, see "Watch Rules in Saved Reports" on page 422.

Before you begin

To edit a watch rule in IBM Cognos Connection, you must have read and write permission to the **My Watch Items** page.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click the my area options button  , and click **My Watch Items**.
2. Click the **Rules** tab, and in the **Actions** column, click the set properties button for the watch rule you want to edit.
3. Use the **Set properties** page, **General** tab, to change the properties, such as name, language, or description for the watch rule.
4. Click the **Rules** tab to edit the rules properties, such as the conditional expression for the rule, the items to which the rule applies, and the alert type.

   For more information on the rule properties, see "Watch Rules in Saved Reports" on page 422.

Chapter 20. Pages and Dashboards

You can create dashboards in IBM Cognos Connection using pages and portlets.

This topic contains information about dashboards that use pages and portlets.

For information about IBM Cognos Business Insight workspaces, see Chapter 37, "IBM Cognos Business Insight," on page 653.

IBM Cognos Connection pages and dashboards provide quick access to IBM Cognos business intelligence and performance management information, such as reports, metrics, or news items. The information is relevant to specific users or business objectives, and can be monitored at a glance.

Dashboards are pages with enhanced functionality. The information is displayed on multiple tabs that are easy to navigate. Each tab can include different segment of information. A dashboard can be accessed as a standalone application through a URL. Users can print selected dashboard pages.

The content for pages and dashboards is provided by Cognos portlets, or other supported portlets. Each portlet is an independent application that adds to the page different content and functionality, such as the ability to browse folders and entries, view reports and metrics, and include custom text and images or links to other Web pages.

You can add different types of information to your pages and organize them in a way that is meaningful to you. For example, you may want to see specific IBM Cognos reports and metrics, or have links to your favorite Web sites.

The following table shows the types of content you can add to an IBM Cognos Connection page, and the portlets that provide this content.

Page Content	Portlet	Portlet Group
Browse IBM Cognos folders, reports, and other entries	IBM Cognos Navigator	IBM Cognos Content
Search for IBM Cognos reports and other entries	IBM Cognos Search	
View and interact with IBM Cognos reports and other entries	IBM Cognos Viewer	
View and interact with different types of performance metrics, such as the metrics you want to monitor closely, or the metrics for which you are directly responsible.	IBM Cognos Metric List	IBM Cognos Metric Studio

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Page Content	Portlet	Portlet Group
Add a metric history chart that illustrates the historical performance of the metric	IBM Cognos History Chart	
Display an impact diagram associated with a metric	IBM Cognos Impact Diagram	
Display a custom diagram associated with a scorecard.	IBM Cognos Custom Diagram	
View and interact with custom applications created using IBM Cognos Software Development Kit	IBM Cognos Extended Applications	IBM Cognos Extended Applications Portlet
Register and show active links to other Web pages	Bookmarks Viewer	IBM Cognos Utility
Add and view custom images, such as logos	Image Viewer	
Insert any other Web page	HTML Viewer	
Add and show the content of a Real Simple Syndication (RSS) news feed specified by a URL address	RSS Viewer	
Add and view custom text and images	HTML Source	
Create and view a dashboard with multiple tabs	Multi-page	Dashboard
Add non-Cognos items to a page	Supported other portlets	Content associated with other portlets

Note: The portlets can also be referred to as HTML fragments.

For more information about portlets, see Chapter 34, "Deploying Cognos Portlets to Other Portals," on page 533.

Before you begin

The list of pages is cached in an IBM Cognos Connection session. When the state of a page changes during the current session, users who have access to the page are affected. For example, when a page is disabled or deleted, it can no longer be used and its tabs are deleted or not functional. To update the portal with the most current settings, use the IBM Cognos Connection refresh button  .

When you log on to IBM Cognos Connection for the first time, you access the pages an administrator made available to you. Later, you can create your own pages.

Create a Page

You can create your own pages in IBM Cognos Connection to group different types of information into a single view.

The pages are saved in Public Folders or My Folders. If you plan to share a page with other users, save it in Public Folders.

After you create the page, you can edit it to modify its contents, layout and style, and to set access permissions. For more information, see "Share a Page" on page 314.

You can delete pages in IBM Cognos Connection "Delete an Entry" on page 299 if you have the required access permissions for the pages. Deleting a page may affect your portal tabs. For more information, see "Portal Tabs" on page 316.

Procedure

1. In IBM Cognos Connection, click the new page button  .
2. Specify a name and location for the page, and, if you want, a description and a screen tip.
3. Click **Next**.

   The **Set columns and layout** page appears.
4. Define the layout for your page by setting the number and width of columns.

   Tip: If you are using multiple columns and one of the columns includes a report that is shown in IBM Cognos Viewer, set the width to at least 50% to minimize scrolling.
5. In the column to which you want to add portlets, click **Add**.
6. Click the portlet group that contains the portlets you want to add.
7. Select the portlets, and click the add button  to move them to the **Selected entries** box. If you want to remove a portlet from the **Selected entries** box, click **Remove**.

   Tip: You can preview the content of the portlets by clicking the view this portlet button  .
8. Click **OK**.
9. Repeat steps 5 to 8 for each portlet group you want.
10. Click **OK**, and then click **Next**.

    The **Set page style** page appears.
11. Customize the appearance of your page.
    - If you want, add a title and instructions for the page in the language of the product.

      For more information, see "Edit a Page" on page 314.

      To hide the title or instructions, select the associated check box.

      Tip: To change the formatting of the text, click **Custom**. To go back to the default formatting, click **Return to default**.

- If you want, hide the portlet borders, title bars, or the edit button in the title bar. This helps to avoid clutter and gives the page a uniform look and feel.

12. Click **Next**.
13. If you want to add the page to the portal tab bar, select the **Add this page to the portal tabs** check box. To view the page, select the **View the page** check box.
14. Click **Finish**.

Edit a Page

You can change the page content, layout and style, and access permissions. For example, you may want to see a different report, or change the list of users who can access the page.

When you create a page, you can specify a title and instructions for the page only in the product language you currently use. For example, if you use the French version of IBM Cognos software, you can type the title and instructions in French only. After the page is created, you can add the title and instructions for other language versions by editing the page properties on the **Page Style** tab.

Procedure

1. Go to the page you want to edit.
2. Click the edit page button  .

   Tip: Alternatively, locate the page in IBM Cognos Connection, and click its set properties button.
3. Change the page properties as required.

   For more information about changing the page content, layout, and style, see "Create a Page" on page 313.

   For more information about setting the page access permissions, see "Share a Page."

Share a Page

You can share your page with other users by giving them access permissions for the page. You can set up the permissions so that other users can only view the page or also modify it.

To view a page, traverse and execute permissions for the page, and execute permissions for its portlets are required. To modify the page, write permissions are also required.

Procedure

1. If you did not create the page in Public Folders, copy it there from your personal folders "Copy an Entry" on page 294.
2. Specify which users, groups, or roles can have read, traverse, execute, or write permissions for the page.

   For more information, see Chapter 15, "Access Permissions and Credentials," on page 253

Modify a Portlet

Portlets provide different types of information for pages.

You can modify the content of an instance of a portlet in a page if you have the required permissions for the page. For more information, see "Share a Page" on page 314. You will retain the custom settings even if the administrator resets the portlet. Other users who also have access to the page that contains this portlet instance will also see the changes. However, if the administrator locks the portlet, you cannot configure it.

The configurable properties for the Cognos portlets vary. For more information, click the help button in the portlet title bar.

Procedure

1. Go to the page that contains the portlet.
2. In the portlet title bar, click the edit button  .
3. Edit the properties as required.

   Tip: If you want to go back to the default settings, click the reset button.
4. Click **OK**.

Enable Communication Between Cognos Portlets

You can enable portlet-to-portlet communication so that the portlets can interact. For example, you can use this functionality when you want to navigate published IBM Cognos reports and view the selected reports on the same page.

This functionality applies only to Cognos portlets and works between portlets of different groups. For example, the IBM Cognos Metric List portlet can communicate with the IBM Cognos Viewer portlet. One portlet is a target portlet, and the remaining portlets are source portlets. The results of actions in the source portlets are shown in the associated target portlets.

Portlets in different pages can communicate between themselves.

You can enable portlet-to-portlet communication between the following source and target portlets.

Source portlet	**Target portlet**
IBM Cognos Navigator	IBM Cognos Viewer
IBM Cognos Search	IBM Cognos Viewer
IBM Cognos Viewer	IBM Cognos Viewer
IBM Cognos Metric List	IBM Cognos Viewer IBM Cognos History Chart IBM Cognos Impact Diagram
IBM Cognos Impact Diagram	IBM Cognos Viewer IBM Cognos History Chart

Source portlet	Target portlet
IBM Cognos Custom Diagram	IBM Cognos Viewer IBM Cognos Metric List IBM Cognos History Chart
Bookmarks Viewer	HTML Viewer
Image Viewer	HTML Viewer
RSS Viewer	HTML Viewer

To enable this functionality, you specify a channel name in the target portlet and refer to this name in the associated source portlets.

For more information about Cognos portlets, see Chapter 34, "Deploying Cognos Portlets to Other Portals," on page 533.

Procedure

1. Go to the page or the dashboard that contains the portlets for which you want to enable portlet-to-portlet communication.
2. Click the edit button  in the portlet title bar.
3. For the channel property, type the name you want.

   The name can contain letters, numbers, and underscore (_) characters, but must not contain any spaces. For example, Cognos, Cognos_Portlets, CognosPortlets are valid names.

   Note: The boxes where you type the channel name have different labels in different portlets. For example, **Channel**, **Portlets using channel**, or **In a destination portlet**.
4. Click **OK**.
5. Repeat the steps for each portlet that you want to broadcast on the same channel.

   Ensure that you type the same channel name.

Portal Tabs

The tabs in IBM Cognos Connection are used to quickly access the pages that are important to you.

The tabs represent:

- Public Folders
- My Folders
- Pages or dashboards

An administrator specifies the default tab setup for users. To personalize IBM Cognos Connection, you can add and remove tabs, or reorder them. Other users are not affected by your changes.

When you delete a page, the tab associated with this page is automatically removed. Your tabs may also be affected by changes to the associated pages made by other users who have access to the pages. For example, when a page is deleted during the current session, its tab is no longer functional, and an error message may appear when you click the tab. To see the most current tab settings, click the IBM Cognos Connection refresh button  .

Note: If many tabs exist, scrolling is added automatically.

Add a Tab

You can add a tab in IBM Cognos Connection for a new page or for an existing page so that you can access the page quickly.

If the Public Folders or My Folders tabs are not available in your tab bar, you can add them, too. Only one tab can exist for each folder or page.

There are various methods to add a tab. Choose the method that is applicable to your current view.

Using My Preferences

The procedure for using My Preferences to add a tab is as follows.

Procedure

1. Click the my area button  , **My Preferences**, and then click the **Portal Tabs** tab.

   A list of your current tabs appears.
2. Click **Add**.
3. In the list of available pages, select the page you want.

   You can select multiple pages.
4. Click the right arrow button  to move the page to the **Selected entries** box.
5. Click **OK**.

   The tab for the page appears in the portal.
6. Click **OK** to close **My Preferences**.

Using the Tab Menu

The procedure for using the Tab Menu to add a tab is as follows.

Procedure

1. From the tab menu  on the left side of the tab bar, click **Add tabs**.
2. In the list of available pages, select the page you want.

   You can select multiple pages.
3. Click the right arrow button to move the page to the **Selected entries** box.
4. Click **OK**.

   The tab for the page appears in the portal.

Using the Add Button

The procedure for using the Add Button to add a tab is as follows.

Procedure

1. In the list of available pages, locate the page you want.
2. In the **Actions** column, click its associated add button  .
   The tab appears in the portal.

Delete a Tab

You can delete a tab when it is not needed.

When you delete a page that has a tab, the tab is automatically removed. When you remove a tab for a page, the page is not deleted.

You can delete the Public Folders and My Folders tabs, and add them back later, if needed. For more information, see "Add a Tab" on page 317. Deleting the tabs does not delete Public Folders and My Folders from Content Manager.

Using My Preferences

The procedure for using My Preferences to delete a tab is as follows.

Procedure

1. Click the may area button  , **My Preferences**, and then click the **Portal Tabs** tab.
   A list of your current tabs appears.
2. Select the check box next to the tab you want to remove, and click **Remove this tab**.
   You can select multiple tabs.
3. Click **OK**.
   The tab is deleted from the tab bar.

Using the Tab Menu

The procedure for using the Tab Menu to delete a tab is as follows.

Procedure

1. On the tab bar, click the tab you want to remove.
2. From the tab menu  , on the left side of the tab bar, click **Remove this portal tab**.
3. In the message box, ensure you are deleting the proper tab, and click **OK**.
   The tab is deleted from the tab bar.

Reorder the Tabs

You can change the order of tabs so that they are organized in a way that is meaningful to you.

Using My Preferences

The procedure for using My Preferences to reorder the tabs is as follows.

Procedure

1. Click the may area button  , **My Preferences**, and then click the **Portal Tabs** tab.

   A list of your current tabs appears.
2. Click **Modify the sequence**.
3. In the **Tabs** box, move the tabs up or down as required.
4. Click **OK**.

   The tabs appear in the new order.
5. Click **OK** to close **My Preferences**.

Using the Tab Menu

The procedure for using the Tab Menu to reorder the tabs is as follows.

Procedure

1. From the tab menu  on the left side of the tab bar, click **Modify the sequence of tabs**.

   A list of your current tabs appears.
2. Move the tabs up or down using the appropriate buttons.
3. Click **OK**.

   The tabs appear in the new order.

Change Your Home Page

You can choose any page in IBM Cognos Business Intelligence as your home page.

Procedure

1. Go to the page you want to set up as your new home page.
2. Next to the home icon  , click the arrow, and click **Set as Home Page**.

Create a Dashboard with Multiple Tabs

A dashboard is a visual display of the most important information that a user needs. The information is consolidated and arranged on a single screen so that it can be monitored at a glance.

Different segments of information are displayed on different tabs. To create a dashboard, you assemble the different segments of information into a single view by using the Multi-page portlet. For more information, see Chapter 20, "Pages and Dashboards," on page 311. This portlet is linked to a source folder that contains entries that appear as tabs in the dashboard. You can make changes to the tabs in the dashboard by adding or deleting the associated entries from the source folder.

The following entries can be used as tabs in a dashboard:

- folders and shortcuts to folders

  Use folders to include a second level of tabs.
- packages and shortcuts to packages

  Use packages to include a second level of tabs.
- reports and shortcuts to reports

Use to view or run a Report Studio report.

- report views and shortcuts to report views

  Use to view or run a Report Studio report.
- queries and shortcuts to queries

  Use to view or run a Query Studio report.
- analysis and shortcuts to analysis

  Use to view or run an Analysis Studio report.
- pages and shortcuts to pages

  Use to add a page or another dashboard
- URLs and shortcuts to URLs

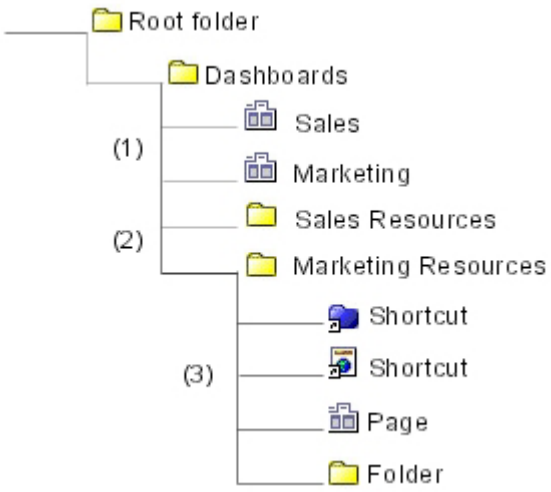
  Use to embed a different Web page.
- PowerPlay reports

  Use to view or run a PowerPlay report
- Microsoft Documents

  Use to include a link to a Microsoft document, such as an Excel, PowerPoint, or Word document.

The general dashboard properties are the same as page properties. You can edit the dashboard layout and style "Edit a Page" on page 314, modify the properties of the Multi-page portlet "Modify a Portlet" on page 314, set up access permissions for the dashboard "Share a Page" on page 314, and add it to the portal tabs "Portal Tabs" on page 316.

Before you start creating your dashboards, we recommend setting up a folder hierarchy in Public Folders to keep your dashboard resources organized. For example, create a folder for all the dashboards you plan to create. Next, create a subfolder for each dashboard to use as source folder for the entries that you want to include in the dashboard, such as reports, folders, pages, or shortcuts. The folder structure may look like this:



1. The Sales and Marketing pages are the multi-tabbed dashboards. These are the dashboard master pages that are built using the Multi-page portlet.
2. The Sales Resources folder is the source folder for the Sales dashboard, and the Marketing Resources folder is the source folder for the Marketing dashboard.
3. The source folders can contain entries such as reports, pages, folders, shortcuts, and so on. These entries appear as tabs in the dashboard.

Procedure

1. In IBM Cognos Connection, click the new page button  .
2. Type the name, and select a location for your page.
3. Click **Next**.
4. In the **Set columns and layout** page, set the number of columns to 1, and the column width to 100%.
5. Click **Add**.

   A list of portlet groups appears.
6. In the **Available Entries** box, click **Dashboard**.
7. Select the **Multi-page** portlet, and click the right arrow button  to move the portlet to the **Selected Entries** box.
8. Click **OK**, and then **Next**.
9. In the **Set page style** page, specify a meaningful title for the page, select any of the remaining properties, and click **Next**.
10. In the **Select an action** page, you can select **Add this page to the portal tabs**.
11. Click **Finish**.

    The page that you created is the dashboard master page.
12. Open the page you created.

    An empty frame of the Multi-page portlet appears.
13. In the portlet toolbar, click the edit button  .

    The portlet properties page appears.
14. In the **Folder** section, click **Select an entry**.
15. Browse to the folder or package that contains the resources for the dashboard, such as shortcuts, pages, or bookmarks. Select an entry, and click **OK**.

Tip: To add My Folders as a tab in the dashboard, create a shortcut to My Folders.

16. Specify other portlet properties as required. For example, in the **Display Style** section, specify how to display the dashboard tabs, horizontally at the top of the page, or vertically on the left side of the page.

    For more information about the portlet properties, see "Multi-page" on page 728.

17. Click **OK**.

Results

You can now open and view the dashboard page.

Tip: Other users can access the dashboard through its URL. To see the URL, go to IBM Cognos Connection, locate the dashboard master page, and open its properties page. On the **General** tab, click **View the search path, ID and URL**.

Implement global filters in multi-tabbed dashboards

Global filters that are added to a multi-tabbed dashboard allow reports located on multiple pages in a dashboard to be filtered using a report prompt.

About this task

To add global filters across multiple pages in a multi-tabbed dashboard, there are additional steps that must be completed when creating the dashboard. These steps are described here. For more detailed information about adding global filters, see the proven practices document IBM Cognos BI - Global Filters for a Multi-Page Dashboard.

Procedure

1. Add each report that you want filtered to a Cognos Viewer portlet within a page. If you want one report per tab in the multi-tabbed dashboard, you must create one page per report. If more than one report is displayed on a tab, add multiple Cognos Viewer portlets to the page, one for each required report.
2. After adding the reports, set the Portlet communication options in each of the Cognos Viewer properties to use a common channel name.
3. Place all the pages that you require for the tabs in the dashboard in one folder.
4. Create a dashboard master page that contains a Cognos Viewer portlet for the prompt report and a multi-page portlet for the tabs. For the Cognos Viewer portlet, specify the same channel name as for the other Cognos Viewer portlets and have the multi-page portlet point to the folder containing the report pages that you created.

Adding Interactivity to Pages and Dashboards

Pages and dashboards become much more effective for data reporting and analysis when you add interactivity to them. A single action in one report can cause other reports to refresh simultaneously and show the data associated with the action.

You can enhance the page interactivity by

- defining global filters
- enabling the sharing of drill-up and drill-down actions
- enabling the sharing of drill-through actions

Defining Global Filters

Global filters are used to control the display of one or more reports in a single portal page or in a dashboard. For example, a global filter can be on a report that contains only a prompt or prompt controls. This allows for a single selection to drive a number of reports at once. When a prompt answer is changed, all related reports refresh dynamically to show the data that answers the prompt. For example, if you answer a prompt for a country or region with Brazil, all related reports on the page are filtered to show the data for Brazil. When this is used in a dashboard, the context is passed to all corresponding tabs.

Procedure

1. Prepare the Reports
2. Create the Global Filters
3. Assemble the Reports on a Page

Preparing the Reports

Before you start creating a page or a dashboard with global filters, you must know which reports you can use, and have the reports ready. The reports can be authored in Report Studio, Query Studio, or Analysis Studio.

For reports in a package, the global filters share parameters using the model item.

Create the Global Filters

A global filter is a value that is shared across different reports. At least one of the reports that you are using for the dashboard needs to contain a prompt or prompt control. The prompted report is embedded into a page or a dashboard using the IBM Cognos Viewer portlet and linked with other reports in the page using the global filter portlet properties. The prompts that are used as global filters control the display of your chosen linked reports. If this functionality is implemented in a single page, the prompts control linked reports in different sections of the page.

If the page is a dashboard with multiple tabs, the prompts can control the report filtering across tabs. Note that there is a limitation with filtering across tabs for IBM Cognos Viewer portlets. For prompts to control report filtering, the IBM Cognos Viewer portlet must exist as a sibling on the same page as the Multi-page portlet.

We recommend creating prompt reports in Report Studio. The rich editing environment of this studio gives the author access to a variety of prompt controls, such as the **Next**, **Reprompt**, or **Finish** buttons. These controls add more interactivity to portal pages.

For more information about building prompts and prompt pages, see the IBM Cognos Report Studio *User Guide*.

Procedure

1. In Report Studio, create a prompt on a report page, not on a prompt page, of the report.

   Set the **Auto-Submit** property for the prompt to **yes**.

   If you want to use cascading prompts, only the last prompt in the sequence needs to be on the report page.

   For some prompts, such as the value prompts, you may need to add a **Finish** button to signal that the prompt selection is complete. For cascading prompts, the **Reprompt** button is also required to restart the prompting sequence.

2. Add other details, such as background images, instructions, or a title.

Results

The prompt can now be added to a portal page or a dashboard. For more information, see "Assemble the Reports on a Page."

Using Metrics as Global Filters:

You can use metrics and strategy elements in IBM Cognos Metric Studio portlets as global filters. In a page, or in a dashboard with multiple tabs, the IBM Cognos Metric List, IBM Cognos Impact Diagram, and IBM Cognos Custom Diagram portlets can filter prompted parameters for the IBM Cognos Viewer portlet. You must configure IBM Cognos Viewer to show a report associated with a metric or a strategy element, and set up communication between the portlets using the same channel name.

For more information, see "Enable Communication Between Cognos Portlets" on page 315.

When a user clicks a metric name in IBM Cognos Metric List, IBM Cognos Impact Diagram, or IBM Cognos Custom Diagram, IBM Cognos Viewer dynamically updates the report if the report prompt parameters are based on metric values. When a user clicks a strategy element in IBM Cognos Custom Diagram, IBM Cognos Viewer dynamically updates the report if the report prompt parameters are based on strategy element values.

For this functionality to work, the following parameters that are broadcast on a channel after a click action in an IBM Cognos Metric Studio portlet must match the names of the report prompt parameters:

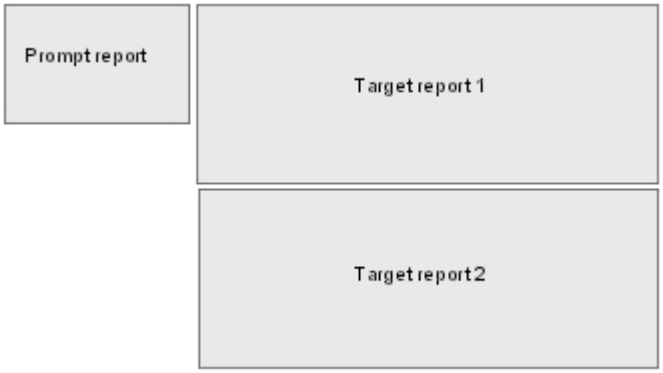
- `scorecard_extid`
- `scorecard_sid`
- `strategy_sid`
- `metric_sid`
- `metric_extid`
- `time_period_sid`

Assemble the Reports on a Page

The prompts and the target reports in a page or a dashboard create an interactive and easy way to access IBM Cognos Business Intelligence environment.

Each report is displayed using the IBM Cognos Viewer portlet. The reports communicate with each other using the properties of this portlet.

You can use different design strategies to implement global filters in a page. Here is an example of a basic layout:



Use the following steps when defining global filters in a single page. If you want to implement this functionality in a dashboard, you must complete additional steps. For more information, see "Create a Dashboard with Multiple Tabs" on page 319.

Procedure

1. In IBM Cognos Connection, click the new page button  .
2. Type the name, and select a location for your page.
3. Click **Next**.
4. In the **Set columns and layout** page, set the number and width of columns.

   For example, the reports that display the prompts and prompt controls can be placed in one column, and the target reports in a separate column to the right.
5. Click **Add** at the bottom of the first column.
6. In the **Available Entries** box, click **IBM Cognos Content**.
7. Select the **IBM Cognos Viewer** portlet, click the right arrow button  to move the portlet to the **Selected Entries** box, and click **OK**.
8. Repeat steps 5 to 7 for each column.

   You must add the IBM Cognos Viewer portlet for each report that you want to include in the column. For example, if the column on the left will contain a prompt and prompt controls, add two IBM Cognos Viewer portlets.
9. Click **Next**.
10. Complete the remaining steps in the wizard, if needed, and click **Finish**.

    For more information, see the steps in the section "Create a Page" on page 313.
11. Go to the folder where you saved the new page, and open it.

    In the page columns, you can see the empty frames of the IBM Cognos Viewer portlets.
12. For any portlet in the page, click the edit button  in the portlet toolbar.
13. In the portlet properties page, click **Select an entry** to select the report you want to display in the portlet.
14. Click **Report Properties**.

    The **Set the properties page** appears.
15. For the **Fragment Action** property, specify the default portlet action when the portlet is invoked in a page.

You can choose to show the run icon, run the report, or view the most recent saved output.

Tip: For more information about the portlet properties, click the **Help** button in the portlet.

16. For the **Prompt the user** property, specify how to execute the prompts.
    - When you select **Every time**, if the report contains optional or required prompts, the user is prompted to enter the prompt values before the report is run.
    - When you select **Only when required parameter values are missing**, the user is prompted if the report contains required prompts and the values are missing. Otherwise the report runs successfully.
    - When you select **Never and show the report only when required values are provided**, IBM Cognos Viewer attempts to run the report, but the page remains hidden until the required prompt values are provided.
    - When you select **Based on the prompt settings of the report**, IBM Cognos Viewer uses the prompts specified in the report.
17. For the **Prompt values** property, select the **Communicate with other portlets** check box.

    This property enables communication between this portlet and other portlets in the page that have this property set up.
18. If you want to set up communication between only specific portlets in the page, type the channel name in the box provided.

    Only the portlets that share the same channel name can interact. By specifying the channel name, you have more control over the page. For example, you can link only the reports that have matching parameters.

    For more information about this property, click the **Help** button in the portlet.
19. If you selected the **Communicate with other portlets** check box, you can specify how global prompts are matched. Select either **Parameter name or data item** or **Parameter name only**.

    Typically, prompt values are matched using the parameter name only. However, for date and time prompts, such as From and To, using the parameter name may not work because the parameter names are using the same data item, for example, Order date. In these situations, use the **Parameter name or data item** option to get the correct results in your reports.
20. If you want to see the portlet toolbar in the page, for the **Show Toolbar** property, select the **Normal mode** and **Maximize mode** check boxes.
21. Click **OK** to close the **Set the properties** page, and click **OK** again to close the general properties page.
22. Repeat steps 12 to 20 for each portlet in the page.

Enable Sharing of Drill-up and Drill-down Actions

In pages, you can enable sharing of drill-up and drill-down actions, between reports that are based on a dimensionally modelled data source. A drill action on an item in one report causes the same action in an associated report if the report is on the same page and contains the same item. For example, when you drill down on the item 2005 in one report, all reports in the page drill down on the same item and the data for the year 2005 appears in all reports.

This functionality is enabled using the properties of the IBM Cognos Viewer portlet. By default, drill actions are disabled in a page.

This functionality is not supported for dashboards with multiple tabs. However, a single page with drill-up and drill-down actions enabled can be embedded into a dashboard as one of the tabs.

Procedure

1. In IBM Cognos Connection, create a page that contains the IBM Cognos Viewer portlet for each report that you want to add to the page.

   For more detailed information, see the steps in "Create a Page" on page 313.
2. Configure the IBM Cognos Viewer portlets to display the reports that you want to add to the page.

   In the portlet properties page, click **Select an entry** to select the report you want to display in the portlet.
3. In the **Set the properties** page of the IBM Cognos Viewer portlets, for the **Drill down and drill up** property, select the **Communicate with other portlets on the page** check box.

   This property enables communication between all portlets in the page using the default channel.

   For more information, click the **Help** button in the portlet.
4. If you want to set up communication between only specific portlets in the page, type the channel name in the box provided.

   Only the portlets that share the same channel name can interact. By specifying the channel name, you have more control over the page.

Enable Sharing of Drill-through Actions

You can enable sharing of drill-through actions in a page. When a user drills from a source report to a target report, the target report appears in the specified area of the page.

For this feature to work, a page must have a report that contains an authored drill-through path. The page must also contain a placeholder IBM Cognos Viewer portlet that is set up to receive the drill-through requests.

Report-based drill-through works with both interactive reports and saved report outputs. However, it only works for a single drill-through request. If the drill-through contains multiple targets, it must be invoked from the context menu.

This functionality is enabled using the **Channel** property of the IBM Cognos Viewer portlet. You must specify the same channel name for the portlet that contains the source report and the portlet that receives the target report. By default, drill-through actions are disabled in a page.

This functionality is not supported for dashboards with multiple tabs. However, a single page with drill-through actions enabled can be embedded into a dashboard as one of the tabs.

Procedure

1. In IBM Cognos Connection, create a page that contains the IBM Cognos Viewer portlets for the drill-through source report, and the target report.

   For more detailed information, see the steps in the section "Create a Page" on page 313.
2. Configure one of the IBM Cognos Viewer portlets to display the Report Studio source report that contains the drill-through path.

In the portlet properties page, click **Select an entry** to select the report you want to display in the portlet.

3. Configure the other IBM Cognos Viewer portlet to display the drill-through target report.

   As the target report, we recommend using a report that contains prompts.

   In the portlet properties page, click **Select an entry** to select the report you want to display in the portlet.

4. For both portlets configured in step 2 and 3, in the **Set the properties** page, for the **Report-based drill-through** property, select the **Communicate with other portlets on the page** check box, and type the channel name in the box provided.

   The channel name is mandatory.

   For more information about this property, click the **Help** button in the portlet.

Chapter 21. Activities Management

You can manage IBM Cognos activities from **My Activities and Schedules** in IBM Cognos Connection.

You can view a list of your activities that are current, past, upcoming on a specific day, or scheduled. You can filter the list so that only the entries that you want appear. A bar chart shows you an overview of daily activities, by hour. You can use the chart to help choose the optimum date for rescheduling activities.

You can set run priority for entries. You can also view the run history for entries, specify how long to keep run histories, and rerun failed entries.

As an administrator, you can use **IBM Cognos Administration** to manage activities for all entries, not just your own. You can see who ran each entry and perform actions on entries as required. For example, you may want to cancel or suspend a user's large job if it is holding up important entries in the queue. You can also override the priority of an entry instance or you can change it permanently for an entry itself.

If you switch views, you must refresh to see current data. For example, if you switch from **Past Activities** to **Upcoming Activities**, you must refresh to see current data in the panes.

To access **My Activities and Schedules** in IBM Cognos Connection, you must have the required permissions for the **Run activities and schedules** capability.

Manage Current Activities

Current activities are entries that are currently being processed in IBM Cognos software.

Each entry is listed by name and shows the request time, the status, and the priority for background activities. The bar chart shows the total number of entries, broken down by the number of pending, executing, waiting, and suspended entries. When the activity is processing, the process number is displayed.

You can sort the **Request time**, **Status**, and **Priority** columns. You can choose to view a list of background activities or interactive activities.

For entries that are being processed in the background, you can click **Show Details** to see more information. For each entry, this displays **Last Execution Response Time** and **Path**, for example, Public Folders > Samples > Cubes > Great Outdoor Sales (cube).

In **IBM Cognos Administration**, the user who ran the entry is also listed. You can sort by user.

You can suspend background entries and release them later when you want them to run. You can permanently cancel runs for entries that have one of the following statuses:

- pending in the queue

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- executing
- suspended
- waiting for a process external to IBM Cognos software to complete

You can filter the entries to display only those you want. You can choose to display only those entries with a specific status or priority, or entries of a specific type or scope.

In **IBM Cognos Administration**, for interactive current entries, you can filter by status and the dispatcher where the activity is running. For background current entries, you can filter by status, priority, type, scope, user who ran the entry, user who owns the entry, and dispatcher.

When an entry is currently running, the dispatcher, process ID, and start time is displayed. Note that process ID and dispatcher of current background entries might be unavailable when the activity first appears. Refresh the page to see the updated process ID and dispatcher.

If you cancel an entry that contains other entries, such as a job or an agent, steps or tasks that have not yet been completed are canceled. However, steps or tasks that have already completed remain completed.

You can change the priority of entries "Manage Entry Run Priority" on page 337 and view the run history "View the Run History for Entries" on page 338.

Procedure

1. If you are an administrator, from the **Launch** menu, click **IBM Cognos Administration**. On the **Status** tab, click **Current Activities**. In the **Filter** section, click **Background activities** or **Interactive activities**.

   If you are a user, in IBM Cognos Connection, in the upper-right corner, click the my area options button  , click **My Activities and Schedules**, and in the left pane, click **Current Activities**.
2. In the **Filter** section, click the filtering items that you want to use.

   Tip: If you want to use advanced filtering options, click Advanced options. To reset all selections to the default settings, click Reset to default.
3. Click **Apply**.

   The list shows the entries that you selected.
4. To perform an action on an individual entry, click the arrow to the right of the entry and select the action. To perform an action on several entries, select the check box for the entries you want and then click one of the following buttons on the toolbar.

   Tip: To select all entries, click the check box in the upper left-hand corner, next to Name.

Goal	Icon
Show Details (top right-hand corner)	
Hide Details (top right-hand corner)	

Goal	Icon
Cancel the run (**Actions** menu beside entry)	
Suspend the run (**Actions** menu beside entry)	
Run suspended entries (**Actions** menu beside entry)	
Set Priority (**Actions** menu beside entry)	

Manage Past Activities

Past activities are entries that have finished processing in IBM Cognos software.

Each entry is listed by name and shows the request time and the status. You can sort the **Request time** and **Status** columns. The bar chart shows the total number of entries, broken down by status. If an entry has failed, a button appears showing the severity of the error.

In **IBM Cognos Administration**, the user who ran the entry is also listed.

You can filter the entries to display only those you want. You can choose to view a list of activities that occurred over a specified length of time, such as the last four hours or the last day, or you can specify a date or time range. You can filter by status, type, and scope.

In **IBM Cognos Administration**, you can also filter by the user who ran the entry, the user who owns the entry, and the dispatcher where the activity ran.

You can view the run history "View the Run History for Entries" on page 338.

Procedure

1. If you are an administrator, from the **Launch** menu, click **IBM Cognos Administration**. On the **Status** tab, click **Past Activities**.

   If you are a user, in IBM Cognos Connection, in the upper-right corner, click the my area options button  , click **My Activities and Schedules**, and in the left pane, click **Past Activities**.
2. In the **Filter** section, click the filtering items that you want to use.

   Tip: If you want to use advanced filtering options, click Advanced options. To reset all selections to the default settings, click Reset to default.
3. If an error occurred when the entry ran, pause over the error button next to the status to see the severity of the error.
4. Click **Apply**.

   The list shows the entries that you selected.

5. To perform an action on an individual entry, click the arrow to the right of the entry and select the action. To perform an action on several entries, click one of the following buttons on the toolbar.

Goal	Icon
Show Details (top right-hand corner)	
Hide Details (top right-hand corner)	

Manage Upcoming Activities for a Specific Day

You can choose to view a list of all upcoming activities that are scheduled for a specific day.

Each entry is listed by name and shows the request time and the priority. A bar chart show the total number of scheduled and canceled entries for each hour of the day. The chart legend shows the total number of scheduled and canceled entries for the day.

You can sort the **Request time**, **Status**, and **Priority** columns. You can choose to view a list of background activities or interactive activities.

In **IBM Cognos Administration**, each entry also indicates the user who scheduled it. You can sort by user.

In **IBM Cognos Administration**, you can cancel scheduled runs of entries, reschedule entry runs that have been canceled, and set priorities. You can suspend entries indefinitely or suspend them until a specific date. For more information see, "Manage Suspended Activities" on page 334

You can click **Show Details**  to see more information. For each entry, this displays **Last Execution Response Time** and **Path**, for example, Public Folders > Samples > Cubes > Great Outdoor Sales (cube).

You can filter the entries to display only those you want. You can choose the date and time for which you want to view upcoming activities. You can filter by status, priority, type, and scope.

In **IBM Cognos Administration**, you can also filter by the user that scheduled the entry and the entry owner.

In **IBM Cognos Administration**, you can also filter to determine how many scheduled entries are currently suspended. For more information, see "Manage Suspended Activities" on page 334

You can also change the priority of an entry in the queue "Manage Entry Run Priority" on page 337.

Procedure

1. If you are an administrator, from the **Launch** menu, click **IBM Cognos Administration**. On the **Status** tab, click **Upcoming Activities**.

   If you are a user, in IBM Cognos Connection, in the upper-right corner, click the my area options button  , click **My Activities and Schedules**, and in the left pane, click **Upcoming Activities**.
2. In the **Filter** section, click the filtering items that you want to use.

   Tip: If you want to use advanced filtering options, click Advanced options. To reset all selections to the default settings, click Reset to default.
3. Click **Apply**.

   After applying the filter,

   - The list shows the entries that you selected.
   - The filter status line shows the criteria used to generate the list.
   - The bar chart shows the scheduled and canceled entries by hour for the specified day.

   The list of entries, filter status line, and chart are updated whenever you redefine the filter and click Apply. The list of entries and filter status line do not change when you browse the chart to a different date.
4. To perform an action on an individual entry, click the arrow to the right of the entry and select the action. To perform an action on several entries, select the check box for the entries you want and then click one of the following buttons on the toolbar.

   Tip: To select all entries, click the check box in the upper left-hand corner, next to **Name**.

Goal	Icon
Show Details (top right-hand corner)	
Hide Details (top right-hand corner)	
Cancel the run (**Actions** menu beside entry)	
Suspend entries (**Actions** menu beside entry)	
Run suspended entries (**Actions** menu beside entry)	
Re-schedule a run that was canceled (**Actions** menu beside entry)	
Set Priority (**Actions** menu beside entry)	

Manage Suspended Activities

You can suspend entries to respond to system requirements and resume them later.

After suspending entries, you can view a list of entries that are suspended indefinitely.

You can resume suspended entries even after the original execution time has lapsed. For example, if you schedule a report for 9:00 am, then suspend it, you can restart the report at 9:30 am.

The upcoming activities bar chart helps you determine when to reschedule entries. By browsing the upcoming dates in the chart, you can see the number of entries for a specific day. When you pause the pointer over a specific hour in the day, you can find the number of entries for that hour. Use this to find a date when demand is low and reschedule the entry to that date. The chart columns show the total number of scheduled and canceled entries for each hour of the day. The chart legend shows the total number of scheduled, canceled, and suspended entries for the day.

Suspend entries

You can suspend activities.

For example, if your system tends to be overloaded at certain times, you can reduce the workload and avoid bottlenecks during these peak times by suspending entries indefinitely or rescheduling them for a later time.

Procedure

1. If you are an administrator, from the **Launch** menu, click **IBM Cognos Administration**. On the **Status** tab, click **Upcoming Activities**.

   If you are a user, in IBM Cognos Connection, in the upper-right corner, click the my area options button  , click **My Activities and Schedules**, and in the left pane, click **Upcoming Activities**.
2. In the **Filter** section, for **Day** select a date, and for **Status** click **Scheduled**.
3. Click **Apply**.

   The list shows the scheduled entries for the selected date. Because entries are backlogged on that date, you want to suspend certain entries indefinitely and reschedule others. You want to browse the upcoming dates in the chart and choose another date for the suspended entries.
4. In the chart, click the next and previous icons to browse the upcoming dates. The chart shows both scheduled and canceled entries for each day by hour.

   Important: The list of entries that appear below the chart does not change to match the date you select in the chart. The list of entries matches your specified filter criteria and does not change until you specify and apply a new filter.
5. In the list of scheduled entries, select the check box next to the entries that you want to suspend and click the suspend button on the toolbar. In the **Suspend Activity** dialog box,
   - to suspend entries indefinitely, click **Indefinitely**.
   - to reschedule entries to another date, click **Until**, and select a date and time.

   Note that both the chart and the list of entries refresh, and the suspended entries no longer appear in the list of entries.

Tip: To suspend an individual entry, click the arrow to the right of the entry and click **Suspend**.

View a list of suspended entries for a specific day

You can view a list of suspended entries for a specific day.

Procedure

1. In the **Filter** section for upcoming activities, under **Day** select a date, and under **Status** click **Suspended**.
2. Click **Apply**.

   The list shows the suspended entries for that day.

   You can run, cancel, or reschedule suspended entries. To perform an action on an individual entry, click the arrow to the right of the entry and select the action that you want. To perform an action on several entries, select the check box for the entries you want, and then click the appropriate button on the toolbar.

   Note: To select all entries, click the check box in the upper left-hand corner, next to **Name**.

Goal	Icon
Show Details (top right-hand corner)	
Hide Details (top right-hand corner)	
Cancel the run (**Actions** menu beside entry)	
Suspend entries (**Actions** menu beside entry)	
Run suspended entries (**Actions** menu beside entry)	
Re-schedule a run that was canceled (**Actions** menu beside entry)	
Set Priority (**Actions** menu beside entry)	

Manage Scheduled Activities

You can view a list of scheduled entries.

Each entry is listed by name, status, and priority. A bar chart shows you an overview of activities broken down by enabled and disabled schedules.

In **IBM Cognos Administration**, the date and time the schedule was modified and the user who scheduled it are also listed.

You can filter the entries to display only those you want. You can choose to display only the entries with a specific status or priority, or entries of a specific type or scope.

In **IBM Cognos Administration**, you can also filter by the user that scheduled the entry and by the entry owner.

You can set properties, run the schedule once, disable and enable scheduled entries, modify the schedule, remove the schedule, set the priority "Manage Entry Run Priority" on page 337, and view the run history "View the Run History for Entries" on page 338. Depending on the entry, you may also be able to perform other functions, such as view outputs or event lists.

For more information on schedules, see Chapter 22, "Schedule Management," on page 343.

Procedure

1. If you are an administrator, from the **Launch** menu, click **IBM Cognos Administration**. On the **Status** tab, click **Schedules**.

   If you are a user, in IBM Cognos Connection, in the upper-right corner, click the my area options button  , click **My Activities and Schedules**, and in the left pane, click **Schedules**.
2. In the **Filter** section, click the filtering items that you want to use.

   Tip: If you want to use advanced filtering options, click Advanced options. To reset all selections to the default settings, click Reset to default.
3. Click **Apply**.

   The list shows the entries that you selected.
4. To perform an action on an individual entry, click the arrow to the right of the entry and select the action. To perform an action on several entries, select the check box for the entries you want and then click one of the following buttons on the toolbar.

   Tip: To select all entries, click the check box in the upper left-hand corner, next to **Name**.

Goal	Icon
Show Details (top right-hand corner)	
Hide Details (top right-hand corner)	
Enable the schedule (**Actions** menu beside entry)	
Disable the schedule (**Actions** menu beside entry)	

Goal	Icon
Set Priority (**Actions** menu beside entry)	

Manage Entry Run Priority

You can assign a priority of 1 to 5 to scheduled entries.

For example, an entry with priority 1 runs before an entry with priority 5. If there is more than one entry with the same priority, the one that arrived in the queue first runs first. The default priority is 3.

Interactive entries always run immediately and priority cannot be changed once they are running.

You set the priority for an entry when you schedule it Chapter 22, “Schedule Management,” on page 343. When an entry is in the current, upcoming, or scheduled queue, you can change the priority.

You may want to set a low priority for entries that take a long time to run so that other entries in the queue are not delayed.

When you schedule a job “Use Jobs to Schedule Multiple Entries” on page 346, you set the priority for the whole job, not for individual entries within the job. You may want to set a low priority for a job with many entries so that other entries in the queue are not delayed.

You schedule priority for the parent job. When the job runs, all the child entries inherit the priority of the parent. When the job is in the queue and is not yet running, you can update the priority. You cannot do this for the individual entries in the job. Changing the priority of the job changes the priority of all its child entries. You can view the run history of a job “View the Run History for Entries” on page 338 while it is executing and see which of its entries have completed, are executing, or are pending.

The priority of entries in the queue does not affect an entry that is already running. That entry completes and then the queue priority is checked for the next entry to run.

Tip: In IBM Cognos Administration, you can change priority of entries based on filtered options. For example, to change the priority of all entries run by Joan Jackson, select her from **Run by** under **Filter**. Then you can select all of the displayed entries and change the priority for all of them at the same time.

Before you begin

You must have the **Run activities and schedules** capability to manage entry run priority.

Procedure

1. If you are an administrator, from the **Launch** menu, click **IBM Cognos Administration**. On the **Status** tab, click **Current Activities**, **Upcoming Activities**, or **Schedules**.

   If you are a user, in IBM Cognos Connection, in the upper-right corner, click the my area options button  , click **My Activities and Schedules**, and in the left pane, click **Current Activities**, **Upcoming Activities**, or **Schedules**.
2. To change the priority for one entry, click the arrow to the right of the entry and select **Set Priority**. To change the priority of more than one entry, select the check box for the entries you want and then click the set priority button  on the toolbar.

   Tip: To select all entries, click the check box in the upper left-hand corner, next to Name.
3. From the menu, click the priority that you want, and then click **OK**. If you selected one entry, the current priority of the entry appears in the **Set the priority** box. If you selected multiple entries, the **Set the priority** box contains **(Multiple)**.

Results

The new priority appears in the **Priority** column next to the entries that you selected.

View the Run History for Entries

You can view the run history of entries that are scheduled to run in the background, without anyone waiting to view them.

This includes scheduled entries that are run once and saved, and interactive entries that are saved or mailed. Interactive entries do not have run histories.

IBM Cognos software keeps history information each time an entry runs in the background. The run history for an entry includes information such as the request time, start time, completion time, and whether the report ran successfully.

You can look at a more detailed run history for the entry, which includes general, error, and warning messages related to the entry and any actions you can take. If there is any email associated with the entry, the status of the email delivery is included.

Some types of entries display additional information in the detailed run history page:

- For reports, a report output version "View Report Output Versions" on page 417 is kept each time a report is run according to a schedule. You can view the report output version from the detailed run history.
- For jobs and agents, you can view a list of steps and see a detailed run history for each one. You can also see the parts of the job or agent that have not yet completed. If the entry is part of a parent entry, you can view the parent entry that initiated the run.
- For human tasks contained within an agent, you can view a list of steps and see a detailed run history for each one.

- For deployment export and import entries, you can view the public folders content in **IBM Cognos Administration**.

  You may see the following message: *Only progress information is currently available. The information will be updated following the completion of the parent activity*.

  This means that the deployment has completed, but the parent activity is still running. Once the final completion information is obtained from Content Manager, the message no longer appears.
- For data movement, you can view nodes that were executed as part of a data movement entry in **IBM Cognos Administration**. For more information about nodes, see the Data Manager *User Guide*.
- For index update tasks, you can view the IBM Cognos Connection folder or package that is indexed. You can view the scope of the index, either all entries or only entries that have changed. You can also view the type of data collected for indexed entries.

You can rerun failed entries "Rerun a Failed Entry Task" on page 340 from the detailed run history page. You can view a list of related runs that are part of the rerun series and see a detailed run history for each one. You can specify how many run history occurrences to keep or for how long to keep them "Specify How Long to Keep Run Histories" on page 340.

Procedure

1. If you are an administrator, from the **Launch** menu, click **IBM Cognos Administration**. On the **Status** tab, click **Schedules** or **Past Activities**.

   If you are a user, in IBM Cognos Connection, in the upper-right corner, click the my area options button  , click **My Activities and Schedules**, and in the left pane, click **Schedules** or **Past Activities**.
2. Next to the entry, click the arrow and then click **View run history**  .
3. If you want, select the **Status** of entries that you want to view.

   A list of selected entries appears.
4. If you want to view the run history details, in the **Actions** column, click the view run history details button  next to the entry you want. Then, if you want, from the **Severity** list, select the severity of the entries.

   Under job steps, the complete run history details is shown. If the job run history details level was set to **Limited**, no history details for the jobs steps are recorded.
5. If there is a report output version, in the **Actions** column, click the view outputs button  for the entry you want. Then, from the **Versions** list, click the version you want. To delete a version, click **Manage versions** click the check box for the version, and then click **Delete**.

   Note: For data movement tasks, a log file may be associated with the entry. To view a log file associated with an entry, click the view the log file button.
6. If you want to view messages, click an item with a link in the **Messages** column.

   Tip: Messages are nested. There may be child messages within child messages. If a message is displayed as a link, you can continue to drill down through the child messages.

Specify How Long to Keep Run Histories

You can keep run histories for a specific number of runs or for a specific number of days or months.

For example, you can keep the run histories for the ten latest runs (occurrences) or for the past two days or six months. You can also choose to keep all run histories.

Before you begin

You must have read and write permissions for the entry and read or traverse permissions for the folder that contains the entry.

Procedure

1. If you are an administrator, from the **Launch** menu, click **IBM Cognos Administration**. On the **Status** tab, click **Current Activities**, **Upcoming Activities**, or **Schedules**.

   If you are a user, in IBM Cognos Connection, in the upper-right corner, click the my area options button  , click **My Activities and Schedules**, and in the left pane, click **Current Activities**, **Upcoming Activities**, or **Schedules**.
2. Click the set properties button  next to the entry you want.

   The entry properties page appears.

   If you are an administrator, you can access additional actions. From the **Launch** menu, click **IBM Cognos Administration**. On the **Status** tab, click the type of entry you want. Next to the entry, click the arrow, and then click **Set properties**.
3. On the **General** tab, under **Run history** on the bottom-left side of your screen, choose the retention method and type the value:
   - To keep run histories for a specific number of occurrences, click **Number of occurrences** and type the number. To save an unlimited number of run histories, set this value to 0.
   - To keep run histories for a specific length of time, click **Duration** and click either **Days** or **Months**. Type the appropriate value in the box.
4. Click **OK**.

Rerun a Failed Entry Task

You can resubmit a failed entry.

When an entry, such as a report, agent task, or job, runs according to a schedule or runs in the background and the fails, you can resubmit the failed entry with the same options that were specified in the original run.

For a job that contains steps that ran successfully and steps that did not run successfully, you are not required to rerun the entire job but only the individual job steps. If the job steps are run sequentially, you can rerun the job starting with the failed job step. If you wish, you can select which steps to rerun and skip the failed steps. However, the selected job steps run sequentially and if a step fails, then the steps that occur after the failed step are not run.

When you rerun a job step individually, a new run history that includes only the single job step is created for the parent job. For more information about run histories, see "View the Run History for Entries" on page 338.

When rerunning an agent entry, associated tasks, such as an email that sends report output to a list of email recipients, are also rerun if they failed initially. If there are two associated tasks running in parallel and one task fails and one succeeds, rerunning the agent only reruns the failed task. However, if tasks are selected to run on failure, they are run again when the rerun fails.

Although the run history shows entries that ran successfully, you cannot rerun an entry that succeeded. The run options are not stored for these entries.

A rerun can fail when a task associated with a failed entry is deleted or updated.

Before you begin

You must have execute permissions to rerun a failed task.

Procedure

1. If you are an administrator, from the **Launch** menu, click **IBM Cognos Administration**. On the **Status** tab, and click **Past Activities**.

   If you are a user, in IBM Cognos Connection, in the upper-right corner, click the my area options button  , click **My Activities and Schedules**, and in the left pane, click **Past Activities**.

2. Next to the entry, click the arrow and then click **View run history details**  .

   The **View run history details** page shows run details, such as start time and completion time, run status, and error messages for a failed run. Other information that appears in the page depends on whether the entry is for a single task, a job with multiple steps, or an agent with tasks. For example, if it is a single task, the report options and the report outputs appear. If it is a job with multiple steps, a **Job** section appears with the run details of the job steps.

3. Under **Status**, next to **Failed**, click **Rerun**.
   - If the rerun task is a single task, you receive a message asking you to confirm the rerun.
   - If the rerun task is a job with multiple job steps or an agent with tasks, the **Rerun** page appears. Select the check box next to the entries you want to rerun.

   Tip: You can also rerun failed entries by clicking Rerun in the Outstanding to complete section. To rerun a single job step, in the Job section, in the Actions column, click the view run history details button  for the failed step.

Chapter 22. Schedule Management

You can schedule IBM Cognos entries to run at a time that is convenient for you. For example, you may want to run reports or agents during off hours when demands on the system are low. Or you may want to run them at a regular weekly or monthly interval.

To use this functionality, you must have the required permissions for the **Scheduling** secured function in **IBM Cognos Administration**.

In **IBM Cognos Administration**, you can control access to scheduling by day, week, month, year, and trigger using the appropriate scheduling capability. You can also restrict intraday scheduling using the **Schedule by minute** and **Schedule by hour** capabilities Chapter 16, "Secured Functions and Features," on page 261.

If you have administrator privileges, you can also schedule tasks that:

- maintain your content store "Maintain the Content Store" on page 123
- schedule query service caching tasks "Create and Schedule Query Service Administration Tasks" on page 225
- import or export entries from a deployment archive Chapter 23, "Deployment," on page 351
- run jobs "Use Jobs to Schedule Multiple Entries" on page 346
- run metrics maintenance Chapter 6, "System Performance Metrics," on page 87

You can schedule entries to run at specified intervals. You can schedule entries individually or use jobs to schedule multiple entries at once. Jobs have their own schedules independent from report schedules.

You can schedule entries to run on the last day of each month. You can also schedule entries to be triggered by occurrences, such as database refreshes or emails.

You can run reports to produce outputs based on the options that you define, such as format, language, and accessibility.

Only one schedule can be associated with each entry. If you require multiple schedules for a report or agent entry, you can create report views "Create a Report View" on page 407 or agent views "Create an Agent View" on page 442 and then create a schedule for each view.

After you create a schedule, the entry or job runs at the time and date specified. You can then view the scheduled entries and manage them. For more information, see Chapter 21, "Activities Management," on page 329.

Credentials for Scheduled Entries

When you open a scheduled entry, the credentials show the current schedule owner. If you are not already the schedule owner, you can name yourself the owner "Example - Change the Credentials for a Schedule" on page 346.

Credentials for a schedule do not change automatically when you modify a schedule. You must explicitly change the credentials.

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For information on data source credentials, see “Trusted Credentials” on page 258.

Prompts in Scheduled Entries

If an entry that contains prompts is scheduled, you must save the prompt values or specify default values “Specify the Default Prompt Values for a Report” on page 414 to ensure that values exist when the report runs according to the schedule.

In a job, you can specify prompt values for job steps. When an entry runs as part of a job, the prompt values saved in the job definition are used instead of the values saved with the entry. If no values are specified in the job definition, IBM Cognos software uses the values saved in the entry.

Priority for Scheduled Entries

When you schedule an entry, you may be able to select a run priority from 1 to 5. For example, an entry with priority 1 runs before an entry with priority 5. If there is more than one entry with a specific priority, the one that arrived in the queue first runs first. The default is 3. If you do not have permissions for entry priorities, the priority appears but you can not change it.

When you schedule a job, you can set priority for the whole job only, not for individual entries within a job. However, you can change the priority of individual entries when they are pending in the queue.

The priority of entries in the queue does not affect an entry that is already running. The running entry completes and then the queue priority is checked for the next entry to run.

For more information, see “Manage Entry Run Priority” on page 337.

Run Histories for Scheduled Entries

IBM Cognos software keeps history information each time a scheduled entry runs. You can use the run history for an entry to see the times at which it ran and whether the it ran successfully. For more information, see “View the Run History for Entries” on page 338.

Schedule an Entry

You schedule an entry to run it at a later time or at a recurring date and time. For example, you can schedule a report or an agent.

If you no longer need a schedule, you can delete it. You can also disable it without losing any of the scheduling details. You can then enable the schedule at a later time. For more information, see Chapter 21, “Activities Management,” on page 329.

You can schedule an entry to run on the last day of each month “Example - Schedule an Entry on the Last Day of the Month” on page 346 or as part of a job “Use Jobs to Schedule Multiple Entries” on page 346. You can schedule reports based on trigger occurrences “Trigger-based Entry Scheduling” on page 349.

To use this functionality, you must have the required permissions for the **Scheduling** secured function in **IBM Cognos Administration**.

To schedule an entry, you need the permissions that are required to run the entry. For example, to schedule a report or report view, you must have read, write, execute, and traverse permissions for it. To schedule a child report view, you must have execute permissions on the parent report. You also require the following access permissions for any data sources used by the report:

- dataSource - Execute and Traverse
- dataSourceConnection - Execute and Traverse

  With only Execute access, you are prompted to log on to the database.
- dataSourceSignon - Execute

To set priority for an entry, you must have the required permissions for the **Scheduling priority** secured feature. For more information, see Chapter 16, "Secured Functions and Features," on page 261.

If you want, you can change the current schedule owner by changing the credentials for a scheduled entry. For more information, see "Example - Change the Credentials for a Schedule" on page 346.

Procedure

1. In IBM Cognos Connection, click the schedule button for the entry you want to schedule  .
2. Set the priority for the scheduled entry.

   Select a lower number for higher priority. The default is 3.
3. Under **Frequency**, select how often you want the schedule to run.

   The **Frequency** section is dynamic and changes with your selection. Wait until the page is updated before selecting the frequency.

   If you specify intraday scheduling in the **Frequency** section, you can also select a daily frequency for your scheduled entries. Proceed to step 4.

   If you did not specify intraday scheduling, proceed to step 5.
4. Under **Daily frequency**, select how often you want the schedule to run each day. You can choose to schedule an entry either by the minute or by the hour.

   When you specify a daily frequency, you also have the option to select a time period when you want the entry to run during the day, for example, between 9:00 am and 5:00 pm. This way, you can restrict the running of entries to periods during the day when updates are required.
5. Under **Start**, select the date when you want the schedule to start.
6. Under **End**, select when you want the schedule to end.

   Tip: If you want to create the schedule but not apply it right away, select the **Disable the schedule** check box. To later enable the schedule, clear the check box.
7. If additional options are available on the **Schedule** page, specify what you want.

   For example, for reports, you can select formats, languages, delivery method (including how to save report output files), and prompt values.
8. Click **OK**.

Results

A schedule is created and the report runs at the next scheduled time.

Example - Schedule an Entry on the Last Day of the Month

You want to schedule a financial report to run automatically on the last day of each month for the next year.

Procedure

1. In IBM Cognos Connection, click the schedule button for the entry you want to schedule  .
2. Under **Frequency**, select **By Month**, and then select **Day**.
3. Enter **Day** 31 **of every** 1 **month(s)**.

   Entering 31 as the day ensures that the entry runs on the last day of the month, regardless of how many days are in the month.
4. Under **Start**, select the last day of the current month as the day you want the monthly schedule to start.
5. Under **End**, click **End by** and select the last day of the same month next year as the day you want the monthly schedule to end.
6. Click **OK**.

Example - Change the Credentials for a Schedule

You want to change the credentials for a schedule to identify you as the current schedule owner.

Procedure

1. Log on to IBM Cognos Connection using your user ID and password.
2. In the Cognos Connection portal, click the schedule button  for the entry for which you want to change the credentials.

   Under **Credentials**, the name of the current schedule owner appears.
3. Click the **Use my credentials** link to make you the schedule owner. Save your changes.

   The next time that you open the schedule, your credentials identify you as the schedule owner of the schedule, for example, Sam Carter (scarter).

   Note: If you are logged on as an anonymous user, information about the current schedule owner is not available.

Use Jobs to Schedule Multiple Entries

You can set the same schedule for multiple entries by creating a job. A job identifies a collection of reports, report views, and other jobs that are scheduled together and share the same schedule settings. When a scheduled job runs, all the entries in the job run.

If a job item is unavailable, you can select a different link by clicking **Link to an entry**.

Jobs contain steps, which are references to individual reports, jobs, and report views. You can specify whether to run the steps all at once or in sequence.

- When steps are run all at once, all the steps are submitted at the same time. The job is successful when all the steps run successfully. If a step fails, the other steps in the job are unaffected and still run, but the job has a **Failed** status.

- When the steps are run in sequence, you can specify the order in which the steps run. A step is submitted only after the preceding step runs successfully.You can choose to have the job stop or have the other steps continue if a step fails.

You can schedule a job to run at a specific time, on a recurring basis, or based on a trigger, such as a database refresh or an email “Trigger-based Entry Scheduling” on page 349.

The individual reports, jobs, and report views in steps can also have individual schedules. Run options for individual step entries override run options set for the job. You can set run options for the job that serve as the default for step entries that do not have their own run options.

You can run reports to produce outputs based on the options that you define, such as format, language, and accessibility.

You can also include content store maintenance and deployment imports and exports in a job. For more information, see “Maintain the Content Store” on page 123 and Chapter 23, “Deployment,” on page 351.

Permissions required to include an entry as part of a job vary depending on the type of entry. The permissions are the same as for scheduling an entry “Schedule an Entry” on page 344.

Procedure

1. In IBM Cognos Connection, click the new job button  .
2. Type a name and, if you want, a description and screen tip for the job, select the location in which to save the job, and then click **Next**.

   The **Select the steps** page appears.
3. Click **Add**.
4. Select the check boxes for the entries you want to add and click the right arrow button  . When the entries you want appear in the **Selected entries** box, click **OK**.

   You can also click **Search**, and in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. When you find the entry you want, click the right arrow button to list the entry in the **Selected entries** box and click **OK**.

   To remove entries from the **Selected entries** list, select them and click **Remove**. To select all entries in a list, click the check box in the upper-left corner of the list. To make the user entries visible, click **Show users in the list**.
5. If you want to change run options for an individual entry when it runs as part of the job, click the set icon  , click **Produce report outputs**, select the **Override the default values box**, make the changes, and click **OK**.

   To send the report to mobile recipients, select **Send the report to mobile recipients** and click **Select the recipients**.

   Tip: To return to defaults for individual entries, click the delete button.
6. If you want to refresh the cache for a report when the job runs, click the edit icon next to the report, and then from the **Run the report to** menu, click **Refresh the report cache**. Click **Override the default values**. To accept the

displayed language, click **OK**. To change the language, click **Select the languages**, select the languages you want, and then click **OK**. Click **OK** to accept the displayed languages.

Tip: To clear the cache, click the delete button.

7. If you want to create or refresh the cache, click the set icon, click **Refresh the report cache**, select the **Override the default values box**, add languages, if you want, and click **OK**.

   Tip: To clear the cache, click **More** next to the report whose cache you want to clear, click **Clear the cache**, and click **OK** twice.

8. Under **Submission of steps**, select whether to submit the steps **All at once** or **In sequence**.

   If you select **In sequence**, the steps are executed in the order they appear in the **Steps** list. If you want the job to continue to run even if one of the steps fails, select the **Continue on error** check box.

   Tip: To change the order, click **Modify the sequence**, make the changes, and click **OK**.

9. If you want to specify default run options at the job level, under **Defaults for all steps**, click **Set**.

   Note that the run options that are available for a job with multiple entries may not apply to every entry. If the option does not apply to an entry, it is ignored.

10. If you want to override defaults, select the category and select the **Override the default values** check box and select the default options you want for the job and click **OK**.

11. To save the complete history details for the job steps when the run activity completes successfully, click **All** from the Run history details level list. Click **Limited** to save limited run history details for the job. If the job run fails, the complete history details are saved.

    The default is **All**.

12. Select the action you want:

    - To run now or later, click **Run now or at a later time** and click **Finish**. Specify the time and date for the run. Click **Find only** or **Find and fix**, then click **Run**. Review the run time and click **OK**.
    - To schedule at a recurring time, click **Schedule to run at a recurring time** and click **Finish**. Then, select frequency and start and end dates. Click **Find only** or **Find and fix**, then click **OK**.

      Tip: To temporarily disable the schedule, select the **Disable the schedule** check box. To view the schedule status, see Chapter 21, "Activities Management," on page 329.
    - To save without scheduling or running, click **Save only** and click **Finish**.

Results

A job is created and will run at the next scheduled time.

Cached Prompt Data

For reports that prompt for values each time that the report is run, you may want to use cached prompt data. Reports run faster because data is retrieved from the cache rather than from the database.

The cache is used only when a requested language is the same as one in the cache. For example, the cache contains data for English, English (United States), and German (Germany). When prompted, you request English (United States) for the report. There is an exact match and the cached data is used. The cached data is also used when there is a partial match. If you request English (Canada), the cached data for English is used. If you request German (Austria), there is no match and the cached data is not used.

You can use caches for reports or report views. For report views, the report view cache is used first. If no report view cache is found, the cache for the associated report is used.

You must use a job to create or refresh a cache. You can refresh the cache automatically by scheduling the job to run periodically. If you want to use live data the next time that you run the report, you can clear the cache.

Trigger-based Entry Scheduling

You can schedule entries based on an occurrence, such as a database refresh or an email. The occurrence acts as a trigger, causing the entry to run. For example, you may want to run a report every time a database is refreshed.

Trigger-based scheduling may be used to run entries automatically based on an occurrence. It may also be used to limit when users can run entries. For example, in a warehouse environment where the database is refreshed only once a week, there is no need to run reports more frequently.

You can choose to schedule the report based on the database refresh so that the report runs only once a week.

Trigger-based scheduling applies only to the entry, not to any entry view associated with it. For example, if trigger-based scheduling applies to a report, it does not apply to report views associated with the report. However, you can schedule a report view using a trigger.

In **IBM Cognos Administration**, you can control access to scheduling by trigger using the **Schedule by trigger** capability. Chapter 16, “Secured Functions and Features,” on page 261

Setting Up Trigger-based Scheduling

To schedule an entry based on an occurrence and confirm trigger-based scheduling, you must have read, write, execute, and traverse permissions.

You also require the following access permissions for all data sources used by the entry.

Data source	Permissions
dataSource	Execute and Traverse
dataSourceConnection	Execute and Traverse With only Execute access, you are prompted to log on to the database.
dataSourceSignon	Execute

Before setting up trigger-based scheduling, ensure that your credentials exist and are up to date.

Tip: Click the my area options button  , **My Preferences**, and, on the **Personal** tab, click **Renew the credentials**.

Follow this process to set up trigger-based scheduling:

- Schedule an entry based on the occurrence "Schedule an Entry Based on an Occurrence."
- Have your administrator set up the trigger occurrence on a server.

Trigger occurrences can also be set up by a Software Development Kit developer using the IBM Cognos Software Development Kit. For more information, see the *Software Development Kit Developer Guide*.

See information about setting up the trigger occurrence on a server "Set Up a Trigger Occurrence on a Server" on page 648. You can also disable trigger-based scheduling "Disable Support for Trigger-based Scheduling" on page 648.

Schedule an Entry Based on an Occurrence

As part of setting up trigger-based scheduling, you must schedule an entry based on an occurrence.

Trigger-based schedule is activated if the user firing the trigger has:

- read and traverse permissions for the schedule entry
- traverse permissions for all ancestors of the schedule entry
- access to IBM Cognos Administration

Procedure

1. In IBM Cognos Connection, click the schedule button  next to the entry you want to schedule.
2. Under Frequency, click the **By Trigger** tab.
3. In **Trigger name**, type the name of the trigger occurrence.

   Note: The trigger name that you enter may be provided to you by your administrator or developer. If not, you must inform your administrator or developer of the trigger name that you use.
4. The default start date is "now", and the default end date is "forever", which means the trigger schedule runs when the trigger is fired (either from trigger.bat or from an Software Development Kit application). If you enter a valid start and end date, the trigger schedule can only be fired between those dates.
5. Click **OK**.

Chapter 23. Deployment

Deployment involves moving applications from one installation to another. In IBM Cognos software, you deploy packages, top-level folders, or the entire content store from a source environment to a target environment.

Typically, deployment transfers entries, such as packages, folders, reports, and report views, from a development environment to a test environment and then to a production environment. You can also deploy between operating systems.

It is important to plan your deployment to ensure that you deploy the correct information and that you do not disturb the target environment. It is also important to consider security in the source and target environments.

You can upgrade entries from previous releases, by running the deployment import wizard. For more information, "Importing to a Target Environment" on page 370.

You can use an operating system or scripting mechanism to perform deployment from a command line. You can use the IBM Cognos software development kit to automate the deployment process to

- create, update, and delete a deployment specification
- load a deployment specification from a deployment archive
- submit deployment export and import requests
- access deployment history

Deployment of human task service is a separate task. For more information, see "Deploy Human Task and Annotation Services" on page 375.

For more information, see the IBM Cognos Software Development Kit *Developer Guide*.

Deployment Specifications

A deployment specification is an entry in the content store that defines the entries to be deployed, the deployment preferences, and the name of the deployment archive.

There are two types of deployment specifications. Export specifications are created in the source environment and control the creation of deployment archives. Import specifications are created in the target environment and control the import of entries from the deployment archive.

You can view the deployment history for each deployment specification to see the date, time, and details of the import or export.

Deployment Archives

A deployment archive is a compressed file that contains actual entries that is created when you export from the source environment.

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You move the deployment archive from the source environment to the target environment. Then you import from the deployment archive into the target environment.

To move a deployment archive, you need access to the installation directories on the computer where IBM Cognos software is installed. This location is set in the configuration tool. The default location is *c10_location*/deployment. For information about changing the location, see the IBM Cognos *Installation and Configuration Guide*.

If you export to an existing deployment archive, the contents of the archive are overwritten.

Deployment Planning

When you deploy, you must consider how to handle security and which deployment method to select.

To avoid breaking references in the target environment, you must deploy all entries that refer to entries in another package or folder. Entries to consider include:

- jobs, shortcuts, and report views
- memberships and entry permissions

Security and Deployment

Before you deploy, you must consider access permissions, security of deployment archives , and references to namespaces other than **Cognos**.

Access Permissions

The entries that you deploy may have security applied to them, such as access permissions Chapter 15, "Access Permissions and Credentials," on page 253 that specify which users and groups can access them. If you deploy the entire content store "Deploying the Entire Content Store" on page 353, all access permissions are deployed. If you deploy selected packages, public folders and directory content, you can choose whether to deploy access permissions "Deploying Selected Public Folders and Directory Content" on page 355.

Consider the following:

- Referenced users and groups

  If you deploy access permissions to a target environment, the referenced users and groups must exist in the target environment.
- Access permissions rules

  For access permissions to work after entries are deployed, the source environment and the target environment must use the same authentication provider with the same configuration. Otherwise, the permissions may not work after deployment.

  Use the Cognos namespace to ensure that the permissions from the source environment work in the target environment. For example, in the source environment, create Cognos groups with the group Everyone as a member, and then set access permissions for the groups. After deployment, in the target environment, map the Cognos groups to the appropriate users and groups from the authentication provider, and then remove Everyone from the membership of the group.

For information about deploying Cognos groups and roles, see “Including Cognos Groups and Roles” on page 358.

Securing Deployment Archives

A deployment archive “Deployment Archives” on page 351 can contain sensitive information, such as signons and confidential account or credit card numbers in report outputs. When you export, you can encrypt the deployment archive by setting a password. Later, when you import, you must type the encryption password. The password must contain eight or more characters.

You must encrypt the deployment archive when it contains data source signons “Create or Modify a Data Source Signon” on page 203 or when you deploy the entire content store “Deploying the Entire Content Store.”

The encryption settings are configured in the configuration tool. For more information, see the IBM Cognos *Installation and Configuration Guide*.

Including References to Other Namespaces

Some entries, such as groups, roles, distribution lists, contacts, data source signons, and some report properties, such as email recipients and report contacts, can refer to entities in namespaces other than the **Cognos** namespace. When you deploy public folders and directory content, you can deploy these entries with or without references to these namespaces.

Consider the following:

- Included references

  If you include the references to other namespaces, the system verifies that each of the referenced entities exists in the applicable namespaces. Therefore, you must ensure that you are logged on to each namespace, and that you have the necessary permissions to access the required entities in the namespaces. If you cannot access the namespaces, you will encounter errors during the deployment.
- No included references

  If you do not include the references to other namespaces, the referenced entities are removed from the membership list of groups, roles, distribution lists, and data source signons and other properties where they may exist.

When you deploy the entire content store “Deploying the Entire Content Store,” the references to all namespaces are included.

Deploying the Entire Content Store

Deploying the entire content store ensures that all packages, folders, and directory content are copied to a new location.

For example, if you are changing the computer where IBM Cognos software is installed, you can move the entire content store from the old environment to the new environment and keep all the reports and other entries created by administrators and users.

Other reasons to deploy the entire content store include:

- moving a whole application into a new, empty environment, such as a new computer, from a development environment

- refreshing a whole application into an existing environment, such as an existing computer, from a development environment
- moving an application from an existing environment that uses a different underlying technology, such as a different database type for the content store, or a different operating system
- upgrading the contents of the content store

When you move a content store from one environment to another, you must use the same namespaces for policies, users, roles, and groups to work correctly.

When you deploy the entire content store, if there are no conflicts, the contents of the target content store are removed and replaced by the contents of the source content store, except for configuration data. The imported entries keep the owners from the source content store. For information about conflict resolution, see "Conflict Resolution Rules" on page 361.

After the deployment is complete, some links for packages associated with reports may not work. You may need to relink packages to reports. For information about linking packages to reports, see the documentation for the studios.

Tip: Instead of deploying the entire content store, you can deploy only specific public folders and directory content "Deploying Selected Public Folders and Directory Content" on page 355.

Content Store

The content store includes all entries in the portal, such as:

- public folders
- packages
- reports
- data sources
- distribution lists and contacts
- printers
- the Cognos namespace
- deployment specifications

It does not include the deployment history "Deployment History." Configuration objects "Configuration Information" on page 355 such as dispatchers, are included in exports by default, but excluded in imports.

If you want to deploy users' personal folders and personal pages, you must choose to include the user account information when you export and import.

Deployment History

When you export an entire content store, the export and import deployment specifications that exist in the source content store are exported. Their deployment histories are not exported.

Later, when you import the entire content store, you also import the export and import deployment specifications. You do not see entries in the **View the deployment history** page for the imported specifications.

If any of the imported deployment specifications are used for an encrypted deployment archive, you can delete them. To import an entire content store the first time, you must create a new import deployment specification.

By default, the information saved in deployment records includes the progress and summary reports only. If you want to include more detailed information, change the recording level using the advanced setting CM.DEPLOYMENTDETAILENTIRECONTENT. Use the steps in "Setting Advanced Content Manager Parameters" on page 119. More recording levels are available in partial deployment "Recording Deployment Details" on page 359.

Configuration Information

When you import an entire content store, configuration data is included in the export, but excluded from the import by default. We recommend that you do not change this setting. However, if you must import configuration settings, you can change the default in the Advanced Settings "Include Configuration Objects in Import of Entire Content Store" on page 372.

If you import the configuration data, especially in a distributed environment with multiple content managers, the current information about the content manager status may be overwritten by the imported data.

Tip: If you import the configuration, restart the service in the target environment to update status information properly.

For information about including configuration data in the import, see "Include Configuration Objects in Import of Entire Content Store" on page 372.

For information about how specific objects in the content store are imported, see "Conflict Resolution Rules For Deploying the Entire Content Store" on page 362.

Deploying Selected Public Folders and Directory Content

You can choose to do a partial deployment, deploying only selected public folders and directory content, rather than the entire content store.

You can deploy any packages and folders in Public Folders. Browse the Public Folders hierarchy and select a package or folder. This will deploy its entire contents. You cannot select specific entries in the packages or folders. During export, the parent packages and folders are not exported and Content Manager does not create placeholder locations for them in the target environment. During both export and import, you can specify a new target location in the Content Manager hierarchy for each deployed package and folder.

The directory content that you can deploy includes the Cognos namespace, distribution lists and contacts, and data sources and their connections and signons.

When you deploy public folders and directory content, you cannot include objects from the configuration, capability, exportDeploymentFolder, and importDeploymentFolder areas of the content store "Partial Deployment Options" on page 357. For more information, see "Including References to Other Namespaces" on page 353.

For information about how specific objects in the content store are imported, see "Deployment Conflict Resolution Rules When Importing and Exporting" on page 361.

After the deployment is complete, some links for packages associated with reports may not work, even if you included packages and their reports in the deployment. You may need to relink packages to reports. For information about linking packages to reports, see the documentation for the studios.

Tip: If you want to deploy specific entries, you can create a folder at the root level of Public Folders, copy the specific entries to that folder, and select this folder when you deploy.

Deploying Packages

A package is an entry that contains published reports and metadata. Packages are created in Framework Manager, the modeling tool, and then published to IBM Cognos Connection.

Packages are stored in the content store and appear as entries in IBM Cognos Connection.

During a partial deployment, you can deploy one or more packages at a time. A package can reference objects that are outside the package, such as security objects, data sources, and distribution lists. However, referenced objects are not deployed with the package.

While you are importing, you can deselect packages in the deployment archive that you do not want to import.

Renaming Packages and Folders

During a partial deployment, you can rename packages and folders so that they have a new name in the target environment.

This is useful if you do not want to overwrite a package or folder that has the same name in the target environment. The original package or folder remains intact, and the deployed one is renamed.

You might also want to add multilingual names for packages and folders so that users can see names suitable for their locale. A locale specifies linguistic information and cultural conventions for character type, collation, format of date and time, currency unit, and messages.

Before you rename packages, you consider the information about renaming entries and what happens to associated references to other entries in "Organizing Entries" on page 293.

Disabling Packages and Folders

During a partial deployment, you can disable the packages and folders in the target environment so that users cannot access them.

Disabling packages and folders is useful if you want to test them in the target environment before you make them available to users.

You can disable packages and folders at the time of export or import.

When you disable a package or folder, the entries it contains are not accessible in the target environment after the import. Users cannot run, view, or edit entries. Only users who have write privileges to the disabled entries can access them. For more information, see “Disable an Entry” on page 296.

Partial Deployment Options

During a partial deployment, when you export and import, you can choose the following options.

If you do not select an option when you export, it is not available during import.

Including Report Output Versions

You can choose to include the report output versions “View Report Output Versions” on page 417 in your deployment. If you select this option, you can choose what to do if there is a conflict. You can replace the existing report output versions in the target environment with those from the deployment archive or keep target environment versions.

Including Run History

The run history of a report shows statistics about the status and times when the report ran “View the Run History for Entries” on page 338 in your deployment. You can choose whether to include the run history of reports.

If you select this option, you can choose what to do if there is a conflict. You can replace the existing report run histories in the target environment with those from the deployment archive or keep target environment histories.

Including Schedules

You can choose whether to include schedules Chapter 22, “Schedule Management,” on page 343 in your deployment. If you do not deploy schedules, they are removed from the jobs and reports in the target environment.

If you select this option, you can choose what to do if there is a conflict. You can replace the existing schedules in the target environment with those from the deployment archive or keep target environment schedules.

When you choose to import schedules in the deployment, you can change the imported schedule credentials to your credentials. The credential of a schedule is the credential used to run the report in the schedule. This credential determines the permissions on the report as well as the capabilities that apply to the report execution. If the report does not have the **Run as the owner** property set to true, then the credential is also used to access the data source, data connection and signon objects. Changing the credential may affect the operation in the following ways:

- no impact
- report produces different data as a result of selecting a different connection or signon in the data source
- report fails to run because the user does not have the proper capabilities or permissions

To change the imported schedule credentials to the credentials of the person doing the import, do the following:

- Add the advanced setting CM.DeploymentUpdateScheduleCredential and set the value to **True**. See procedure, "Setting Advanced Content Manager Parameters" on page 119.
- When you import to the target environment using the New Import Wizard "Importing to a Target Environment" on page 370, make sure to click **Include schedules** and select **Replace Existing Entries** under **Conflict Resolution**. Next, under **Entry ownership**, select **The user performing the import**.

Including Cognos Groups and Roles

You can choose whether to include Cognos groups and roles Chapter 14, "Users, Groups, and Roles," on page 247 in your deployment.

When you deploy the Cognos groups and roles, you must deploy them all. However, the following built-in groups are not deployed:

- Anonymous
- All Authenticated Users
- Everyone

When you deploy groups, members of the System Administrators group are merged with the members of this group already in the target environment. This ensures that the target environment is accessible in case the deployed members are not valid. However, you may need to modify the membership list when the deployment is complete.

If you select this option, you can choose what to do if there is a conflict. You can replace groups and roles in the target environment with those from the deployment archive or to keep target environment groups and roles.

Including Distribution Lists and Contacts

You can choose whether to include distribution lists and contacts in your deployment. If you choose to deploy distribution lists and contacts, you must deploy them all.

If you select this option, you can choose what to do if there is a conflict. You can specify whether to replace the distribution lists and contacts in the target environment with those from the deployment archive or to keep the target distribution lists and contacts.

Including Data Sources

You can choose to include data sources and their associated connections Chapter 8, "Data Sources and Connections," on page 167 in your deployment. If you choose to deploy data sources, you must deploy them all.

You can deploy the data sources with or without their signons. If you do not deploy the signons, you must configure the data sources accordingly in the target environment. If you deploy the signons, you must encrypt the deployment archive.

If you select this option, you can choose what to do if there is a conflict. You can specify whether to replace the data sources in the target environment with those from the deployment archive or to keep the target environment data sources.

If you replace the target data sources, and the data source connections in the source and target environments do not match, you can lose database connections. In this case, you must manually reconnect to the data sources in the target environment after the import, using the database client software.

Including Access Permissions

You can choose to include access permissions "Access Permissions" on page 352 in your deployment.

If you select this option, you can choose what to do if there is a conflict. You can specify whether to replace the access permissions in the target environment with those from the deployment archive or to keep the target environment access permissions.

Recording Deployment Details

You can specify what type of information is saved in the deployment records by setting the **Recording Level** for the deployment. The amount of information kept in the records has an impact on performance.

You can set the following recording levels:

- **Basic**

  Saves the deployment progress and summary information. This is the default option.
- **Minimal**

  Saves only the deployment summary information. This option requires the least memory.
- **Trace**

  Saves all deployment details. This option requires the most memory.

For information about recording deployment details when an entire content store is deployed, see "Deployment History" on page 354.

Ownership Considerations

You can change the ownership of imported entries to the user performing the import. You can select this option at the time of export or import. If you use the owners from the source, the owners are imported along with the entries. You can apply the ownership options to new entries or to new and existing entries.

Advanced Deployment Settings

You can use advanced settings to specify how deployment works in your environment.

Using the advanced settings, you can

- specify if report output is part of deployment
- specify if configuration objects and children are part of deployment

Specify if Report Output is Part of Deployment

You can specify if report output is part of deployment.

There are two advanced settings that you can use:

- CM.DEPLOYMENTSKIPALLREPORTOUTPUT to include or skip all report output from **My Folders** and **Public Folders**.
- CM.DEPLOYMENTSKIPUSERREPORTOUTPUT to include or skip user report output from **My Folders** only.

By default, these are set to True (include). To change the default to exclude, set them to False.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. Click the arrow for the Actions menu next to **Systems** and click **Set properties**.
5. Click the **Settings** tab.
6. Click **Edit** next to **Advanced Settings**.
7. Select **Override the settings acquired from the parent entry**.
8. In the **Parameter** column, type CM.DEPLOYMENTSKIPALLREPORTOUTPUT or CM.DEPLOYMENTSKIPUSERREPORTOUTPUT.
9. In the **Value** column, type the setting that you want to use.
10. Click **OK**.
11. On the **Set properties** page, click **OK**.

Specify if Configuration Objects and Children are Part of Deployment

You can specify if configuration objects and their children are included as part of deployment.

You can change the default setting using the advanced setting CM.DEPLOYMENTINCLUDECONFIGURATION. By default, it is set to False (do not include configuration objects in deployments). To change the default to include configuration objects and their children, set it to True.

Before you begin

You must have the required permissions to access **IBM Cognos Administration** Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.

4. Click the arrow for the Actions menu next to **Systems** and click **Set properties**.
5. Click the **Settings** tab.
6. Click **Edit** next to **Advanced Settings**.
7. Select **Override the settings acquired from the parent entry**.
8. In the **Parameter** column, type CM.DEPLOYMENTINCLUDECONFIGURATION.
9. In the **Value** column, type the setting that you want to use.
10. Click **OK**.
11. On the **Set properties** page, click **OK**.

Deployment Conflict Resolution Rules When Importing and Exporting

Conflict resolution rules apply when you are importing or exporting into a target environment.

The rules are different depending on whether you deploy the entire content store or selected public folders and directory content. The method you choose determines which objects are included in the import and how conflicts are resolved when an object already exists in the target environment.

Objects in the content store represent entries in the portal and the properties of those entries. For example, the object reportView represents a report view entry in the portal and the object runHistory represents the run history of an entry. For more information about objects, see the IBM Cognos Software Development Kit *Developer Guide*.

Objects in **Public Folders** inherit deployment rules by default, depending on whether you are deploying the entire content store, or only selected **Public Folders** and directory content.

Although conflicts can occur only during importing, not during exporting, the same rules are used to process objects in the archive during export. During an export operation, if the rule for an object is KEEP, it is not included in the archive. For any other setting, it is included in the archive.

Conflict Resolution Rules

A conflict can occur when the entry that you want to import from the deployment archive already exists in the target content store.

When this happens, one of the following conflict resolution rules is used, depending on the entry and the advanced settings that you have used.

Rule	Description
Replace	Replaces the entry and its children. The entry and all its children are removed from the source content store. The new entry and all its children are added to the source content store.

Rule	Description
Keep	Keeps the entry. The properties of the entry and all its children are not updated. Existing children of the entry are kept. New children may be added.
Update	Updates the entry. The properties of the entry and its children are updated. Existing children of the entry are kept. New children may be added.
Merge	Merges the properties of the entries with existing entries.

If an entry has no children, replace and update have the same end result.

Content

All the objects in the content area of the content store are included and replaced when you import the entire content store.

Directory

If you include data sources, connections, and signons, and you keep existing entries, the associated objects from the archive are merged with the objects in the target environment. Even though the objects are merged, the retention rules still apply. A full merge may not occur because some objects may be discarded.

Note that when you want to include Cognos groups and roles, and distribution lists and contacts, these items must be stored in a folder within the namespace in order to be deployed.

The members of distribution lists, groups, and roles in the archive are not merged with the contents in the target environment. Instead, the set of distribution lists, groups, and roles are merged with the set already existing in the target environment. However, the members of the System Administrators group are always merged when this group is imported. For more information, see "Including Cognos Groups and Roles" on page 358.

Conflict Resolution Rules For Deploying the Entire Content Store

The default conflict resolution rule for deploying the entire content store is replace.

Exceptions to the default conflict resolution rule are listed in the following table:

Object name	Conflict Resolution Rule
OUTPUT, GRAPHIC, PAGE	Keep if • the advanced setting CM.DEPLOYMENTSKIPALLREPORTOUTPUT is set to True • the object is under user accounts and the advanced setting CM.DEPLOYMENTSKIPUSERREPORTOUTPUT is set to True For more information on the settings, see “Specify if Report Output is Part of Deployment” on page 360.
ACCOUNT	Update if **Include user account information** is selected during deployment, keep if not. For more information about including user account information, see “Deploying the Entire Content Store” on page 353.
SESSION, CACHEOUTPUT, REPORTCACHE, REPORTMETADATACACHE, DEPLOYMENTDETAIL	Keep
FOLDER, MRUFOLDER, SUBSCRIPTIONFOLDER	Replace if "directly" under Cognos namespace user account object ('My Folders' folder) or "directly" under 3rd party namespace user account object ('My Folders' folder).
CAPABILITY, SECUREDFUNCTION, CONFIGURATION, CONFIGURATIONFOLDER, DISPATCHER, DIRECTORY, NAMESPACE, NAMESPACEFOLDER, PORTAL, PORTALPACKAGE, PORTALSKINFOLDER, PORTLETFOLDER, PORTLETPRODUCER, PORTLET, PAGELETFOLDER, PAGELET, PAGELETINSTANCE, PORTLETINSTANCE	Update
ROLE, GROUP	Replace (but preserve object ID).
CONTENT, ADMINFOLDER, TRANSIENTSTATEFOLDER	Replace. Note that the deployment option entireContentStoreReplace can be changed to false (update) using a Software Development Kit application only. For more information, see your Software Development Kit documentation.

Object name	Conflict Resolution Rule
HISTORY, HISTORYDETAIL, HISTORYDETAILREQUEST ARGUMENTS	Keep if under ADMINFOLDER object.

Conflict Resolution Rules For Partial Deployment

When you deploy public folders and directory content rather than the entire content store, you can select the content that you want to deploy.

Some conflict resolution rules depend on the choices you make.

When a parent object is updated, new children from the deployment archive are added and join the existing set of children in the target environment. If a conflict occurs, the conflict resolution rule is to replace the children.

Because all job steps are replaced, no conflict is possible when importing jobStepDefinition objects.

If you include report output versions and run histories and you keep existing entries, the associated objects from the archive are merged with the objects in the target environment. Even though the objects are merged, the retention rules still apply. A full merge may not occur because some objects may be discarded.

The default conflict resolution rule for partial deployments is replace.

Exceptions to the default conflict resolution rule are listed in the following table:

Object name	Conflict Resolution Rule
REPORTVERSIONSQL	Depends on whether **Include report output versions** is set to replace or keep “Including Report Output Versions” on page 357.
OUTPUT	Keep if advanced setting DEPLOYMENTSKIPREPORTOUTPUT is set to True “Specify if Report Output is Part of Deployment” on page 360. Otherwise, depends on whether **Include report output versions** is set to replace or keep “Including Report Output Versions” on page 357.
GRAPHICPAGE	Keep if advanced setting DEPLOYMENTSKIPREPORTOUTPUT is set to True “Specify if Report Output is Part of Deployment” on page 360. Otherwise, depends on whether **Include report output versions** is set to replace or keep “Including Report Output Versions” on page 357.

Object name	Conflict Resolution Rule
HISTORY	Depends on whether **Include run history** is set to replace or keep “Including Run History” on page 357.
SCHEDULE	Depends on whether **Include schedules** is set to replace or keep “Including Schedules” on page 357.
JOBSTEPDEFINITION	Replace.
JOBDEFINITION	Update and remove any JOBSTEPDEFINITION children.If PackageHistories is specified and packageHistoriesConflictResolution is set to replace, remove HISTORY objects as well.
DATASOURCE, DATASOURCECONNECTION, DATASOURCENAMEBINDING	Depends on whether **Include data sources and connections** is set to keep or replace“Including Data Sources” on page 358.
DATASOURCESIGNON	Depends on whether **Include data sources and connections** and **Include signons** are set to keep or replace “Including Data Sources” on page 358.
DISTRIBUTIONLIST, CONTACT	Depends on whether **Include distribution lists and contacts** is set to keep or replace “Including Distribution Lists and Contacts” on page 358.
ROLE, GROUP	Depends on whether **Include Cognos groups and roles** is set to keep or replace “Including Cognos Groups and Roles” on page 358. (If it is set to replace, object ID is preserved.)
CACHEOUTPUT, REPORTCACHE, REPORTMETADATACACHE	Keep

Deploying IBM Cognos Entries

To deploy IBM Cognos software, you must export the deployment archive in the source environment, then move the archive to the target environment and import it there.

In IBM Cognos Connection, you can organize your deployment specification in folders in the same way that you organize all your entries. See “Organizing Entries” on page 293.

Deployment and Agents

Deployment can be part of an agent. For more information, see Chapter 28, “Agents,” on page 441.

Deployment Schedules and Run History

You can schedule deployment to run automatically at a specified time or as part of a job. IBM Cognos software saves the run history for each deployment specification. After you export or import, you can view the date and time and the status of the deployment. You can also view any error messages created by the deployment and the list of entries that were exported or imported. For more information, see Chapter 21, “Activities Management,” on page 329.

Permissions

To deploy IBM Cognos entries, you must have execute permissions for the **Administration tasks** secured feature “Capabilities” on page 663 and traverse permissions for the **Administration** secured function. We also recommend that you belong to the System Administrators group and have read and write access to the Cognos namespace so that you can deploy the System Administrators group. For more information, see “Set Access Permissions for an Entry” on page 257.

When you do a partial export of public folders and directory content “Deploying Selected Public Folders and Directory Content” on page 355 rather than exporting the entire content store “Deploying the Entire Content Store” on page 353, you must have read and traverse permissions for the entries that you export. You also need write permissions because you create a deployment specification and deployment history when you export. When you import, you must have write and set policy permissions for the entries that you import.

Prerequisites

IBM Cognos software and other products, must be installed and configured in the source and target environments. For more information, see the IBM Cognos *Installation and Configuration Guide*.

We recommend that you stop the Content Manager service before you export and import. This prevents users from receiving unpredictable results if they are performing operations during the deployment. For example, if users view reports in a package while the package is being imported, users may encounter errors when the report outputs are replaced. For more information, see “Stop and Start Dispatchers and Services” on page 106.

Before you start, you must plan the deployment to determine what deployment options to use and what entries to deploy “Deployment Planning” on page 352. You may want to do a back up before deployment Chapter 10, “Back Up Data,” on page 227.

Exporting from a Source Environment

To export the IBM Cognos entries, you create or modify an export deployment specification and then run the export.

You can also use a previously saved deployment specification for export or for redeployment of your entries.

The entries are exported to an export deployment archive "Deployment Archives" on page 351 in the source environment. Later, you import the archive entries into the target environment. You can update the entries in the target environment using the entries from the deployment archive.

For information on conflict resolution during deployments, see "Deployment Conflict Resolution Rules When Importing and Exporting" on page 361.

When you export, you select the entries to deploy, and you set the options that are used as defaults when importing.

Create a New Export Deployment Specification

You can create a new export deployment specification.

Procedure

1. In the source environment, open IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Content Administration**.
4. On the toolbar, click the new export button  . The **New Export** wizard appears.
5. Type a unique name and an optional description and screen tip for the deployment specification. Select the folder where you want to save it and click **Next**.
6. Choose whether to export the entire content store or to do a partial export of specific folders and directory content:
   - To export specific folders and directory content, click **Select public folders and directory content**, and then click **Next**. Proceed to step 7.
   - To export the entire content store, click **Select the entire content store** and select whether to include user account information. Click **Next** and proceed to step 18.
7. In the **Select the Public folders content** page, click **Add**.
8. In the **Select entries** page, in the **Available Entries** box, select the packages or folders that you want to export.

   You can browse the Public Folders hierarchy and choose the packages and folders you want. Click the right arrow button  to move the selected items to the **Selected entries** box, and click **OK**.
9. For each package and folder that you export, do one of the following:
   - If you want the package or folder to have a different name in the target environment, or if you want to change the target location or add multilingual names, click the edit icon  make your changes, and click **OK**.
   - If you do not want users to access the package or folder and its entries, select the check box in the **Disable after import** column. This is useful when you want to test the reports before you make them available in the target environment.
10. Under **Options**, select whether you want to include the report output versions, run history, and schedules and what to do with entries in case of a conflict.
11. Click **Next**.

12. In the **Select the directory content** page, select whether you want to export Cognos groups and roles, distribution lists and contacts, and data sources and connections and what to do with the entries in case of a conflict.
13. Click **Next**.
14. In the **Specify the general options** page, select whether to include access permissions and references to namespaces other than **IBM Cognos**, and who should own the entries after they are imported in the target environment.
15. Specify the **Recording Level** for the deployment history "Recording Deployment Details" on page 359.
16. Click **Next**.
17. In the **Specify a deployment archive** page, under **Deployment archive**, select an existing deployment archive from the list, or type a new name to create one.

    If you are typing a new name for the deployment archive, we recommend that you do not use spaces in the name. If the name of the new deployment specification matches the name of an existing deployment archive, the characters _# are added to the end of the name, where # is a number such as 1.
18. If you want to secure the archive, under **Encryption**, click **Set the encryption password**, type a password, and then click **OK**.
19. Click **Next**.

    The summary information appears.
20. Review the summary information and click **Next**.

    Tip: If you want to change information, click **Back** and follow the instructions.
21. Review the summary information and click **Next**.
22. Select the action you want:
    - To run now or later, click **Save and run once** and click **Finish**. Specify the time and date for the run. Then click **Run**. Review the run time and click **OK**.
    - To schedule at a recurring time, click **Save and schedule** and click **Finish**. Then, select frequency and start and end dates. Then click **OK**.

      Tip: To temporarily disable the schedule, select the **Disable the schedule** check box. To view the schedule status, see "Manage Scheduled Activities" on page 335.
    - To save without scheduling or running, click **Save only**, and then click **Finish**.

Results

After you run the export, you can move the deployment archive. You can also see the export run history "View the Run History for Entries" on page 338.

Modify an Existing Deployment Specification

You can reuse a previously saved deployment specification for export or for redeployment of your entries.

Procedure

1. In the target environment, open IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Content Administration**.

4. In the **Actions** column, click the properties button  for the deployment specification you want to modify, and then click the **Export** tab.
5. Modify the deployment options as required.

   Tip: If you want to change the export target location, click the edit button  next to the export name in the **Target name** column, the **Public Folders content** section, and choose the package or folder you want.
6. Click **OK**.

Results

This saves the options and you can run the export now or at a later time. For more information, see "Run an Export."

Run an Export

After you create a new export deployment archive or modify an existing one, you can run it.

Procedure

1. In the **Actions** column, click the run with options button  .
2. Click **Now** to run the export immediately, or click **Later**, and enter the time, that you want the export to run.

   You can also schedule a task to run on a recurring basis, and view a list of scheduled tasks. For more information, see Chapter 22, "Schedule Management," on page 343.

   Tip: To avoid warning messages when logged into multiple namespaces, before you run the export next time, renew your credentials. In IBM Cognos Connection, in the upper-right corner, click the my area options button  , and then click **My Preferences**. On the **Personal** tab, in the **Credentials** section, click **Renew the credentials**.

Results

You can now move the deployment archive.

Move the Deployment Archive

Move the deployment archive that you created in the source environment to the target environment.

If the source and target environments use the same content store, you can import without moving the deployment archive.

The location where deployment archives are saved is set in the configuration tool. The default location is *c10_location*/deployment.

Before you begin

If you plan to move the deployment archive to a location on a LAN, ensure that there is enough disk space. If you did not encrypt the deployment archive, we recommend that you copy it to a secure location.

Procedure

1. Copy the deployment archive from the source environment to a location on the LAN or to a CD.
2. Copy the deployment archive from the LAN or CD to the target environment in the location set in the configuration tool.

Results

You can now include configuration objects if you're importing an entire content store or import to the target environment.

Importing to a Target Environment

Create a new import deployment specification or modify an existing one and then run the import.

You can import using an existing deployment specification if you previously saved it without importing, or if you want to redeploy your IBM Cognos entries. You can update the entries in the target environment with entries from the deployment archive.

For information on conflict resolution during deployments, see "Deployment Conflict Resolution Rules When Importing and Exporting" on page 361.

When you import, you select from entries that were exported. You can either accept the default options set during the export, or change them. You cannot select options that were not included in the deployment archive during the export. For information about how specific objects in the content store are imported, see "Deployment Conflict Resolution Rules When Importing and Exporting" on page 361.

You can also use the New Import wizard to upgrade entries from previous releases of the product. You can upgrade report specifications during the import, or choose to upgrade them at a later time using the New Report Upgrade wizard. For more information, see "Upgrade Report Specifications" on page 373.

When you run an import, content store ids are deleted and new ids assigned. If the store ids must be retained because they are used by certain IBM Cognos functionality, you can choose to preserve store ids. For more information, see "Content ID assignment" on page 374.

To use an existing import deployment specification, see "Modify an Existing Import Deployment Specification" on page 372

If you do a partial deployment of specific public folders and directory content, the import wizard shows whether packages and folders already exist in the target environment and the date and time they were last modified. You can use this information to help you decide how to resolve conflicts. When you redeploy, the wizard also shows whether the packages and folders were in the original deployment.

Create a New Import Deployment Specification

Create an import deployment specification.

Procedure

1. In the target environment, open IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Content Administration**.
4. On the toolbar, click the new import button  . The **New Import** wizard appears.
5. In the **Deployment archive** box, click the deployment archive that you want to import.
6. If the deployment archive is encrypted, type the password, and then click **OK**.
7. Click **Next**.
8. Type a unique name, an optional description, and a screen tip for the deployment specification, select the folder where you want to save it, and click **Next**.
9. Select the content that you want to include in the import.

   Tip: To ensure that the required target package or folder exists in the target content store, click the edit button  next to the package, and check the location. If you want, you can change the target location now.
10. Select the options you want, along with your conflict resolution choice for options that you select.
11. In the **Specify the general options** page, select whether to include access permissions and references to namespaces other than **IBM Cognos**, and who should own the entries after they are imported in the target environment.
12. Specify the **Recording Level** for the deployment history "Recording Deployment Details" on page 359.
13. Click **Next**.

    The summary information appears.
14. Review the summary information and click **Next**.
15. Select the action you want:
    - To run now or later, click **Save and run once** and click **Finish**. Specify the time and date for the run. Then click **Run**. Review the run time and click **OK**.
    - To schedule at a recurring time, click **Save and schedule** and click **Finish**. Then, select frequency and start and end dates. Then click **OK**.

      Tip: To temporarily disable the schedule, select the **Disable the schedule** check box. To view the schedule status, see "Manage Scheduled Activities" on page 335.
    - To save without scheduling or running, click **Save only** then click **Finish**.

      When you run the import, you have the option of selecting to upgrade the report specification. If you choose not to upgrade the deployment specification at this time, you can upgrade it later. For more information, see "Upgrade Report Specifications" on page 373.

Results

After you run the import, you can test the deployment. You can also see the import run history "View the Run History for Entries" on page 338.

Modify an Existing Import Deployment Specification

You can modify an existing deployment specification.

Procedure

1. In the target environment, open IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Content Administration**.
4. In the **Actions** column, click the properties button  for the deployment specification you want to modify, and then click the **Import** tab.
5. Modify the deployment options as required.

   Tip: If you want to change the import target location, click the edit button  next to the import name in the **Target name** column, the **Public Folders content** section, and choose the package or folder you want.
6. Click **OK**.

Results

This saves the options and you can run the import now or at a later time. For more information, see "Run an Import."

Run an Import

After creating or modifying an import deployment specification, run the import.

Procedure

1. In the **Actions** column, click the run with options button  .
2. Click **Now** to run the import immediately, or click **Later**, and enter the time, that you want the import to run.
3. If you want to upgrade the report specifications, click **Upgrade all report specifications to the latest version**.

   You can also schedule a task to run on a recurring basis, and view a list of scheduled tasks. For more information, see Chapter 22, "Schedule Management," on page 343.
4. To specify how to assign content ids, under **Content IDs** select
   - **Assign new IDs during import** to replace the existing content ids with new ids
   - **Do not assign new IDs during import** to keep existing content ids on import

Results

You can now test the deployment.

Include Configuration Objects in Import of Entire Content Store

You can include configuration objects when importing an entire content store.

Before you begin

By default, configuration objects are excluded when you import an entire content store, even though they are included in the export. Configuration objects include dispatchers and configuration folders used to group dispatchers. For more information, see "Conflict Resolution Rules For Deploying the Entire Content Store" on page 362.

We recommend that you do not import configuration objects. Dispatchers should be configured in your target environment before you import data from a source environment. If you must import configuration objects, you should either stop the source dispatcher services before the import, or restart IBM Cognos software in the target environment after the import. Otherwise, you may get errors with the status of dispatchers. If you want to import configuration objects, you must be prepared for a brief interruption of services.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Dispatchers and Services**.
3. Click the dispatcher you want.
4. Next to **ContentManagerService**, click the set properties button.
5. Click the **Settings** tab.
6. In the **Value** column, click **Edit**.
7. Select the **Override the settings acquired from the parent entry** check box.
8. In the **Parameter** column that appears, type the following in uppercase:
   CM.DEPLOYMENTINCLUDECONFIGURATION
9. In the **Value** column, type **true**.
10. Click **OK** to finish.

Testing Deployed Applications

After you import the packages from the deployment archive, verify that all the entries were deployed successfully in the target environment.

You can test your deployment by

- reviewing the run history for a deployment
- ensuring that the correct packages and folders were imported along with their contents
- ensuring that the data sources, distributions lists and contacts, and Cognos groups and roles were imported
- verifying the permissions for the imported entries
- ensuring that the schedules were imported
- ensuring that any references to renamed packages were updated
- running imported reports and report views

Upgrade Report Specifications

If you did not upgrade report specifications when you ran the import wizard, you can upgrade them using the New Report Upgrade wizard.

Before you begin

Important: Do not upgrade your report specifications if you have Software Development Kit applications that create, modify, or save report specifications. You must first update your Software Development Kit applications to comply with the IBM Cognos report specifications schema. Otherwise, your Software Development Kit applications may not be able to access the upgraded report specifications. For information about upgrading report specifications, see the IBM Cognos Software Development Kit *Developer Guide*.

Procedure

1. Log on to IBM Cognos Connection as an administrator with execute permissions for the **Content Administration** feature "Set Access to a Secured Function or Feature" on page 267.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Content Administration**.
4. Click the arrow on the new content maintenance button  on the toolbar, and then click **New Report Upgrade**
5. Type a name for the upgrade task and, if you want, a description and screen tip. Click **Next**.
6. Select the packages and locations for the report specification you want to upgrade. Click **Next**.

   If you upgrade report specifications by package, all reports in the content store that are based on the model in the package will be upgraded. If you upgrade report specifications by folder, all reports in the folder will be upgraded.
7. Choose one of the following:
   - **Save and run once** opens the run with options page.
   - **Save and schedule** opens the scheduling tool.
   - **Save only** allows you to save the upgrade so that you can run it at a later time.

Content ID assignment

When you run an import deployment, you can choose how to assign content IDs for objects in the content store.

Objects in the content store have content IDs that are deleted and replaced with new IDs by default when you run an import deployment and move content to a target environment. However, there may be situations when you must preserve content IDs, for example, when archiving report output to an external report repository. If so, you can choose to preserve content IDs when you run the import. For more information about how to assign IDs when importing objects, see "Run an Import" on page 372.

Preserving content IDs can be applied to a partial deployment or a deployment of the entire content store.

Content ID conflicts

When you retain existing content IDs, conflicts can occur on import. Here are the conflict situations that can occur.

Table 8. Conflict with matching content ID

Information	Details
Description	When an imported object exists in the target environment in a different location but with an matching content ID, the ID is not preserved on import but replaced with a newly generated ID. The object that exists in the target environment could be another version of the same object or it could be a completely different object.
Warning	A warning message will describe that the content was not preserved and, if the security privileges allow, will identify which object in the target environment is in conflict. No information is issued about how to resolve the conflict.
Resolution	To resolve any content ID conflicts, you can • Make no changes to content IDs after import and keep IDs as they are. Any links for the imported object would now point to the target environment object which most likely is an older version of the same object. If the content ID for the imported object is not referenced from outside the content store, then there will be no broken external references after the import. The imported object will continue to exist as a separate object. • Delete the imported object and the object in the target environment. If the object is re-imported, the object is added to the same location with its content ID. • Manually update the target object with properties from the imported object. Any links for the object are preserved as the content ID will not have changed. The imported object could then be deleted.

Table 9. Conflict with different content ID

Information	Details
Description	When an imported object exists in the target environment in a same location but with a different content ID, the ID will be preserved on import and will replace the existing ID in the target environment.
Warning	No warning message is issued.
Resolution	Note that all existing external references to the target content ID, if any, are permanently lost when the content ID is replaced.

Deploy Human Task and Annotation Services

Content for the Human Task and Annotation services are stored separately from the main content store. This content may be stored in the same database as the content store as different tables or in a separate database. To deploy this content, scripts are used, rather than the deployment tool.

The procedure in this topic describes using scripts to deploying human task and annotation service content. For information about using scripts to deploy IBM Cognos Business Insight comments, see “Deploying IBM Cognos Business Insight comments” on page 376.

You deploy them by running a batch file, which retrieves your human tasks or annotations from a source database. Then you run another batch file to install them on a destination server.

Procedure

1. Create task data in your database by creating a selection of tasks pointing to valid reports.

   For instructions on creating user tasks, see the IBM Cognos Event Studio *User Guide*. For more information about annotations (comments), see the IBM Cognos Dashboard *User Guide*.
2. On the source server, open a command prompt in *c10_location*/bin.
3. Run the file htsDeployTool with the following arguments:

   `htsDeployTool -camUsername` *camUsername* `-camPassword` *camPassword* `-camNamespace` *camNamespace* `-exportFile` *exportFileName* `-password` *exportFilePassword*

   where:

   - *camUsername* is the username for the namespace.
   - *camPassword* is the user password for the namespace.
   - *camNamespace* is the name of the namespace.
   - *exportFileName* is the name of the export file that will be created, for example, HumanTaskExportFile1.
   - *exportFilePassword* is the password for the export file.

   Enclose arguments that contain spaces in quotes. Precede special characters with a backslash. For example:

   ```
   htsDeployTool -exportFile "jan\'s file" -password test2Password
   -camNamespace default -camUsername myId -camPassword myPassword
   ```

   To allow anonymous access, omit the -cam arguments.

   To export annotations, add the argument `-persistenceUnit annotations`. For example:

   ```
   -camPassword <camPassword> -camNameSpace <camNamespace> -exportfile
   AnnotationExportFile1 -password <exportFilePassword> -persistenceUnit
   annotations.
   ```
4. Check to make sure that the file <exportFileName>.xml.gz was created in *c10_location*/deployment. For example, HumanTaskExportFile1.xml.gz. Copy it.
5. On the destination server, paste the file <exportFileName>.xml.gz in *c10_location*/deployment.
6. On the destination server, open a command prompt in *c10_location*/bin and run the file htsDeployTool with the following arguments:

   `htsDeployTool -camUsername` *camUsername camPassword* `-camNamespace` *camNamespace* `-importFile` *importFileName* `-password` *importFilePassword*

   where:

   - *camUsername* is the username for the namespace.
   - *camPassword* is the user password for the namespace.
   - *camNamespace* is the name of the namespace.
   - *importFileName* is the name of the file that you created in step 3.
   - *importFilePassword* is the password for the file that you created in step 3.

   See additional syntax tips in step 3.

Deploying IBM Cognos Business Insight comments

You can deploy IBM Cognos Business Insight comments using the following procedure.

Procedure

1. On the computer that has the annotations that you want to deploy, export the content store. For information about exporting a content store, see "Create a New Export Deployment Specification" on page 367.
2. On the source server, open a command prompt in the c10_location/bin folder.
3. In the bin folder, run the file named htsDeployTool with the following arguments:

   htsDeployTool -persistenceUnit annotations -camUsername *camUsername* -camPassword *camPassword* -camNamespace *camNamespace* -exportFile *exportFileName* -password *exportFilePassword*

   where

   camUsername is the username for the namespace

   camPassword is the user password for the namespace

   camNamespace is the name of the namespace

   exportFileName is the name of the export file that will be created, for example, HumanTaskExportFile1 Example: htsDeployTool -persistenceUnit annotations -exportFile myFile -password test2Password -camNamespace default -camUsername myId -camPassword myPassword

   To allow anonymous access, omit the -cam arguments.
4. Check to make sure that the file *exportFileName*.xml.gz was created in c10_location/deployment. For example, HumanTaskExportFile1.xml.gz. Copy it.
5. On the destination server, import a deployment. For information about deployment and import specifications, see "Deployment Specifications" on page 351.
6. On the destination server, paste the file *exportFileName*.xml.gz in c10_location/deployment.
7. On the destination server, open a command prompt in c10_location/bin and run the htsDeployTool with the following arguments: htsDeployTool -persistenceUnit annotations -camUsername *camUsername* -camPassword *camPassword* -camNamespace *camNamespace* -importFile *importFileName* -password *importFilePassword*

   where

   camUsername is the username for the namespace

   camPassword is the user password for the namespace

   camNamespace is the name of the namespace

   importFileName is the name of the export file that you created in step 3

   importFilePassword is the password for the file that you created in step 3

Storing and reporting on IBM Cognos Business Insight comments

This topic provides information about storing and reporting on Business Insight comments.

Storing comments

Comments are stored within their own database tables which can be either in the same database as the content store or in a separate database. The Human Task and Annotation Services property in IBM Cognos Configuration defines the database connection to the database where the annotation tables are stored. If a database

connection for Human task service and Annotation service property is not specified, the annotation tables are created in the content store database.

The Human Task and Annotation Services property also defines the database connection for the Human task service tables. However, although the human task service and Annotation service share a database connection, the annotation and human task tables are separate. Annotation tables are prefixed with ANS_ and human task service tables are prefixed with HTS_.

Users are provided scripts to export and import annotation and human task data from the tables to the destination IBM Cognos server. The scripts facilitate activities such as, backing up and restoring comments, and deploying comments between servers.

Reporting on comments

In IBM Cognos Business Intelligence, there is no view or IBM Cognos Framework Manager model representation of Business Insight comments included out of the box. However, you can create a model based on the Annotation service database tables in Framework Manager. The tables, which are simple, can be used to find the comment or annotation text, the person who created the comment, the date that the comment was created, and the report with which the comment is associated. You can also report on the context of a comment by creating a report model or query for the schema where the comments are stored. The dimensions, dimension members, metadata items, and data items would constitute the context of the annotation in the report.

Chapter 24. Packages

You can use packages to group the data that is used for reports and to define a subset of data that is relevant to a certain group of users. For example, a package might contain information that is relevant to marketing managers for market research. The package can then be distributed to report authors by publishing it to the portal. When you run a report, the result depends on the data source that is defined in the package.

Administrators can create packages from IBM Cognos Administration. Data modelers can use Framework Manager to create models for similar purposes.

You can also create a package from IBM Cognos Connection and view the data sources that are used by a package. For example, you can organize packages in folders, create shortcuts to packages, hide, and move or copy packages.

Data Modeling

Data modelers can use Framework Manager to create models for similar packages.

A model is a data structure that contains imported data from one or more data sources. IBM Cognos data modelers use Framework Manager to create models.

For more information about creating models and packages in Framework Manager, see the Framework Manager User Guide. You might also want to refer to the information on data tree settings in "Data Trees".

For information about setting object capabilities for a package, see "Object Capabilities".

Data Trees

Data trees can contain many hierarchical levels and items (members).

If all levels and members appear, the data trees might be difficult to use. After packages are deployed to IBM Cognos software, you can specify how data trees appear in the studios. For more information, see Chapter 23, “Deployment,” on page 351

The settings do not affect the model. They affect only the package configuration. The settings for a package are obtained by the studios when a report is opened. The settings are also obtained when an Analysis Studio analysis is opened in IBM Cognos Viewer.

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Setting	Purpose
Default member limit in a data tree level	In Analysis Studio, specifies the number of members that appear at one time in one level of the data tree. For example, if this is set to 10, and the maximum member limit is set to 20, Analysis Studio users see only the first ten members and must click **More** to see the next ten. At this point, they see the maximum number and they must then search for a specific member. If your data tree has only 50 members, you may want to set this to 55 so that users do not have to click a link to see all members. Default: 20
Maximum member limit in a data tree level	For all studios, specifies the maximum number of members that appear in one level of the data tree. If a member does not appear in the data tree, the user can search for that specific member. If your data tree is large, you might want to set this to a low number so that users can find the member they are looking for faster when they are searching. Default: 50

Creating a Package

You can create packages for SAP BW and PowerCube data sources from IBM Cognos Connection.

Packages are listed in Public Folders or My Folders, along with your other entries. You can perform the same kinds of functions on packages as you can on your other entries.

For information about controlling which users can create packages using capabilities, see “Set Entry-Specific Capabilities ” on page 267. For information about setting object capabilities for a package, see Chapter 17, “Object Capabilities,” on page 271.

You can create and publish packages using Framework Manager. For information, see the Framework Manager *User Guide*.

Create a Package

You can create a package for SAP BW and PowerCube data sources from IBM Cognos Connection.

If you are an administrator, you can also create a package from IBM Cognos Administration.

To perform this task, you must have execute permissions for the **Self Service Package Wizard** capability. For instructions, see Chapter 16, "Secured Functions and Features," on page 261. You must enable the self service package capability for any data sources that you want to show up in the list. For instructions, see "Select Which Data Sources Can Be Used to Create a Package" on page 385.

Create a Package from IBM Cognos Connection

The procedure to create a package from IBM Cognos Connection is as follows.

Procedure

1. In IBM Cognos Connection, click **Public Folders** or **My Folders** and then click the **New Package** icon in the upper right corner.
2. Select the data source that you want to use in the package and click **OK**.

   The **New Package Wizard** appears. Proceed with the steps to "Create a Package for a PowerCube" or "Create a Package for SAP BW" on page 382.

Create a Package from IBM Cognos Administration

The procedure to create a package from IBM Cognos Administration is as follows.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.

   Tip: If you are creating a package at the end of "Data Source Creation" on page 197, go directly to step 3.
2. On the **Configuration** tab, click **Data Source Connections**.
3. Click **More** beside the data source, then click **Create a Package**.

   The **New Package Wizard** appears. Proceed with the steps to "Create a Package for a PowerCube" or "Create a Package for SAP BW" on page 382.

Create a Package for a PowerCube

Before you can use a PowerCube data source in any of the IBM Cognos studios, you must create a package.

When you create a PowerCube data source from IBM Cognos Administration, you are given the option to create a package using your new data source. You can also create a package for an existing PowerCube data source.

Note: You can also create a package while publishing PowerCubes from Transformer. For more information, see the Transformer *User Guide*. You can also create and publish packages using Framework Manager. For information, see the Framework Manager *User Guide*.

To perform these tasks, you must have execute permissions for the Data Source Connections secured feature. For instructions, see Chapter 16, "Secured Functions and Features," on page 261.

Procedure

1. Complete the steps in "Create a Package" on page 380.
2. Enter a name for the package, and click **Next**.
3. Select the null-suppression options you want to make available to the IBM Cognos studio user:
   - **Allow Null Suppression** enables suppression.

- **Allow Multi-Edge Suppression** allows the studio user to suppress values on more than one edge.
- **Allow Access to Suppression Options** allows the studio user to choose which types of values will be suppressed, such as zeros or missing values. By default, all null values are suppressed when suppression is enabled.

4. Click **Finish**.

Create a Package for SAP BW

Before you can use a SAP BW data source in any of the IBM Cognos studios, you must create a package.

When you create a SAP BW data source from IBM Cognos Administration, you are given the option to create a package using your new data source. You can also create a package for an existing SAP BW data source. For more information, see "Data Source Creation" on page 197.

To edit a SAP BW package after it is created, see "Edit a SAP BW Package" on page 383.

To set the maximum number of objects used in SAP BW packages, see "Set the Maximum Number of Objects Used in SAP BW Packages" on page 383

To perform these tasks, you must have execute permissions for the Data Source Connections secured feature, see Chapter 16, "Secured Functions and Features," on page 261.

You can set how many objects can be used in a SAP BW package. For information about creating and publishing packages using Framework Manager, see the Framework Manager *User Guide*.

Create a SAP BW Package

The procedure to create a SAP BW Package is as follows.

Procedure

1. Complete the steps in "Create a Package" on page 380.
2. Enter a name for the package, and click **Next**.
3. Select the objects to include in the package.

   There is a limit on the number of objects that you can select. By default, you can select a maximum of 2 cubes and 5 info queries.
4. To import SAP BW queries that contain dual structures and use the structures in IBM Cognos queries to control the amount and order of information that your users see, click **Enable SAP BW Dual Structures support**.

   For more information about dual structures, see the Framework Manager *User Guide*.
5. Click **Next**.
6. Select the languages to include in the package and click **Next**.

   If it is possible that the package might not contain the content locales of users, select the **Design Language** that is used as the default locale.
7. Specify the object display name.
8. To have objects in the model organized the same way that they are organized in Business Explorer Query Designer, click **Enhance the package for SAP BW organization of objects**.

9. Click **Finish**.
10. When **Package successfully created** appears, you have two options:
    - If you want to edit variable properties or reselect the metadata used in the package, click **Edit the SAP BW variables for the package after closing this dialog**. Continue with step 11.
    - Click **Close** to finish.
11. If there are variables for the package, the **Edit SAP BW Variables** page appears.

    Click the value you want to edit, then select or type the new variable.
12. Click **Save**.

Edit a SAP BW Package

The procedure to edit a SAP BW Package is as follows.

Procedure

1. Click **More** beside the package, then click **Edit Package**.
2. Select on of the following options:
    - To modify metadata selections, click **Modify metadata selections**. Return to step 5 in "Create a SAP BW Package" on page 382.
    - To edit the package variables, click **Edit variables**. Click the value you want to edit, then select or type the new variable. Click **OK**.
    - To modify the package settings, click **Modify package settings**, and select **Use Dynamic Query Mode**.

Set the Maximum Number of Objects Used in SAP BW Packages

You can set the maximum number of cubes and info queries that can be included when a SAP BW package is created.

The longer a SAP BW import takes, the more time the server spends processing the request, which could have an impact on its performance for other applications. Find a balance between the number of cubes and info queries commonly needed by users and the potential impact on server performance.

The following (case-sensitive) parameters are available:

- **com.ibm.cognos.metadatauiservice.sap.maxcubes**

  The maximum number of cubes that can be used in a SAP BW package. Valid settings are zero and greater. The default is 2.
- **com.ibm.cognos.metadatauiservice.sap.maxInfoQueries**

  The maximum number of info queries that can be used in a SAP BW package. Valid settings are zero and greater. The default is 5.

For more information about SAP BW data sources and creating SAP BW packages, see Chapter 8, "Data Sources and Connections," on page 167.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. In the upper-left corner of the **Scorecard** pane, click the arrow to view the Change view menu, and then click **Services**.
5. Click **Metadata** .

6. Click the arrow next to **Metadata service** to display the **Actions** menu, and click **Set properties**.
7. Click the **Settings** tab.
8. Next to **Advanced Settings**, click **Edit** .
9. Select **Override the settings acquired from the parent entry**.
10. In the **Parameter** column, type the parameter name.
    For example, type **com.ibm.cognos.metadatauiservice.sap.maxcubes**.
11. In the **Value** column, type the associated value for the setting.
12. Continue typing setting names and values as required.
13. Click **OK**.
14. On the **Set properties** page, click **OK**.

View Data Sources Used by a Package

You can view the data sources that are used by a package.

You can view data sources for packages that are in the **Public** folder only, not in **My Folders**.

If you want to see if the package is using dynamic query mode for a data source, check the **Properties** page for the package.

Before you begin

You must have set policy permission on the package and traverse and read permission on the model.

If you have read access for the data source, the localized name of the data source is shown with its associated icon. If you do not have read access for the data source, **Unavailable** is displayed instead of the name.

If you have the Data Source Connection capability and the data source referenced in the package does not exist, **Unavailable** is displayed with the default icon and the data source name in square brackets. If you do not have the Data Source Connection capability, **Unavailable** is displayed instead of the name.

Procedure

1. Start IBM Cognos Connection.
2. Find the package in the **Public** folder and click **More**.
3. In the **Actions** column, click **View the package data sources**.
   A list of the data sources for the package is displayed under **View the data sources consumed by this package**.

Configure or Reconfigure a Package

After a new package is deployed, the default settings are used. You can configure a new package to use different settings or you can modify the settings of an existing package configuration at any time.

You must have Administration capability. You must have write and traverse permission for the package. To modify the package configuration, you must also have write permission for package configuration. For more information, see “Set Permissions for Package Configuration” on page 385.

Procedure

1. In IBM Cognos Connection, locate the package you want.
2. In the **Actions** column, click **More**.
3. Click **New package configuration** or **Modify the package configuration**.
4. Click **Select an analysis**.
5. Select the default analysis to be used for this package when a new analysis is created.
6. Click **OK**.
7. Change the package settings as required and click **Finish**.

Set Permissions for Package Configuration

To modify a package configuration, you must have write permission for package configuration.

For more information on permissions, see Chapter 15, "Access Permissions and Credentials," on page 253.

Procedure

1. In IBM Cognos Connection, locate the package you want.
2. In the **Actions** column, click **More**.
3. Click **Modify the package configuration**.
4. Click the **Permissions** tab.
5. Click **OK**.

Remove a Package Configuration

After you configure a new package, you can remove the configuration at any time.

You might want to do this to return to the default settings.

You must have write and setPolicy permissions on the package. For more information, see "Set Permissions for Package Configuration."

Procedure

1. In IBM Cognos Connection, locate the package you want.
2. In the **Actions** column, click **More**.
3. Click **Remove the package configuration**.
4. Click **OK**.

Select Which Data Sources Can Be Used to Create a Package

You can select which data sources can be used to create a package.

Before you begin

You must have administration permissions to set the property on a data source. You can only use the **Self Service Package Wizard** if you have execute permissions for it. For more information, see "Set Access to a Secured Function or Feature" on page 267.

Procedure

1. Beside the data source, click **Properties** .
2. Click the **Connection** tab and click **Allow personal packages**.

Chapter 25. Managing User Profiles

User profiles define the portal tabs, including Public Folders and My Folders that a user can access in IBM Cognos Connection. They also specify user preferences, such as the product language, preferred output format of reports, and the style used in the user interface.

A user profile is created when the user logs on to IBM Cognos software for the first time. It can also be created by an administrator. Initially, the profile is based on the default user profile.

Users can view and change the preferences associated with their profile in IBM Cognos Connection. For more information, see "Personalize the Portal" on page 304.

To copy, edit, or delete user profiles, an administrator must have write permissions for the namespace that contains the applicable users. The IBM Cognos predefined role, **Directory Administrators**, does not have write permissions for namespaces other than the **Cognos** namespace. **System Administrators** must grant write permissions to **Directory Administrators** so that they can administer user profiles for the namespace "System Administrators" on page 276.

To manage user profiles, you must have the required access permissions for **IBM Cognos Administration**. For more information, see Chapter 16, "Secured Functions and Features," on page 261.

Note: User entries are created in authentication providers. For more information, see Chapter 14, "Users, Groups, and Roles," on page 247.

Related concepts

Chapter 7, "Server Administration," on page 103
You can perform the server administration tasks that help you manage and maintain your IBM Cognos system and tune performance.

Related tasks

"Personalize the Portal" on page 304
You can personalize the way data appears in IBM Cognos Connection by changing your preferences. For example, you can set the product language and the preferred output format of reports.

Edit the Default User Profile

The default user profile is defined in the **Cognos** namespace. It contains settings that apply to all new users. You can edit the default user profile for your users to minimize the number of changes you need to make to individual user profiles.

After you change the default user profile, it applies only to users who log on to IBM Cognos software for the first time. The existing user profiles of other users are not affected.

For more information, see "Hide Inaccessible Tabs Referenced in the User Account Preferences" on page 624.

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Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Click the **Cognos** namespace.
4. On the toolbar, click the edit default user profile button  .
5. Set the default user profile and click **OK**.

Results

Each user who logs on to IBM Cognos software for the first time will automatically inherit these settings but can change them later.

View or Change a User Profile

You can view or change user profiles. You can also delete specific items in the user's profile, such as the content of My Folders or pages.

This may be useful in the following situations:

- The content in the user's **My Folders** or pages is taking up so much space that performance is affected. You want to delete some or all of the content.
- You want to view a user profile before deleting it to ensure that you do not delete any important content.

If a user was deleted in your authentication provider, the user no longer appears in IBM Cognos software and you cannot change the user profile.

You can only see the profiles of users who logged on at least once. When users log on, a date is displayed in the **Modified** column.

To view a user profile, delete content, or change content, you must have traverse permissions for the user account and any other folder that must use **Public Folders**. You must also have write permissions for the entry and the parent of the entry that you want to delete.

You can change the user profile for individual users, but not for groups or roles.

View or Change a User Profile

You can view or change a user profile.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Click the namespace that contains the user.
4. Find the user whose preferences you want to view or change. You can use the Search feature to find a user “Searching for entries using name, description, and name or description” on page 302.
5. In the **Actions** column, click **More**.
6. Click **Set preferences**.
7. Click the different tabs to view or change the settings.

8. Click **Cancel** to exit without making changes, or make changes and click **OK**.

Delete Content

You can delete specific items in the user's profile, such as the content of My Folders or pages.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Select the namespace that contains the user.
4. Find the user.

   You can use the Search feature to find a user "Searching for entries using name, description, and name or description" on page 302.
5. In the **Name** column, click the user name.

   Tip: If the user name is not a link, it means that the user profile was not created. To create the profile, in the **Actions** column, click the create this user's profile button  , and proceed with the rest of the steps.

   A list of the user's folders appears.
6. Click a folder to see its contents.
7. Click the item that you want to delete from the folder, and click the delete button on the toolbar.

   You cannot delete the folders themselves.

Delete a User Profile

You can delete user profiles from the content store.

When deleting a user in your authentication provider, you may first want to delete the user profile from the content store so that it no longer uses storage space.

You should delete the user profile from IBM Cognos software before deleting the user in the associated namespace. After the user is deleted, the user information no longer appears in IBM Cognos software and you cannot manage the user profile in **IBM Cognos Administration**.

If the user account was already deleted from the associated namespace, you can use content store maintenance "Maintain the Content Store" on page 123 to find, and optionally remove, all associated user account information from IBM Cognos software.

If a user with a deleted user profile logs on, an account is created using defaults. If a user is logged on while the associated user profile is being deleted, the user's passport expires and the logon page appears.

Before you delete a user profile, you may want to view its contents "View or Change a User Profile" on page 388 to ensure that you are not deleting anything important.

You can work only with profiles of users who logged on at least once. When users log on, a date is displayed in the **Modified** column and the user name changes into a link.

Before you begin

To delete a user profile, you must have write permissions for the parent object.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Click the namespace that contains the user.
4. Find the user whose user profile you want to delete. You can use the Search feature to find a user "Searching for entries using name, description, and name or description" on page 302.
5. In the **Actions** column, click **More**.
6. Click **Delete this user's profile**.
7. Click **OK**.

Copy a User Profile

You may want to copy a user profile.

Copying a user profile is useful in the following situations:

- A user changes names and you are setting up an account in the new name.
- A user moves to another namespace or your organization changes namespaces and you must set up new accounts.
- You are creating many new similar user accounts.

If you plan to delete the source user in your authentication provider, copy the user account information before you delete it. After you delete the user, the user no longer appears in IBM Cognos software and you cannot copy the user's account information.

You can only work with profiles of users who have logged in at least once. When users log on, a date is displayed in the **Modified** column and the user name changes into a link.

Before you begin

To copy user profiles, you must have write permissions for the namespaces for both the source and target users.

Note: When you copy a user profile, trusted credentials are not copied.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Click the namespace that contains the source user (the user you want to copy from).

   Tip: You can select only the namespaces that you have write access to.
4. Find the source user. You can use the **Search** feature to find a user "Searching for entries using name, description, and name or description" on page 302.
5. In the **Actions** column for the source user, click **More**.

6. In the **Perform an action** page, click **Copy this user's profile**.
7. In the **Copy the user profile** page, click **Select the target user** and navigate to find the target user.
8. After you have selected the target user, in the **Copy the user profile** page, select one or more of the following profile settings that you want to copy: **Preferences**, **Portal tabs and personal folders content**, or **Personal folders content**.
9. If required, select the **Delete the source user's profile after the copy completes** check box.
10. Click **Copy**.

Chapter 26. Administering Microsoft Office Documents

Microsoft Office users can import data from IBM Cognos Business Intelligence reports into workbooks, presentations, and documents using IBM Cognos for Microsoft Office and then publish the workbooks, presentations, and documents to the IBM Cognos portal. For more information, see the IBM Cognos for Microsoft Office User Guide and the IBM Cognos Analysis for Microsoft Excel User Guide. IBM Cognos Connection users can then download the workbooks, presentations, and documents for viewing or editing in the Microsoft Office application that was used to create it.

Note: The only way to publish Microsoft Office workbooks and presentations in IBM Cognos BI is to use IBM Cognos for Microsoft Office or IBM Cognos Analysis.

Before users can import IBM Cognos BI data into Microsoft Office documents or publish those documents in the IBM Cognos portal, you must deploy the IBM Cognos for Microsoft Office and IBM Cognos Analysis client to the users' workstations.

Deploying IBM Cognos for Microsoft Office Client

IBM Cognos for Microsoft Office is available for installation with IBM Cognos BI components. After IBM Cognos BI is installed and configured, you can install IBM Cognos for Microsoft Office on client workstations.

IBM Cognos for Microsoft Office is available for installation with IBM Cognos BI components. After IBM Cognos BI is installed and configured, you can deploy IBM Cognos for Microsoft Office to client workstations.

IBM Cognos for Microsoft Office Client is available as a 32-bit installation only. It must be installed on a 32-bit Windows computer.

When you deploy IBM Cognos for Microsoft Office, you install Microsoft .NET Framework and the support files using the provided setup executable and then configure security as required.

IBM Cognos for Microsoft Office Client is available as a 32-bit installation only. It must be installed on a 32-bit Windows computer.

Deploying IBM Cognos for Microsoft Office to Client Computers

IBM Cognos for Microsoft Office uses Microsoft .NET Framework to allow users to interact with server-based components. Microsoft .NET Framework and the required updates are downloaded and installed by the setup file when you install IBM Cognos for Microsoft Office. The setup file must be run on all user computers.

For a list of supported versions of Microsoft .NET Framework, see the IBM Cognos Customer Center (http://www.ibm.com/software/data/cognos/customercenter/).

Use the following checklist to guide you through the deployment process:

- Install .NET Framework and IBM Cognos for Microsoft Office.

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For more information about installing IBM Cognos for Microsoft Office, see the IBM Cognos for Microsoft Office *Installation Guide*.

- Set the macro security level for Microsoft office XP, if required.
- Install the CA certificate for secure sockets layer support, if required.

Set Macro Security Level for Microsoft Office XP

For Microsoft Office XP applications to run IBM Cognos for Microsoft Office, you must set your macro security level to an appropriate level. You must set this for Microsoft Office Excel, Microsoft Office Word, and Microsoft Office PowerPoint.

Procedure

1. Open your Microsoft Office XP application.
2. From the **Tools** menu, click **Macros**, and then click **Security**.
3. Choose whether to change the security level or the trusted publishers.
   - On the **Security Level** tab, click **Medium** or **Low**, and then click **OK**
   - On the **Trusted Publishers** tab, select **Trust all installed add-ins or templates**, and then click **OK**.

Install the CA Certificate for the HTTPS Interface to Series 7 PowerPlay

If your environment includes IBM Cognos Series 7 PowerPlay Enterprise Server and you are using the HTTPS (https://) interface to access Series 7 PowerPlay, you must install a certificate issued by a certificate authority (CA). The CA certificate is required for secure sockets layer (SSL) support.

Procedure

1. Retrieve the CA certificate from your administrator.

   The file has a .cer extension.
2. Double-click the .cer file, click **Install Certificate**, and then click **Next**.
3. Click **Place all certificates in the following store**.
4. Click **Browse**, click **Trusted Root Certification Authorities**, and then click **Next**.
5. Click **Finish**.

Download a Microsoft Office Document

You can download a Microsoft Office document from IBM Cognos Connection if it was published in IBM Cognos Business Intelligence using IBM Cognos for Microsoft Office or IBM Cognos.

For more information, see the IBM Cognos for Microsoft Office User Guide and the IBM Cognos Analysis for Microsoft Excel User Guide.

Before you begin

You must have read and traverse permissions to access Microsoft Office documents in IBM Cognos Connection.

For more information, see Chapter 16, “Secured Functions and Features,” on page 261.

About this task

You can download documents created in Microsoft Office Excel spreadsheet software, Microsoft Office PowerPoint and Microsoft Office Word. The default action for any Microsoft Office document is to download it.

Procedure

1. In IBM Cognos Connection, locate the document that you want to open.
2. Click **more** on the actions toolbar to the right of the document that you want to download.

   The IBM Cognos Connection actions page opens.
3. Download the Microsoft Office document:
   - For a Microsoft Office workbook, click the **View most recent document in Excel** object.
   - For a Microsoft Office presentation, click the **View most recent document in PowerPoint** object.
   - For a Microsoft Office word document, click the **View most recent document in Word** object.
   - For a Microsoft Office document of unknown type, click the **View most recent document** object.

   The **File Download** dialog box appears.
4. Click **Open** or **Save** and follow the prompts that appear.

   When you open the document, it opens in the application that was used to create it.

Results

You can now perform the same actions that you would perform for any Microsoft Office document of the selected type.

Chapter 27. Reports and Cubes

You can use reports, cubes, and documents to analyze data and help you make informed and timely decisions.

In IBM Cognos Business Intelligence, reports and cubes can be published to the portal to ensure that everyone in your organization has accurate and relevant information when they need it.

Query Studio and Report Studio Reports

Typically, for Query Studio and Report Studio reports, your data modeler creates models from subsets of corporate data. These models are then published as packages in IBM Cognos BI. Your administrator can also create packages based on relevant data sources and you can create packages in IBM Cognos Connection. For more information about packages, see Chapter 24, "Packages," on page 379.

Query Studio and Report Studio users can create reports based on the packages and publish them in IBM Cognos BI. In IBM Cognos Connection, a Query Studio report is called a query and a Report Studio report is called a report.

OLAP sources do not need additional modeling.

Analysis Studio Reports and Cubes

An Analysis Studio administrator can publish Analysis Studio reports and cubes in IBM Cognos BI. Analysis Studio users can create reports and publish them in IBM Cognos BI. In IBM Cognos Connection, an Analysis Studio report is called an analysis.

Working with Reports and Cubes

A report can refer to the specification that defines the information to include in a report, or the results themselves. For Report Studio and Query Studio, report specifications can have saved results or you can run a report to produce new results. For Analysis Studio, reports are always run against the latest data in the cube.

After a report is published to the portal, you can view, run, or open it or view report output versions. You can also view the report in various formats.

You can distribute reports by saving them, sending them by email, sending them to your mobile device, printing them, or bursting them. You can also set run options for the current run, and set advanced run options for the current run.

You can create an ad hoc report using Query Studio or you can use Report Studio to define layouts, styles, and prompts for your report. You can also create Analysis Studio reports (analyses).

You can schedule a report to run at a later time or on a recurring basis. You can schedule a report as part of a job or based on a trigger. You can view the run

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history for a report. For more information, see “View the Run History for Entries” on page 338. You can also include a report in an agent Chapter 28, “Agents,” on page 441.

You can add yourself to the alert list for a report so that you are alerted when new versions of the report are created. You can also specify watch rules in saved HTML report output so that you are alerted whenever the events specified by the watch rules are satisfied.

You can disable selection-based features, such as drilling up and down and drill-through.

Mixed Currencies

Mixed currency values occur when you calculate values with different currencies. When using an OLAP data source, mixed currency values use the asterisk character (*) as the unit of measure.

Accessibility for the Disabled

We are committed to assisting people with disabilities, and promotes initiatives that make workplaces and technologies accessible. IBM Cognos BI provides an accessible report reading solution. This solution allows disabled users and users of Assistive Technology the ability to access and display reports in IBM Cognos Viewer.

Series 7 Reports and Cubes

For information on working with Series 7 reports and cubes in IBM Cognos BI, see “Series 7 Reports in IBM Cognos Connection” on page 436.

IBM Cognos Active Reports

You can use IBM Cognos Report Studio to create active reports. IBM Cognos Active Report is a report output type that provides a highly interactive and easy-to-use managed report. Active reports are built for business users, allowing them to explore their data and derive additional insight.

Active reports make business intelligence easier for the casual user. Report authors build reports targeted at their users' needs, keeping the user experience simple and engaging. Active reports can be consumed by users who are offline, making them an ideal solution for remote users such as the sales force.

Active reports are an extension of the traditional IBM Cognos report. You can leverage existing reports and convert them to active reports by adding interactive behavior, providing end users with an easy-to-consume interface.

Like existing IBM Cognos reports, you can execute active reports from IBM Cognos Connection as well as schedule and burst them to users.

For more information, see the *Report Studio User Guide*.

View, Run, or Open a Report

You can view the most recent run of a report, run a report, or open a report in the authoring tool.

The default action is to view the most recent run of a report but you can select the default action that you prefer.

When you run a report in an export format such as PDF, delimited text (CSV), Microsoft Excel spreadsheet software (XLS), the IBM Cognos report name is used as the exported file name.

Before you begin

You must have execute permission to run a report. You must have read and traverse permissions for the folder that contains the report.

You may be requested to enter your data source credentials. For information on data source credentials, see "Trusted Credentials" on page 258.

Procedure

1. Open IBM Cognos Connection.
2. Click the report that you want.

   For more information about using PowerPlay Web Explorer, see PowerPlay Web *User Guide*.

   For information about using Analysis Studio, see the Analysis Studio *User Guide*.

Set Default Report Options

You can set certain actions as the default when a report is run.

The default report actions are

- view the most recent report or run if it has not been previously run (default)
- run the report
- open the report in the authoring tool that was used to create it (Query Studio, Report Studio, or Analysis Studio)

You can set default report options such as format and language. You can also set the default to prompt for values and run as the owner. For information about properties, see "Entry Properties" on page 285.

Before you begin

You must have execute permissions for the report. You must have read and traverse permissions for the folder that contains the report.

Procedure

1. In IBM Cognos Connection, click the set properties button  on the actions toolbar to the right of the report.
2. Click the **Report** tab for a Report Studio report, the **Query** tab for a Query Studio report, or the **Analysis** tab for a Analysis Studio report.
3. Under **Default action**, select the default action for when the report is run.
4. If you want to override report options, under **Report options**, click the **Override the default values** check box.

   You can change some or all of the options, such as format, language, and accessibility support.

For information about setting advanced PDF options, see “Set Advanced PDF Options for a Report” on page 404.

5. If you want to prompt for values to filter the data in the report, click select the **Prompt for values** check box under **Prompt Values**.

   Note: You are prompted for values only if the report specification or model includes prompts or if you have access to multiple data source connections or signons.
6. If you want to run the report using the owner credentials, click the check box next to the owner listed under **Run as the owner**. Click **Capabilities only** to run the report using only the owner capabilities and not the owner credentials. For more information, see “Running reports with report owner capabilities” on page 405.
7. To set additional report options, click **Advanced options**.
   - Under **Number of rows per Web page in HTML reports**, click the number of rows you want to allow.
   - To allow such features as drill up and drill down, drill through, IBM Cognos Search, watch rules, and agent notification when the report is viewed in IBM Cognos Viewer, select **Enable selection-based interactivity in HTML reports**.
   - If you want to allow the creation of additional output formats so that watch rules can be evaluated and saved output versions can be imported into IBM Cognos for Microsoft Office, select **Enable enhanced user features in saved output versions**.
   - If you want users to receive alerts when new report output is generated, select **Enable alerts about new versions**.
   - To create an expiry date for the report cache data, select Day or Month and type a corresponding number under Cache duration. Report cache data is created only if there is no cache data or if the cache data is expired.
8. Click **OK**.

Set Report Options for the Current Run

You can set certain options for the current run of a report.

The options include:

- report output format “Report Formats” on page 410
- language “Report Languages” on page 412
- delivery method “Distributing Reports” on page 430
- prompt for values “Specify the Default Prompt Values for a Report” on page 414

These options override the defaults for a report for a one-time run.

Tip: You can also force database access by clicking **More** next to the report, and then clicking **Clear the cache**.

You can change default run options for reports.

If you change the delivery method while a report is running, the run operation is canceled. The report is run again using the new delivery method that you select. This can be time-consuming for large reports. To save time, specify the delivery method before you run the report.

To specify a time for the report to run, to choose additional formats or more than one language, or for additional delivery methods, use advanced run options.

Before you begin

You must have execute permissions for the report you are attempting to run. You must have read and traverse permissions for the folder that contains the report.

Procedure

1. In IBM Cognos Connection, click the run with options button  on the actions toolbar to the right of the report you want to run.
2. Under **Format**, click the format that you want for the report output.
3. Under **Accessibility**, select **Enable accessibility support** to create accessible report output.
4. Under **Language**, click the language that you want for the report output.
5. Under **Delivery**, choose to view the report now, save the report, print the report, or send the report your mobile device.
6. If you choose to print, click **Select a printer**, click the button next to the printer you want to use, and click **OK**. If the printer is not listed, you can type the printer information.

   Tip: If you have administrator privileges and want to set up the printer for future use, click **New printer**. You must type the network address of the printer by using the format *server_name**printer_name* for a network printer on a Microsoft Windows operating system installation and *printer_name* for a UNIX operating system installation or for a local printer.
7. If you want to prompt for values to filter the data in the report, under **Prompt Values**, click the **Prompt for values** check box.

   You are prompted for values only if the report specification or model includes prompts or if you have access to multiple data source connections or signons.
8. Click **Run**.

Set Advanced Report Options for the Current Run

You can specify advanced run options for a report for the current run.

The advanced run options for a report include the following:

- time when the report should run
- multiple report output formats if you choose to run the report later and additional format choices for HTML and PDF"Report Formats" on page 410
- one or more languages "Report Languages" on page 412
- accessibility support "Enabling Accessible Report Output" on page 416
- one or more delivery methods "Distributing Reports" on page 430
- prompt for values "Specify the Default Prompt Values for a Report" on page 414
- burst the report "Distributing Reports" on page 430

The report runs in the background if you run the report later, select multiple report formats or languages, select to save, print or email the report, send the report to your mobile device, or burst the report. If you set your preferences to show a summary of the run options "Personalize the Portal" on page 304, the summary appears whenever the report is not run interactively.

The report runs in the background. When done, the output versions button appears next to the report on the **Actions** toolbar.

Tip: Click the output versions button  to view the selected formats. For more information, see "View Report Output Versions" on page 417.

Default options are set by the report author. You can change default run options for reports "Set Default Report Options" on page 399.

If you choose to save, print, or send the report by email, you can choose multiple formats. If you choose to run the report later, the delivery option is automatically changed to save. For more information on saving report output, see "Save Report Output" on page 415.

Before you begin

You must have execute permissions for the report you are attempting to run. You must have read and traverse permissions for the folder that contains the report. You need the appropriate permissions to set advanced run options.

Procedure

1. In IBM Cognos Connection, click the run with options button  on the actions toolbar to the right of the report you want to run.
2. Click **Advanced options**.
3. Under **Time and mode**, click **Run in the background**, and then click **Now** or **Later**. If you specify **Later**, set a date and time for the report to run.
4. Under **Format**, click the formats you want for the report output.
   - The Enable selection-based interactivity check box is selected by default. For information about deselecting this option, see "Disable Selection-based Interactivity" on page 429.
5. Under **Accessibility**, select **Enable accessibility support** to create accessible report output.
6. If you want to select a different or additional languages for the report, under **Languages**, click **Select the languages** and use the arrow keys to move the available languages to the **Selected languages** box and click **OK**.

   Tip: To select multiple languages, use the Ctrl key or use the Shift key.
7. Under **Delivery**, choose the delivery method that you want:
   - If you schedule a report for a future time, select multiple formats or languages, or burst the report. You cannot view the report now. Select one of the other delivery methods.
   - If you choose to print, click **Select a printer**. Click the button next to the printer you want to use and click **OK**. Or, if the printer is not listed, you can type the printer information.
   - If you choose to save using report view, you can change the name or destination folder of the report view. Click **Edit the save as options**, make the changes and click **OK**.
   - If you choose to email the report, proceed to step 7.

     Tip: If you have administrator privileges and want to set up the printer for future use, click **New printer**. You must type the network address of the printer by using the format *server_name**printer_name* for a network

printer on a Microsoft Windows operating system installation and *printer_name* for a UNIX operating system installation or for a local printer.

- If you choose to send the report to your mobile device, enter your **Mobile device ID**.

8. If you select **Send the report by email**, click **Edit the email options** and set the following options:
   - To display the blind copy field, click **Show Bcc**.
   - To choose IBM Cognos Business Intelligence recipients, click **Select the recipients**. Select the check box next to the names you want to include, and click **To**, **Cc** (copy), or **Bcc** (blind copy). The entries that you select are listed under **Selected entries**.

     Tip: To select all entries in a list, click the check box in the upper-left corner of the list. To remove names from **Selected entries**, select the check box next to the name and click **Remove**. To search, click **Search**. In the **Search string** box, type the phrase you want to search for. For advanced search features, click **Edit**. For more information, see "Searching for entries using name, description, and name or description" on page 302.

     When you are done, click **OK**.
   - To send the email to other recipients, in the **To:**, **Cc**, or **Bcc** boxes, type the email addresses separated by semicolons (;).

     Tip: If you logged on, your name automatically appears in the **To** list box.
   - Under **Subject**, type the subject of the email.
   - Under **Body**, type a message to be included in the email.

     Tip: By default, the body of the email is in HTML format, which provides advanced editing features such as font type and size, text color, text formatting and justification, numbers and bullets, indentation, and tables. To use plain text, click **Change to plain text**.

     Note: Note: To insert HTML format from an external source, you must view the text in a Web browser, and then copy and paste the rendered HTML into the e-mail body. If HTML text is manually typed in the body of the e-mail, the markup is treated as plain text. For security reasons, the email options dialog accepts a limited set of HTML elements and attributes. If your pasted HTML is not accepted by the validation schema you might receive the following error message: `The "VALIDATE" transform instruction could not validate the given XML content.`
   - To include a hyperlink to the report, select the **Include a link to the report** check box. To include the report as an attachment, select the **Attach the report** check box.
   - Click **OK**.

     You can prevent users from including attachments. For more information, see "Disable Report Attachments in Email Messages" on page 647.
9. If you want to be prompted for values to filter the data in the report, under **Prompt Values**, select the **Prompt for values** check box.

   If you run the report later, the prompt values you provide are saved and used when the report runs.

   Note: You are prompted for values only if the report specification or model includes prompts or if you have access to multiple data source connections or signons, even if the Prompt for values check box is selected.
10. Under **Bursting**, specify whether the report should be bursted.

This option is available only if the report author defined burst keys in the report.

11. Click **Run**.

Set Advanced PDF Options for a Report

Using the advanced PDF options, you can control access to the PDF report output and the report contents.

Before you begin

You must have administrator privileges to the report to use the advanced options.

Procedure

1. In IBM Cognos Connection, click the set properties button on the actions toolbar to the right of the report you want to run.
2. Click the **Report** tab for a Report Studio report, the **Query** tab for a Query Studio report, or the **Analysis** tab for a Analysis Studio report.
3. Click the **Override the default values** check box.
4. Under **PDF options**, click **Set**.
5. In the **Set the PDF options** page, select the PDF properties you want for the report, and click **OK**.

Property	Description
Orientation	Specifies the report orientation, which is portrait or landscape
Paper size	Specifies the paper size, such as legal or letter
Requires a password to open the report	Specifies the password to open the report
Requires a password to access options	Specifies the password for accessing report options, such as whether to allow printing, modifying the report contents, and copying text

Results

When you run the report, the PDF settings are applied. For example, if you specified a password to open the report, then users must enter the password before viewing the contents of the report.

You can now customize PDF format printing for UNIX and Linux server platforms. For more information, see Customizing Server-side Printing for UNIX and Linux Platforms.

Running reports with report owner capabilities

When running a report as the owner, you can use the capabilities granted to the owner of the report, even if you do not have the capability yourself. The owner capabilities that can be granted let you add HTML items in reports, add user-defined SQL, and generate bursted reports.

Before you begin

Before you can run a report as the owner, the report owner must create trusted credentials to authorize you to use their credentials. For more information, see "Create Trusted Credentials" on page 258.

About this task

If a report, for example, uses HTML items or user-defined SQL, the corresponding capabilities **HTML Items in Report** and **User Defined SQL** are required to run the report. These capabilities are normally granted to a limited set of users, because the potential to create reports with malicious intent using either HTML or SQL is high. Selecting the **Capabilities only** option of the **Run as the owner** option allows consumers of a report to run it using specific capabilities of the owner, even if they do not have the required capabilities themselves. This differs from **Run as the owner** option in that it includes only the owner's capabilities and excludes other aspects of the owner's security context, such as access to data sources.

During normal report execution, the permissions and capabilities used to run a task are that of the caller making the run request. When **Run as the owner** option is selected, users other than the owner can run a task that requires access to privileged data. The task runs using the security credentials of the owner, not those of the user running the task. When the **Capabilities only** option is selected, users other than the owner can run a task that requires additional capabilities. The task runs using the capabilities of the owner, not those of the user running the task.

Procedure

1. In IBM Cognos Connection, click the **Set properties** icon  on the actions toolbar.
2. Click the **Report** tab for a Report Studio report, the **Query** tab for a Query Studio report, or the **Analysis** tab for a Analysis Studio report.
3. Select the check box next to the owner listed under **Run as the owner** and then click **Capabilities only**.

Results

When the **Capabilities only** option is selected, the report runs using only the owner capabilities and not the owner credentials. The credentials of the report user, not the report owner, are used to run the report.

Create a Report

You can create reports to analyze data and answer specific questions related to your business.

Use Query Studio to intuitively explore data by creating ad hoc reports. Report Studio is a comprehensive report authoring environment. Use it to create both

highly interactive and sophisticated production reports for mass consumption by specifying queries and layouts for each report. Use Analysis Studio for analyses.

Access to the report authoring tools is controlled by the capabilities defined for your logon. If you require access to the report authoring tools but the links are not available on the top navigation bar, contact your system administrator.

An existing report may contain most of the information you require, but you may need new prompt values or changes to the layout or style. Instead of creating a new report, you can create a report view to satisfy your requirements.

For instructions about using the studios, see the following guides:

- Query Studio *User Guide*
- IBM Cognos Report Studio *User Guide*
- IBM Cognos Analysis Studio *User Guide*

Before you begin

Before creating a report, confirm that the package containing the data for your report is available in the portal. If you do not have access to the package, contact your administrator.

Tip: A package is identified by the package icon  .

You must have write and traverse permissions for the folder in which you want to save the new report.

Procedure

1. In IBM Cognos Connection, choose whether you want to create a simple or complex report:
   - To create a simple report, in the upper right corner, click the **Query Studio** link  .
   - To create a complex report, in the upper right corner, click the **Report Studio** link  .
   - To create an Analysis Studio report, in the upper right corner, click the **Analysis Studio** link  .
2. If the **Select Package** dialog box appears, do one of the following to select the package containing the data you want to use in your report:
   - In the **Recently used packages** list, click the package.
   - In the **List of all packages** list, navigate to the package and click it.

Creating a Query Studio Report Without Using Actual Data

You can create a report without accessing the data that will eventually be used in the report.

Query Studio's preview mode lets you create or modify reports without retrieving actual data from the database. Instead, simulated data is shown.

For more information about preview mode, see the Query Studio *User Guide*.

You can make preview mode the default for Query Studio. For more information, see “Start Query Studio in Preview Mode” on page 632.

Create a Report View

You can create a report view, which uses the same report specification as the source report, but has different properties such as prompt values, schedules, delivery methods, run options, languages, and output formats.

Creating a report view does not change the original report. You can determine the source report for a report view by viewing its properties. The report view properties also provide a link to the properties of the source report.

If the source report is moved to another location, the report view link is not broken. If the source report is deleted, the report view icon changes to indicate a broken link  , and the properties link to the source report is removed.

If you want to use a generic report as the underlying structure for additional reports, make a copy of the report “Copy an Entry” on page 294. If you want a report to appear in more than one location, create a shortcut “Create a Shortcut” on page 282.

Before you begin

To create a report view, you must have execute or read permissions for the original report.

Procedure

1. In IBM Cognos Connection, locate the report you want to use to create the report view.
2. Under **Actions**, click the report view button  next to the report.
3. In the **Name** box, type the name of the entry.
4. If you want, in the **Description** and in the **Screen tip** box, type a description of the entry.

   The description appears in the portal when you set your preferences to use the details view “Personalize the Portal” on page 304. The screen tip, which is limited to 100 characters, appears when you pause your pointer over the icon for the entry in the portal.
5. If you do not want to use the target folder shown under **Location**, click **Select another location** and select the target folder and click **OK**.
6. Click **Finish**.

Results

In the portal, report view entries are identified by the report view icon  .

The report view has the same run options and properties as the original entry. To change the default properties of a report view, see “Set Default Report Options” on page 399. For information about properties, see “Entry Properties” on page 285.

View Lineage Information for a Data Item

Lineage information traces the metadata of a data item in an HTML report or a report view back through the package and the data sources used by the package.

Lineage also displays any data item filters that were added by the report author, or that were defined in the data model. For example, you can click a cell in a crosstab to see how the cell value was calculated.

You can view the data item's lineage in the **Business View** or in the **Technical View**.

The business view shows high-level textual information that describes and explains the data item and the package from which it comes. This information is taken from IBM Cognos Connection and the Framework Manager model.

The technical view shows a graphical representation of the lineage of the selected data item. The lineage traces the data item from the package to the data sources used by the package. When you click the item, its properties appear at the bottom of the page. If you click an item in the **Package** area, you see the item's model properties. If you click an item in the **Data Sources** area, you see the item's data source properties.

You cannot view lineage information when running a report from a mobile device.

IBM Cognos Business Intelligence can be configured to use the default lineage solution that comes with the product, or a custom lineage solution. IBM InfoSphere Metadata Workbench is also supported.

To access lineage information in a report, an administrator must configure the lineage solution, enable the **Lineage** capability, and grant read permissions for you on the report.

For more information, see "Configure the Lineage Solution" on page 158, Chapter 16, "Secured Functions and Features," on page 261, and Chapter 17, "Object Capabilities," on page 271.

The IBM Cognos lineage solution shows lineage on reports at their highest level. The lineage does not change after drilling down on a report. Because the selection context used to launch lineage can be affected by drill-down actions, we recommend that you always launch lineage at the highest report level before drilling down on the report. Otherwise, the lineage may not launch properly.

Procedure

1. Open an HTML report or report view in IBM Cognos Viewer.
2. Right-click the data item you want, and click **Lineage**.
   The lineage views appear.

Access the IBM InfoSphere Business Glossary

If you already use the IBM InfoSphere Business Glossary, you can access the Glossary from IBM Cognos Viewer, and from the metadata tree in Report Studio, Query Studio and Analysis Studio.

Before you begin

Before you can access the Glossary, you must have permissions for the **Glossary** capability, and the Glossary URI must be configured by an administrator.

For more information, see Chapter 16, "Secured Functions and Features," on page 261, Chapter 17, "Object Capabilities," on page 271, and "Configure the IBM InfoSphere Business Glossary URI" on page 160.

Procedure

1. Open an HTML report or report view in IBM Cognos Viewer.
2. Right-click the data item you want, and click **Glossary**.

Editing a Report

You can use the IBM Cognos Business Intelligence authoring tools to edit an existing report.

You may want to change the report layout, style, or font. The report may need to be updated because of changes to the data or to add language support.

If the report was created in Report Studio, you can edit the report in Report Studio. If the report was created in Query Studio, you can edit the report in either Query Studio or Report Studio. If you edit a Query Studio report in Report Studio, you cannot go back and edit the report in Query Studio. For more information about modifying reports, see the IBM Cognos Report Studio *User Guide*, and the Query Studio *User Guide*.

If the report was created in Analysis Studio, you can edit the report in either Analysis Studio or Report Studio. If you edit an Analysis Studio report in Report Studio, you cannot go back and edit the report in Analysis Studio. For more information about modifying Analysis Studio reports, see the Report Studio *User Guide*, and the Analysis Studio *User Guide*.

The edit button differs depending on whether the report is a Query Studio report  , a Report Studio report  , or an Analysis Studio report  .

Editing a report modifies the report specification so that everyone who views the report sees the changes you made.

Report properties, such as the preferred output format, language, prompt values, or report retention, can be specified by changing the run options in the portal "View, Run, or Open a Report" on page 398. For information about properties, see "Entry Properties" on page 285.

If you want to use a generic report as the underlying structure for additional reports, make a copy of the report "Copy an Entry" on page 294. If you want a report to appear in more than one location, create a shortcut "Create a Shortcut" on page 282. If you want to keep the underlying report specifications but want the choice of another report format, language, delivery method, or run option, create a report view "Create a Report View" on page 407.

You must have read and write permissions for the report you are attempting to edit. You must have traverse permissions for the folder containing the report.

Edit a Report in IBM Cognos Connection

In IBM Cognos Connection, you can open and edit an existing report in the authoring tool that was used to create it.

Procedure

1. Open IBM Cognos Connection.
2. Click the **Open** button on the **Actions** menu for the report you want to edit.

Results

The report opens in the authoring tool used to create the report.

Edit a Query Studio Report in Report Studio

In IBM Cognos Connection, you can open and edit a Query Studio report in Report Studio.

Procedure

1. Click the **More** link on the **Actions** toolbar.
2. Click **Edit with Report Studio.**

Report Formats

You can choose the output format for a report.

You may want to view reports in a browser, or you may want the report in a format that is easily imported into another application.

You can specify the default format to be used when a report is run "Set Default Report Options" on page 399. All shortcuts to a report acquire the default format from the source entry.

You can specify the report format in the run options page "Set Report Options for the Current Run" on page 400, in the report properties "Entry Properties" on page 285, or in your preferences "Personalize the Portal" on page 304. When you run a report without specifying run options, the format specified in the report properties is used. When it is not specified in the report properties, the format specified in your preferences is used.

XHTML and some PDF formats are only available when you set advanced run options "Set Advanced Report Options for the Current Run" on page 401. You can also select multiple formats when you set advanced run options.

To specify the report format, you must have read and write permissions for the report and traverse permissions for the folder that contains the report.

HTML Formats

You can choose HTML output format for a report.

You can select from the following HTML formats:

- HTML for standard HTML formatting
- HTML fragment if you must embed the HTML in an existing Web page
- XHTML for HTML that is passed through a parser

To select an HTML fragment and XHTML or the number of rows per web page, see "Set Advanced Report Options for the Current Run" on page 401.

XML Format

XML report outputs save the report data in a format that conforms to an internal schema, xmldata.xsd.

You can find this schema file in c10_location/bin.

This format consists of a dataset element, which contains a metadata element and a data element. The metadata element contains the data item information in item elements. The data element contains all the row and value elements.

You can create models from reports and other data that conform to the xmldata.xsd schema. This is useful if you want to use a report as a data source for another report, or if you use a database that cannot be read by Framework Manager. In this case, export the data from the data source to an XML file, in conformance with the xmldata schema, and then open the XML file in Framework Manager.

For more information, see the Framework Manager *User Guide*.

PDF Format

Use the PDF format to view and distribute reports in an online book format.

You must have administrator privileges to specify the advanced PDF options.

For more information about setting advanced PDF options, see "Set Advanced PDF Options for a Report" on page 404.

Microsoft Excel Formats

IBM Cognos Business Intelligence can produce reports in Microsoft Excel spreadsheet software format.

The following Excel format options are available:

- **Excel 2007** produces reports that you can view in Microsoft Excel version 2007.
- **Excel 2002** produces reports that you can view in Microsoft Excel versions earlier than 2007.

Excel 2007 format renders report output in native Excel XML format, also known as XLSX, that provides a fast way to deliver native Excel spreadsheets to Microsoft Excel 2002, Microsoft Excel 2003, and Microsoft Excel 2007. Users of Microsoft Excel 2002 and Microsoft Excel 2003 must install the Microsoft Office Compatibility Pack, which provides file open and save capabilities for the new format. The output is similar to other Excel formats, with the following exceptions:

- Charts are rendered as static images.
- Row height can change in the rendered report to achieve greater fidelity.
- Column width that are explicitly specified in reports are ignored in Microsoft Excel 2007.
- Merged cells are used to improve the appearance of reports.

Excel 2002 format also offers the following benefits:

- Works with SSL protocol.

- Works with a single signon.

  Secure reports can be accessed without subsequent signons because the system automatically identifies users and provides security information.
- Works with Netscape 7.01.
- Spreadsheets are contained in a single file for reliable spreadsheet navigation.

By default, Excel 2002 spreadsheets sent by email are created in Excel Multipart HTML format with the .mht file extension. Administrators can change the default file extension to .xls using an advanced settings paramenter. For more information, see "Change the Default File Extension for Excel 2002 Spreadsheets" on page 650.

CSV Format

Reports saved in delimited text (CSV) format open in the application associated with the.csv file type, usually Microsoft Excel spreadsheet software, Microsoft Windows Wordpad, or Star Office.

Reports saved in CSV format

- are designed to support Unicode data across many client operating systems
- are UTF-16 Little Endian data-encoded
- include a BOM (Byte Order Mark) at the beginning of the file
- are tab-delimited
- do not enclose strings in quotation marks
- use a new line character to delimit rows
- show only the results of a report query. Page layout items, such as titles, images, and paramDisplay values do not appear in the CSV output.

You can modify the CSV output format to suit your environment. For more information about customizing the functionality of IBM Cognos software, see "Modify Properties for the CSV Output Format" on page 638.

Report Languages

You can choose the languages for a report.

You can specify the report language on the run options page, in the report properties, or in your preferences. When you run a report, the language specified in the report properties is used. When it is not specified in the report properties, the language in your preferences is used.

You can run a report using the default language "View, Run, or Open a Report" on page 398, select a different language for a single run of the report "Set Report Options for the Current Run" on page 400, or select more than one language for a report "Set Advanced Report Options for the Current Run" on page 401.

You can add multilingual properties for each of the entries in the portal "Add Multilingual Properties" on page 413. You can specify the default language to be used when a report is run "Set Default Report Options" on page 399.

Selecting a language for your report does not change the language used in the portal. You can change the language used in the portal interface by personalizing the portal "Personalize the Portal" on page 304. All shortcuts to a report acquire the default language from the source entry.

When a report runs, the report server connects to the underlying data source to obtain data. When using an SAP BW data source, if the SAP BW server does not support the language associated with your content locale, IBM Cognos Business Intelligence checks a locale map for a corresponding locale. If the SAP BW server supports the language for the corresponding locale, this language is used. Otherwise, the report runs using the default language installed on the SAP BW server.

To specify the report language, you must have read and write permissions for the report and traverse permissions for the folder that contains the report Chapter 15, "Access Permissions and Credentials," on page 253.

The package used to create the report must contain multilingual data before the report outputs are shown in the selected languages. For more information about packages, see Chapter 24, "Packages," on page 379.

Add Multilingual Properties

You can set multilingual properties for each of the entries in the portal.

You can add a name, screen tip, and description for each of the locales defined by your administrator. A locale specifies linguistic information and cultural conventions for character type, collation, format of date and time, currency unit, and messages.

If the entry has multilingual properties defined for the selected language, the entry shows the properties. If the entry does not have multilingual properties defined, they are empty.

For information about changing the language to be used by the portal, see "Personalize the Portal" on page 304.

Procedure

1. In IBM Cognos Connection, click the set properties button  next to the entry you want to change.
2. Click the **General** tab.
3. Under **Language**, select a language from the list.

   Languages that already have multilingual properties defined appear at the top of the list above a separator line.
4. If you want, type a description in the **Name**, **Description**, and **Screen tip** box.

   The name appears in the list of portal entries. The description appears when you set your preferences to use the details view "Personalize the Portal" on page 304. The screen tip, which is limited to 100 characters, appears when you pause your pointer over the icon for the entry in the portal.

   Tip: To remove multilingual properties for a language, select the language in the list and click **Remove values for this language**.
5. Click **OK**.

Specify the Default Language for a Report

To specify the default language for a report, change the report properties.

Procedure

1. In IBM Cognos Connection, click the set properties button  next to the report you want to change.
2. On the **Report options** tab, under **Language**, select the default language from the list box and click **OK**.

Specify the Default Prompt Values for a Report

You can use prompt values to specify the range of data included in a report when it is run, for example, a date range.

You may be prompted for values if the report author defines prompts in the report or if there is more than one connection or signon. For information about adding prompts to reports, see the IBM Cognos Report Studio *User Guide*, the Query Studio *User Guide*, or the Analysis Studio *User Guide*.

If you are the report author, you can create default prompt values for a report. When the report is run, the data is automatically filtered based on the prompt values that you specify. The user does not have to specify prompt values when the report is run. You may find this useful if most users use the same prompt values each time they run a report.

If you have write access to a report and change the prompt values, those values are saved for everyone running the report after you. If you consistently use prompt values that differ from the majority of users, create a report view of the report "Create a Report View" on page 407 in your personal folders.

By default, you are prompted for values each time the report runs. You can change this in the report properties "Entry Properties" on page 285 or when you set run options for a report "Set Report Options for the Current Run" on page 400.

Before you begin

To set default prompt values, you must have read and write permissions for the report and read or traverse permissions for the folder that contains the report.

Procedure

1. In IBM Cognos Connection, click the set properties button  next to the report you want to change.
2. On the **Report** tab for Report Studio reports, the **Query** tab for Query Studio reports, or the **Analysis** tab for Analysis Studio reports, under **Prompt values**, click either **Set** or **Edit**.

   If the report does not have saved prompt values, the run options show **No values saved** and clicking **Set** results in a message indicating that the report does not contain prompts.
3. Select the default value for the prompts and click **OK**.
4. If you want to be prompted each time the report is run, select the **Prompt for values** check box.

   If the check box is selected, you will be prompted for values if the report contains prompts or if you have access to multiple data source connections or signons.

If the check box is not selected and the report is run interactively, you will be prompted only if there are missing values or if you have access to more than one connection or signon. The report will have missing values if saved prompts or default prompts were specified for the report.

If the check box is not selected and the report is run in the background, the report fails if prompt values are missing.

5. Click **OK**.

Save Report Output

You select how to save report copies as a delivery option.

All report output is stored automatically in IBM Cognos Business Intelligence. You may also be able to save copies of reports in other file locations:

- in IBM Cognos BI so that it can be used again and for archive purposes
- outside of IBM Cognos BI for use in external applications such as web sites and for use by people who don't have access to IBM Cognos BI

You can also choose how to save a report when you schedule it Chapter 22, "Schedule Management," on page 343.

Before you begin

Before you can save report output to file locations, your administrator must set up the locations.

For more information about setting up file locations, see "Saved Report Output" on page 153.

Procedure

1. In IBM Cognos Connection, click the run with options button  on the actions toolbar to the right of the report you want to run.
2. Click **Advanced options**.
3. Under **Time and mode**, click **Run in the background**, and then click **Now** or **Later**.
4. Under **Delivery**, choose where you want to save your report:
   - To save a copy in IBM Cognos BI, click **Save**. Then, click **Save the report** or **Save the report as report view**. If you choose to save as report view, you can a change the name or destination folder of the report view. Click **Edit the options**, make the changes and click **OK**.
   - To save a copy outside IBM Cognos BI, click **Save to the file system**. To change the report name, click **Edit the options**. You can also change how file conflict is resolved. Click **Keep existing files** to not overwrite existing files, **Replace existing files** to simply overwrite existing files. Click **Make the file names unique and append a timestamp** or **Make the file names unique and append a sequence number** to avoid overwriting existing files by making new files with unique timestamps or sequence numbers and click **OK**.
5. If more than one file location is defined, select the location where you want to save from the **Location** list.
6. Click **Run**.

Enabling Accessible Report Output

Accessible reports contain features, such as alternate text, that allow users with disabilities to access report content using assistive technologies, such as screen readers.

In IBM Cognos applications, you can create accessible output for reports, jobs, steps within jobs, and scheduled entries in PDF, HTML, and Microsoft Excel spreadsheet software 2007 format.

For information about specifying system-wide accessibility settings, see "Enable Accessible Report Output Using System-wide Settings" on page 157. For information about enabling accessibility features in Report Studio, see the Report Studio *User Guide*.

Accessible reports require more report processing and have a greater file size than non-accessible reports. Consequently, making reports accessible can have a negative impact on performance.

Enable accessible report output using the run option

To run the report once with accessibility features, use the IBM Cognos Connection run option.

Procedure

1. In IBM Cognos Connection, click the run with options button  on the actions toolbar to the right of the report you want to run.
2. Under **Accessibility**, select **Enable accessibility support**.

Enable accessible report output using set properties

To always run the report with accessibility features, set accessibility using the IBM Cognos Connection properties for the report..

Procedure

1. In IBM Cognos Connection, navigate to the report, and in the **Actions** column, click **Set properties**.
2. On the **Report** tab, under **Report Options**, select **Enable accessibility support**.

Enable accessible report output as a user preference

If you want report consumers to be able to enable accessibility features for all of their reports, set accessibility in IBM Cognos Connection as a user preference.

Accessibility settings in the report properties overwrite this setting.

Procedure

1. In IBM Cognos Connection, click the my area options icon  , and click **My Preferences**.
2. On the General tab, click **Enable accessibility support for reports I run or schedule**.

Enable accessible output for a scheduled entry

You can enable accessible report output in IBM Cognos Connection for a scheduled entry.

Procedure

1. In **IBM Cognos Connection**, click the schedule button  for the entry you want to schedule.
2. Under **Options**, select **Override the default values**.
3. Under **Accessibility**, select **Enable accessibility support**.

Enable accessible output for a job

You can enable accessible report output in IBM Cognos Connection for a job.

Procedure

1. In IBM Cognos Connection, in the **Actions** column, click the set properties button  for the job.
2. Click the **Job** tab and under **Defaults for all steps**, click **Set**.
3. Click **Report options**.
4. If it is not already selected, select **Specify default values for all the reports of this job**.
5. Under **Accessibility,** select **Enable accessibility support**.

Enable accessible output for a step in a job

You can enable accessible report output in IBM Cognos Connection for a step in a job.

Procedure

1. In IBM Cognos Connection, in the **Actions** column, click the set properties button  for the job.
2. Click the **Job** tab and in the **Steps** section, select the step.
3. In the **Options and prompt values** column, click the edit icon  for the step.
4. Under **Report options**, select **Override the default values**, and select **Enable accessibility support**.

   Note that the report options specified for the step appear in the **Options and prompt values** column in the **Job** tab. To edit the report options again, click the edit icon. To revert to the default settings, click the clear icon  .

View Report Output Versions

You can choose which version of output to view.

Reports are run directly against the data source so that they reflect the latest data. However, viewing the most recent data may not always meet your needs. You may want to view older data. For example, you may want to compare monthly sales volume for a product before and after new features are added.

The report output is saved when a report runs in the background. A report cannot be viewed at the time it is run when it

- runs later
- has multiple formats or languages
- has a delivery method of save, print, or email
- is a burst report

Report output versions can have multiple report formats. For information, see "Report Formats" on page 410. By default, the list contains report output versions for the language that is defined in your content locale. If no report versions are found for that language, report formats for all languages are shown. If you specify a language and there is no report output version for that language, then the **Formats** list is empty.

If burst keys are used, they appear next to the report format sorted by burst key and then by language.

You can specify how long you want to keep report output. For information, see "Specify How Long to Keep Report Output Histories" on page 419.

Procedure

1. In IBM Cognos Connection, click the view report output versions button  next to a report that has multiple output versions.
2. On the **Current** tab, choose the output version that you want to view:
   - To show report formats in a specific language or all languages, click **Languages** and select from the list.
   - To show a different output version, select the version from the **Versions** list.
   - To show the current version, from the **Formats** list, click the report format.

   Tip: To delete a version that you have write access to, select the version that you want to delete, and click **Delete** .
3. If you want to download a report output version, click the download icon in the **Actions** column.

   You control the report output formats that are available for download. For more information, see "Customize Report Output Formats in IBM Cognos Connection and IBM Cognos Viewer" on page 622.

Viewing archived report output

If report output versions have been archived to an external repository for long-term storage, you can view the report output versions in the repository provided you have sufficient permissions.

About this task

When a data source connection to an external repository is specified for a package or folder, report output versions are copied automatically to the repository. Report content may also be archived by the administrator using a content archival task. To view archived content, users must have execute and traverse permissions for the **View external documents** secured feature of the **External Repository** capability.

By default, the archived content is filtered so that only report content from the last month displays. To view older versions of report content, you can apply a custom filter.

Bursted report output that is archived cannot be viewed on the **Archived versions** tab.

Tip: To view older versions of bursted reports, increase the number of versions that can be accessed in IBM Cognos Connection using retentions rules.

Procedure

1. In IBM Cognos Connection, click the view report output versions button  next to a report that has multiple output versions.
2. Click the **Archived versions** tab.
3. Click the **Select date range** hyperlink and in the **Select date period** dialog box, select a date or date range of time for the output versions.
4. From the **Versions** list, choose the output version that you want to view:
   - To show report formats in a specific language or all languages, click **Languages** and select from the list.
   - To show a different output version, select the version from the **Versions** list.
   - To show the current version, from the **Formats** list, click the report format.

Specifying how long to keep report output versions

You can specify the number of report output versions to keep and the number of days or months they should be kept.

Procedure

1. Click the set properties button  next to the entry you want.
2. On the **General** tab, under **Report output versions**, choose the retention method and type the value:
   - To keep report output for a specific number of occurrences, click **Number of occurrences** and type the number. To save an unlimited number of report outputs, set this value to 0.
   - To keep report output for a specific length of time, click **Duration** and click either **Days** or **Months**. Type the appropriate value in the box.

Specify How Long to Keep Report Output Histories

You can keep report output for a specific number of runs or for a specific number of days or months.

For example, you can keep the report output for the ten latest occurrences or you can keep the report output for the 2 days or 6 months. You can also choose to keep all report output.

Before you begin

You must have read and write permissions for the entry and read or traverse permissions for the folder that contains the entry.

Procedure

1. Click the set properties button  next to the entry you want.
2. On the **General** tab, under **Run history**, choose the retention method and type the value:
   - To keep report output for a specific number of occurrences, click **Number of occurrences** and type the number. To save an unlimited number of report outputs, set this value to 0.
   - To keep report output for a specific length of time, click **Duration** and click either **Days** or **Months**. Type the appropriate value in the box.
3. Click **OK**.

Specifying an external repository for report output

Report output can be archived to an external report repository for long-term storage. You must specify a repository at the folder and package level before content can be archived to the repository.

To specify a repository, a connection to the repository must exist and you must have sufficient privileges to select the repository. You must have execute permission for the secured feature **Manage repository connections** for the **External Repositories** capability. When a connection is specified, any new report output versions are automatically copied to the external repository.

If a data source connection to an external repository is specified already, it can be overridden and another repository selected. If you no longer want to archive content in the package or folder, you can remove the reference to the connection using the **Clear** option. Here is an example. A subfolder acquires a repository connection from the parent folder by default. However, either you do not want the contents of the subfolder to be archived, or you do not want the contents of the subfolder archived to the repository specified for the parent folder. To exclude the contents of a subfolder from being archived, use the **Clear** option. To use a different repository from the parent folder, specify a connection for the subfolder.

You can also create a data source connection to an external repository for a folder or package if the repository exists and you have sufficient permission to create a repository connection. For more information, see "External repository data sources" on page 230.

Procedure

1. With a folder or package selected, click Set properties icon.
2. On the **General** tab, go to the **Report repository** section.
3. To specify a data source or change an existing data source, select **Override the report repository acquired from the parent entry**.
4. Under **Connection**, click **Select a connection**.
5. In the **Select the data source (Navigate)** window, select the data source.

Enable an Alert List for a Report

Granting permission for an alert list lets the report user decide whether to be alerted when new versions of the report output become available.

Whenever the report is run and report output is saved, the report user is alerted by email as a Bcc recipient. The email contains a link to the latest report output.

The alert list is independent of any distribution lists associated with the report "Creating Distribution Lists and Contacts" on page 432.

Before you begin

To grant permission for an alert list, you must have write permission.

The permission to enable an alert list for a report does not extend to a report view associated with the report. You must grant permission for the report view independently.

Procedure

1. In IBM Cognos Connection, click the set properties button next to the report for which you want to enable an alert list.
2. On the **Report** tab for Report Studio reports, the **Query** tab for Query Studio reports, or the **Analysis** tab for Analysis Studio reports, click **Advanced options**, and then click the **Enable alerts about new versions** check box.
3. Click **OK**.

Results

Users can now add their names to the alert list for notifications of the report outputs.

Adding or Removing Yourself from the Alert List for a Report

You can add yourself to an alert list for a report and be notified when changes occur. You can also remove yourself from the alert list for a report.

By adding yourself to the alert list for a report, you receive an email notification when new versions of the report output are saved. In this way, you can monitor changes in the output of reports that are of interest to you. If you no longer want to receive notifications about new versions of a report, you can remove yourself from an alert list.

In the email, you are included as a Bcc recipient. The email contains a link to the latest report output.

Being on the alert list is independent of any distribution lists associated with the report "Creating Distribution Lists and Contacts" on page 432.

You can view and manage the alert list for a report as a watch item.

Add Yourself to an Alert List in IBM Cognos Connection

You can add yourself to an alert list in IBM Cognos Connection.

You can add yourself only once to the alert list for a report.

Before you begin

Before you can add yourself to an alert list for a report, the report owner must enable the alert list. To receive alerts, you must have an email address defined in

the **My Preferences**, **Personal** tab or in your LDAP security profile (used only in special circumstances). Also, you must belong to the same namespace as the person who schedules the report.

Procedure

1. In the portal, locate the report.
2. In the **Actions** column, click **More**.
3. In the **Perform an action** page, click **Alert me about new versions**.
4. Click **OK**.

Results

In the **My Watch Items** area of the portal, note the change in the watch list.

Remove Yourself from an Alert List in IBM Cognos Connection

You can remove yourself from an alert list in IBM Cognos Connection.

Procedure

1. In IBM Cognos Connection, click **My Area Options**, **My Watch Items**.
2. On the **Alerts** tab, from the list of alerts, select the alerts to delete.
3. Click **Remove me from the alert list**.

Add or Remove Yourself from an Alert List in IBM Cognos Viewer

You can add or remove yourself from an alert list in IBM Cognos Viewer.

Procedure

1. Open the saved report output.
2. On the toolbar, under **Watch New Versions**, click **Alert Me About New Versions** or **Do Not Alert Me About New Versions**.

Remove Users From an Alert List

Report authors can remove any users who are currently on the alert list for a report. When users are removed from an alert list, they are no longer alerted when new versions of the report become available.

Procedure

1. In the portal, locate the report.
2. In the **Actions** column, click **More**.
3. In the **Perform an action** page, click **Do not alert any about new versions**.

Watch Rules in Saved Reports

Report users define watch rules in IBM Cognos Viewer so that they can monitor events of interest to them in saved reports. .

You can view and edit watch rules in a single location from the **My Watch Items** area in IBM Cognos Connection

Watch rules are based on numeric event conditions that are evaluated when a report is saved, not when the report runs interactively. When an event condition is satisfied, an email message or news item alerts the report user. Alternatively, the report user can alert other users by sending notifications to their task inbox.

You can create event conditions using numeric measures only in saved HTML reports. You can define an unlimited number of conditions for a report. The conditional report output uses the same locale information as the report that contains the event condition.

The report owner must enable watch rules for the report "Enable Watch Rules for a Report" before a report user can create watch rules and send alerts.

To create watch rules, the report user must have read and traverse permissions to the report output.

Enable Watch Rules for a Report

Enabling watch rules lets the report user specify conditions in saved HTML report output, and send alerts based on these conditions.

For information about creating a watch rule, see "Create a Watch Rule for a Specific Condition" and "Create a Watch Rule for Different Condition Status Indicators" on page 424.

Before you begin

You must have write permission for the report to enable watch rules for a report.

Procedure

1. In IBM Cognos Connection, click **Set properties**  next to the report.
2. On the **Report** tab for IBM Cognos Report Studio reports, or the **Analysis** tab for IBM Cognos Analysis Studio reports, under **Advanced options**, select both the **Enable selection-based interactivity in HTML reports** and **Enable enhanced user features in saved output versions** check boxes.

   Selecting these options specifies that additional context information is saved with the report output.
3. Click **OK**.

Results

Report users can now run the report and save the output in HTML format before creating watch rules.

Create a Watch Rule for a Specific Condition

You can set up a watch rule to send an alert when a specific condition in a saved report is satisfied.

For example, you could set up a watch rule that sends an alert when sales figures for a product fall below a specific level.

Note: You can only create watch rules for reports saved in HTML format.

Before you begin

You must have read and traverse permissions to the report output to create watch rules.

Procedure

1. Run the required report and save the output in HTML format.

   For more information, see "Set Report Options for the Current Run" on page 400.
2. In the IBM Cognos Connection portal, open the saved HTML report in IBM Cognos Viewer.
3. In the report, right-click a numeric data item and then click **Alert Using New Watch Rule**.
4. In the **Specify the rule - Alert Using New Watch Rule** page, select **Send an alert when the report contains**.
5. In the conditional expression, from the drop-down list, select the expression to use for the watch rule, for example, `>= (greater than or equal)`, and specify a value in the box.
6. Under **For the selected context**, select the report items to which the rule applies.
7. Click **Next**.

Results

You must now set up the alert details for the watch rule. For more information, see "Define the Alert Details for the Watch Rule" on page 425.

Create a Watch Rule for Different Condition Status Indicators

You can set up a watch rule that sends alerts depending on a metric-like change in the performance status of a condition (good, average, or poor).

In this case, you set up thresholds to map a range of numeric values to performance status (good, average, and poor). You define the threshold boundaries, and the association between boundary values and status.

For example, you could set up a watch rule that sends different alerts to a sales team depending on the sales figures for a product. If sales fall below 50 (the minimum threshold), the performance is poor. The alert for poor performance may be to send an urgent notification to the sales manager to review the figures. When sales exceed 100 (the maximum threshold), the performance is good. The alert for good performance may be to distribute the sales figures to the team.

To set up the watch rule, use thresholds to map a range of numeric values to performance status. When setting up your threshold boundaries, you must decide whether low, medium, or high values are favorable for the condition. For example, if you are setting up a condition to monitor sales figures for a product, you would indicate that high values are favorable. This is known as the performance pattern.

You can only create watch rules in saved HTML reports.

Before you begin

You must have read and traverse permissions to the report output to create watch rules.

Procedure

1. In the IBM Cognos Connection portal, open the saved HTML report in IBM Cognos Viewer.
2. In the report, right-click a numeric data item, and then click **Alert Using New Watch Rule**.
3. In the **Specify the rule - Alert Using New Watch Rule** page, select **Send an alert based on thresholds**.
4. In the **Performance pattern** box, select the range of values to associate with "good performance" status.
5. In the **Threshold boundaries** box, specify the boundary values for the condition.

   Tip: For each boundary value, click the arrow attached to the numeric value box to adjust them as follows:

   - To include the specified boundary value in the higher threshold, click the up arrow.
   - To include the specified boundary value in the lower threshold, click the down arrow.
6. Under **For the selected context**, select the report items to which the rule applies.
7. Click **Next**.

Results

You must now set up the alert details for the watch rule. For more information, see "Define the Alert Details for the Watch Rule."

Define the Alert Details for the Watch Rule

When you have defined the type of watch rule that you are creating, you must define the type of alert that you want to generate.

You can choose one or more of the following options:

- **Send the report by email** to be alerted by email.
- **Publish a news item** to be alerted by news item.
- **Send a notification** to alert other users by sending notifications to their task inbox.

If you have set up a watch rule for different condition status indicators, you can define multiple alerts, depending on performance. For example, for average or poor performance, you could choose to be alerted both by email and by sending a notification to the sales manager to review the sales figures. For good performance, you could send a notification to the sales manager to distribute the figures to the sales team.

Procedure

1. In the **Specify the alert type - Alert Using New Watch Rule** page, specify the alerts to send when the rule is satisfied.

   Tip: To change the details for an alert type, click **Edit the options**.

2. If you have defined a watch rule for different condition status indicators, select the required check boxes to associate the alert with poor, average, or good performance.

   Performance is defined by the performance pattern.

   Click **Next**.
3. In the **Specify a name and description - Alert Using New Watch Rule** page, specify a name, description, screen tip, and location for the watch rule.

   Tip: You can organize watch rules in folders on the **Rules** tab of the **My Watch Items** area of the portal.
4. Click **Finish**.

View, Edit, or Delete a Watch Rule in IBM Cognos Viewer

You can use IBM Cognos Viewer to edit and delete watch rules you created in saved HTML reports.

For information about creating a watch rule, see "Create a Watch Rule for a Specific Condition" on page 423, and "Create a Watch Rule for Different Condition Status Indicators" on page 424.

You can also delete and edit watch rules from the **My Watch Items** area of the portal. For more information, see "My Watch Items" on page 307.

Before you begin

You must have write access to edit or delete a watch rule.

Procedure

1. Open the saved report output in IBM Cognos Viewer.
2. On the toolbar, click **Watch New Versions** and, then click
   - **Modify** to edit the watch rule. When the **Set properties** dialog box appears, proceed to step 3.
   - **Delete** to delete the watch rule, and then click **OK** to complete the deletion.
3. Click the **General** tab to change properties, such as the language, name, and description of the watch rule.
4. Click the **Rules** tab to edit the rules properties, such as the conditional expression for the rule, the items to which the rule applies, and the alert type.

Results

Changes made to a watch rule in IBM Cognos Viewer are also made in the **My Watch Items** area of the portal.

Comments in Saved Reports

Report users can add comments to saved reports using IBM Cognos Viewer.

Comments can be added to HTML, PDF and XML reports, but not Microsoft Excel spreadsheet software or CSV reports.

Comments are added to a specific version of a report and are deleted with that report version. The comments are not available in other versions of a report, unless they are manually added by a report user.

Comments are included when a report is viewed online or when a burst report is distributed via the portal, but they are not included in printed or emailed reports.

Before a user can add comments, the report owner must enable comments in saved output versions.

To add comments, a report user must have read permission to the report output. These comments are visible to all other users who have read permission to the report output. However, only the comment owner, or an administrator, can modify or delete comments.

Enable Comments in Saved Output Versions

Enabling comments lets a report user add comments to saved HTML, PDF or XML reports.

For information about adding comments, see "Add Comments to a Report Version in IBM Cognos Viewer."

Before you begin

To enable comments for a report, you must have write permission for the report.

Procedure

1. In IBM Cognos Connection, click **Set properties**  next to the report.
2. On the **Report** tab for Report Studio reports, the **Query** tab for Query Studio reports, or the **Analysis** tab for Analysis Studio reports, under **Advanced options**, select the **Enable comments in saved output versions** check box.
3. Click **OK**.

Results

You must now run the report and save the report output in HTML, PDF or XML format before users can add comments to it.

Add Comments to a Report Version in IBM Cognos Viewer

Use comments to add simple, unformatted text notes to saved reports.

You can add multiple comments to a report.

Comments can be added to HTML, PDF and XML reports only. You cannot add comments to other report formats.

Before you begin

You must have read permission to the report output to add comments to it.

Procedure

1. Open the saved report output in IBM Cognos Viewer.
2. On the toolbar, click **Add Comments** and then click **Add a Comment**.
3. In the **Add a Comment** window, type the comment name and description.
4. Repeat steps 2 to 3 to add further comments as required.
5. Click **Finish** to save the comment.

Results

Each comment is added to a drop-down list available from the **Add Comments** button.

Viewing, Modifying, or Deleting Comments in IBM Cognos Viewer

Comments added by a report user can be viewed by all other users who have read permission to the report output.

Only the comment owner, or an administrator, can modify and delete comments.

Tip: You can use the Search feature to find specific comments. For more information, see "Searching for entries using name, description, and name or description" on page 302.

For information about adding comments, see "Add Comments to a Report Version in IBM Cognos Viewer" on page 427.

View Comments

You can view report comments in IBM Cognos Viewer.

Procedure

1. Open the saved report output in IBM Cognos Viewer.
2. On the toolbar, click **Add Comments** and then select the required comment from the list of comments available.

   A summary of the comment appears, which includes the comment name and description, the date it was last modified, and the owner.
3. To view the full details of the selected comment, click **View**.

   The **View Comment** window appears.
4. Click **Finish**.

Modify Comments

You can modify report comments in IBM Cognos Viewer.

Procedure

1. Open the saved report output in IBM Cognos Viewer.
2. On the toolbar, click **Add Comments**, select the required comment from the list of comments available, and then click **Modify** to edit the comment.

   The **Modify Comments** window appears.
3. Edit the comment name or description.
4. Click **Finish**.

Delete Comments

You can delete report comments in IBM Cognos Viewer.

Procedure

1. Open the saved report output in IBM Cognos Viewer.
2. On the toolbar, click **Add Comments**, select the required comment from the list of comments available, and then click **Delete**.
3. Click **OK** to confirm that you want to delete the comment.

Disable Selection-based Interactivity

You can disable selection-based interactivity for an HTML report that is viewed in IBM Cognos Viewer to shorten the time that it takes the report to run.

After you disable this functionality, you cannot:

- drill up and down in a report
- drill through to other reports
- use IBM Cognos Search
- use conditional report delivery
- use agent notification

If selection-based interactivity is enabled in IBM Cognos Connection, a user can perform drill up and down and drill-through actions in Report Viewer or Query Studio. If selection-based interactivity is disabled in IBM Cognos Connection, the ability to perform drill up and down and drill-through are disabled regardless of how the drill through definitions and settings are authored in Report Studio and IBM Cognos Connection.

Selection-based interactivity is enabled by default.

Tip: You can instead enable or disable selection-based interactivity for the current run only.

Click **Run with options** next to the report and then click **Advanced options**. Click **Enable selection-based interactivity in HTML reports**.

Procedure

1. In IBM Cognos Connection, click the set properties button  on the actions toolbar to the right of the report.
2. Click the **Report** tab for a Report Studio report, the **Query** tab for a Query Studio report, or the **Analysis** tab for an Analysis Studio report.

   Tip: Disabling selection-based interactivity on an Analysis Studio report has no effect.
3. Click **Advanced options**.
4. Clear the **Enable selection-based interactivity in HTML reports** check box.

Results

Note that disabling selection-based interactivity on an Analysis Studio report has not effect.

Exclude Blank Pages in PDF Reports

You can specify that PDF reports do not include blank pages.

This setting applies to all PDF reports.

Before you begin

You must be a server administrator to exclude blank pages.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Dispatchers and Services**.
3. Click the dispatcher you want.
4. For the **ReportService**, in the **Actions** column, click the set properties button.
5. Click the **Settings** tab.
6. For the **Environment** category, next to **Advanced settings**, click the **Edit** link.
7. Select the **Override the settings acquired from the parent entry** check box.
8. In the **Parameter** column, type **rsvp.removeblankpages**.
9. In the **Value** column, type **true**.
10. Click **OK**.

Distributing Reports

You can distribute reports to other users to share information with them.

You can schedule the distribution of your reports so that recipients receive the reports regularly Chapter 22, "Schedule Management," on page 343.

Recipients must have read permissions for the report and traverse permissions for the folder that contains the report.

When you attach a report to an email, the report is no longer secured by the IBM Cognos security system.

When sending a report by email, note that if you choose the recipient from a list, such as a group, role, or distribution list, you must have read access to both the list and the recipient's email account. Otherwise, the report delivery fails. However, if you type the email address manually, read access is not required.

To distribute reports to more than one recipient, you can create distribution lists, which contain references to users, groups, and roles. If a recipient is not part of the IBM Cognos security system, you can create a contact for that person and add it to a distribution list.

Saving a Report

You can share a report with others by saving the report in a location that is accessible to other users, such as in the public folders.

Public folders typically contain reports that are of interest to many users.

You can save a report when you set options for the current run "Set Report Options for the Current Run" on page 400 or you can use advanced report options "Set Advanced Report Options for the Current Run" on page 401 to save a report in Report View "Create a Report View" on page 407.

To share a report that is currently located in your personal folders, copy the report "Copy an Entry" on page 294, move the report "Move an Entry" on page 294, or create a shortcut to the report "Create a Shortcut" on page 282 and save it in the public folders.

For information about saving reports, see Query Studio *User Guide,* the IBM Cognos Report Studio *User Guide*, or the Analysis Studio *User Guide*.

Sending a Report by Email

You can share a report with others by sending the report by email.

This is especially useful if you want to share the report with a group of people who do not have access to the portal. To send a report by email, you must have Directory Administrator privileges.

You can attach reports to email "Set Advanced Report Options for the Current Run" on page 401. You can also include a URL to the report in an email. Entries that are sent as attachments to emails are no longer secured by the IBM Cognos security system.

You can disable the use of email attachments. For more information, see "Disable Report Attachments in Email Messages" on page 647.

To send a report to others by email, both you and the email recipients must have valid email addresses. Also, if you choose the recipient from a list, such as a group, role, or distribution list, you must have read access to both the list and the recipient's email account. Otherwise, the report delivery fails. However, if you type the email address manually, read access is not required.

Sending a Report to your Mobile Device

You can choose to send a report to your mobile device. You must have IBM Cognos Mobile installed.

Printing a Report

It may be convenient for you to have a printed copy of a report.

You may need to review a report when your computer is not available, or you may need to take a copy of a report to a meeting.

You can use run options to print a report and choose a printer "Set Advanced Report Options for the Current Run" on page 401.

You can set up printers for users to select from. For more information, see "Set Up Printers" on page 29.

Distributing a Report by Bursting

Bursting is the process of running a report once and then sending the results to recipients, each of whom sees only a subset of the data.

Distribute reports by bursting them when you want users to receive or view reports that contain data applicable only to them.

If you distribute burst reports by email, the recipients are specified by the burst options. Note that if you choose the recipient from a list, such as a group, role, or distribution list, you must have read access to both the list and the recipient's email account. Otherwise, the report delivery fails.

If the burst report contains a drill-through link to another report and the burst report is distributed by email, set the email options to include a link to the report. Otherwise, if you include the report in the email, the drill-through links in the burst report will not work.

You can burst reports only if the report author defined burst options for the report.

You can use advanced run options "Set Advanced Report Options for the Current Run" on page 401 to distribute a report by bursting.

You must have read and write permissions for the report to enable bursting.

Creating Distribution Lists and Contacts

Use distribution lists if you want to send a report to more than one recipient at a time.

Distribution lists contain a collection of users, groups, roles, contacts, or other distribution lists.

If a recipient is not part of the IBM Cognos security system, you can create a contact for this person. The contacts you create can also be assigned as contacts for reports.

Note that if you choose the email recipient from a list, such as a group, role, or distribution list, you must have read access to both the list and the recipient's email account. Otherwise, the report delivery fails.

To access the directory administration tool, you must have execute permissions for the **Data Source Connections** secured feature and traverse permission for the Administration secured function. You must have write permissions for the Cognos namespace.

Create Distribution Lists

Use distribution lists if you want to send a report to more than one recipient at a time.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Distribution Lists and Contacts**.
3. Click the **Cognos** namespace.
4. On the toolbar, click the new distribution list button  .

   Tip: To remove a distribution list, select the entry and click the delete button.
5. Type a name and, if you want, a description and screen tip for the distribution list, and click **Next**.
6. If you want to add to the distribution list, click **Add** and choose how to select entries:
   - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, or roles.
   - To search for entries, click **Search** and in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.

- To type the name of entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon (;) separates each entry:

  namespace/group_name;namespace/role_name;namespace/user_name;

  Here is an example:

  Cognos/Authors;LDAP/scarter;

7. Click the right-arrow button and when the entries you want appear in the **Selected entries** box, click **OK**.

   Tip: To remove entries from the **Selected entries** list, select them and click **Remove**. To select all entries in a list, click the check box in the upper-left corner of the list. To make the user entries visible, click **Show users in the list**.
8. Click **Finish**.

Results

You can now choose this list when you specify recipients for a report.

Create Contacts

If a recipient is not part of the IBM Cognos security system, you can create a contact for this person.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Distribution Lists and Contacts**.
3. Click the **Cognos** namespace.
4. On the toolbar, click the new contact button  .

   Tip: To remove a contact, select the entry and click the delete button.
5. Type a name and email address for the contact and, if you want, a description and screen tip, and click **Finish**.

Drilling to View Related Data

Reports that you run in IBM Cognos Connection and view in IBM Cognos Viewer support various drill operations.

Drilling through lets you can view different layers of related data. You can perform drill operations in lists, crosstabs, and charts.

Drill Up or Drill Down

You can drill up and drill down within a report that is run from IBM Cognos Connection.

Reports run from IBM Cognos Connection appear in IBM Cognos Viewer.

In lists and crosstabs, hyperlinks identify drillable items. In charts, the pointer changes to a hand when you pause the pointer over a drillable item, and a tooltip indicates what you are drilling on. For example, a column chart shows revenue by product line by year. You can drill on a single axis, such as product line or year. You can also drill on both axes, such as Camping Equipment and 2005. In this case, you are drilling on the intersection of Camping Equipment and 2005.

If groups of data items from different queries are linked, when you drill up or drill down in one query, the data item also drills up or drills down in the linked queries. For more information about how to link groups of data items, see the IBM Cognos Report Studio *User Guide*.

After you drill up or drill down, you can save the report as a report view for later viewing. For more information, see "Create a Report View" on page 407.

The drill-up and drill-down functionality is available only when you use dimensionally structured data and view the report in HTML format. You can drill only on members in a level.

By default, the drill-up and drill-down functionality is enabled.

Procedure

1. Run the report in IBM Cognos Connection and view it in IBM Cognos Viewer.

   Tip: Alternatively, you can open an Analysis Studio report or Query Studio report in their respective studios.
2. Right-click the report item you want to drill on and click **Drill Up** or **Drill Down**  .

Drill Through to Another Target

You can navigate from a report to a target.

Targets can include a Query Studio report, a Report Studio report, an Analysis Studio analysis, a PowerPlay Studio report, a package that contains a PowerCube, or a Microsoft SQL Server Analysis Services (SSAS) action.

You can also navigate from a report or analysis authored in one package to more detailed information in a report which was authored in another package. For example, this is useful when you want to drill from a summarized OLAP source, such as your sales information, into the detailed relational or transactional information, such as your inventory volumes.

Drilling through from one report to another is a method of passing information from the source (your starting report) to the target (your ending report). For example, you may be evaluating a report and discover something you need to investigate in a certain product line. You can drill through to the detailed target report which provides a focused view of that product line. When drilling through to the target, the product line you selected in the source is passed and the target report is run with that filter, making a more focused report.

By default, the ability to drill through from one report to another is enabled. You can disable it by using the **Enable selection-based interactivity** option. For more information, see "Disable Selection-based Interactivity" on page 429.

For information about drill-through concepts and setting up drill-through access, see Chapter 32, "Drill-through Access," on page 489.

Before you can navigate to another target, a drill-through definition must be created in either the Report Studio source report or in IBM Cognos Connection.

Procedure

1. Run the report in IBM Cognos Connection and view it in IBM Cognos Viewer.

   Tip: Alternatively, you can open an Analysis Studio report or Query Studio report in their respective studios.
2. Right-click the report item from which you want to navigate and click **Go To**  , **Related Links**. The **Go To** page appears, showing the available targets.

   Note: If there is only one possible target for the column, the reports runs and appears in IBM Cognos Viewer.
3. Click the target you want to navigate to.

Results

Depending on how the drill-through definition was set up and the report type, the target opens in either IBM Cognos Viewer, Query Studio, PowerPlay Studio, or Analysis Studio.

Drill Through to Another Target Passing Multiple Values

A report may contain a drill-through definition that can be filtered by multiple values in a single query item.

For example, while analyzing an OLAP source, you may want to focus on Canada and the United Kingdom. When you drill through, the target report is filtered by both countries and regions. After you run the report in IBM Cognos Viewer, you are prompted to choose values when you navigate from the report to the drill-through target. The values you specify are used to filter the results in the target.

For more information about drilling through to a target, see "Drill Through to Another Target" on page 434.

Drilling through using multiple values is available regardless of whether the drill-through definition is authored in the Report Studio source report or in IBM Cognos Connection, Drill-through Definitions. In previous releases, this functionality was available only when the definition was authored in IBM Cognos Connection.

Procedure

1. Run the report in IBM Cognos Connection and view it in IBM Cognos Viewer.

   Tip: Alternatively, you can open an Analysis Studio, Query Studio, or PowerPlay Studio report in their respective studios.
2. Ctrl+click to select more than one value in a column.
   - If hyperlinks appear in the column in which you are attempting to select cells, click in the empty area around the hyperlinks.
   - If there are no visible hyperlinks but you know that a drill-through target exists, select the cells you want to use as the filter, regardless of whether they are in the same column. Note that when you select multiple values from different columns, the resulting filter in the target report performs an *and* rather than an *or* operation with the values passed, for example, Canada and Camping Equipment; United Kingdom and Fax.

3. Right-click in one of the selected cells from which you want to navigate, and from the menu that appears, do one of the following:
   - Under **Go To**, click the drill-through target name, if one exists.
   - Under **Go To**, click **Related Links**. On the **Go To** page, click the target report you want to run.

Results

The target report runs and if it can be filtered by the selection made in the source report, the target is filtered by those values.

Data Sources With Named Sets May Produce Unpredictable Results

If your dimensional data sources include named sets, which are sets of members or set expressions that are created for reuse, the data results are unpredictable in Query Studio when combined with filtering and level nesting.

Additionally, if your data sources include multilevel named sets, the data results are unpredictable in Analysis Studio when aggregated.

We therefore recommend that you avoid exposing named sets or multilevel named sets to Query Studio and Analysis Studio users.

Working with named sets may also cause unpredictable results in Report Studio. For more information, see the IBM Cognos Report Studio *User Guide*.

Series 7 Reports in IBM Cognos Connection

If your administrator configures IBM Cognos Business Intelligence to use the IBM Cognos Series 7 namespace, you can see Series 7 entries in IBM Cognos Connection.

When you run a Series 7 report, the report runs in the Series 7 application used to create it.

The contents of the Series 7 NewsIndex appears at the bottom of the page in **Public Folders**. The contents of your Series 7 personal NewsBox appears at the bottom of the page in **My Folders**.

Alternatively, PowerPlay 7.3 or later can be configured to use IBM Cognos Connection rather than Upfront as a portal. However, if you are accessing content from other IBM Cognos applications or versions previous to PowerPlay 7.3, the administrator may still depend on the Upfront portal.

When you access Series 7 entries from IBM Cognos Connection, consider the following things:

- If the Series 7 namespace and the IBM Cognos BI namespace are different, you must log on to both. Otherwise, you cannot see content in both areas.
- If you log off when you are in Upfront, you can no longer access Series 7 entries in IBM Cognos Connection. You should always log off in IBM Cognos Connection.
- If you belong to several Series 7 user classes, you are unable to select a different user class when you access Upfront through IBM Cognos Connection.

- If you use an Upfront theme other than standard70, an error message may appear when you click the **More** link in the **Actions** column. You cannot access Series 7 entries.
- If you want to cut, copy, and paste Series 7 entries, use the More link in the **Actions** column, and then use the Upfront toolbar.
- If you perform a search in IBM Cognos Connection, the Series 7 entries are not included in the search.
- You cannot combine IBM Cognos version 10.1 entries and Series 7 entries in a single folder or NewsBox.

For information about working with Series 7 entries in Upfront, see the IBM Cognos Series 7 *Web Portal User Guide*.

Series 7 PowerPlay Reports and Cubes

After Series 7 PowerPlay reports and cubes are published to the IBM Cognos portal, you can use PowerPlay authoring tools to create and edit Series 7 PowerPlay reports.

For more information about PowerPlay authoring tools, see the PowerPlay Web *User's Guide*.

You can change the default run options of Series 7 PowerPlay reports and cubes and select multilingual properties.

Series 7 PowerPlay reports and cubes function differently from other reports. The following actions do not apply to Series 7 PowerPlay reports and cubes:

- viewing the run history and report output versions
- specifying how long to keep report outputs and histories
- canceling and suspending reports
- specifying prompt values for report formats other than PDF
- specifying language for the content of reports
- running a report as the owner
- scheduling reports
- distributing reports

Single Signon

Single signon ensures that users who are logged on to one IBM Cognos application are not prompted for authentication when they run another IBM Cognos application.

You can ensure that your users benefit from single signon by ensuring that both IBM Cognos Business Intelligence and PowerPlay use the same Series 7 namespace as their authentication source. Alternatively, you can ensure that the authentication namespaces used for both IBM Cognos BI and PowerPlay are configured to use an external single signon mechanism for authentication, such as operating system signons for Series 7 PowerPlay or LDAP provider with External Identity Mapping in ReportNet®.

For instructions about setting up Series 7 single signon, see the Access Manager *Administrator Guide*.

For instructions about setting up single signon for the IBM Cognos reporting product, see the *Installation and Configuration Guide*.

Run or Open a Series 7 PowerPlay Report

You can run Series 7 PowerPlay reports in HTML or PDF format.

When you run Series 7 PowerPlay reports

- if the HTML icon  is visible, the report opens in PowerPlay Web Explorer.
- if the PDF icon  is visible, the report runs in the PowerPlay Web Viewer.

PowerPlay administrators can restrict who can open cubes. For information about publishing Series 7 PowerPlay reports and cubes in IBM Cognos Business Intelligence, see the *PowerPlay Enterprise Server Guide*.

Before you begin

If you use secured Series 7 cubes, the namespace against which the cubes are secured must be configured as an authentication source in IBM Cognos BI. This namespace need not be the only authentication namespace or the primary logon for the user. For more information about configuring authentication namespaces see the *IBM Cognos BI Installation and Configuration Guide*.

Before you can run or open Series 7 PowerPlay reports and cubes  directly from IBM Cognos BI, you must have both PowerPlay 7.3 and IBM Cognos BI installed and configured. You also must have the following permissions:

- execute and read permissions to run or open a report or cube
- read and traverse permissions to access the folder that contains the report or cube
- read and write permissions to set properties for cubes and reports

Procedure

In IBM Cognos Connection, click the report that you want.

Results

Depending on the default action for the report, the report runs in either PDF format (default) or opens with PowerPlay Web Explorer.

If you have the required permissions, you can change the run options for Series 7 PowerPlay reports and cubes. For information about using PowerPlay Web Explorer and PowerPlay Web Viewer, see the *IBM Cognos PowerPlay Web User's Guide*.

Tip: To run any Series 7 PowerPlay report in PowerPlay Web Explorer, click the open with PowerPlay Explorer button  in the actions toolbar. You can also click **More** next to the report you want and then open the report in Analysis Studio or Report Studio. The migration tools must already be installed. For information about installing these tools, see the *IBM Cognos BI Migration Assistant Installation and Configuration Guide*. When you open the report, it is upgraded to the

format of the studio that you opened it in. If you save the report, it is saved in the upgraded format. There may be differences between the original PowerPlay report and the IBM Cognos BI version of the report. If you do not save the report, it remains a Series 7 PowerPlay report. For more information about upgrading Series 7 PowerPlay reports, see the *IBM Cognos BI Migration Assistant User Guide*.

Change the Defaults for a Series 7 PowerPlay Report

You can change the defaults for Series 7 PowerPlay reports.

You can select one of the following default actions when a report is run:

- run the report in PDF format (default)
- open the report with PowerPlay Web Explorer

For HTML format reports, you can choose to open the report in design mode (without data). Opening a report in design mode is useful to quickly view the structure of the report.

For PDF format reports, you can choose to be prompted for values that filter the range of data included in a report. For example, you can specify a date range that is a subset of the dates available in the report. If the Series 7 PowerPlay report was created with prompt values, you are prompted to enter values when the report runs.

Procedure

1. In IBM Cognos Connection, click the set properties button  on the actions toolbar to the right of the report you want to run.
2. Click the **PowerPlay report** tab.
3. Under **Default action**, select the default action for when the report is run.
4. For HTML reports, if you want to open the report without data, design mode, select the **Open in design mode** check box.

   Tip: You can also click the open with PowerPlay Web Explorer in design mode button  if it appears in the actions toolbar.
5. For PDF reports, if you want to be prompted for values, select the **Prompt for values** check box.

   Tip: The Prompt for values check box appears only if prompt values are created for the report. You can also click More next to the report you want and then click the run the report in PDF format and prompt for values button  .

Open a Series 7 Cube

You can open Series 7 cubes and work with them in PowerPlay Web Explorer.

For more information about using PowerPlay Web Explorer, see PowerPlay Web *User's Guide*.

Procedure

In IBM Cognos Connection, click the cube that you want.

Multilingual Properties for Series 7 Reports and Cubes

In IBM Cognos Connection, you can select the multilingual properties of a Series 7 report or cube.

The name, screen tip, and description uses the language that you select.

The content, data, category labels, and other labels do not change. The language for these items is set by the PowerPlay administrator who creates the report or cube.

Chapter 28. Agents

You can create agents in Event Studio to monitor your organization's data for occurrences of business events. After an agent is published to the portal, use IBM Cognos Connection to manage it.

For example, tasks can include sending an email, adding information to the portal, and running reports. For more information, see the Event Studio *User Guide*.

You can view the run history of an agent "View the Run History for Entries" on page 338 and rerun a failed agent with the initial parameters "Manage Scheduled Activities" on page 335. You can schedule agents to run at a specified time or based on a trigger, such as a database refresh or an email. You can also view the run history of scheduled agents and change the schedule credentials. For more information, see Chapter 22, "Schedule Management," on page 343.

Run an Agent

You can run the agent manually at any time if you want to check for occurrences of specified events and perform specified tasks if those events occur.

Usually, agents run automatically according to the schedule specified by the agent author. But you may want to run an agent manually in certain circumstances. For example, an agent is created to send an e-mail to sales staff when they reach 75 percent of their sales quota for the month. The agent prompts for the sales region. A sales manager specifies Spain, and e-mails are sent only to sales staff in Spain.

Before you begin

You must have execute permission to run an agent. You must have traverse permissions for the folder that contains the agent.

Procedure

1. In IBM Cognos Connection, click the run with options button  on the actions toolbar next to the agent you want to run.
2. Under **Time**, click **Now** to run the agent now or click **Later** to specify a later date and time.
3. If you want the agent to prompt for values to filter the results it retrieves, under **Prompt Values**, select the **Prompt for values** check box.
4. Click **Run**.

   The confirmation page appears.

   You are prompted for values if the agent specification or model includes prompts or if you have access to multiple data source connections or signons.
5. To view the run history of the agent, select **View the details of this agent after closing this dialog**.
6. Click **OK**.

   The options override the default agent options for the current run only.

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Change Default Agent Properties

You can change the defaults that are set for agents in Event Studio, such as whether to use prompt values and run as the owner.

If the agent contains one or more tasks with a destination of **My Folders**, and someone other than the owner runs the agent, the task fails unless run as the owner is selected.

You can run an agent "Run an Agent" on page 441, create agent views "Create an Agent View," and create and edit agents in Event Studio "Open or Create an Agent from IBM Cognos Connection" on page 444.

Before you begin

You must have execute permissions for the agent. You must have traverse permissions for the folder that contains the agent.

Procedure

1. In IBM Cognos Connection, click the set properties button  on the actions toolbar next to the agent you want to run.
2. Click the **Agent** tab.

   The tasks in the agent are shown.
3. Under **Default action**, specify the default action for the agent.
4. If you want the agent to prompt for values to filter the results that it retrieves, under **Prompt Values**, select the **Prompt for values** check box. The **Prompt for values** check box appears only if prompt values are created for the agent in Event Studio.
5. If you want the agent to run using the owner credentials, click the check box next to the owner listed under **Run as the owner**. Click **Capabilities only** to run the report using only the owner capabilities and not the owner credentials. For more information, see "Running reports with report owner capabilities" on page 405.
6. To allow users to add themselves to the alert list for the agent, click the **Allow users to add themselves to the alert list** check box.
7. Click **OK**.

   The next time the agent runs, it uses these properties instead of the original defaults.

Create an Agent View

Agent views share event definition and tasks with the agent but can have different properties, such as prompt values and run as the owner.

Creating an agent view does not change the original agent. Except for changes to notification lists, any changes to the original agent are automatically reflected in the agent view. You can determine the source agent for an agent view by viewing its properties. The agent view properties also provide a link to the properties of the source agent.

If the source agent is deleted or moved to another location, the agent view icon  changes to indicate a broken link, and the properties link to the source agent is removed.

Before you begin

If you want to change the properties of an agent and do not need to retain an agent with the original properties, change the default agent properties. If you want to use a generic agent as the basis for a new agent, make a copy of the agent. If you want an agent to appear in more than one location, create a shortcut.

To create an agent view, you must have execute or read permissions for the original agent.

Procedure

1. In IBM Cognos Connection, locate the agent you want to use to create the agent view.
2. Under **Actions**, click the agent view icon  next to the agent.
3. In the **Name** box, type the name of the entry.
4. If you want, in the **Description** and in the **Screen tip** box, you can type a description of the entry.

   The description appears in the portal when you set your preferences to use the details view. The screen tip, which is limited to 100 characters, appears when you pause your pointer over the icon for the entry in the portal.
5. If you do not want to use the target folder shown under **Location**, choose another location, click **Select another folder**, select the target folder, and click **OK**.
6. Click **Finish**.

Results

In the portal, agent view entries are identified by the agent view icon  .

The agent view has the same run options and properties as the original entry.

Related concepts

"Entry Properties" on page 285
You can control the way an entry appears and behaves by modifying its properties. The properties for entries vary depending upon the type of entry selected and your privileges. For example, reports have properties to control run options while folders do not. If a property is not applicable to the type of entry you are customizing, it will not appear in the **Set properties** page.

Related tasks

"Change Default Agent Properties" on page 442
You can change the defaults that are set for agents in Event Studio, such as whether to use prompt values and run as the owner.

"Copy an Entry" on page 294
When you create a copy of an entry, you create a replica of that entry in another location in the portal. For example, create a copy if you want to use a generic report as the underlying structure for additional reports. The copy of the entry has a new ID. If there is another entry of the same name in the target location, you are prompted to replace the existing entry with the copied entry. If you choose to replace the existing entry, the ID of the existing entry is used.

"Create a Shortcut" on page 282
A shortcut is a pointer to another entry such as a report, report view, folder, job, agent, page, or URL.

"Personalize the Portal" on page 304
You can personalize the way data appears in IBM Cognos Connection by changing your preferences. For example, you can set the product language and the preferred output format of reports.

Open or Create an Agent from IBM Cognos Connection

You can open or create agents from IBM Cognos Connection and work with them in Event Studio.

Before you begin

For information about using Event Studio, see the Event Studio *User Guide*.

Procedure

You can create a new agent or open an existing agent.

- To open an existing agent in Event Studio, in **Public Folders** or **My Folders**, click the agent.
- To create a new agent in Event Studio, in IBM Cognos Connection, in the upper-right corner, click **Launch**, **Event Studio**.

Enable an Alert List for an Agent

By granting users permission to add an alert list to an agent, users can monitor business events that are important to them.

Users can add themselves to the alert list "Adding Yourself to or Remove Yourself from an Alert List for an Agent" on page 445 and be alerted by e-mail as a Bcc recipient when the agent runs and the associated tasks are performed.

The permission to add an alert list to an agent does not extend to an agent view associated with the agent. You must grant permission for the agent view independently.

Before you begin

To grant permission for an alert list, you must have execute permission for the agent and traverse permission for the folder that contains the agent.

Procedure

1. In IBM Cognos Connection, click the set properties button next to the agent for which you want to enable an alert list.
2. Click the **Agent** tab, and select the **Allow users to add themselves to the alert list** check box.

Results

E-mails are sent whenever the agent is run interactively or in the background according to a schedule.

Adding Yourself to or Remove Yourself from an Alert List for an Agent

Because an agent monitors important business events, you may want to add yourself to the alert list for the agent.

When you subscribe to an alert list, you receive an e-mail notification when the agent is run. You can also view and manage the alert list for the agent as a watch item.

Adding yourself to the alert list of an agent does not automatically add you to the alert list for any agent views associated with the agent. If you want to receive alerts for an agent view, you must add yourself to the alert list for the agent view.

The agent author must include an e-mail task with the agent and enable an alert list for the agent "Enable an Alert List for an Agent" on page 444.

Add Yourself to or Removing Yourself from One Alert List

You can add yourself to or remove yourself from one alert list.

Before you begin

To add yourself to the alert list of an agent, you must have read and traverse permissions for the agent. You must also have an email address defined in your LDAP security profile or in the **My Preferences**, **Personal** tab. Also, you must belong to the same namespace as the person who schedules the agent.

Procedure

1. In IBM Cognos Connection, locate the agent.
2. In the **Actions** column, click **More**.
3. Click **Add me to the alert list**  . or **Remove me from the alert list**  .
4. Click **OK**.

Results

Note the change for the alert list in the watch item list. To view your watch items, from the **My Area Options** menu, click **My Watch Items**.

Remove Yourself from Multiple Alert Lists

You can remove yourself from multiple alert lists at once.

Procedure

1. In IBM Cognos Connection, click the my area options icon and then click **My Watch Items**.
2. On the **Alerts** tab, select the alerts to delete from the alert list.
3. Click the remove me from the alert list button.

Remove All Users from the Alert List for an Agent

You can remove all users from the alert list for an agent.

Any user that is currently on the alert list is removed.

Before you begin

You must have set policy permission for the agent.

For more information about alert lists, see "Adding Yourself to or Remove Yourself from an Alert List for an Agent" on page 445.

Procedure

1. In IBM Cognos Connection, locate the agent.
2. In the **Actions** column, click **More**.
3. Click **Remove all from the alert list**.

Receive News Item Headlines

The author of an agent can specify that news item headlines be published to a folder in IBM Cognos Connection when an event occurs.

Before you begin

For more information about news items, see the Event Studio *User Guide*.

Procedure

1. To be able to read headlines as an RSS-style list, you must set up a page in IBM Cognos Connection that includes an IBM Cognos Navigator portlet that displays the folder where the headlines are published.
2. Edit the properties of the portlet to view the entries as a news list. For instructions, see Chapter 20, "Pages and Dashboards," on page 311.

View the Most Recent Event List

The most recent event list compares current data with data from the last time the agent ran and groups events by event status.

For example, an agent is created to tell you when the quantity sold of any product by any sales person in your database changes. The first time the agent runs, the most recent event list identifies all sales as new events.

Product number	Sales person	Quantity sold
NEW EVENTS		
3345	Ashley McCormick	25
3345	Bayard Lopes	15
2256	Alessandra Torta	100

The second time the agent runs, it finds the following product sales.

Product number	Sales person	Quantity sold
3345	Ashley McCormick	35
3345	Bayard Lopes	15
2256	Ashley McCormick	15
2256	Alessandra Torta	150

If you now view the most recent events list, you see the following list:

Product number	Sales person	Quantity sold
NEW EVENTS		
2256	Ashley McCormick	15
ONGOING (UNCHANGED)		
3345	Bayard Lopes	15
ONGOING (CHANGED)		
3345	Ashley McCormick	35
2256	Alessandra Torta	150

Procedure

1. In IBM Cognos Connection, locate the agent you want.
2. Under **Actions**, click the set properties icon.
3. Click the **Agent** tab.
4. Under **Default action**, click **View most recent event list**.

5. Click **OK**.

Chapter 29. Managing Human Tasks

In IBM Cognos Business Intelligence, there are three types of human tasks you can see in the task inbox: approval requests, ad-hoc tasks, and notification requests.

Tasks can be created from

- Event Studio (notification requests and approval requests)

  For more information, see the Event Studio *User Guide*.
- the **My Inbox** area of IBM Cognos Connection (notification requests and ad-hoc tasks). For more information, see "Create an Ad-hoc Task" on page 451
- a watch rule set up for a report (notification requests only). For more information, see "Watch Rules in Saved Reports" on page 422

Open the Task Inbox

You can open your task inbox in different ways.

You have the following options to open the task inbox.

- the IBM Cognos Business Intelligence Welcome Page by clicking **My Inbox**
- IBM Cognos Connection or IBM Cognos Administration by clicking **My Area Options**, and then clicking **My Inbox**

Viewing your Task Inbox

Your task inbox contains approval requests, ad-hoc tasks, and notification requests for which you are a specified recipient.

The task inbox is shown in the top pane. By default, for each task, you can see the task type, priority, subject, owner, status, and date on which the task was received. In addition, if you pause the mouse over a task, a pop-up containing further task details appears.

You can view the details of a task by selecting it. The task details are shown in the reading pane. If the task contains an attachment, such as a report, you can double-click to view it.

Tips

- To view the due date for tasks instead of the date received, from the **Display Date Received** drop-down list, select **Next Deadline Date**.
- To view your archived tasks, click the **Archive** tab.

Filter Tasks in your Inbox

By default, your task inbox contains all tasks that are relevant to you. You can set up a filter so that you see only a subset of tasks.

You can set up filters for

- task type (task or notification)
- priority (low, medium, or high)
- status (not started, started, completed, canceled)

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- date

Procedure

1. View your task inbox.
2. For each filter you want to set, select the required filter option from the filter name drop-down list.

   For example, to view only notification request tasks, select **Notifications** from the **All Types** filter.

   The filter name is updated to show the current filter.

Approval Requests and Ad-hoc Tasks

You can create approval requestion using Event Studio.

For more information, see the Event Studio *User Guide*.

You can create ad-hoc tasks from your task inbox. For more information, see "Create an Ad-hoc Task" on page 451.

An approval request or ad-hoc task can have various recipients:

- a task owner - one specific user
- potential owners - multiple users, groups, roles, or distribution lists
- stakeholders - one or more interested parties, who are not potential owners

If a task only has one potential owner, that user automatically becomes the task owner. If a task has multiple owners, the user who claims the task becomes the task owner.

It is possible to create a task with one or more stakeholders, but no owner or potential owners. In this case, stakeholders can assign potential owners after it has been created.

Task Status

The status of an approval request or ad-hoc task can be one of the following:

- Not Started - the task is waiting to be started.
- Started - the task has an owner and is in progress.
- Completed - the owner has complete the task.
- Canceled - the task has been canceled by a recipient.

View Comments

You can view comments added by other recipients, as well as audit history comments, recorded by the system.

You can also add your own comments to a task. For more information, see "Add Comments to a Task" on page 455.

Procedure

1. View your task inbox.
2. Select the task for which you want to view comments, and then click the **Discussion** tab in the reading pane.

   By default, only user comments are shown.

3. Select the type of comments you want to view from the comments drop-down list.

   You can view all user and audit comments, or you can filter the display by comment type.

Subscribe to E-mail Notifications

The default notification options are set up when the task is created. You can change your subscriptions for any task with a status of Not Started or Started.

You can choose to receive, or stop receiving, notifications when

- a task is not started by the start date
- a task is not completed by the due date
- the status of a task changes (started, completed or canceled)
- the owner of a task changes
- a user comment is added to a task

Notes

- Notifications are sent to the task owner and copied to all stakeholders.
- The recipient who changes the status or owner of a task, or adds a user comment, does not receive the associated notification.

Procedure

1. View your task inbox.
2. Select the task for which you want to change your notification subscriptions, and then click the **Notification Options** tab in the reading pane.
3. Select the appropriate check boxes for the notifications you want to receive, and clear the boxes for those you do not require.
4. Click **Save**.

Create an Ad-hoc Task

Create an ad-hoc task to send a task to the task inbox of the recipients you specify.

You can add deadlines to an ad-hoc task when you create it. Alternatively, potential owners or stakeholders can add deadlines at a later date, by updating the task from their task inbox.

You can set up notification options for the task owner to receive e-mails when

- an ad-hoc task is not completed by the due date
- an ad-hoc task is not started by the start date

Note: Stakeholders are also copied on these e-mails.

In addition, you can set up notification options for the task owner and all stakeholders to receive e-mails when

- the status of an ad-hoc task changes (started, completed or canceled)
- the owner of an ad-hoc task changes
- a comment is added to an ad-hoc task

Note: Potential owners and stakeholders can unsubscribe from receiving specific notifications by updating the task from their task inbox.

Procedure

1. View your task inbox.
2. From the task drop-down list, select **New Task**  .
3. In the reading pane, click **Add/Remove recipients**.

   The **Select recipients** page appears.
4. Select the required users, groups, roles, and distribution lists to add as potential owners and stakeholders.
   - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, roles or distribution lists.

     Tip: To make the user entries visible, click **Show users** in the list.
   - To search for entries, click **Search** and, in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.
   - To type the name of entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon (;) separates each entry:

     namespace/group_name;namespace/role_name;namespace/user_name;

     Here is an example:

     Cognos/Authors;LDAP/scarter;
5. Click the **Potential Owner** or **Stakeholder** arrow button to update the **Selected entries** list, and click **OK**.

   Tip: To remove entries from the **Selected entries** list, select them and click **Remove**. To select all the entries in a list, click the check box in the upper-left corner of the list.
6. Click **OK**.
7. In the **Subject** box, type the subject of the task.
8. If required, add a completion deadline for the task in the **Due Date** box.
9. If required, add a start by deadline for the task in the **Start By** box.
10. Select the priority from the **Priority** list.
11. In the **Message** box, type text directly.
12. To add links, click **Add links**, select the entries you want, click the arrow button to update the **Selected entries** list, and click **OK**.

    Tip: To remove links, select them and click **Remove links**.
13. If you want to set up notification options, click **Advanced**, otherwise move on to step 16.
14. Select the task creation and deadline notification options as required:
    - **Send notification if not started by the start date**
    - **Send notification if not completed by due date**
15. Select the approval request change notification options as required:
    - **Started**
    - **Comment**
    - **Owner changed**
    - **Completed**
    - **Canceled**
16. Click **Save**.

Actions That You can Perform on Approval Requests and Ad-hoc Tasks

The actions you can perform on an approval request or ad-hoc task differ depending on your recipient type.

The following table summarizes the actions that can be performed by each type of recipient.

Action	Potential owner	Owner	Stakeholder
Claim ownership of a task	✔		
Change the recipients for a task	✔	✔	✔
Revoke ownership of a task		✔	
Set deadlines for a task	✔	✔	✔
Change the priority of a task	✔	✔	✔
Add comments to a task	✔	✔	✔
Start or stop a task		✔	
Complete a task		✔	
Cancel a task		✔	✔

Claim a Task

If you are a potential owner of a task that is Unclaimed, you can claim the task. The task is then owned by you.

If you are the only potential owner of a task, the task is automatically owned by you. In this case, it is not necessary to claim the task.

Procedure

1. View your task inbox.
2. Select the task you want to claim, and then click **Make me the owner** in the reading pane.

Change the Recipients for a Task

Any task recipient can change the current owner of a task.

In addition, they can add or remove potential owners and stakeholders for a task. The status of the task must be Not Started or Started.

Note: If you are the owner of a task, you can revoke ownership of the task "Revoke Ownership of a Task" on page 455.

Change the Current Owner

You can change the current owner.

Procedure

1. View your task inbox.
2. Select the task for which you want to change the current owner, and then click **Change Owner** in the reading pane.

   The **Select the user** page appears.
3. Select the user.
   - To choose from listed entries, click the appropriate namespace, and then select the required user.
   - To search for an entry, click **Search** and, in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.
4. Click **OK**.
5. Click **Save**.

Change the Potential Owners and Stakeholders

You can change the potential owners and stakeholders.

Procedure

1. View your task inbox.
2. Select the task for which you want to change potential owners and stakeholders, and then click **Add/Remove recipients** in the reading pane.

   The **Select recipients** page appears.
3. Select the required users, groups, roles, and distribution lists.
   - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, roles or distribution lists.

     Tip: To make the user entries visible, click **Show users** in the list.
   - To search for entries, click **Search** and in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.
   - To type the name of entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon (;) separates each entry:

     namespace/group_name;namespace/role_name;namespace/user_name;

     Here is an example:

     Cognos/Authors;LDAP/scarter;
4. Click the **Potential Owner** or **Stakeholder** arrow button to update the **Selected entries** list, and click **OK**.

   Tip: To remove entries from the **Selected entries** list, select them and click **Remove**. To select all the entries in a list, click the check box in the upper-left corner of the list.
5. Click **OK**.
6. Click **Save**.

Revoke Ownership of a Task

If you are the owner of a task, you can remove yourself as the task owner.

This changes the owner to Unclaimed and the status of the task to Not Started.

Procedure

1. View your task inbox.
2. Select the task you want to revoke, and then click **Remove me as owner** in the reading pane.

Set Deadlines for a Task

Any task recipient can add a start date or due date for an approval request or ad-hoc task with a status of Not Started or Started. They can also amend existing deadlines.

Where notifications are set up, if a task is not started or completed by the required time, e-mail notifications are sent all subscribing potential owners and stakeholders. For more information on notifications, see "Subscribe to E-mail Notifications" on page 451.

Procedure

1. View your task inbox.
2. Select the task for which you want to update the deadlines.
3. If required, add a completion deadline for the task in the **Due Date** box.
4. If required, add a start by deadline for the task in the **Start By** box.
5. Click **Save**.

Change the Priority of a Task

The priority of a task is set when the task is created. Any task recipient can change the priority of a task with a status of Not Started or Started.

Procedure

1. View your task inbox.
2. Select the task for which you want to change the priority, and then select the priority from the **Priority** list in the reading pane.
3. Click **Save**.

Add Comments to a Task

Any task recipient can add comments to a task.

For information on viewing comments added to a task, see "View Comments" on page 450.

Procedure

1. View your task inbox.
2. Select the task for which you want to add a comment, and then click the **Discussion** tab in the reading pane.
3. Click **Add Comment**  , type your comments in the window that appears, and then click **OK**.
4. Click **Save**.

Start or Stop a Task

If you are the owner of a task that has not been started, you can start the task.

This changes the status to Started so that other task recipients can view the progress of your task.

A potential owner can also start an unclaimed task. The user then becomes the owner of that task.

If you own a task that has already been started, you can stop the task. This changes the status to Not Started.

Procedure

1. View your task inbox.
2. Select the task you want to start, and then select **Start task** from the **Status** drop-down list in the reading pane.

   Tip: To stop a task that has been started, select **Not Started** from the **Status** drop-down list.
3. Click **Save**.

Completing a Task

If you are the owner of a task with a status of Not Started or Started, you can complete the task by performing the required action.

The action required differs depending on the task type. For ad-hoc tasks, you must mark the task as complete.

For approval request tasks, the action depends on how the task creator set up the task. You must perform one of the following actions:

- approve or reject the request

  For this type of approval request, you must approve or reject the request from your task inbox to complete the task.

  Depending on how the task was set up, completion of the task may result in another action being performed. For example, if you approve a request to distribute a report, when the task is complete, the report may be automatically distributed. If the request is rejected, no further actions will occur.
- Specify the remaining tasks to approve and run

  This type of approval request contains one or more tasks that are scheduled to run after the task is complete. You must select which tasks you approve to run.

Complete an Ad-Hoc Task

The procedure to complete an ad-hoc task is as follows.

Procedure

1. View your task inbox.
2. Select the task you want to complete and then click **Mark as complete**.

   The status of the task changes to Completed.

Approve or Reject a Request

The procedure to approve or reject a request is as follows.

Procedure

1. View your task inbox.
2. Select the task you want to complete and view the details in the reading pane.
3. If required, add a comment to explain your decision in the **Comment** box.
4. Click **Approve** or **Reject** to complete the task.

   Note: Approve and **Reject** are the default button names. The user who created the task may have used custom button names, which differ from the default.

   The status of the task changes to Completed.

Specify the Remaining Tasks to Approve and Execute

You can specify the remaining tasks to approve and execute.

Procedure

1. View your task inbox.
2. Select the task you want to complete and view the details in the reading pane.
3. Select the remaining tasks to approve, and then click **Submit**.

   Note: Submit is the default button name. The user who created the task may have used a custom button name, which differs from the default.

   The status of the task changes to Completed.

Cancel a Task

A task owner or stakeholder can cancel an approval request or ad-hoc task with a status of Not Started or Started.

Procedure

1. View your task inbox.
2. Select the task you want to cancel, and then click **Mark as canceled** in the reading pane.

   The status of the task changes to Canceled.

Notification Requests

You can create notification requests that stipulate that acknowledgments are required and you can specify deadlines for acknowledgements.

A notification request can have various recipients:

- users, groups, roles, and distribution lists to whom the request is sent
- stakeholders to whom the request is copied

Each recipient is assigned as the owner in their task inbox.

The status of a notification request can be

- Unread - the request has not been opened by a recipient
- Read - the request has been opened by a recipient
- Acknowledged - the request has been confirmed by a recipient to whom it was sent

Notifications can also be created in Event Studio. For more information, see the Event Studio *User Guide*.

Acknowledgements

When a notification request is created, it is possible to stipulate that an acknowledgement is required by each recipient to whom it is sent.

Note: Stakeholders are not required to acknowledge notification requests.

Deadlines

When a notification request is created, it is possible to include an acknowledgement deadline. If any recipient does not acknowledge a notification request within the specified number of days, e-mail notifications are sent to all recipients who have not yet acknowledged the request, and copied to all stakeholders.

When all the required recipients have acknowledged the request, the deadline is canceled.

Create a Notification Request

Add a notification request to an agent to send a secure notification about an event to the inbox of recipients you specify.

You can request an acknowledgement, and add an acknowledgement deadline.

Procedure

1. View your task inbox.
2. Select **New Notification**  from the task drop-down list.
3. Click **Add/Remove recipients** in the reading pane.

   The **Select recipients** page appears.
4. Select the required users, groups, roles, and distribution lists to add as recipients.
   - To choose from listed entries, click the appropriate namespace, and then select the check boxes next to the users, groups, roles or distribution lists.

     Tip: To make the user entries visible, click **Show users** in the list.
   - To search for entries, click **Search** and, in the **Search string** box, type the phrase you want to search for. For search options, click **Edit**. Find and click the entry you want.
   - To type the name of entries you want to add, click **Type** and type the names of groups, roles, or users using the following format, where a semicolon (;) separates each entry:

     namespace/group_name;namespace/role_name;namespace/user_name;

     Here is an example:

     Cognos/Authors;LDAP/scarter;
5. Click the **To** or **Cc** arrow button to update the **Selected entries** list, and click **OK**.

   Tip: To remove entries from the **Selected entries** list, select them and click **Remove**. To select all entries in a list, click the check box in the upper-left corner of the list.
6. Click **OK**.
7. In the **Subject** box, type the subject of the notification request.
8. In the **Message** box, type text directly.

9. To add links, click **Add links**, select the entries you want, click the arrow button to update the **Selected entries** list, and click **OK**.

   Tip: To remove links, select them and click **Remove links**.
10. If you want to set up notification options, click **Advanced**, otherwise move on to step 13.
11. To request an acknowledgement from each recipient to whom the notification is sent, select the **Request Acknowledgement** box.
12. To send an e-mail notification to recipients who do not acknowledge the request by a specified date, and copy each stakeholder, select the **Send notification if not acknowledged by the date** box, and then select the required date.
13. Click **Save**.

Read and Acknowledge a Notification Request

New notification requests in your task inbox have the status Unread.

You can read the notification request, and if you are a recipient to whom the request was sent, you can acknowledge it, if this is required.

Procedure

1. View your task inbox.
2. Select the unread notification request you want to read, and view the details in the reading pane.

   The status of the notification request changes to Read.
3. If your username appears in the **To** list, and an acknowledgement is required, click **Acknowledge**.

   The status of the notification request changes to Acknowledged.

   Note: If your username appears in the **To** list, you are a recipient of the notification request. If it appears in the **CC** list, you are a stakeholder copied on the request. If there is a deadline set up for the notification request, it is shown in the **Deadline** box.

Archive Tasks

Archiving is a method of removing unwanted tasks from your inbox.

When you archive a task, it remains active in IBM Cognos Business Intelligence, and other task recipients can continue to work with it. Any notifications associated with an archived task also remain active.

Tasks that are deleted from your archive also remain active, but you can no longer view them.

Procedure

1. View your task inbox.
2. Select the tasks you want to archive, and then click **Archive**  from the **Move to** drop down list.

View the Task Archive

You can view a list of tasks that you have archived.

Procedure

View your task inbox, and then click the **Archive** tab.

What to do next

You can view the details of a task, by selecting it. The task details are shown in the reading pane. If the task contains an attachment, such as a report, you can double-click to view it.

Tips:

- To view the due date for tasks instead of the date received, select **Display Due Date** from the **Display Date Received** drop-down list.
- To return to your task inbox, click the **Inbox** tab.
- To delete unwanted tasks, select them, and then click **Delete**  .

Chapter 30. Metric Studio Metrics

Users create metrics in Metric Studio, a Web application for managing business metrics by monitoring, analyzing, and reporting them at all levels of the organization. As an administrator, you can configure security, access Metric Studio, create metric packages, run system tasks like scheduling and data loading, and view job history. You do these tasks in IBM Cognos Connection.

For information about administering IBM Cognos software security, see Chapter 18, "Initial Security," on page 275.

Create a Metric Package

Before users can use Metric Studio, you must create at least one metric package using the New Metric Package wizard. A metric package is an IBM Cognos Connection representation of a Metric Studio application. A metric package contains connection information, reports, and metric management tasks for that application. The metric package content is stored in a metric store.

You open the New Metric Package wizard from the toolbar in IBM Cognos Connection. Use the wizard to define the metric package name and the data source connection to the metric store. For a new metric store, you also provide the information necessary to initialize the database, including the start and end dates of the fiscal year.

When you create a metric package, it contains several default reports. If Report Studio is installed, you can open these reports in Report Studio. If not, you can open them in IBM Cognos Viewer. For more information about IBM Cognos reports, see Chapter 27, "Reports and Cubes," on page 397.

Before you begin

To create metric packages, you must have execute permissions for the Metric Studio Administration secured feature and traverse permission for the Administration secured function.

Procedure

1. In IBM Cognos Connection, click the **New metric package** button  .
2. Type a name and description for the Metric Studio application to represent this metric package, and click **Next**.
3. Click **New data source**.
4. Type a name and description for the data source connection for the metric store that contains the content for this metric package, and click **Next**.
5. In the **Type** box, click the database type.
6. Select the isolation level, and click **Next**.
7. Specify the information required for your database type:
   - For a Microsoft SQL Server database, type the name of the database server and the database. Under **Signons**, select the **Password** and **Create a signon that the Everyone group can use** check boxes, and type the user ID and password of the user account with access to the database.

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- For an Oracle database, type the connection string. Select **User ID**, select the **Password** and **Create a signon that the Everyone group can use** check boxes, and type the user ID and password of the user account with access to the database.
- For a DB2 database, type the name of the database, the connection string, and the collation sequence. Select **User ID**, select the **Password** and **Create a signon that the Everyone group can use** check boxes, and type the user ID and password of the user account with access to the database.

Tip: To test whether the parameters are correct, click **Test**.

8. Click **Next** and then click **Finish**.
9. Click the new data source and click **Next**.
10. Click **Next** and follow the prompts to provide the information necessary to initialize the database. When you see the page that summarizes the data source details and the metric store settings, click **Initialize**.
11. Select **Open this package with Metric Studio after closing the wizard** and then click **Finish**.

Results

Metric Studio opens, and the new metric package appears in IBM Cognos Connection.

Change the Default Action for Packages

The default action when you click a package name is shown by the icon to the left of the package name in the portal.

If the view metric package contents icon  is visible, the package contents appear.

If the open with Metric Studio icon is visible  , the package opens in Metric Studio. This is the default setting.

To change the default action of the package, do the following:

- In the **Actions** column, click the Set properties button for the package and select the default action you want.

Run a Metric Task

To run metric tasks, you must have execute permissions for the Metric Studio Administration secured feature and traverse permissions for the Administration secured function.

You can run a metric task immediately, or schedule it to run at a later time, or on a recurring basis.

Run a Task Now

The procedure to run a task now is as follows.

Procedure

1. In IBM Cognos Connection, in **Public folders** or **My folders**, open the Metric Studio package that you want.

Tip: Unless you changed the default action for the package, clicking the package name will cause the package to open in Metric Studio.

2. Click **Metric maintenance**, and click the metric task that you want to run.

Schedule a Task

The procedure to schedule a task is as follows.

Procedure

1. In IBM Cognos Connection, in **Public folders** or **My folders**, open the Metric Studio package that you want.
2. Click **Metric maintenance**, and in the **Actions** column, click the run with options button  .
3. Click **Later**, and enter the time that you want the task to run.

   You can also schedule a task to run on a recurring basis, and view a list of scheduled tasks. For more information, see Chapter 22, "Schedule Management," on page 343.

Delete a Metric Task

The procedure to delete a metric task is as follows.

You must have write permissions or set policy permissions for the task you are attempting to delete. You must also have write and traverse permissions for the current package

Procedure

1. In IBM Cognos Connection, in **Public folders** or **My folders**, select the check boxes next to the tasks you want to delete.
2. Click the delete button  on the toolbar.

   A confirmation box appears.
3. Click **OK**.

Modify a Metric Task

The procedure to modify a metric task is as follows.

Procedure

1. In IBM Cognos Connection, in **Public folders** or **My folders**, open the Metric Studio package that you want.
2. Click the set properties button  on the actions toolbar to the right of the metric task that you want to modify.
3. Depending on what you want to change, click the **Metric maintenance**, **Metric import**, or the **Metric export** tab.
4. Select or clear the check boxes for the options you want to change.
5. Click **OK**.

Metric Import Tasks

Metric packages have default import tasks available for importing and transferring data.

You can run these tasks as they are, modify them to fit your organization's needs, or create new import tasks.

These default tasks are available in your metric package, in the **Metric maintenance** folder.

Import Data From Files Into the Staging Area

You can use this task to load data from tab-delimited files into the staging tables. This is useful when your data is currently maintained in a spreadsheet or database. This task can be run at anytime without changing what is visible in Metric Studio.

Import and Transfer Data From Files Into the Metric Store

You can use this task to load data from all data sources into the staging tables and then transfer it into the metric store. The data will be appear in Metric Studio but no derived values or calculated metrics will be visible. This task also updates the search index.

Transfer Data From the Staging Area Into the Metric Store

You can use this task to move data from staging tables into the metric store. The data in the staging tables can be from imported tab-delimited files, or from another source such as Metric Designer. You can run this task after importing data from files into the staging tables. This task also updates the search index.

Create New Metric Import Task

Use this wizard to create a new task to import data into Metric Studio.

Procedure

1. In IBM Cognos Connection, click the new data integration task button  on the toolbar, and then click **New metric import from files**.
2. Type the name and description to represent this new import task and if necessary, change the location to place the task, and click **Next**.
3. Click the **Transfer data from staging area into metric store** to change the pre- and post- import options for the task. Click the options you want to use when the task is run. Click **Next**.
4. Select the action you want:
   - To run now or later, click **Save and run once** and click **Finish**. Specify the time and date for the run. Then click **Run**. Review the run time and click **OK**.
   - To schedule at a recurring time, click **Save and schedule** and click **Finish**. Then, select frequency and start and end dates. Then click **OK**.

     Tip: To temporarily disable the schedule, select the **Disable the schedule** check box. To view the schedule status, see "Manage Scheduled Activities" on page 335.
   - To save without scheduling or running, click **Save only** then click **Finish**.

Edit Metric Import Task Properties

To edit a metric import task, in the **Actions** column, click the set properties button  . Metric import properties appear on the **Metric import** tab of the **Set properties** page.

Property	Description
Import data options: Transfer data from staging area into metric store	Check box to add pre- and post- import data options.
Pre-import data options	Options to clear history and calendar data, rejected data logs, and audit history.
Post-import data options	Options to recalculate derived values, send email from Metric Studio Watchlist, and maintain the search engine index.
Run as the owner	Whether to use the owner credentials when the task is run. For more information, see "Trusted Credentials" on page 258

Metric Maintenance Tasks

Metric packages have default metric maintenance tasks available for importing and transferring data.

You can run these tasks as they are, modify them to fit your organization's needs, or create new import tasks.

These default tasks are available in your metric package, in the **Metric maintenance** folder.

Clear Staging Area Rejected Data Logs

Use this metric task to clear the rejects tables. The rejects tables are not cleared automatically after you reload the metadata and data. Each time there are rejects, they are added to the tables. You will need to clear the tables from time to time to prevent them from becoming too large. Do this after you finish troubleshooting and want to begin a new load.

Clear Audit History

Use this metric task to clear all existing audit log data from metric data store.

Clear Data Store Metric History and Calendar Data

Use this task to delete actual, target, and user-defined column values. This option also deletes any other calendar-dependent data, such as comments, actions, and mappings from PowerCube cells to metrics. Use this option when you want to change the calendar. You must then re-create the calendar before you can use the metric package again.

Warning: Clearing data store metric history and calendar data completely reinitializes the metric package database. All work will be lost.

Clear Data Store Metric History Data Only

Use this task to delete only actual, target, and user-defined column values.

Recalculate Data Store Derived Values

Use this task to recalculate scores and compute derived values and summary data in the data store. You should run this task after you load data into the data store, or after manually adding data. Concurrent recalculate processes are not permitted. This task also updates the search index.

Synchronize Data Store Users With External Namespace

Use this task to copy user information from an external namespace to the metric store.

Update Search Engine Index

Use this task to maintain the index used for searching in Metric Studio. You should run this task after loading or entering new data, to ensure new objects are indexed for searching.

New Metric Maintenance

Use this wizard to create a new task to maintain your metric data.

Procedure

1. In IBM Cognos Connection, click the new data integration task button  on the toolbar, and then click **New metric maintenance**.
2. Type the name and description to represent this new maintenance task and if necessary, change the location to place the task, and click **Next**.
3. Click the options you want to use when the task is run, and click **Next**.
4. Select the action you want:
   - To run now or later, click **Save and run once** and click **Finish**. Specify the time and date for the run. Then click **Run**. Review the run time and click **OK**.
   - To schedule at a recurring time, click **Save and schedule** and click **Finish**. Then, select frequency and start and end dates. Then click **OK**.

     Tip: To temporarily disable the schedule, select the **Disable the schedule** check box. To view the schedule status, see "Manage Scheduled Activities" on page 335.
   - To save without scheduling or running, click **Save only** then click **Finish**.

Edit Metric Maintenance Properties

You can edit the properties of a metric maintenance task.

To edit a metric maintenance task, in the **Actions** column, click the set properties button  . Metric maintenance properties appear on the **Metric maintenance** tab of the **Set properties** page.

Property	Description
Metric data options	Options to move data from the staging area to the metric store and compute derived values and summary data.
Clear data options	Options to clear history and calendar data, rejected data logs, and audit history.
Additional options	Options to send email from Metric Studio Watchlist, synchronize user information, and maintain the search engine index.
Run as the owner	Whether to use the owner credentials when the task is run. For more information, see "Trusted Credentials" on page 258.

Metric Export Tasks

The following table describes the metric objects that can be exported using the new metric export wizard, and explains the content that is exported for each object.

Metric object	Content exported
Scorecards	Exports all scorecards in the metric store (does not include associated metrics, reports, or diagrams).
Metric Types	Exports all metric types and metric type properties including equations.
Metrics	Exports all metrics (does not include metric values, or associated reports, diagrams, or comments). Note that you will need the associated scorecards, metric types, and qualifiers in order to load these metrics into another metric store.
Business Calendar	Exports the Metric Studio business calendar including calendar levels and periods.
Qualifiers	Exports all qualifiers.
Reports	Exports all reports that have been associated with scorecards, metric types, strategies, projects, and metrics.
Diagrams	Exports all diagrams that have been associated with scorecards, metric types, strategies, projects, and metrics.
Actions and Projects	Export all actions and projects that have been associated with metrics.

Metric object	Content exported
Strategies	Exports language tables and group associations for the Strategies feature.
Permissions	Exports all permissions that have been set on Metric Studio objects.
Import Sources	Exports flat file and relational import sources that have been defined in Metric Studio.
Metric Designer Import Sources	Exports cube import sources that have been defined in Metric Designer along with their associated time levels and time period mappings, currency mappings, and reportlet dimension selections.
User Defined Columns	Exports user defined column definitions.
Units	Exports any special units you have defined. Examples of default units are Currency and Percent.
Object Links	Exports all links including metric, scorecard, report, diagram, projects, strategies, and so on. You must export links in order for metrics to appear on scorecards and for reports and diagrams to appear on scorecards or metrics.
Custom URL parameters	Exports any special parameters you have staged against Metric Studio objects for use as URL parameters.
Watch Lists	Exports all watch lists to which you subscribe.

Use the new metric export wizard to create a new task to export metric data to files.

Procedure

1. In IBM Cognos Connection, click the new data integration task button  on the toolbar, and then click **New metric export**.
2. Type the name and description to represent the new export task and if necessary, change the location to place the task, and click **Next**.
3. Click to clear the objects you do not want to export, and click **Next**.
4. Select **All data for selected objects**, or choose to export data created or changed after a specified date, and click **Next**.

5. Under **Metrics period**, click **All Values** to export values for the entire time period, or **Values for the period** to export values created during a specified time period. Under **Available value types**, select the values you want to export, and click **Next**.
6. Select the currencies, and click **Next**.
7. Select the format to use when exporting security references.

   Note: Using IBM Cognos security references will execute faster. The Metric Studio 2.2 format exports users and groups by name, requiring directory searching.
8. Click **Next**.
9. Select the languages, and click **Next**.
10. Select an existing metric data archive to export to, or create a new one. Select the character set encoding and decimal separator value, and click **Next**.
11. Review your selected options for the export task, and click back if you want to change any options. When you are ready to proceed with the export, click **Next**.
12. Select the action you want:
    - To run now or later, click **Save and run once** and click **Finish**. Specify the time and date for the run. Then click **Run**. Review the run time and click **OK**.
    - To schedule at a recurring time, click **Save and schedule** and click **Finish**. Then, select frequency and start and end dates. Then click **OK**.

      Tip: To temporarily disable the schedule, select the **Disable the schedule** check box. To view the schedule status, see "Manage Scheduled Activities" on page 335.
    - To save without scheduling or running, click **Save only** and then click **Finish**.

Change Metric Export Properties

You can edit the properties of a metric export task. For instance, you may want to add a language for your users.

Procedure

1. In IBM Cognos Connection, in the **Actions** column, click the set properties button  for the metric object that you want to export.
2. Click the **Metric export** tab.

   The metric export properties appear.
3. In the **Run as the owner box**, choose whether to use the owner credentials when the task is run. For more information, see "Trusted Credentials" on page 258.
4. Click **Update the metric export**.

   The Review the summary page appears, showing the current settings for the metric export.
5. Press **Back** as needed to change the settings.
6. Click **Save**.

Chapter 31. Managing Index Search

To use index search, you must create and manage the index. Other administrative tasks related to index search include controlling the scope of the index, adjusting results relevance, suggesting content, and integrating with and publishing index content to third-party search engines.

Search results depend on the access permissions of the person who indexes the content as well as the user who searches the content.

Search activity in the portal can be restricted to index search only. Name, description, and name or description search can be disabled. For more information, see "Restricting searches of IBM Cognos content" on page 163.

Search results include report content that is archived to an external repository. For more information, see "Searching archived content" on page 235.

For information about the index and search rules that apply to IBM Cognos Business Insight workspaces, see "Index and Search Rules for Workspaces" on page 487.

Performance Considerations

Some index search settings may also impact overall IBM Cognos Business Intelligence performance. We recommend that you use the default configuration settings for the index update service, index data service, and index search service until you gain experience using index search in your IBM Cognos environment. You can change default settings later to change specific behavior or improve performance.

Initial indexing and index updates can take a considerable amount of time depending on your data set and the system resources available. You can change configuration settings to reduce indexing time for some types of installations and if sufficient system resources are available.

The default settings for the index update service and index data service assume that index search services share a common Java instance with other IBM Cognos services. For this type of installation, changes to default settings for index search to reduce indexing time can have a negative impact on overall IBM Cognos BI performance.

Deploying search services in their own Java instance can significantly improve both indexing and search performance.

We recommend that you make minor adjustments to the default settings, changing only one setting at a time, and then determining if the change reduces indexing time before making additional changes.

Create an Index Update Task

The index supports the full-text search option in IBM Cognos Connection, IBM Cognos Viewer, Query Studio, and Analysis Studio. You must run the index update task once before results are returned for a full-text content search.

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The index is not automatically updated when content changes, such as when a report is redeployed or when an object is removed from Content Manager. You must update the index to capture all changes. An indication that removed content is still in the index is if the results of an index search display the broken link icon instead of the expected icon. Also, the name of the search object appears in IBM Cognos Connection as plain text rather than a hyperlink. To ensure that the most recent content additions and deletions are reflected in the index and search results, define a schedule to update the index.

To view a list of object types that are indexable, in IBM Cognos Administration, click Index Search, and Index.

Tip: To find out when an object was last indexed, in Cognos Connection, click the set properties icon for the object. On the General tab, see the Indexed property. If the Indexed property does not appear, the object has not been indexed.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. Click **Configuration**, then click **Content Administration**.
3. To start the **New Index Update Wizard**, click the new index update icon.
4. Type a unique name and, if you want, a description and screen tip for the index update entry, select the folder where you want to save it, and then click **Next**.
5. To include entries in the index update task:
   - In the **Included Content** section, click **Add**.
   - Select the packages and folders to be included in the index update task.
   - Click the arrow button to move the selections to the **Selected Entries** list.
   - Click **OK**.

   Note: Object types that have been excluded from the index update service will not be indexed, even if they appear in a package, folder, or namespace that is included in the index update task. For more information see "Refine the Scope of the Index" on page 474.
6. To exclude entries from the index update task:
   - In the **Excluded Content** section, click **Add**.
   - Select the packages and folders to be excluded from the index update task.
   - Click the arrow button to move the selections to the **Selected Entries** list.
   - Click **OK**.
7. Click **Next**.
8. Choose the action that you want:
   - To run now or later, click **Save and run once** and click **Finish**. Specify the date and time for the run, the content options, and the scope of the update. For more information about the options, see "Run an Index Update" on page 473. Click **Run**. Review the summary and then click **OK**.
   - To schedule at a recurring time, click **Save and schedule** and click **Finish**. Then, select frequency and start and end dates, the content options, and the scope of the update. For more information about the options, see "Run an Index Update" on page 473. For more information about scheduling, see Chapter 22, "Schedule Management," on page 343.

- To save without scheduling or running, click **Save only** and then click **Finish**.

Results

After the index update task runs once, full-text search is available to users.

Run an Index Update

Run an index update when you want to update or rebuild an index. For example, you have new objects that require indexing or deleted objects that should be removed from the index. Also, you must run an index update if you want to set data collection options for including or excluding data.

To execute index update tasks, you must have execute permissions for the Administration tasks secured feature and traverse permissions for the Administration secured function. For more information, see Chapter 16, "Secured Functions and Features," on page 261 and Appendix B, "Initial Access Permissions," on page 661.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. Click **Configuration**, then click **Content Administration**.
3. For the Index Update task, in the **Actions** column, click the run with options icon.
4. On the **Run with options** page, click **Now** or **Later**.
   - **Now** runs the index update immediately
   - **Later** runs the index update at a specified time. Enter the date and time that you want the index update to run.

   You can also schedule a task to run on a recurring basis, and view a list of scheduled tasks. For more information, see Chapter 22, "Schedule Management," on page 343.
5. Under **Content Options**, specify the information to collect for the content that is included in the index. You must select one or more of the content options. Note that including actual data values enables the most thorough searching, but it also requires additional processing and consumes more space.

Options	Description
Properties and metadata	For objects within the scope of the indexing task and objects selected as "Indexable Types", specifies that the object properties, related objects (for example, output), and metadata are indexed.
Data values - Referenced data	Specifies that only data referenced by the expressions encountered in reports, queries, and analyses that are included in the scope of the indexing task are indexed. Model objects in the selected content are ignored.

Options	Description
Data values - All data	Specifies that all data encountered in the models that are in the scope of the indexing task are indexed.

If you choose to include data values in the index, you can set additional data collection parameters to govern data collection. For information about these parameters, see "Manage Data Collection" on page 476

6. Under **Scope**, select whether to update the existing index or to rebuild the index.

   You can specify whether to index only entries that have changed since the last time the indices were updated, or to rebuild the indices for all entries.

7. Click **Run**.

Restrict Content Searches

Because index search indexes the entire content store, inappropriate information may appear in the result list. To avoid exposing data not intended for the typical user, restrict the types of content.

Restrict content for

- **Archived Content** - This content, such as unused reports, is no longer useful for any active business process. Businesses may archive content to meet compliance requirements, or if aspects of this content may be reused.
- **Pre-Production Content** - In situations where the same content store is used to both develop and deploy Cognos content, you may wish to restrict content that is incomplete, under development, or in testing.
- **Specialized Content** - This is content that maintains the application, for example, reports that relate to system operation rather than to the actual purpose of the application.
- **Large datasets** - In some cases you may wish to enhance performance by restricting the indexing of large datasets that have little search value, such as telephone numbers.

If you do not wish to expose such content to end-users, you can restrict this information using the methods described below. You can also use security to restrict read access. For more information, see the IBM Cognos *Administration and Security Guide*.

Refine the Scope of the Index

You can control the scope of the index in different ways.

You can exclude all instances of a specific entry type from index updates. For example, you can exclude all report templates from future index updates.

You can also exclude specific entries or parts of an entry. For example, you can exclude a specific dimension in a package from future index updates.

You can include PowerPlay cubes and reports that are not in the Cognos content store. For example, you can index PowerPlay cubes and reports located on a different computer than any IBM Cognos components.

Exclude an Entry Type from the Index

You can control the scope of the index by excluding a specific entry type from index updates.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Index Search** tab, click **Index**, then click **General**.
3. Under **Indexable Types**, deselect the objects to be excluded from the index.
4. Click **Save**.

Results

Your changes take effect during the next index update.

Exclude a Specific Entry or Part of an Entry from the Index

You can control the scope of the index by excluding specific entries or parts of an entry.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Index Search** tab, click **Index**, then click **Exclusion**.
3. Enter values for **Package Name**, **Object Type**, and **Object Path** for each entry to exclude.

   Tip: Object Path can be either the search path or the ID of the IBM Cognos object you want to exclude. To obtain the search path or ID, click the object's **Set Properties** button, then click **View the search path, ID and URL**.
4. Click **Save**.

Results

Your changes take effect during the next index update.

Include Remote PowerPlay 7 Cubes and Reports in the Index

You can control the scope of the index by including PowerPlay cubes and reports that are not in the Cognos content store.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Index Search** tab, click **Index**, then click **PowerPlay 7**.
3. Enter values for **Gateway**, **Encoding**, **Locale**, and **Use Compression** for each PowerPlay 7 cube to include.

   For example,

   - Gateway = http://localhost/cognos/cgi-bin/ppdscgi.exe
   - Encoding = Windows-1252
   - Locale = en-us
   - Use Compression = true
4. Click **Save**.

Results

Your changes take effect during the next index update.

Manage Data Collection

When you create, schedule, or run an index update, you can specify that data is collected. If you choose to collect data, you will want to review the default settings that control how data is collected. For example, you may want to set the page size or the maximum number of prompt values to collect.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Index Search** tab, click **Index**, then click **General**.
3. Under **Data Values Collection**, review the following settings.

Setting	Description
Page size	Specifies the number of children of a category to request from the report server in one request. For example, if a dimension in a dimensional data source like a cube has 10000 child categories, groups of 1000 are requested until all levels are retrieved. The default value is 1000.
Maximum prompt values	Specifies the maximum number of prompt values to collect. The default value is 5000.

4. Click **Save**.

Results

Your changes take effect during the next index update.

Limit Index by Language

You can specify whether to limit indexing by language. For example, specifying a value of en, fr would limit indexing to English and French content.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Index Search** tab, click **Index**, then click **General**.
3. Under **Indexing Locales**, choose whether to index all the default languages or only a subset. You must specify the languages for a subset.

   The default language is the server locale.
4. Click **Save**.

Results

Your changes take effect during the next index update.

Adjust Results Relevance

You can adjust the relevance of search results to give more or less weight to results that meet a specified search criteria.

To adjust search score relevance, use the index data service CSN.Relevance advanced configuration setting. You can adjust results relevance for specific objects such a reports, PowerPlay reports, agents, and screentips. You can also adjust results relevance for container objects such as folders and packages. If relevance is set for a container object, the results relevance adjustment will apply to all objects that reference the container. For more information, see "Change Index Data Service Parameters" on page 486.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Index Search** tab, click **Storage**, then click **Advanced**.
3. Add the **CSN.Relevance** parameter to the advanced configuration settings list and set the value to the path for the object.

   For example:

   CSN.Relevance.1 = 20;/content/folder[@name='Sales_2006']/
   report[@name='revenue']

   Note: Search paths are language-specific, so you must set separate parameters for each language.
4. Enter additional **CSN.Relevance** parameters and values as required.

   Note: You can add up to 50 instances of **CSN.Relevance**. Each instance must be appended with a number to distinguish it from other **CSN.Relevance** settings. For example, you can use CSN.Relevance.0 to CSN.Relevance.49 to identify each setting.
5. Click **Save**.

Results

In the example above, any search queries on "revenue" that return reports from the "Sales_2006" package will have the relevance of the search result score increased by 20 percent. If the relevance of the search score was 45 percent prior to setting **CSN.Relevance**, the new relevance of the search results score will be 54.

To decrease the relevance of a search results score, use a negative number. For example, -10 would decrease the relevance of a score by 10 percent.

Suggest Content

You can associate specific search terms with reports or other IBM Cognos objects. When a user enters a term that is on the list, the associated IBM Cognos object is displayed above the search engine results, under the Suggested tab.

For example, you have a widely used report called Total Revenue by Country or Region. You decide to associate the report with the term "revenue" so the report will always be shown as a suggested result for that search term.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Index Search tab**, click **Search**, then click **Suggested**.
3. Under **Terms**, select a checkbox and enter one or more words.
4. Under **Type**, select the desired matching method:
   - **All words** results in a match if all the words are found, in any order.
   - **Phrase** results in a match if all the words are found together and in order.
   - **Exact Phrase** results in a match if all the words are found together, in order, and without any other words.
5. Under **Location**, enter the search path or ID of the IBM Cognos object you want to associate with the search term. To obtain the search path or ID, click the object's **Set Properties** button, then click **View the search path, ID and URL**.

   Note: Search paths are language-specific, IDs are not.
6. Click **Save**.

Integrate with Another Search Engine

Index search can integrate with other search engines to retrieve search results from enterprise data sources other than IBM Cognos Business Intelligence, or from the Web. If you specify another search engine, its search results will appear in a separate pane to the right of the index search results.

Index search can integrate with the following:

- IBM OmniFind® Enterprise Edition

  Ensure that the required .jar files have been copied to your IBM Cognos BI environment. For more information, see the topic about adding IBM OmniFind Enterprise Edition search functionality in the *Installation and Configuration Guide*.
- IBM OmniFind Yahoo! Edition
- Google Search Appliance
- any Web search service that accepts REST queries and returns results in XML (typically in RSS or Atom format; index search includes stylesheets for both)
- IBM Connections

  Note that to successfully extend searches to include IBM Connections content, the IBM Connections search index must be set up and configured for your environment. You may have to enable indexed search in IBM Connections. For information about administering IBM Connections search, see the IBM Connections documentation. http://publib.boulder.ibm.com/infocenter/ltscnnct/v2r0/index.jsp?topic=/com.ibm.connections.25.help/c_admin_homepage_search.html.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Index Search** tab, click **Search**, then click **Related**.

3. In the **Related Search** box, click the search engine you want to use.

Option	Properties
IBM OmniFind Enterprise Edition	**Host Name** is the name of the server that hosts IBM OmniFind Enterprise Edition. **Port** is the port number that is used by IBM OmniFind Enterprise Edition on the host computer. **Collection ID** is the name of a specific collection (a collection is a named subset of an index, for example, human_resources). If blank, the entire index is used. **Application Name** is the named search application to use. **Application Password** is the password of the named search application. **Timeout** is the maximum number of seconds index search will wait for the search results to be returned. The default is 120 seconds. **Username** is the username to log into IBM OmniFind Enterprise Edition. **Password** is the password to log into IBM OmniFind Enterprise Edition.
IBM OmniFind Yahoo! Edition	**Host Name** is the name of the server that hosts IBM OmniFind Yahoo! Edition. **Port** is the port number that is used by IBM OmniFind Yahoo! Edition on the host computer. **Collection ID** is the name of a specific collection (a collection is a named subset of an index, for example, human_resources). If blank, the entire index is used.

Option	Properties
IBM Connections	**Protocol** is either HTTP or HTTPS. **Host Name** is the name of the server that hosts IBM Connections. **Port** is the port number that is used by the server that hosts IBM Connections. The default is 80. **Homepage** is the IBM Connections homepage URL. IBM Connections objects that can be included in a search are: **Profiles**, **Communities**, **Blogs**, **Bookmarks**, **Activities**, **Files**, and **Wikis**. **Search PUBLIC content** specifies that a search includes only public content, not private content. **Search PUBLIC and PRIVATE content** specifies that a search include both public and private content. **Note:** Private results are for the user performing the search, not the administrator configuring the search.
Google Search Appliance	**Host Name** is the name of the Google Search Appliance server. **Port** is the port number that is used by Google Search Appliance. **Collection ID** is the name of a specific collection (a collection is a named subset of an index, for example, human_resources). If blank, the entire index is used. **Front End** is the Front End page to be used to change the colors, fonts, and design of the search results. The default is default_frontend.

Option	Properties
Other	Create the following URL objects in IBM Cognos Connection: • **Atom URL**. The URL of the search service. For example, http://news.google.com/news?output=atom&q=cognos • **Stylesheet URL**. The stylesheet to be applied to the search results. The following default stylesheets are available for Atom and RSS based search engines: – *installation_location*\configuration\gosearch_atom.xslt – *installation_location*\configuration\gosearch_rss.xslt Copy the desired stylesheet to a Web server accessible to IBM Cognos BI. For example, http://localhost/gosearch_atom.xslt Enter the search paths for the Atom URL and Stylesheet URL objects into the relevant fields.

4. Click **Save**.

Publish Content to an Enterprise Search Engine

To make IBM Cognos Business Intelligence content available to an enterprise search engine, such as Google Search Appliance, you must create and publish index search cards. The enterprise search engine indexes the cards, in the same way as it indexes other content, to make the Cognos content available for searching. When a user runs an enterprise search, the results can include Cognos content.

The IBM Cognos Index Search installation includes a command line tool that you run to create IBM Cognos Index Search cards. Before you run this tool, you must create and run an Index Update Task in IBM Cognos Connection. For information about how your enterprise search engine indexes content, see the documentation for your enterprise search engine.

IBM Cognos index search cards are not required for OneBox integration.

Security Considerations

When a full-text search is run from IBM Cognos Connection or one of the IBM Cognos studios, the result set is filtered based on the access permissions of the user. The result set shows only those items that a user has permission to access. However, when a user runs a search from a third-party enterprise search engine, the result set may show some Cognos content, such as report name and description, that the user would not see when searching in the IBM Cognos portal. This is because the index search cards and the enterprise search engine are outside the IBM Cognos security framework. IBM Cognos security is applied when a user attempts to access an item from the search result set.

When creating index search cards, you can control security for Cognos content by using one or more of the following techniques:

- Limit the number of cards.

  When you create the cards, use authentication information that provides access only to public content. This creates cards that represent a subset of the items referenced in the index. When a user runs an enterprise search, only public Cognos content can appear in the result set.
- Create different sets of cards.

  Run the tool that creates the cards more than once using different authentication information. Each time that you run the tool you create a new set of cards that reference the content that the user profile has access to. If you use this technique, you must also manage collections and security using the administration tools of the enterprise search engine.
- Manage collections and security using the enterprise search engine administration tools.

  Your enterprise search engine provides options for controlling the possible result set for different users. This is typically accomplished by defining the content of different collections. A collection definition can include content locations, such as Web servers, or specific content, such as index search cards. You may not be able to duplicate IBM Cognos security settings using these options. You should test the search results to ensure that the expected security is achieved.

You use the following files and folders to expose IBM Cognos content to an enterprise search engine.

Path and File Name	Description
installation_location\bin\card\card.txt	This text file contains information about the process used to create index search cards, and the parameters you can change for your environment.
installation_location\bin\card\card.bat (Windows) *installation_location*\bin\card\card.sh (UNIX)	You run this batch file from a command line to create the cards. Unless anonymous access is enabled in IBM Cognos BI, you must provide namespace, user ID, and password to run the file. For more information, see the *Installation and Configuration Guide*.
installation_location\bin\card\card.xml	Before you run card.bat, modify the parameters in this file to specify details about your environment. The default settings are appropriate for a proof of concept installation where all IBM Cognos components are installed on the same computer.
installation_location\indexes\card	This folder is the default output location for the cards generated by card.bat.

Publish Content on Windows

On Windows, to make IBM Cognos Business Intelligence content available to an enterprise search engine, such as Google Search Appliance, you must create and

publish index search cards. The enterprise search engine indexes the cards, in the same way as it indexes other content, to make the Cognos content available for searching. When a user runs an enterprise search, the results can include Cognos content.

Procedure

1. Before generating index search cards, set the Index Data Service advanced setting CSN.StoreXML to true.

   For information about where to set the CSN.StoreXML parameter, see "Change Index Data Service Parameters" on page 486.

   Existing content will need to be reindexed if you want it stored as XML documents.
2. Open the card.xml file in an XML or text editor.
3. Modify parameters to specify the location of IBM Cognos components and to change other default process settings.
4. Open a command prompt window and go to the \bin\card location in the IBM Cognos BI installation.
5. Run card.bat.

Results

The index search cards are created by default in *installation_location*\indexes\card. Ensure that the enterprise search engine has access to the cards for indexing. You must regenerate the cards to include changes in the Cognos content.

Publish Content on UNIX

On UNIX, to make IBM Cognos Business Intelligence content available to an enterprise search engine, such as Google Search Appliance, you must create and publish index search cards. The enterprise search engine indexes the cards, in the same way as it indexes other content, to make the Cognos content available for searching. When a user runs an enterprise search, the results can include Cognos content.

Procedure

1. Before generating index search cards, set the Index Data Service advanced setting CSN.StoreXML to true.

   For information about where to set the CSN.StoreXML parameter, see "Change Index Data Service Parameters" on page 486.

   Existing content will need to be reindexed if you want it stored as XML documents.
2. Open the card.xml file in an XML or text editor.
3. Modify parameters to specify the location of IBM Cognos components and to change other default process settings.
4. Go to the \bin\card location in the IBM Cognos installation.
5. Run card.sh.

Results

The index search cards are created by default in installation_location\indexes\card. Ensure that the enterprise search engine has access to the cards for indexing. You must regenerate the cards to include changes in the IBM Cognos content.

Include Access Control Information in the Index

The index update service can retrieve the access control list from Content Manager during indexing. This option consumes additional resources, but is turned on by default because it speeds up searching.

IBM Connections does not support the use of IBM Cognos access control lists in searches. This affects search results. For example, a user who has access to a workspace can get that workspace returned in the search results. However, if there is a related private activity, they will not be able to view the activity in either the IBM Cognos environment or in IBM Connections.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Index Search** tab, click **Index**, then click **General**.
3. Under **Security**, review the following settings:

Setting	Description
Index Access Control List	Specifies whether the access control list for each object is retrieved from Content Manager during indexing. When selected, the internal security check is used. When deselected, the Content Manager security check is used. For more information, see the *Installation and Configuration Guide*. You must also select **Index Access Control List** in **Search**, **General** and in **Storage**, **General**. If all three settings do not match, the Content Manager security check is used. All three **Index Access Control List** settings are selected by default.
Update Policies	Specifies whether the index access control list is updated when an incremental index is run. The setting is selected by default.

4. Click **Save**.

Results

Your changes take effect during the next index update.

Secure Search Results

You can verify search and refinement results to ensure they can be accessed by the current user.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.

2. On the **Index Search** tab, click **Storage**, then click **General**.
3. Under **Security**, review the following settings:

Setting	Description
Secure search results	When selected, all search results are verified in real time with the service provider to ensure that results listed can be accessed by the current user.When deselected, validation of results is not performed. **Note:** Validation and verification is always performed when accessing an item in a result list. This security option controls whether or not the item is displayed. The setting is selected by default.
Index Access Control List	Specifies whether the indexed access control list for each object is used for securing results during search. The setting is deselected by default.

Collect Statistics About the Index

You can collect statistics on the index.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Index Search** tab, click **Index**, then click **General**.
3. Under **Indexing Statistics**, review the following setting:

Setting	Description
Enable	Specifies whether the collection of index statistics is enabled. The statistics include total number of objects indexed, number of objects by type, number of data values collected, and number of categories indexed. Information about all running threads is also included. The statistics are saved in XML and HTML files in the logs folder. These files are constantly updated during indexing. The setting is selected by default.

4. Click **Save**.

Results

Your changes take effect during the next index update.

Set Advanced Parameter to Control Resources for Index Update

You can set the advanced configuration parameter, CSN.Indexing.Level, to control the CPU and memory use of an indexing job and, thereby, manage the impact that the indexing job has on available resources. A value of "high" indicates that the server is dedicated to IBM Cognos searching and indexing, whereas a value of "low" indicates that the server runs indexing jobs in the background.

Note, as a general guideline, the resources that an indexing job uses depends on the number of available CPUs on the server.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. Go to the **Index Search**, **Index**, **Advanced** page, and use the following table to set the advanced parameters.

Parameter	Description
CSN.Indexing.Level	Specifies the resources available for searching and indexing. • High - server is dedicated to IBM Cognos searching and indexing • Normal - other applications coexist with IBM Cognos search on the server • Low - IBM Cognos searching and indexing runs in the background • Debug - used for development and troubleshooting

Change Index Data Service Parameters

The following index data service properties are set in the Index Search, Storage, Advanced page.

Parameter	Description
CSN.IndexLocation	Specifies the location of the index created by the index data service. The default location is *installation_location*\indexes\csn
CSN.IndexNFSSupport	Specifies whether UNIX Network File System (NFS) is supported. This setting is required when configuring index sharing or index distribution on UNIX NFS. The default value is false.

Parameter	Description
CSN.StoreXML	Specifies whether XML documents for Content Manager objects and datasets are stored. The default value is false.

Index and Search Rules for Workspaces

When you search for IBM Cognos BI content or IBM Connections content, the rules concerning whether workspace activities are listed in the search results depend on the access permissions of the user who indexed the content as well as your own access permissions.

All public activities are included when content is indexed, so they can be retrieved in a search. Activities created from workspaces are private by default, unless they are changed to be public in IBM Connections.

If the user indexing the content has access to a specific private activity, this activity is included in the index. When you search for a term that matches the private activity, you get the following results:

- If you have access to the private activity in IBM Connections, the workspace to which the activity is connected is listed in the IBM Cognos search results. The activity is also listed in the IBM Connections results, provided that your system administrator has enabled public and private searches.
- If you do not have access to the private activity in IBM Connections, the workspace to which the activity is connected is listed in the IBM Cognos search results. The activity is not listed in the IBM Connections results.

If the user indexing the content does not have access to a specific private activity, this activity is excluded from the IBM Cognos BI index. When you search for a term that matches the private activity, you get the following results:

- If you have access to the private activity in IBM Connections, the workspace to which the activity is connected is not listed in the IBM Cognos search results. The activity is listed in the IBM Connections results, provided that your system administrator has enabled public and private searches.
- If you do not have access to the private activity in IBM Connections, the workspace to which the activity is connected is not listed in the IBM Cognos search results. The activity is not listed in the IBM Connections results.

The following table shows the criteria that govern when an activity is seen or not seen in the Cognos search results for the workspace user and the user running the index.

	Workspace user sees an activity	**Workspace user cannot see an activity**
The user running the index can see the activity.	The workspace is listed in search results. The IBM Connections activity is listed in search results.	Workspace is listed in the search results. The IBM Connections activity is not listed in the search results.
The user running the index cannot see the activity.	Workspace is not listed in the search results. IBM Connections activity is listed in the search results. This is the most common scenario.	Workspace is not listed in the IBM Connections activity IBM Connections activity is not listed in the search results.

Chapter 32. Drill-through Access

Drill-through applications are a network of linked reports that users can navigate, retaining their context and focus, to explore and analyze information.

Drill-through access helps you to build business intelligence applications that are bigger than a single report.

For example, you have an Analysis Studio report that shows revenue and you want to be able to drill through to a Report Studio report that shows details of planned and actual revenue. For more information, see "Example - Drill Through Between OLAP Reports in the Same Package" on page 502.

Another example is an Analysis Studio report that lists the top 10 promotions by retailer and you want to be able to drill through to a Report Studio report that shows promotion plan revenue. For more information, see "Example - Drill Through from an OLAP Report to a DMR Report" on page 504.

Drill-through access works by passing information from the source to the target object, usually a report. You define what is passed from the source report by having the system match information from the selection context of the source report to the content of the target (dynamic drill through) or by defining parameters in the target (parameterized drill through). You define drill-through access for the source, either at the package level, in IBM Cognos Connection (Launch, Drill-through Definitions) or at the report level (Report Studio). Within a package, you control the scope of the data for which drill-through access is available in the drill through definition. Within a report, you define the drill-through access on a report item.

What You Should Know

For a drill-through link to work, it is necessary to know:

- what the source report is or is going to be
- what the target report is or is going to be
- whether the users of the drill through link in the source report have the appropriate permissions to view or run the target report
- how the data in the two reports is related

  Depending on the underlying data, you may create a drill through definition and have IBM Cognos Business Intelligence match the data (dynamic drill through) or map the source metadata to parameters defined in the target report or package (parameterized drill through)
- whether to run the target report or to open it

  The target of drill-through access is usually a saved report definition. The report can be created in Report Studio, PowerPlay Studio, Query Studio, or Analysis Studio. The target of drill-through access can also be a package that contains a PowerCube, in which case a default view of the PowerCube is created.
- if the target is being run, in what format to run it and what filters to run it with

  If you don't want to run the target report on demand, you may link instead to a bookmark in the saved output.

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Sources and Targets

In IBM Cognos BI, there are many different combinations of source and target. For example, you can drill through

- between reports created in different packages against different data source types, such as from an analysis against a cube to a detailed report against a relational data source. For more information on creating drill through access in packages, see "Set Up Drill-through Access in Packages" on page 497.
- from one existing report to another report using Report Studio. For more information on creating drill through access in a report, see "Set Up Drill-through Access in a Report" on page 510
- between IBM Cognos Viewer reports authored in Report Studio, Query Studio, PowerPlay Studio, and Analysis Studio
- from Series 7 PowerPlay Web cubes to IBM Cognos BI reports. For more information on setting up drill through access from PowerPlay Web see, "Set Up Drill-through Access from PowerPlay Web" on page 514
- from Metric Studio to other IBM Cognos BI reports by passing parameters using URLs.

  For more information, see the Metric Studio *User Guide*.

Understanding Drill-through Concepts

Before you set up drill-through access, you must understand the key concepts about drilling through. Knowing these concepts will help you to avoid errors so that report consumers drill through as efficiently as possible.

Drill-through Paths

You can create a drill-through path in a source report in IBM Cognos Report Studio, or using Drill-through Definitions in IBM Cognos Connection. A drill-through path is the definition of the path that is taken when moving from one report to another, including how the data values are passed between the reports.

Using **Drill-through Definitions**, you can create a drill-through path from any report in the source package to any target report in any other package in IBM Cognos Connection. This type of drill-through definition is stored in the source package. Users of any report in the package can use the drill-through definition to drill between any combination of IBM Cognos Analysis Studio, IBM Cognos Query Studio, IBM Cognos PowerPlay Studio, or IBM Cognos Viewer reports in any package.

For any target report that contains parameters, you should map the target parameters to the correct metadata in the drill-through path. This ensures that the values from the source report are passed to the correct parameter values, and that the target report is filtered correctly. If you do not map parameters, then the users may be prompted for values when the target report is run.

A report-based drill-through path refers to a path created and stored in a Report Studio source report. This type of drill-through path is also called authored drill through. The path is associated with a specific data column, chart, or cross tab in the source report, and is available only when users select that area of the report. If an authored drill-through definition is available, a hyperlink appears in the source report when it is run.

Report-based drill-through is limited to Report Studio source reports and any target reports. Use this type of drill-through access when you want to pass data item values or parameter results from within a source report to the target report, pass the results of a report expression to a target report, or a use URL link as a part of the drill-through definition.

Selection Contexts

The selection context represents the structure of the values selected by the user in the source.

In IBM Cognos Analysis Studio, this includes the context area. When a package drill-through definition is used, the selection context is used to give values for mapped parameters (parameterized drill-through) or also to map the appropriate data items and values.

Drill-through links can also be defined to open the target object at a bookmark. The content of this bookmark may also specified by the selection context.

Drill-through access is possible between most combinations of the IBM Cognos Business Intelligence studios. Each studio has been optimized for the goals and skills of the audience that uses it, and in some cases for the type of data source it is designed for. Therefore, you may need to consider how the various studios manage the selection context when you drill through between objects created in different studios, and how the data sources are conformed. During testing or debugging, you can see how source values are being mapped in different contexts using the drill-through assistant.

Drilling Through to Different Report Formats

The settings in the drill-through definition determine the format in which users see the report results.

For example, the users may see the reports in IBM Cognos Viewer as an HTML Web page, or the reports may open in IBM Cognos Query Studio, IBM Cognos PowerPlay Studio, or IBM Cognos Analysis Studio. If your users have PowerPlay Studio, then they may also see the default view of a PowerCube.

Reports can be opened as HTML pages, or as PDF, XML, CSV, or Microsoft Excel spreadsheet software formats. When you define a drill-through path, you can choose the output format. This can be useful if the expected use of the target report is something other than online viewing. If the report will be printed, output it as PDF; if it will be exported to Excel for further processing, output it as Excel or CSV, and so on.

If you define a drill-through path to a report that is created in Analysis Studio, PowerPlay Studio, or Query Studio, consumers can open the report in its studio instead of in IBM Cognos Viewer. This can be useful if you expect a consumer to use the drill-through target report as the start of an analysis or query session to find more information.

For example, if an application contains a dashboard style report of high-level data, you can define a drill-through link to Analysis Studio to investigate items of interest. The Analysis Studio view can then be drilled through to a PDF report for printing.

Note: IBM Cognos Report Studio does not display data results.

Drilling Through Between Packages

You can set up drill-through access between packages.

The two packages can be based on different types of data source, but there are some limits. The following table shows the data source mappings that support drill-through access.

Source data source	Target data source
OLAP	OLAP **Note:** OLAP to OLAP drill through is supported only if the data source type is the same, for example, SSAS to SSAS.
OLAP	Dimensionally modeled relational
OLAP	Relational data **Note:** For more information, see "Business Keys" on page 495.
Dimensionally modeled relational	Dimensionally modeled relational
Dimensionally modeled relational	Relational
Relational	Relational

Bookmark References

When you drill through, the values that you pass are usually, but not always, used to filter the report.

IBM Cognos Business Intelligence supports bookmarks within saved PDF and HTML reports so that a user can scroll a report to view the relevant part based on a URL parameter.

For example, you have a large inventory report scheduled to run daily or weekly during off hours because of resource considerations. Your users may want to view this report as a target because it contains detailed information, but you want them to view the saved output rather than run this large report. Using this Action option and bookmark settings, users can drill through from another source location based on products to open the saved report to the page that shows the product they want to focus on.

When a bookmark in the source report is used in a drill-through definition, it provides the value for the URL parameter. When report consumers drill through using this definition, they see the relevant section of the target report.

Bookmark references are limited to previously run reports that are output as PDF or HTML and contain bookmark objects.

Members and Values

Dimensionally modeled data, whether stored in cubes or stored as dimensionally-modeled relational (DMR) data, organizes data into dimensions. These dimensions contain hierarchies. The hierarchies contain levels. And the levels contain members.

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An example of a dimension is Locations. A Locations dimension may contain two hierarchies: Locations by Organization Structure and Locations by Geography. Either of these hierarchies may contain levels like Country or Region and City.

Members are the instances in a level. For example, New York and London are members in the City level. A member may have multiple properties, such as Population, Latitude, and Longitude. Internally, a member is identified by a Member Unique Name (MUN). The method by which a MUN is derived depends on the cube vendor.

Relational data models are made up of data subjects, such as Employees, which are made up of data items, such as Name or Extension. These data items have values, such as Peter Smith.

In IBM Cognos Business Intelligence, the methods of drilling through available are

- Dimensional (member) to Dimensional (member)
- Dimensional (member) to Relational (data item value)
- Relational (data item value) to Relational (data item value)

If the target parameter is a member, the source must be a member. The source and target should usually be from a conformed dimension. However, if the data will support it, you may also choose to define a mapping using different properties of the source metadata item.

If the target parameter is a value, the source can be either a value or a member. If the source is a dimensional member, you must ensure that the level or dimension is mapped to the target data item correctly in the drill-through definition. The business key from which the member is sourced should usually match the relational target value, which is most often the business key. However, if the data will support it, you may also choose to define a mapping from the caption of the source metadata item.

Member Unique Names

The member unique name (MUN) is a unique identifier for a member in IBM Cognos reports. It is stored in the report specification when the member is referenced in the report directly.

The MUN is used in drill-through between OLAP data sources. The member keys in the MUN for the different OLAP data sources must match.

The MUN is used to find the member in the data source, which is similar to how business keys are used to find records in a table. For example, when you create OLAP dimension Products, you use the Product Line database column as s label for the members in your Product Line level. However, you use the Product Line Code business key from the database table to ensure that all the Product lines are unique in that level. The source value that you used to create the members is used in combination with the data source name, hierarchy, and level information in the member unique name.

If the MUN changes, members that are directly referenced in expressions, filters, or reports are no longer found. Changes to the MUN may be related to other changes. For example, changes to the hierarchy and level structures may change the level unique name, and changes to the business key values may change the member key path. Other factors that can affect the MUN are application changes during the design stage or over time, IBM Cognos PowerCube category codes that are

unpredictably unique, the production environment that has more members than the test environment, or removing the member from the data source.

To avoid potential problems, we recommend the following best practices when you build OLAP data sources:

- Use unique codes and keys within a dimension for the member keys.
- Define your OLAP and relational packages using unique conformed values for the source values (business keys) within similar dimensions or data values where drill-through between applications may be required.
- Ensure that the business keys and dimension metadata structure are the same in the production and test environments.
- Do not change the business keys in IBM Cognos Framework Manager in the production environment.
- Resolve the non-unique keys in a dimension in the data source before you build the cube.

  Ensure that there are no duplicate source values in all levels of a dimension before you build a PowerCube. We do not recommend using the tilde character (~) in the category codes.

  For more information, see the section about uniqueness in the IBM Cognos Series 7 *Step-by-Step Transformer*.

For information about PowerCubes migrated from IBM Cognos Series 7, see the IBM Cognos PowerPlay *Migration and Administration Guide* or the Migration Assistant *User Guide*.

Conformed Dimensions

If you work with more than one dimensional data source, you may notice that some dimensions are structured the same, and some are not.

The reason that dimensions can be structured differently is that the data sources may serve different purposes.

For example, a Customer dimension appears in a Revenue data store, but not in an Inventory data store. However, the Products dimension and the Time dimension appear in both data stores.

Dimensions that appear in multiple data stores are conformed if their structure is identical for all of the following:

- hierarchy names
- level names
- level order
- internal keys

Drilling through is possible between different dimensional data stores only if the dimensions are conformed, and if the dimension data store is of the same vendor type, such as IBM Cognos PowerCube as the source and the target. For example, in two data stores for Revenue and Inventory that contain Products and Time dimensions, it is possible to define the Products and Time dimensions differently for each data store. However, for drill-through between the Products and Time dimensions to work, their structures must be identical in each data store.

If you are not sure whether your dimensions are conformed, then you should check with the data modeler to ensure that the drilling through will produce meaningful results.

IBM Cognos Business Intelligence does not support conformed dimensions generated by IBM Cognos Framework Manager for SAP BW data sources.

Dimensionally-modeled Relational Data Sources

Ensure that each level contains a business key that has values that match your PowerCube or other DMR models. Also, you must also ensure that the **Root Business Key** property is set and uses the business key of the first level in the hierarchy. This helps to ensure that you have a conformed member unique name when attempting to drill through using members from this dimension.

Business Keys

When drill-through access is defined from a member to a relational value, the business key of the member is passed by default.

This means that your relational target parameter must be set up using the data item with a matching value, which is most often the business key data item. You can also choose to pass the caption of the source metadata item.

For example, employees are usually uniquely identified by an employee number, not by their name, because their name is not necessarily unique. When you drill through from a dimensional member to a relational data item, the value provided is the business key. Therefore, the parameter in the target report must be defined to accept a business key value. The exact logic used to define the business key value supplied depends on the cube vendor. For IBM Cognos PowerCubes, the business key value is the **Source** property defined for the level in IBM Cognos Transformer. IBM Cognos Series 7 Transformer PowerCubes pass the source value if the drill-through flag was enabled before the cube was built. Otherwise, the category code is used.

In IBM Cognos Report Studio, you can determine what the member business key is using an expression such as `roleValue('_businessKey',[Camping Equipment])`. This expression is case sensitive.

SSAS 2005 multipart business keys are not supported in drill-through operations.

Tip: When other users run your drill-through report, you may not want them to be prompted for a business key. In Report Studio, you can build a prompt page with a text that is familiar to the users, but filters on the business key. Your IBM Cognos Framework Manager modeler can also set the **Display Item Reference** option for the **Prompt Info** property to use the business key when the data item is used in a prompt.

Scope

Scope is specific to drill-through definitions created using Drill-through Definitions in IBM Cognos Connection (package drill-through definitions). The scope you set defines when the target report is shown to the users, based on the items they have in the source report.

Usually, you define the scope of a drill-through path to match a parameter that it passes. For example, if a target report contains a list of employees, typically you

only want to display the report as an available drill-through choice when a user is viewing employee names in a source report. If employee names are not in the source report and the scope was set on the employee name in the drill-through definition, the employee report does not appear on the list of available drill-through target reports in the **Go To** page. You can set the scope to a measure or to an item in the report.

In report-based drill-through access, where the drill-through path is associated with a specific report column, the column serves as the scope.

Mapped Parameters

Drill-through targets may contain existing parameters or you can add parameters to the target for greater control over the drill-through link.

You usually map all parameters in a drill-through target to items from the source.

When you map source items that are OLAP or DMR members to target parameters, you can select from a set of related member properties to satisfy the requirements of the target parameter. For a dimensional target, a dimensional source item uses the member unique name by default. For a relational target, a dimensional source item uses the business key by default.

For example, you could change the source member property that is used for a mapping to the member caption instead of the business key to match the parameter in a relational target. For a dimensional target, you could define a parameter that accepts a particular property (such as business key or parent unique name), then pass the appropriate source property to satisfy that target.

Note that if you define drill through between non-conformed dimensions, you should test carefully to ensure that the results behave as expected.

If you do not specify parameter mappings, then by default, you will be prompted for any parameters required in the target when you use the drill-through link. To customize this behavior, use the display prompt pages setting.

When the action is set to **Run using dynamic filtering**, then additional filtering is applied if names from the context in the source report match names of items in the target. Use this action as well when there are no parameters defined in the target.

If parameters are not mapped correctly, then you may receive an empty report, the wrong results, or an error message.

The source and target cannot contain identical parameter names when they are from different packages, even if the data structure is conformed. If the source and target are from the same package, there is no restriction.

If you have the necessary permissions, you can use the drill-through assistant to look at what source parameters are passed, and what target parameters are mapped for a given drill-through link.

You can change the dynamic drill-through filter behaviour if you want drill-through to generate a filter using the Member Business Key instead of the default Member Caption. For more information, see Changing Drill-Through Filter Behavior in the *IBM Cognos Administration and Security Guide*.

Drilling Through on Dates Between PowerCubes and Relational Packages

The usual method of drilling through from OLAP to relational packages requires that the target report parameter is set using the business key in the relational data, which does not work well for dates.

OLAP data sources typically view dates as members, such as Quarter 1 2006, while relational data sources view dates as ranges, such as 1/Jan/2006 to 31/March/2006.

A special feature exists for drilling through between PowerCubes and relational packages. Ensure that the target report parameter is set up using `in_range`. Note that the parameter must be of type date-time, and not integer.

An example follows:

```
[gosales_goretailers].[Orders].[Order date] in_range
?Date?
```

Also ensure that the drill-through definition maps the parameter at the dimension level and that the PowerCube date level is not set to suppress blank categories. Enabling the option to suppress blank categories in the Transformer model before you build the cube may cause the drill-through on dates to be unsuccessful. This happens because there are missing values in the range.

Set Up Drill-through Access in Packages

A drill-through definition specifies a target for drill-through access, the conditions under which the target is available (such as the scope), and how to run or open, and filter the target.

In IBM Cognos Connection, a drill-through definition is associated with a source package. The drill-through path defined in the drill-through definition is available to any report based on the source package it is associated with. The target can be based on any target package in IBM Cognos Connection and can be stored anywhere. For example, all reports authored in the GO Data Warehouse (analysis) sample package or in a folder linked to this package can access any drill-through definition created in this package.

Note: For reports created in Report Studio, you can define drill-through access in specific reports by setting up the drill-through definition in the report instead of in the package, or restrict drill-through access by changing report settings so that the report is unavailable as a drill-through target. For more information, see the IBM Cognos Report Studio *User Guide*. Reports created in IBM Cognos Business Insight Advanced are not supported as drill-through targets.

You can define drill-through definitions between reports created in the different IBM Cognos Business Intelligence studios, and reports based on different packages and data sources.

The target report must exist before you start creating the drill-through definition in IBM Cognos Connection. Drill-through targets can be reports, analyses, report views, PowerCube packages and queries.

Drill-through definitions support both dimensional and relational packages, and are available to Analysis Studio, Query Studio, PowerPlay Studio, and IBM Cognos Viewer.

Procedure

1. Check the drill-through target:
   - Confirm that the drill-through users have access to the target.
   - Hide the target from direct access if you want.
   - If necessary, check what parameters exist in the target.

     When a drill-through definition links objects in different packages, you must consider the data types used in both the source and the target object. Review the structure and values of data that you intend to pass in the drill-through, and ensure that the created parameters are appropriate for your scenario, if you have defined parameters, or that dynamic drill through will work successfully.
2. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **Drill-through Definitions**.
3. Navigate to the top level of the package for which you want to create the drill-through definition.
4. Click the new drill-through definition button on the toolbar.

   Tip: If you do not see the drill-through definition button, then confirm that you are at the top level of the package, and not in a folder in the package. Drill-through definitions must be stored at the package level.
5. Type a name for the drill-through definition.
6. If you want, type a description and screen tip, and then click **Next**.
7. Follow the instructions on the screen:
   - If you wish, restrict the scope to a query item or a measure in the source.

     If the target contains parameters, you should set the scope to the parameters that are mapped to the target report
   - Select the target from any package available in IBM Cognos Connection.

     If PowerPlay targets are available, then you must choose whether to set the target as a report or a PowerCube.
   - Click **Next**.
8. In the **Action** section, specify how to open the target object when the drill-through link is run and if you chose to run the report, in the **Format** section, specify the format to run the report in.

   Note: Users may be able to change the **Action** settings when they use the drill-through link. If you are using bookmarks in the target, then you must select the action **View most recent report**.
9. In the **Parameter values** table, specify how to map the source metadata to any parameters that exist in the target report or object.

   For example, if you drill through between OLAP data sources, then members are mapped to each other. If you drill through from an OLAP to a relational data source, then the source value (member) is mapped to the query item name (value).

   Usually, every parameter that exists in the target should be mapped to the source metadata. If not, then the report user may be prompted for any missing values when the drill-through link is used.

10. Click **Map to metadata**, or click the edit button  .
    - In the screen that appears, select the metadata from the source to map to the target parameter.
    - If the source package is dimensional, you can select what property of the source metadata item to use in the mapping. By default, the business key is used for a relational target, and the member unique name is used for a dimensional target.
    - Repeat for each parameter in the list.
11. In the **Display prompt pages** section, specify when the prompt pages will appear.
    - In the screen that appears, select the metadata from the source to map to the target parameter.
    - If the source package is dimensional, you can select what property of the source metadata item to use in the mapping. By default, the business key is used for a relational target, and the member unique name is used for a dimensional target.
    - Repeat for each parameter in the list.

    You can only set this action when there are parameters in the target report and the target report will be run. If you change the action to **View most recent report**, for example, for bookmark references, the **Display prompt pages** property is disabled because you will use a previously-run report. If you choose to open the report directly in Analysis Studio, then the the **Display prompt pages** property is also disabled.

    You specify prompt settings in IBM Cognos Connection (**Report Properties**, **Prompt for Values**).
12. Click **Finish**.
13. Run a report from the source package, and test the drill-through link.

    Note: The drill-through definition is associated and stored with the source. Errors related to the target are only generated when you run the drill-through links, not when you save the drill-through definition.

Steps to Edit an Existing Drill-through Definition

You can edit existing drill-through definitions in IBM Cognos Connection.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**,**Drill-through Definitions**.
2. Click a package name to view its drill-through definitions.
3. Click the set properties button on the actions toolbar to the right of the drill-through definition that you want to modify.

   Tip: If you do not see the drill-through definitions, check that you are not in a folder in the package. Drill-through definitions are all sotred at the root level of the package. If you do not see a specific drill-through definition, confirm that you have the correct permissions.
4. Click the **Target** tab.
5. Make the necessary modifications, and click **OK**.
6. Run a report from the source package, and test the drill-through link.

Note: The **drill-through** definition is associated and stored with the source. Errors related to the target are only generated when you run the drill-through links, not when you save the drill-through definition.

Setting Up Parameters for a Drill-Through Report

For greater control over drill-through access, you can define parameters in the target report.

For more information about defining parameters, see the IBM Cognos Report Studio *User Guide* or the Query Studio *User Guide*.

Set up parameters for a drill-through report in Report Studio

For greater control over drill-through access, you can define parameters in the target report in Report Studio.

Procedure

1. Open the target report in Report Studio.
2. Ensure that the report is available for drill-through access:
   - From the **Data** menu, select **Drill Behavior**.
   - In the **Basic** tab, select **Accept dynamic filters when this report is a drill-through target** and then click OK.
3. Create a parameter that will serve as the drill-through column, or that will be used to filter the report. (**Data** menu, **Filters**).

   For example, to drill through or filter on Product line, create a parameter that looks like this:

   ```
   [Product line]=?prodline_p?
   ```

   Tip: Use the operators `in` or `in_range` if you want the target report to accept multiple values, or a range of values.
4. In the **Usage** box, specify what to do when a value for the target parameter is not passed as part of a drill-through:
   - To specify that users must click a value in the source report, click **Required**.

     If a value for the target parameter is not passed, users are prompted to choose a value.
   - To specify that users do not need to click a value in the source report, click **Optional**.

     Users are not prompted to choose a value and so the value is unfiltered.
   - To specify not to use the parameter, click **Disabled**.

     The parameter is not used in the report, and therefore not available for drill-through definitions. For more information about defining report parameters, see the Report Studio *User Guide*.

     Tip: If the parameter is needed in the report for other reasons, then you can also specify not to use it in the drill-through definition (**Parameters** table, **Method**, **Do not use parameter**).

Results

The drill-through definition controls when prompt pages or parameters are displayed.

Set up parameters for a drill-through report in Query Studio

For greater control over drill-through access, you can define parameters in the target report in Query Studio.

Procedure

1. Open the target report in Query Studio.
2. Confirm that the report is available for drill-through access:
   - From the menu, select **Run Report**, **Advanced Options**.
   - Select **Enable drill through from a package in the report output** and then click OK.
3. Create a filter that will serve as the drill-through parameter, or that will be used to filter the report.
   - Select the column that you want to filter on, and click the filter button.
   - Change the settings as needed, and click OK.

Set Up Parameters for a Drill-through Target in Analysis Studio

You can create a drill-through target analysis and add target parameters in the analysis by setting a dimension as the Go To parameter.

When you create a drill-through definition for the analysis, this parameter appears in the target parameter list.

To support drilling down within the dimension and then drilling through, map the dimension in the source metadata to the target dimension. The member or members which are currently in your view are passed to the target analysis as filter values. This applies to any query, report, or analysis used in IBM Cognos Business Intelligence drill-through actions. To support drilling through directly from a particular level, map that level in the source metadata to the target dimension.

You can set multiple parameters in an analysis target. However, you cannot pass members within a selection set in Analysis Studio.

Procedure

1. In Analysis Studio, create a cross-tab analysis using the package that was set up for drill-through analysis.
2. If you want, add as a row or column the data item that you want to be the prompt.
3. Move or add the dimension or level that you want to be a target parameter to the **Context** area.

   Note: You cannot pass members within a selection set in Analysis Studio.
4. View the list for the item in the **Context** area and click **Use as "Go To" Parameter**.
5. Save this analysis as your target report in IBM Cognos Connection.

   You can now create the drill-through definition under a source package.

Results

When you create the drill-through definition and use the cross-tab analysis as a target, the **Go To** parameter item in the analysis appears as a drill-through parameter. You can map to this parameter the same way that you drill through to Report Studio or Query Studio reports.

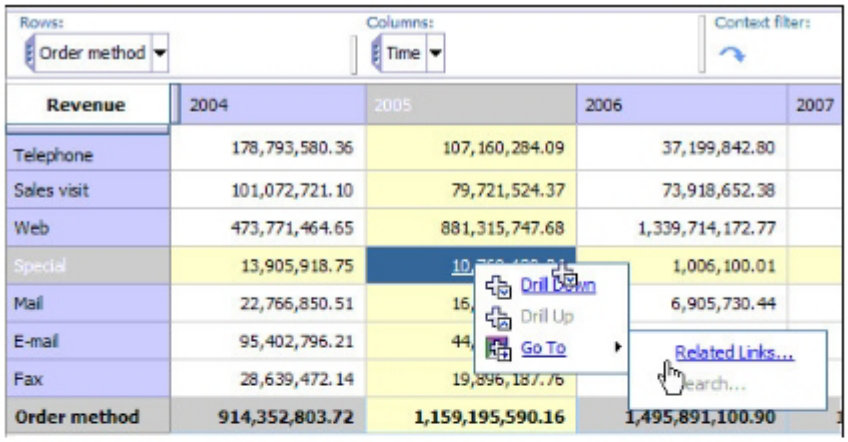
Example - Drill Through Between OLAP Reports in the Same Package

You want to drill through from an IBM Cognos Analysis Studio report that shows revenue breakdown according to order method to a report created in Report Studio, which shows details of planned and actual revenue.

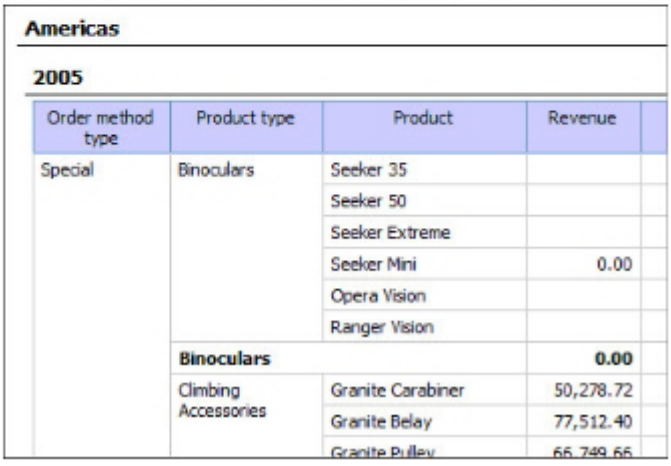
Both of these reports exist as samples in the **Sales and Marketing (cube)** package. The reports are both based on the same package, so the data is conformed. For more information, see "Conformed Dimensions" on page 494. You decide to use a parameterized drill-through definition for greater control, because prompt parameters exist in the target already.

You also decide to restrict the scope of access to the drill-through target, so it that it is only available to a report in the source package that uses the measure Revenue. This means that any reports created in the package will see this drill-through definition if they contain the measure Revenue. If the source report does not contain order year or order method, then users will be prompted for values for those parameters when the drill-through target is run.

You must have the IBM Cognos Business Intelligence samples from the deployment zip file IBM_Cognos_DrillThroughSamples installed to follow this exercise. If you want to check the target report, you must have access to Report Studio.



The target report shows data for the context of the source: the Special order method type, and the year 2005.



Check the Target and Source Report

You can check the target and source report to ensure that drill-through will work properly.

Procedure

1. Open the target report, **Actual vs. Planned Revenue**, in Report Studio.
   - Go to **IBM Cognos Connection**.
   - In **Public Folders**, open the package **Sales and Marketing (cube)**, and then open the folder **Report Studio Report Samples**.
   - Select the report **Actual vs. Planned Revenue**, and click the **Open with Report Studio** icon.
2. In the **Actual vs Planned Revenue** report in Report Studio, confirm that you have parameters for order method and time.
   - Open the query explorer tab and select **Query 1**.
   - In the **Detail Filters** box, confirm that a filter parameter exists for each of **Order Method** and **Year**, and note the parameter names.
3. From the **Data Items** box, note the name of the measure that you plan to use for the scope (**Revenue**)
4. Close the **Actual vs Planned Revenue** report.
5. Open the source report, **Custom Rank Sample**, in Analysis Studio.
   - Go to **IBM Cognos Connection**.
   - In the **Public Folders**, open the package **Sales and Marketing (cube)**, and then open the folder **Analysis Studio Report Samples**.
   - Select the report **Custom Rank Sample**, and click the **Open with Analysis Studio** icon.
6. In the **Custom Rank Sample** report in Analysis Studio, check the name of the measure that you want to use to restrict scope (**Revenue**).
7. Check the rows and columns in the report and confirm that the data structure will match the parameters in the **Actual vs Planned Revenue** report.

   Tip: Pause the mouse over a label in the cross-tab to see the path.
8. Leave the **Custom Rank Sample** report open for testing.

Create and Test the Drill-through Definition

You can create and test the drill-through definition ensure that they work properly.

In addition to the procedure below, you can also try the following:

- In the drill-through definition, change the prompt settings for the target report.
- In the **Sales and Marketing (cube)** package, create a report that does not use the **Revenue** measure, and confirm that the **Actual vs Planned Revenue** report is no longer available as a drill-through target.
- A sample drill-through definition also exists for the same target report, **Actual vs. Planned Revenue**, from the PowerPlay Studio report **Revenue by Order Method**. If you use PowerPlay Studio, check the source and target reports and try to recreate the drill through definition.
- If you have permission to debug drill through definitions, then you can view the parameters passed from the source (**View passed source values)** and available in the target (from the drop down beside the target report name, select **View Target Mapping**).

Procedure

1. In IBM Cognos Connection, navigate to the **Sales and Marketing (cube)** package.
2. From the upper right-hand corner of the screen, click **Launch**, **Drill-through Definitions**.
3. Click **New Drill-through Definition** in the upper right hand corner of the screen.

   Tip: If you do not see the **New Drill-through Definition** button, check that you are at the root of the folder, and not still in the **Analysis Studio Reports** folder.
4. In the **Drill-through Definition** wizard, type the name Drill Through From Custom Rank to Revenue Details and a description, and click **Next**.
5. Click **Set the scope**, and in the screen that appears, set the scope to the **Revenue** measure, and then click OK.
6. Click **Set the target**, and in the screen that appears, set the target report to **Actual vs. Planned Revenue**, in the **Report Studio Report Samples** folder of the **Sales and Marketing (cube)** package.
7. In the **Prompt Values** table, map the parameters **pMethod** and **pYear** in the target to the metadata in the source:
   - confirm that values in the **Type** column are Connection

     Use the value Connection when you link dimensional data sources.
   - for the **pMethod** parameter, click the edit button and select [sales_and_marketing].[Order method].[Order method].[Order method type] from the metadata tree.
   - for the **pYear** parameter, click the edit button and select [sales_and_marketing].[Time].[Time].[Year] from the metadata tree.
8. Set **Display Prompt Pages** to **Only when required parameter values are missing**.
9. Follow the instructions on the screen to save the drill-through definition.
10. Go to the **Custom Rank Sample** report, right-click outside the report data, and select **Go To**, **Related Links**.
11. Go to the **Custom Rank Sample** report, right-click on a cell in the cross-tab, and select **Go To**.

    A list of possible targets for the package and the data that is in scope appears, including the **Actual vs. Planned Revenue** report.
12. Click the **Actual vs. Planned Revenue**, and the report runs using the context you selected.

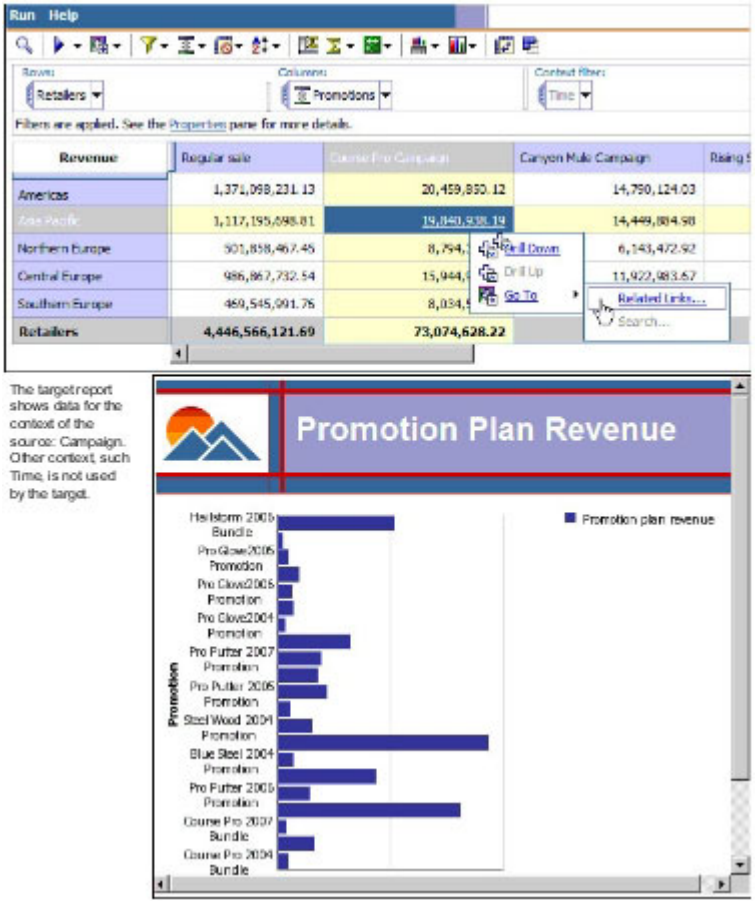
    The drill-through definition that you have created should be identical to the sample definition **MeasureDrill**.

Example - Drill Through from an OLAP Report to a DMR Report

You want to drill through from an IBM Cognos Analysis Studio report named Top 10 Promotions by Retailers, based on the package Sales and Marketing (cube) to a Report Studio report named Promotion Plan Revenue, based on the package Sales and Marketing (conformed).

You set the drill-through definition up in the package, so that the Promotion Plan Revenue report is available to any report based on the source package, and you use dynamic drill through, instead of defining parameters.

You must have the IBM Cognos Business Intelligence samples from the deployment zip file IBM_Cognos_DrillThroughSamples installed to follow this exercise. By default, the samples are installed in the **Public Folders** in IBM Cognos Connection.



Check the Target and Source Reports

You can check the target and source reports to ensure that drill-through will work properly.

Before you begin

You must have the IBM Cognos Business Intelligence samples from the deployment zip file IBM_Cognos_DrillThroughSamples installed to follow this exercise. By default, the samples are installed in the **Public Folders** in IBM Cognos Connection.

Procedure

1. Run the target report:
   - In IBM Cognos Connection, go to the **Sales and Marketing (conformed)** package, and open the folder **Report Studio Report Samples**.
   - Run **Promotion Plan Revenue** in IBM Cognos Viewer.
2. Note what information is available in the target, and how you will filter it. In this example, you filter on the campaign name.
3. Close the target report **Promotion Plan Revenue**.

4. Open the source report:
   - In IBM Cognos Connection, go to the Sales and Marketing (cube) package and open the **Analysis Studio Report Samples** folder.
   - Select **Top 10 Promotions by Retailer**, and open it in Analysis Studio.
   - Note the names of the dimension and level that you want use to drill through. In this example, you will drill through on **Campaign**.
5. Keep the **Top 10 Promotions by Retailer** report open for testing.

Create and Test the Drill-through Definition

You can create and test the drill-through definition ensure that they work properly.

Before you begin

You must have the IBM Cognos Business Intelligence samples from the deployment zip file IBM_Cognos_DrillThroughSamples installed to follow this exercise. By default, the samples are installed in the **Public Folders** in IBM Cognos Connection.

Procedure

1. In IBM Cognos Connection, navigate to the **Sales and Marketing (cube)** package.
2. From the upper right-hand corner of the screen, click **Launch**, **Drill-through Definitions**.
3. Click **New Drill-through Definition** in the upper right hand corner of the screen.

   Tip: If you do not see the **New Drill-through Definition** button, check that you are at the root of the folder, and not still in the **Analysis Studio Report Samples** folder.
4. In the **Drill-through Definition** wizard, type the name Drill Through to Promotion Plan Revenue and a description if you want, and click **Next**.

   Tip: This is the name that users see in the **Go To** page, for example when they have to select from more than one drill-through target. As with any other object in IBM Cognos Connection, you can create translations of this name.
5. Click **Set the scope**, and set the scope to **Campaign**, in the **Promotions** dimension.

   This drill-through definition will only be available when **Campaign** is part of the selection context.
6. Click **Select the target**, and set the target report to **Promotion Plan Revenue**, in the **Report Studio Report Samples** folder of the **Sales and Marketing (conformed)** package, click OK, and then click Next.

   Note: If PowerPlay Studio is available in your installation, then you must also specify that the target is a report and not a PowerCube package.
7. Under **Action**, select **Run the report using dynamic filtering**.
8. Under **Parameter mapping**, in the **Source metadata item** column for the parameter **pcampaign**, click **map to metadata**.
9. In the screen that appears, click **Promotions** and select **Campaign**.
10. Click **Finish** to save the drill-through definition.

    You can edit the properties of the drill-through definition at any time.
11. From IBM Cognos Connection, run the Analysis Studio report **Top 10 Promotions by Retailers** and test the drill-through definition.

Results

The target report appears, filtered by the context you selected.

The drill-through definition that you created should be identical to the drill-through definition **DrillToDMR**.

The sample drill-through definition **PPStoHidden** also goes from an OLAP to a DMR package, from the PowerPlay Studio report **Top 20 Product Brands**.

Debugging a Drill-through Definition

IBM Cognos Business Intelligence includes a debugging functionality that you can use to find problems with your drill-through definitions created in IBM Cognos Connection, and to correct any drill-through errors.

It can also help you understand how the drill-through functionality works, especially across different types of data sources. This functionality is also referred to as the drill-through assistant. You can also debug drill-through definitions that were created in a PowerCube and migrated to IBM Cognos BI.

If your target report is not receiving any parameters, check the mapping in your drill-through definition, and ensure that your parameters were created against the correct data type for your drill-through scenario. For example, if you want to create a drill-through definition from an OLAP package to a target report based on a relational package, your target parameters need to be set up to a query item that has the same value as the OLAP business key or the member caption. For more information, see "Members and Values" on page 492.

If your target report is being filtered with the wrong values, check the values that are being mapped from the source to the target.

You must have the necessary permissions to use the drill-through assistant. The information that the drill-through assistant provides is available from the **Go To** page, when you run the drill-through. The drill-through assistant provides the following information.

Passed Source Values

The source values are the values from the selection context that are available for passing to the target report when the user chooses to drill through to the target report or object. For example, if you drill through from a source in Analysis Studio, you see the values at the intersection you selected prior to the drill-through action, and any values in the context area.

The values in the debug list are the values in the source report that were transformed by any drill-through operation.

- Display Value

  Shows the value that users see when using this data item or this member. For OLAP members, this is the member caption or label. For example: `Telephone` is a member from the `Order Method` dimension.

- Use Value

  Shows the value that IBM Cognos reports and analyses use when retrieving the data item or the member. For OLAP members, this is the member unique name

(MUN). For example: [great_outdoors_company].[Order Method].[Order Method].[Order Method1]->:[PC].[@MEMBER].[2] is the MUN for the Telephone member in the Order Method dimension.

Target Mapping

If you chose to use parameters in the target, then the target mapping shows the name of each parameter that was mapped in the drill-through definition, and the values that the source is attempting to pass to that parameter.

- Parameter Name

  Shows a list of valid target parameters mapped in the drill-through definition to receive information from the query item, level, or hierarchy on which you performed the drill-through action.

  You can see only parameters for which there is a valid mapping and only the names of the parameters. For example, if the target report contains a parameter for Product Type and the drill-through definition maps that target parameter to the source Product Type level metadata, you see this target parameter only if you attempt to drill through on the Product Type level in the source report. Drilling through on the Product Line level does not display this parameter target.

  You must ensure that the target parameters in your drill-through definitions are mapped correctly. Incorrectly mapped parameters can receive information from the wrong source metadata, especially where you have data values that are not unique. If you cannot see any target parameters or the parameters you expected to see in the **View Target Mapping** list, check the parameter mapping in the drill-through definition.

- Display Value

  Shows the value that users see when using a data item or member. For OLAP members, this is the member caption or label. For example: Telephone is a member from the Order Method dimension

- Use Value

  Shows the transformed value that the drill-through definition uses when passing a data item value or member to the target parameter.

  OLAP members passed to relational target parameters obtain the business key from the members MUN and pass only the business key. Using the above example of the Telephone member in Order Methods, the business key is 2. If you are unsure of what the business key is for a member, you can write a Report Studio expression such as roleValue('_businessKey',[member]). This value is passed to the target parameter.

  OLAP members passed to a target parameter based on another OLAP package of the same OLAP type show a transformed MUN. Using the above Order Methods example, the MUN is now transformed and the drill-through definition uses the value of [great_outdoors_company].[Order Method].[Order Method].[Order Method1]-> [Order Method1]. [2]:[PC].[@MEMBER].[2]. The middle portion of [Order Method1][2] is where the drill-through definition finds the correct member in the target when the OLAP data sources are different. To see the MUN for a specific member, you can look at the properties of the member in Report Studio and look at the Member Unique Name property.

Access the Drill-through Assistant

You can use the drill-through assistant for debugging purposes when you work with drill-through definitions in IBM Cognos Connection.

Before you begin

To use this functionality, you must have the required permissions for the **Drill-Through Assistant** secured function in IBM Cognos Administration.

Procedure

1. Select a link in your source report, right-click the link, and select **Go To**, or from PowerPlay Studio, click the drill-through button.

   The **Related links** page appears, showing the list of available target reports. If your target report is not shown, review the scope settings in your drill-through definition.

   Tip: If only one target is available, then when you select **Related links**, the target is opened without showing the **Go To** page.
2. Click **View passed source values** to see the values that are available for passing by the source report.
3. Next to the target report, click the down arrow and choose **View Target Mapping**.

   A list of the valid mapped data appears, showing the available source values, and the use and display values.
4. For either set of values, click **More information** to see the XML for the selection context (passed source) or the drill-through specification (target mapping.

Example - Debugging a Drill-through Definition

Here is an example of debugging a drill-through definition.

Your OLAP source has a Products dimension with the levels Line, Type, and Name. You have defined a parameter in your relational target to match each level of that OLAP source dimension. You can have a situation where you see all target parameters from a single dimension displayed in the View Mapped Target list. This is likely because the individual target parameters are mapped to a single dimension in the drill-through definition, in this case the Products dimension. In your OLAP data source, you have a business key value, or the source value used to create the members, that is duplicated in all three levels.

Parameter Name	Display Value	Use Value
Prod Line Param	Camping Equipment	1
Product Type Param	Cooking Gear	1
Product Name Param	Trail Chef Water Bag	1

Having all three parameters mapped to the Products dimension is correct if the use values are not duplicated in the dimension. In the above table, you can see that members from all three levels have the same use value. In this case the drill-through operation cannot determine which level is the correct one because the scenario indicates that all levels are valid. In this situation, the first level encountered with a valid business key or use value is fulfilled by the drill-through definition. This can result in unexpected behavior.

This example shows why it is important to always ensure that your data warehouses and OLAP sources are designed with unique business keys or source

values. To correct this situation, the drill-through definition should have each individual target parameter mapped to each associated level in the source metadata rather than in the dimension.

Set Up Drill-through Access in a Report

Use Report Studio to create a source drill-through report to link two reports containing related information. You can then access related or more detailed information in one report by selecting a value or multiple values in the source report. You can also drill through within the same report by creating bookmarks.

Before you begin

For more information, see the IBM Cognos Report Studio *User Guide*.

Tip: To use a Report Studio report as a source in a drill-through definition in IBM Cognos Connection, the option **Allow package based drill-through** must be selected (**Data** menu, **Drill Behavior**). This option is selected by default.

Procedure

1. In Report Studio, open the target report.
2. Create a parameter that will serve as the drill-through column or that will filter the report.

   For example, to drill through or filter Product line, create the following parameter:

   [Product line]=?prodline_p?

   Tip: Use the operators `in`or `in_range`to enable the target report to accept multiple values or a range of values.
3. In the **Usage** box, specify what to do when a value for the target parameter is not passed as part of a drill through:
   - To specify that users must select a value, click **Required**.

     If a value for the target parameter is not passed, users are prompted to choose a value.
   - To specify that users do not need to select a value, click **Optional**.

     Users are not prompted to choose a value and so the value is unfiltered.
   - To specify not to use the parameter, click **Disabled**.

     The parameter is not used during the drill-through. It will also not be used in the report for any other purposes.

     Tip: If the parameter is needed in the report for other reasons, then you can also specify not to use it in the drill-through definition (**Parameters** table, **Method**, **Do not use parameter**).

Results

The drill-through text appears as a blue hyperlink in text items in the non-chart areas of the report. Report consumers can also start the drill-through action by clicking the **Go To** button or by right-clicking the item and clicking **Go To**, **Related links**. If you have the necessary permissions, you can view which parameters were passed from the source and how they are mapped in the target object from the **Go To** page using the drill-through assistant.

Example - Drill Through to a Hidden Report from a Report Studio Report

You want to set up a drill-through link from an employee satisfaction report created in IBM Cognos Report Studio to a hidden list report about compensation, also created in Report Studio.

The source report (**Employee Satisfaction 2006**) is based on the package GO Data Warehouse (analysis) which is modeled on a DMR data source. The target report (**Compensation (hidden)**) is based on the package GO Data Warehouse (query). You set up this drill-through connection from within Report Studio (report-based, or authored drill through) because you do not want to make a report about compensation available for drill through from any source report in the package. The target report is already hidden in the portal, so that it is unlikely to be run by anyone who does not use the drill through link.

You must have the IBM Cognos Business Intelligence samples from the deployment zip file Cognos_DrillThroughSamples installed to follow this exercise, and you must have access to Report Studio.

The **Compensation** report is a hidden report. You may be able to set whether hidden reports are visible (**My Preferences**, **General** tab) and whether you can hide reports. This capability is set by your administrator.

Check the Target Report

Check the target report to make sure the drill-through will work.

Procedure

1. Open the target report:
   - In IBM Cognos Connection, go to **Public Folders**, **GO Data Warehouse (query)**, **Report Studio Report Samples**.
   - Locate the report **Compensation (hidden)** and open it in IBM Cognos Report Studio.

     Tip: If you do not see the report, go to IBM Cognos Connection and confirm that you can view hidden reports (**My Preferences**, **General** tab).
2. In Report Studio, from the **Data** menu, click **Filters** and check what filter parameters are available.

   You want to filter from the source report on department, not time, so you will only use the **pPosition** parameter in the drill-through definition.
3. In the report body, select the list column body **Position-department (level 3)** and review the data item properties.

   Because the drill-through definition goes from DMR to relational, the data item values will need to match.
4. Close the **Compensation (hidden)** report.

Create and Test the Drill-Through Definition

Create and test the drill-through definition to make sure it works.

Procedure

1. Open the source report:

- In IBM Cognos Connection, go to **Public Folders**, **GO Data Warehouse (analysis)**, **Report Studio Report Samples**.
- Locate the **Employee Satisfaction 2006** report and open it in IBM Cognos Report Studio.

2. Save the **Employee Satisfaction 2006** report with a new name, such as **Employee Satisfaction 2006 New**.

   This is to keep the original report and drill-through definition intact for comparison.
3. In the table **Employee rankings and terminations by department**, select the column **Position-department (level 3)**.
4. In the properties pane, review the data item properties, to confirm that the data item names match values in the target report.
5. In the properties pane, under **Data**, double-click **Drill-through definitions**.
6. Select the definition **DrilltoHiddenRep** and delete it.

   Note: In the following steps, you recreate the drill-through definition. For comparison, use the original sample report.
7. In the **Drill-through Definitions** box, click the new drill-through definition button.
8. Click the rename button, and type a name for the drill-through definition.

   Tip: This is the name that consumers see when they select from a list of possible drill-through definitions in the final report.
9. In the **Target Report** tab, select the target report:
   - Under **Report**, click the ellipsis button (...).
   - Navigate to **GO Data Warehouse (query)**, **Report Studio Report Samples**, and select the **Compensation (hidden)** report.

     Tip: If you do not see the report, go to IBM Cognos Connection and confirm that you can see hidden reports (**My Preferences**, **General** tab).
10. Under **Action**, select **Run the report**.
11. Under **Parameters**, click the edit button.

    A table of parameters available in the target report appears, showing the parameter **pPosition**.
12. Map the parameter from the **Compensation (Hidden)** report to the metadata in the **Employee Satisfaction 2006** report:
    - In the **Method** column, select **Pass data item value**, because the target report is based on a relational data source.
    - In the **Value** column, select **Position-department (level 3)**.

      Tip: In this report, you pass values from the column where the drill-through is defined. In other cases, you might pass a related parameter. For example, you could drill through on employee name, but pass the employee number.
13. Save the report.
14. Run the report, and click a department to test the drill-through definition.

Results

When you test the drill-through link, the **Compensation (hidden)** report appears, filtered by the department you selected. The report appears as a drill-through target whether or not it is hidden in IBM Cognos Connection.

If your administrator has given you the **Drill Through Assistant** capability, then you can see additional information you right-click on the link and select **Go To** see a list of drill-through targets. From the **Go To** page, you can see what source values are passed, and what target parameters are mapped.

Specify the Drill-through Text

You can specify the drill-through text that appears when users can drill through to more than one target.

For example, if users from different regions view the report, you can show text in a different language for each region.

Procedure

1. Right-click the drill-through object and click **Drill-Through Definitions**.
2. If more than one drill-through definition exists for the object, in the **Drill-Through Definitions** box, click a drill-through definition.
3. Click the **Label** tab.
4. To link the label to a condition, in the **Condition** box, do the following:
   - Click **Variable** and click an existing variable or create a new one.
   - Click **Value** and click one of the possible values for the variable.
5. In the **Source type** box, click the source type to use.
6. If the source type is **Text**, click the ellipsis (...) button beside the **Text** box and type text.
7. If the source type is **Data Item Value** or **Data Item Label**, click **Data Item** and click a data item.
8. If the source type is **Report Expression**, click the ellipsis (...) button beside the **Report Expression** box and define the expression.
9. If the label is linked to a condition, repeat steps 5 to 8 for the remaining possible values.

Results

When users run the source report and click a drill-through link, the **Go to** page appears. The drill-through text you specified appears for each target. If you did not specify the drill-through text for a target, the drill-through name is used.

Set Up Drill-through Access from IBM Cognos Visualizer

Setting up drill-through access from IBM Cognos Visualizer to IBM Cognos Business Intelligence involves setting up the target report.

Procedure

1. Specify the IBM Cognos BI target and select the filters to add to the target report.

   You must configure drill through to IBM Cognos BI for individual IBM Cognos Visualizer reports. For more information, see the IBM Cognos Visualizer *User Guide*.
2. Create and test the target report.

   For more information, see "Create and Test the Target for a Series 7 Report" on page 514.

Set Up Drill-through Access from PowerPlay Web

Setting up drill-through access from PowerPlay Web to IBM Cognos Business Intelligence involves setting up target reports.

Procedure

1. For PowerCubes, specify drill-through targets for IBM Cognos BI reports in the Transformer model. For other cubes, specify drill-through targets for IBM Cognos BI reports in PowerPlay Connect.

   For more information, see the Transformer documentation or the PowerPlay OLAP Server Connection Guide
2. For other cubes, specify drill-through targets for IBM Cognos BI reports in PowerPlay Connect.
3. Configure drill-through access in PowerPlay Server Administration.

   In addition to enabling drill-through access to IBM Cognos BI, you must specify the location of the IBM Cognos BI server and the IBM Cognos BI folder that contains the target reports. For more information, see the PowerPlay *Enterprise Server Guide*.
4. Select the filters to add to the target report.

   In PowerPlay Enterprise Server Administration, enable and use IBM Cognos BI Assistance to identify the filter expressions required in the target report. For more information, see the PowerPlay *Enterprise Server Guide*.
5. Create and test the target report.

   For more information, see "Create and Test the Target for a Series 7 Report."

Create and Test the Target for a Series 7 Report

You can create and test an IBM Cognos Series 7 report target to ensure the drill-through works properly.

When you create the target report, ensure that the names of the parameters you add are identical to the parameter names listed in the **Drill Through Assistant** page in IBM Cognos Series 7. However, the metadata item that you use in the target report for that parameter name does not have to be the identical label. The data values between the target parameter and the source value shown in the drill assistant must match. You may also need to change the type of operator in the target parameter from what is recommended in the **Drill Through Assistant**. For example, if the assistant recommends an = operator but you want to pass a date range, you should change the parameter operator in the target to in_range.

Before you begin

The target report must be based on a published package that contains the metadata items that you want to filter on, or contains items that are mapped to those metadata items.

Procedure

1. Start IBM Cognos Report Studio and create a new report.
2. Add the data items and other objects you want.
3. From the **Data** menu, click **Filters**.
4. In the **Detail Filters** tab, click the add button.

5. In the **Expression Definition** box, create the parameterized filter you want by typing the filter expression.
6. Click **OK**.
7. In the **Usage** box, click **Optional**.

   If you do not make the filter optional, a prompt page appears when you drill through to the report.
8. Repeat steps 4 to 7 for other parameterized filters you want to add.
9. Save the report.

   The report name must match what you specified as a target in the PowerCube, other cube, or IBM Cognos Series 7 Visualizer report.
10. Test the drill through in the IBM Cognos Series 7 PowerPlay report or IBM Cognos Visualizer report.

Chapter 33. Managing Portlets and Styles

Portal administration in IBM Cognos Business Intelligence includes managing portlets and styles.

Typically, these tasks are performed by portal administrators. For more information, see "Predefined Entries" on page 276.

To access the portal administration area in IBM Cognos Administration, you must have execute permissions for the **Styles and portlets** secured feature, and traverse permissions for the **Administration** secured function Chapter 16, "Secured Functions and Features," on page 261.

For information about troubleshooting, see the *IBM Cognos Business Intelligence Troubleshooting Guide*.

For information about configuring portal services, see the *IBM Cognos Business Intelligence Installation and Configuration Guide*.

Portlets

A portlet is a mechanism for displaying Web content as part of a portal page.

The portlets supported by IBM Cognos Connection include Cognos portlets and other portlets. For more information on portlets, see "Cognos Portlets" and "Other Portlets" on page 522. The Cognos portlets are available to users by default. If you want to make other portlets available, you must import them.

Managing portlets involves the following tasks:

- Importing portlets. For more information, see "Import Portlets" on page 523
- Controlling access to portlets. For more information, see "Control Access to Portlets" on page 524
- Configuring the portlet cache. For more information, see"Configure the Portlet Cache" on page 525
- Modifying portlets. For more information, see "Modify a Portlet" on page 526

As an additional task, you may want to change the dispatcher settings to allow the HTML code to be executed in RSS Viewer and IBM Cognos Navigator. For more information, see "Display the HTML Code From the Source RSS Feed in RSS Viewer and IBM Cognos Navigator" on page 527.

For information about using portlets in IBM Cognos Connection pages, see Chapter 20, "Pages and Dashboards," on page 311.

Cognos Portlets

Portal Services provides a number of portlets.

Users can add portlets to their personal pages in IBM Cognos Connection Chapter 20, "Pages and Dashboards," on page 311, or in an existing enterprise portal Chapter 34, "Deploying Cognos Portlets to Other Portals," on page 533.

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All Cognos portlets conform to the Web Services for Remote Portlets (WSRP) standard. Users can interact with the portlets without installing IBM Cognos products on their computers.

The content that appears in the portlets, such as reports, or metrics, and the ability to perform specific actions on that content depend on the users' access permissions. Users must have the required access permissions for the individual entries and for the IBM Cognos secured functions and features. For more information, see Chapter 16, "Secured Functions and Features," on page 261.

The following portlets are available.

IBM Cognos Content Portlets

These portlets provide IBM Cognos content in IBM Cognos Connection or in your existing enterprise portal. By default, these portlets are available in IBM Cognos Administration. They can also be deployed to other portals.

The following portlets are available in this group:

Portlet	Description
IBM Cognos Navigator "IBM Cognos Navigator" on page 697	Shows the IBM Cognos Connection folder hierarchy. Users can browse the hierarchy and open IBM Cognos entries.
IBM Cognos Search "IBM Cognos Search" on page 699	Provides a search tool to help users find published IBM Cognos reports and other entries, and open them.
IBM Cognos Viewer "IBM Cognos Viewer (IBM Cognos Connection)" on page 701	Opens a default report or lists reports that users can open.

IBM Cognos Utility Portlets

The IBM Cognos Utility portlets provide additional functionality for pages in IBM Cognos Connection. By default, these portlets are available in IBM Cognos Administration. However, they cannot be deployed to other portals.

The following portlets are available in this group.

Portlet	Description
Bookmarks Viewer "Bookmarks Viewer" on page 720	Registers and shows active Web links.
HTML Viewer "HTML Viewer" on page 721	Inserts any Web page into an IBM Cognos Connection page.
Image Viewer "Image Viewer" on page 723	Inserts an image and shows it in a page.

Portlet	Description
RSS Viewer "RSS Viewer" on page 724	Shows the content of a Real Simple Syndication (RSS) 1.0 or 2.0 news feed. RSS is a format for syndicating news and is used by many Web sites. An RSS news feed is specified by a URL address.
HTML Source "HTML Source" on page 725	Use to add custom text and images to a page.

The IBM Cognos Extended Applications Portlet

The IBM Cognos Extended Applications portlet "IBM Cognos Extended Applications" on page 707 provides access to custom applications created using the IBM Cognos Extended Applications toolkit and the IBM Cognos Software Development Kit.

If IBM Cognos Software Development Kit is installed, this portlet is automatically registered and available in **IBM Cognos Administration**. It can also be deployed to other portals.

For information about creating extended applications, see the *Developer Guide*.

IBM Cognos Metric Studio Portlets

IBM Cognos Metric Studio portlets provide the capability to view performance metrics in a page. The metrics are created using Metric Studio.

If Metric Studio is installed, these portlets are automatically registered and available in **IBM Cognos Administration**. They can also be deployed to other portals.

The following portlets are available in this group:

Portlet	Description
IBM Cognos Metric List “IBM Cognos Metric List” on page 708	Use to add performance metrics to a page. You can configure the portlet to show the following types of metric lists: • **Watch list** Contains the metrics that a user wants to monitor closely. • **Accountability list** Contains the metrics that a user owns. • **Scorecard metric list** Contains metrics associated with a scorecard. • **Strategy metric list** Contains metrics associated with a strategy. To show the metrics grouped by scorecards, select the **Apply a scorecard filter** check box.
IBM Cognos History Chart “IBM Cognos History Chart” on page 715	Use to add a metric history chart to a page. The history chart is a graphical illustration of the historical performance of a metric.
IBM Cognos Impact Diagram “IBM Cognos Impact Diagram” on page 716	Use to display impact diagrams associated with a metric.
IBM Cognos Custom Diagram “IBM Cognos Custom Diagram” on page 718	Use to display custom diagrams associated with a scorecard.

For more information, see the Metric Studio *User Guide*.

Dashboard Portlets

The dashboard portlets provide the framework and content for the dashboard pages in IBM Cognos Connection.

Portlet	Description
Multi-page “Multi-page” on page 728	Use to create a dashboard with multiple pages.

Using TM1 Viewer Portlets in IBM Cognos 8

IBM Cognos Connection pages provide quick access to IBM Cognos TM1 information. You can create a page with TM1 information. The TM1 content for pages is provided by the following portlets:

- TM1 Cube Viewer
- TM1 Navigation Viewer
- TM1 Websheet Viewer

To access the portal administration area in IBM Cognos Administration, you must have execute permissions for the Styles and portlets secured feature, and traverse permissions for the Administration secured function. For more information, see Secured Functions and Features.

To set up TM1 pages in IBM Cognos Connection perform the following tasks:

- Install and activate TM1 Viewer Portlets in IBM Cognos Connection. For details on installing and configuring Viewer Portlets, see the IBM Cognos TM1 installation documentation.
- Configure TM1 to use IBM Cognos 8 security if you want to simplify the TM1 login process when using TM1 Viewer Portlets. Using TM1 with IBM Cognos 8 security can reduce the number of times that a user must log in to TM1 to access TM1 data from other IBM Cognos 8 applications. For more information, see the IBM Cognos 8 security section in the IBM Cognos TM1 installation documentation.
- Create a Page with TM1 Content
- Modify a TM1 Viewer Portlet

Create a Page with TM1 Content

You can create pages in IBM Cognos Connection and add the TM1 content to the pages. The pages are saved in Public Folders or My Folders. If you plan to share a page with other users, save it in Public Folders.

After you create the page, you can edit it to modify its contents, layout and style, and to set access permissions. You can delete pages in IBM Cognos Connection if you have the required access permissions for the pages. Deleting a page may affect your portal tabs.

Procedure

1. In IBM Cognos Connection, click the new page button.
2. Specify a name and location for the page, and, if you want, a description and a screen tip.
3. Click **Next**.

   The Set columns and layout page appears.
4. Define the layout for your page by setting the number and width of columns.

   Tip : If you are using multiple columns and one of the columns includes a report that is shown in IBM Cognos Viewer, set the width to at least 50% to minimize scrolling.
5. In the column to which you want to add portlets, click **Add .**

   The Select portlets (Navigate) - New page wizard page appears.
6. Click the IBM Cognos TM1 Viewer portlet group that contains the TM1 Navigation Viewer, TM1 Cube Viewer, and TM1 Websheet Viewer portlets.
7. Select the required portlets, and click the add button to move them to the **Selected entries** box. If you want to remove a portlet from the **Selected entries** box, click **Remove**
8. Click **OK**, and then click **Next**.

   The Set page style page appears.
9. Customize the appearance of your page.
   - You can add a title and instructions for the page in the language of the product. To hide the title or instructions, select the associated check box.

Tip: To change the formatting of the text, click **Custom**. To go back to the default formatting, click **Return to default**.

- If you want, hide the portlet borders, title bars, or the edit button in the title bar. This helps to avoid clutter and gives the page a uniform look and feel.

10. Click **Next**.
11. If you want to add the page to the portal tab bar, select the **Add this page to the portal tabs** check box. To view the page, select the **View the page** check box.
12. Click **Finish**.

Modify a TM1 Viewer Portlet

You can define the default content and appearance of TM1 Viewer portlets. The settings become the default for all users who use the portlet. You can lock the portlet for editing if you want to prevent other users from changing the settings.

If the portlet is not locked for editing, users can change their instance of the portlet. They retain their custom settings even if you reset the portlet. Users inherit the settings you configure when they use the portlet instance you configured, or when they reset their portlet instance using the reset button in the portlet edit mode.

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Portlets**.
3. Click **IBM Cognos TM1 Viewers**.
4. Next to one of the following TM1 Viewer portlets, click the **More** link:
   - TM1 Navigation Viewer
   - TM1 Cube Viewer
   - TM1 Websheet Viewer
5. Click **View and customize this portlet**.

   The TM1 Viewer portlet appears.
6. In the portlet toolbar, click the edit button

   The portlet properties page appears.

   Tip: To exit the properties page without saving the changes, click the return button in the title bar or click **Cancel**.
7. Change the portlet properties as required. For more information about the portlet properties see TM1 Cube Viewer, TM1 Navigation Viewer, and TM1 Websheet Viewer property descriptions.

   Tip: To restore the default settings, click the reset to default values button .
8. Click **OK**.

Other Portlets

The other portlets include non-Cognos portlets that conform to the Web Services for Remote Portlets (WSRP) standard, such as Oracle portlets, or Sun portlets. Verification and support for these remote portlets may be incomplete because WSRP is a new standard for remote portlets that is still in the process of implementation by many vendors.

The single signon for other portlets may not be available because this functionality is outside the scope of the WSRP standard.

Other portlets must be imported into IBM Cognos Connection. For more information, see "Import Portlets."

Import Portlets

You can import non-Cognos portlets into IBM Cognos Connection if the portlets conform to the WSRP standard.

This procedure is not necessary for Cognos portlets because they are automatically registered and available in IBM Cognos Connection if the applicable IBM Cognos component, such as Metric Studio or Software Development Kit, is installed.

The use of WAR files to import non-Cognos portlets is not supported.

For more information, see "Other Portlets" on page 522.

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Portlets**.
3. Click the import portlets button  .
   The **Specify a producer** page appears.
4. Choose the producer Web service.
   - If a Web Services Description Language (WSDL) definition file exists, in the **Web Service Description** box, type its URL address.
     Here is an example:
     http://wsrp.netunitysoftware.com/WSRPTestService/WSRPTestService.asmx?Operation=WSDL
   - If a WSDL definition file does not exist, click **Web Services for Remote Portlet (WSRP) interfaces**, and type the URL required by the portlet producer.

   Tip: To import the Cognos portlets, click **IBM Cognos producer**, and choose the available group.
5. Click **Next**.
6. If the **Specify the registration properties** page appears, provide the registration information as required, and click **Next** again.
7. In the **Specify a name and description** page appears, do the following:
   - Type a name and, if you want, a description and a screen tip for the portlet group.
   - Choose the portlets to import by selecting or clearing the check boxes next to the portlets.
   - Click **Finish**.

Results

The portlet group appears on the **Portlets** tab.

Control Access to Portlets

You can control access to portlets by setting access permissions to specify which portlets are available to which users and what kind of actions the users can perform on a specific portlet. You can set access permissions individually for each portlet, or at the group level.

To add a portlet to a page and access its content, end users need read, execute, and traverse permissions for the portlet.

You can restrict access to portlets temporarily by disabling them. For more information, see "Disable an Entry" on page 296. This may be required when you want to update the portlet producer or modify the portlet settings. When users try to access a disabled portlet from their page, they see a message.

You can also lock the portlet if you do not want users to see the edit button in the portlet. As a result, users cannot see the portlet properties and cannot modify them. For more information, see "Modify a Portlet" on page 526.

Set up Access Permissions

The procedure to set up access permissions is as follows.

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Portlets**.
3. Decide whether to set access permissions at the group level, or for each portlet individually.
   - To set permissions for a portlet group, click its properties button in the **Actions** column and, on the **Permissions** tab, specify the permissions as required.
   - To set permissions for a specific portlet, click the associated portlet group and, for the portlet you want, click its properties button in the **Actions** column and specify the permissions as required.

   For more information, see Chapter 15, "Access Permissions and Credentials," on page 253
4. Click **OK**.

Lock a Portlet

The procedure to lock a portlet is as follows.

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Portlets**.
3. Click the appropriate portlet group.
4. In the **Actions** column, click the lock icon  associated with the portlet you want to lock.

   Alternatively, click the **More** link, and then click **Lock portlet settings**.

   The icon changes to locked.

Configure the Portlet Cache

Portal Services can cache the portlet markup fragments that are used to quickly regenerate recent views of the portlets in pages. These markup fragments are compressed and stored on the server computer as part of the session object.

The basic cache unit represents markup fragments created per page, per one user session. The portlet markup is not always cached. Disabling markup caching saves memory usage, but has a negative impact on performance.

Use the following parameters to control the use of the portlet cache at run-time:

- CPSMaxCacheSizePerPortlet

  Specifies the number of markup fragments cached for each portlet, per page, per user. For example, a value of 5 with 1000 users, 10 pages, and 4 portlets per page can generate a maximum of 200000 entries in the cache (1000 x 10 x 4 x 5).

  This parameter can have the following values:

Parameter	Value
-1 (default)	Saves unlimited number of portlet markups
0	Disables markup caching
1 or an integer greater than 1	Limits the number of markups to a specified number

  You must provide run-time values for this parameter for every application server that runs the presentation service.
- properties.config.cps.cache.timeToIdleSeconds

  Specifies the length of time, in seconds, to keep the page markup fragments in the cache during a period of inactivity. If the page is not accessed during that time, its cache contents are deleted.

  The default value is 1800 (30 minutes).
- properties.config.cps.cache.timeToLiveSeconds

  Specifies the length of time, in seconds, to keep the page markup fragments in the cache. After this time, the markup is deleted even if the cache is still active.

  The default value is 86400 (24 hours).
- properties.config.cps.cache.checkExpiryIntervalSeconds

  Specifies the length of time, in seconds, that represents the frequency with which the system checks for expired markup fragments in the cache.

  The default value is 300 (5 minutes).

To enable or disable encryption of the portlet markup fragments, use the parameter **encryptTemporaryFiles** of the **Environment** category in IBM Cognos Configuration. For more information, see the IBM Cognos *Installation and Configuration Guide*.

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Dispatchers and Services**.
3. Click the dispatcher you want.
4. For **PresentationService**, click the set properties button.

5. Click the **Settings** tab.
6. For the **Environment** category, next to **Advanced settings**, click the **Edit** link.
7. If it appears, select the **Override the settings acquired from the parent entry** check box. Otherwise, proceed to the next step.
8. In the **Parameter** column, type the required parameter specified in this section. For example, type **CPSMaxCacheSizePerPortlet.**
9. In the **Value** column, type the required value for the parameter.
10. Click **OK**.
11. Click **OK** again.
12. Click the **Configuration** link in the path at the top of the page.
    You return to the list of dispatchers.
13. If you have more than one dispatcher configured, perform steps 3 to 12 for each remaining dispatcher.
14. Restart the IBM Cognos service.

Modify a Portlet

You can define the default content and appearance of portlets. The settings become the default for all users who use the portlet. You can lock the portlet for editing if you want to prevent other users from changing the settings.

If the portlet is not locked for editing, users can change their instance of the portlet. They retain their custom settings even if you reset the portlet. Users inherit the settings you configure when they use the portlet instance you configured, or when they reset their portlet instance using the reset button  in the portlet edit mode.

Applications that appear in the IBM Cognos Extended Applications portlet may include editable application parameters with default values defined by the developer. To change the parameter values that users see as defaults, you must edit the applications.xml file. For information about modifying application parameters, see the *Developer Guide*.

The configurable properties for the Cognos portlets vary. For more information, see Appendix E, "User Reference Help for Portal Services," on page 697.

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Portlets**.
3. Click the portlet group you want.
4. Next to the portlet you want to modify, click the **More** link.
5. Click **View and customize this portlet**.
   The Cognos portlet appears.
6. In the portlet toolbar, click the edit button  .
   When you modify the IBM Cognos Content portlets, you can use the configure button  , which gives you access to additional functionality.
   The portlet properties page appears.

Tip: To exit the properties page without saving the changes, click the return button  in the title bar or click **Cancel**.

7. Change the portlet properties as required.

   Tip: To restore the default settings, click the reset button  .
8. Click **OK**.

Display the HTML Code From the Source RSS Feed in RSS Viewer and IBM Cognos Navigator

Some RSS channels contain HTML code sequences as part of their title and description fields. For security reasons, the HTML code, if present in the source RSS feed, is disabled in the news list view in the portlets RSS Viewer and IBM Cognos Navigator. Instead, a series of HTML control characters is displayed in the title and description fields of both portlets.

You can override this setting and allow the HTML code to be executed in RSS Viewer and IBM Cognos Navigator to display the code as intended by the publisher of the RSS feed. To do that, specify the CPSRssAllowUnsafeCharacters run-time parameter with a value of "true" for the dispatcher presentation service. The default value for this parameter is "false".

Warning: Allowing execution of the HTML code from external sources represents a security threat.

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Dispatchers and Services**.
3. Click the dispatcher you want.
4. For the **PresentationService**, in the **Actions** column, click the set properties button.
5. Click the **Settings** tab.
6. For the **Environment** category, next to **Advanced settings**, click the **Edit** link.
7. If it appears, select the **Override the settings acquired from the parent entry** check box.
8. In the **Parameter** column, type the parameter **CPSRssAllowUnsafeCharacters**
9. In the **Value** column, as a value for this parameter, type **true**
10. Click **OK**.
11. Click **OK** again.
12. Click the **Configuration** link in the path at the top of the page.

    You return to the list of dispatchers.
13. If you have more than one dispatcher configured, perform steps 3 to 12 for each remaining dispatcher.

Styles

A style is a defined set of resources, such as images and cascading style sheets, that controls the appearance of the IBM Cognos Web interface. The branding images and fonts are also part of the style.

The resources for the styles are located in the *c10_location*/webcontent/skins directory.

The following predefined styles are available in IBM Cognos Business Intelligence:

Style	Description
business	Uses soft colors. Creates clean and simple, professional look.
classic	Matches the style used by Metric Studio.
contemporary	Uses bolder, more vivid colors.
corporate	Matches the IBM Cognos corporate branding. This is the default style in IBM Cognos BI.
modern	Matches the style used by IBM Cognos ReportNet.
presentation	A variation of the corporate style intended for projections. Uses larger fonts and increased contrast.

If the predefined styles do not meet your requirements, you can create your own style and make it available in IBM Cognos BI. For more information, see "Creating a Custom Style" on page 579.

At run time, individual users can choose any of the available styles to use in their Web interface. For more information, see "Personalize the Portal" on page 304. Ensure that all users have access to at least one style.

The initial style settings for new users are determined by the default user profiles. For information about changing the user profiles, see Chapter 25, "Managing User Profiles," on page 387.

Managing styles involves:

- Adding new styles. For more information, see "Add a New Style"
- Controlling access to styles. For more information, see "Control Access to Styles" on page 529
- Modifying styles. For more information, see "Modify a Style" on page 530

Add a New Style

You add a new style to create the style object in Content Manager and to associate it with the style resources in the product directory.

Use this functionality to add a custom style or to create different styles based on the existing style resources. For example, you can add a new style named blue and associate it with the corporate style resources in the *c10_location*/webcontent/skins/corporate directory.

Before you can add a custom style, the style resources must exist in the *c10_location*/webcontent/skins directory. For more information about customizing styles, see "Creating a Custom Style" on page 579.

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Styles**.

   The new style wizard appears.
3. Click the new style button  .
4. Type a name for the style and, if you want, a screen tip and description.

   The style name can be any word or phrase you want. It does not need to match the name of the product directory where the style resources are located.

   Tip: You can specify the style name, description, and screen tip only in the product language you currently use. To specify these values for different languages, you can later modify the style. For more information, see "Modify a Style" on page 530.
5. Click **Next**.
6. Specify the location of the style resources:
   - In the **Style resources location** box, type the name of the style directory in the *c10_location*/webcontent/skins directory where the style resources are located.

     You can specify one of the predefined style directories, such as corporate, classic or modern, or a custom directory, if one exists. For more information about using custom styles, see "Creating a Custom Style" on page 579.
   - In the **Preview resource** box, type the location of the preview resource for the style.

     An example of a preview resource can be a Web server page, a video, or an image.

     Specify only a file name when the preview resource is located in the default location, which is the *c10_location*/webcontent/skins/*style_name* directory. If the location is different, specify a relative path including a file name.
7. Click **Finish**.

Control Access to Styles

Users may need to use different styles in their Web interface depending on the company branding requirements, locale, or product implementation. For example, the styles for Asian users may have specific characteristics that do not apply to users in other geographical locations. Therefore, these styles can be hidden from non-Asian users.

You can control access to styles by setting access permissions on them. To make a style available to end users, you grant execute permissions for the required users, groups, or roles. No other permissions are needed. As a result, the style appears in the users' preferences in IBM Cognos Connection. For more information, see "Personalize the Portal" on page 304. Users can use the style, but they cannot modify it.

Read, write, or set policy permissions can be granted for administrator users. Traverse permissions are irrelevant in relation to styles.

For more information about security, see Chapter 15, "Access Permissions and Credentials," on page 253.

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Styles**.
3. Click the arrow next to a style name, and click **Set properties**.
4. Click the **Permissions** tab.
5. Select the **Override the access permissions acquired from the parent entry** check box.
6. Grant the required type of access permissions.
   - For end users, grant execute permissions for the users, groups, or roles that you want to have access to this style.
   - For administrators, grant read, write, or set policy permissions.

   For more information, see "Set Access Permissions for an Entry" on page 257.

Modify a Style

You can modify an existing style in various ways.

Styles can be modified, on the **Configuration** tab in **IBM Cognos Administration**, to

- change the style name, description, and screen tip

  You can rename any of the predefined or custom styles to use style names that are more appropriate for your Web interface.
- add, change, or remove the style name, description, and screen tip for different language versions of the product

  You may want the style name, description, and screen tip match the users' product language.
- change the style directory

  You can associate an existing style with a different style directory in *c10_location*/webcontent/skins. You may need to do this when, for example, the names of the style directories change as a result of the product translation into different languages.

For more information about the style general properties, see "Entry Properties" on page 285

Procedure

1. In IBM Cognos Connection, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Styles**.
3. Click the arrow next to the style that you want to modify, and click **Set properties**.

   Tip: To see a preview of the style, click **More**, and then click **Preview this style**.
4. Modify the style properties in the following way:
   - Click the **General** tab to rename the style and specify its screen tip and description.
   - Click the **Style** tab to change the style directory in the **Style resources location** box, and to specify the location of the style preview resource in the **Preview resource** box.

The style directory that you want to specify must exist in the *c10_location*/webcontent/skins directory, and a corresponding .xml file must exist in the *c10_location*/webapps/p2pd/WEB-INF/fragments/styles/skins directory. For more information about using custom styles, see "Creating a Custom Style" on page 579.

5. Click **OK**.

Chapter 34. Deploying Cognos Portlets to Other Portals

You can deploy Cognos portlets to your existing enterprise portal so that you can present the Cognos content in your portal instead of IBM Cognos Connection.

You can deploy the Cognos portlets to the following portals:

- IBM WebSphere 6.0, 6.1 and 7.0.
- SAP Enterprise Portal 6.0, 6.4, 7.0 and 7.1.
- Oracle WebCenter Interaction Portal Server 10.3
- Microsoft SharePoint Portal Server 2003
- Microsoft SharePoint Portal Server 2007 and 2010

By default, the root name of file paths in the portlets is Cognos. You can change the root name.

As an additional security measure, you can disable the mechanism to transfer the IBM Cognos passport ID as a URL parameter between users' browsers and the IBM Cognos gateway.

After you deploy the portlets, you can enable single signon between the portlets and your portal.

Notes

- In SAP Enterprise Portal, portlets are named iViews. This document may refer to iViews as portlets.
- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

Deploying Cognos Portlets to WebSphere Portal 6.0, 6.1, and 7.0

Before users can add Cognos portlets to their portal pages, you must deploy the portlets to the portal server.

You can deploy the following portlets:

- IBM Cognos Content

  This group includes IBM Cognos Navigator, IBM Cognos Search, IBM Cognos Viewer.
- IBM Cognos Extended Applications

  This group includes the IBM Cognos Extended Applications portlet.
- IBM Cognos Metric Studio

  This group includes IBM Cognos Metric List, IBM Cognos History Chart, IBM Cognos Impact Diagram, and IBM Cognos Custom Diagram.

Before you begin

Before you start deploying the portlets, ensure that IBM Cognos Business Intelligence, including IBM Cognos Connection and Portal Services, is installed and configured.

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For the IBM Cognos Extended Applications portlet, IBM Cognos Software Development Kit must be installed. If IBM Cognos Software Development Kit is not installed or not available, the portal administrator should disable the IBM Cognos Extended Applications portlet after the portlet applications file is installed. For more information, see "Install the Portlet Applications File."

For the IBM Cognos Metric Studio portlets, Metric Studio must be installed. If Metric Studio is not installed or not available, the portal administrator should disable the IBM Cognos Metric Studio portlets after the portlet applications file is installed. For more information, see "Install the Portlet Applications File."

You must first log on to the portal with administrator privileges.

The deployment process consists of the following tasks:

- Installing the portlet applications file
- Configuring the portlet applications
- Configuring the portlet cache
- Customizing the content of Cognos portlets

After you deploy the portlets, you can configure security for your WebSphere Portal environment. For more information, see "Configuring Security for Portal Services" on page 564.

For more information, see the *Installation and Configuration Guide*.

Note: The tasks documented in this section may vary slightly for the different versions of WebSphere Portal.

Install the Portlet Applications File

Before Cognos content can appear in any WebSphere page, you must install the portlet applications file CognosBIPortlets.war located in the c10_location\cps\ibm\ portlets directory.

This file contains the applications for the Cognos portlets, one for IBM Cognos Navigator, IBM Cognos Search, and IBM Cognos Viewer, one for IBM Cognos Extended Applications, and one for IBM Cognos Metric List, IBM Cognos History Chart, IBM Cognos Impact Diagram, and IBM Cognos Custom Diagram.

Before you begin

To install the portlet applications file, you must be logged on to the portal with administrator privileges, and be able to access the CognosBIPortlets.war file from your file system or network file system. If the Portal Services installation is not within your network access, you must manually move the CognosBIPortlets.war file to an accessible location.

The portlet applications file can be installed only once. However, it can be updated when required.

Procedure

1. At the top of the portal page, click the **Administration** tab.
2. From the menu on the left, click **Portlet Management**, **Web Modules**, and then click **Install**.

Tip: To update the CognosBIPortlets.war file, click **Web Modules**, select the file name, and click the update web module button  .

3. Click the **Browse** button, and, in the *c10_location*\cps\ibm\portlets directory, select the CognosBIPortlets.war file.
4. Click **Next**.
5. Click **Finish**.

   A message confirms that the portlets were successfully installed.
6. Open the WebSphere administration console. Under applications, select **Enterprise Applications** and find the Cognos portlets application.
7. Go to **Security role to user/group mapping** and map the role with the name **All Role** to all authenticated users.

Configure the Portlet Applications

Configure the portlet application to specify the signon mechanism and the address of the server component for Portal Services. This must be done for all sets of Cognos portlets: the IBM Cognos Content portlets, the IBM Cognos Extended Applications portlets, and the IBM Cognos Metric Studio portlets.

Procedure

1. On the **Administration** tab, click **Portlet Management**, **Web Modules**.
2. Click the CognosBIPortlets.war file.

   A list of the Cognos portlet applications appears.
3. For the application you want, click the edit portlet application button  .

   The edit page appears.
4. For the **Active Credential Type** property, enter one of the following values to specify the single signon mechanism used in your installation.
   - LtpaToken
   - HttpBasicAuth
   - SiteMinderToken
   - WebSealToken

   For more information about configuring single signon for Portal Services, see "Configuring Security for Portal Services" on page 564.
5. For the **IBM Cognos WSRP WSDL Location** property, modify the URL as required to connect to the CPS server. The URL must contain the correct protocol, server name, port number, and server path.

   By default, the protocol is http. If IBM Cognos Business Intelligence is configured to be accessed through Secure Sockets Layer (SSL) connections, change the protocol to https.

   The server path must point to an IBM Cognos gateway.
   - For the IBM Cognos Navigator, IBM Cognos Search, and IBM Cognos Viewer portlets, the path is *c10_gateway*/wsrp/cps4/portlets/nav?wsdl &b_action=cps.wsdl.
   - For the IBM Cognos Extended Applications portlet, the path is *c10_gateway*/wsrp/cps4/portlets/sdk?wsdl&b_action=cps.wsdl.
   - For the IBM Cognos Metric Studio portlets, the path is *c10_gateway*/wsrp/cps4/portlets/cmm?wsdl&b_action=cps.wsdl.
6. Click **OK**.

The Cognos portlets are now available to be added to pages by users. You can configure Cognos portlets so that their default settings are the same for all users.

7. Repeat steps 3 to 6 for the IBM Cognos Extended Applications Portlets and the IBM Cognos Metric Studio portlets.

   Note: You can create the IBM Cognos Extended Applications portlets only if IBM Cognos Software Development Kit is installed. For information about creating extended applications for Portal Services, see the *Developer Guide*.

Configure the Portlet Cache

Portal Services caches HTML markup fragments that are used to quickly regenerate recent views of portlet pages. These markup fragments are compressed and stored in the user's session object. You can configure the number of pages stored for each user's portlet.

The size of the markup fragment for each page depends on the complexity of the portlet, but they are typically about 5KB. By default, the cache stores ten pages for each user's portlet.

Procedure

1. On the **Administration** tab, click **Portlet Management**, **Web Modules**.
2. Click the portlet applications file CognosBIPortlets.war.
3. In the portlet applications list, click the application you want.
4. For the portlet you want to set the cache size, click the configure portlet button  .
5. For the **Maximum Cached Pages** property, enter the maximum number of pages you want to cache.
6. Click **OK**.
7. Repeat steps 4 to 6 for each portlet.
8. Restart the IBM Cognos service.

Customize the Content of Cognos Portlets

As an administrator, you can define the default content and appearance of portlets.

When you customize a portlet instance using the configure button  , the settings become the default for all users who view this instance.

If the portlet is not locked for editing and the users have **Privileged user** access for the page where the portlet exists, the users can customize the content for their instance of the portlet. Users retain their custom settings even if you reset the portlet. Users inherit the settings you configure only when they view the instance you configured, or when they reset the portlet using the reset button in the edit page of the portlet.

Applications that appear in the IBM Cognos Extended Applications portlet may include editable application parameters with default values defined by the developer. To change the parameter values that users see as defaults, you must edit the applications.xml file. For information about modifying application parameters, see the *Developer Guide*.

The configurable properties for the Cognos portlets vary. For more information, see Appendix E, "User Reference Help for Portal Services," on page 697.

Procedure

1. Go to the page where you added the Cognos portlets.
2. Click the configure button  for the portlet that you want to configure.
3. Edit the settings as required.

   These become the default settings for user instances of this portlet.
4. Click **OK**.

Special Considerations for WebSphere Portal 6.0 and 6.1

In WebSphere version 6.0 and 6.1, administrators have two types of configuration levels for defining the appearance of portlets: Administrator and Shared.

- When using **Administrator configuration** that gives you access to the **Configure** mode of the portlet, your changes affect all instances of the portlet on all pages for all users.
- When using **Shared configuration** that gives you access to the **Edit shared settings** mode of the portlet, your changes affect a particular instance of a portlet in a page and apply to all users.
- A third type of configuration level named Personal that gives you access to the **Personalize** mode of the portlet is not available to administrators with the **Shared configuration** permissions. This is because IBM Cognos portlets support the IBM Portlet API. The changes made to a portlet using **Personal configuration** affect only the user's view of the portlet.

Deploying Cognos Portlets to SAP Enterprise Portal 6.0, 6.4, 7.0 and 7.1

Before users can add Cognos portlets to their portal pages, you must deploy the portlets to the portal server.

You can deploy the following portlets:

- IBM Cognos Content

  This group includes IBM Cognos Navigator, IBM Cognos Search, IBM Cognos Viewer
- IBM Cognos Extended Applications

  This group includes the IBM Cognos Extended Applications portlet.
- IBM Cognos Metric Studio

  This group includes IBM Cognos Metric List, IBM Cognos History Chart, IBM Cognos Impact Diagram, and IBM Cognos Custom Diagram.

Before you start deploying the Cognos portlets, ensure that IBM Cognos Business Intelligence, including IBM Cognos Connection and Portal Services, is installed and configured.

For the IBM Cognos Extended Applications portlet, IBM Cognos Software Development Kit must also be installed. If IBM Cognos Software Development Kit is not installed or not available, the portal administrator should disable the IBM

Cognos Extended Applications portlet after the IBM Cognos business package is installed. For more information, see "Install the IBM Cognos Business Package for Versions 6.0, 6.4 and 7.0."

For the IBM Cognos Metric Studio portlets, Metric Studio must also be installed. If Metric Studio is not installed or not available, the portal administrator should disable the IBM Cognos Metric Studio portlets after the IBM Cognos business package is installed. For more information, see "Install the IBM Cognos Business Package for Versions 6.0, 6.4 and 7.0."

In SAP Enterprise Portal, portlets are named iViews. Portions of this document refer to iViews as portlets.

You must first log on to the portal with administrator privileges.

The deployment process consists of the following tasks:

- Installing the IBM Cognos business package. There are different procedures for SAP Enterprise Portal versions 6.0, 6.4 and 7.0 and version 7.1
- Editing properties for the iViews
- Setting the default iViews content and appearance

After you deploy the portlets, you must configure security for your SAP Enterprise Portal environment

For more information, see the Proven Practices on the IBM Cognos Software Services Web site.

Note: Portal Services in IBM Cognos BI supports SAP portals 6.0, 6.4, 7.0 and 7.1. This document describes administrative tasks for version 6.0-7.0 and 7.1 separately.

Install the IBM Cognos Business Package for Versions 6.0, 6.4 and 7.0

The IBM Cognos business package is an Enterprise Portal Archive (.epa) file is located at installation_location\cps\sap\sap70\com.cognos.epa.

This package contains IBM Cognos Navigator, IBM Cognos Search, IBM Cognos Viewer, IBM Cognos Extended Applications, IBM Cognos Metric List, IBM Cognos History Chart, IBM Cognos Impact Diagram, IBM Cognos Custom Diagram iViews, and the com.cognos.pct.cognos.ivew.par file.

You must be logged on to the portal with administrator privileges and be able to access the com.cognos.epa file from your file system or from the network file system. If the IBM Cognos installation is not within your network access, you must manually move the com.cognos.epa file to an accessible location.

Procedure

1. In the portal, click the **System Administration** tab.
2. On the **Transport** tab, click **Import**.
3. Next to **Source for Package Files**, click **Client**.

   If **Client** is not functional, click **Server**.
4. Click **Browse** to locate the *SAP_installation*\usr\sap*env*\SYS\global\pcd\ Import directory, where env is your environment , and click **Open**. Copy the com.cognos.epa file to this directory.

If you clicked **Server** in the previous step, browse for the com.cognos.epa file in the *SAP_installation*\usr\sap*env*\SYS\global\pcd\Import directory, where *env* represents a directory that is different for different environments. The com.cognos.epa file must first be copied to this directory.

5. Click **Upload**.

Install the IBM Cognos Business Package for Version 7.1

The IBM Cognos business package is a Software Component Archive (.sca) file named com.ibm.cognos.sca.

This package contains IBM Cognos Navigator, IBM Cognos Search, IBM Cognos Viewer, IBM Cognos Extended Applications, IBM Cognos Metric List, IBM Cognos History Chart, IBM Cognos Impact Diagram, IBM Cognos Custom Diagram iViews, and the *installation_location*\cps\sap\package\com.cognos.war file.

You must be logged on to the portal with administrator privileges and be able to access the com.ibm.cognos.sca file from your file system or from the network file system. If the IBM Cognos installation is not within your network access, you must manually move the com.cognos.war file to an accessible location.

Tip: If you are running SAP version 7.1 with IBM Cognos Business Intelligence, Version 8.4 or earlier, and you deploy IBM Cognos BI Version 10.1.0, you might get a deployment error saying that com.cognos.pct.iview already exists (or that a similar file owned by sap.com already exists). If this happens, undeploy both com.cognos.epa and com.cognos.pct.iview and redeploy the com.ibm.cognos.sca file.

Use the SAP Netweaver Developer Studio software to add and deploy the Software Component Archive. Typically, the Software Component Archive is added to the *Install_Dev_Studio*\SAP\IDE\CE folder.

For more information, see the documentation for SAP Netweaver Developer Studio.

Edit Properties for the iViews

The business package includes the Cognos iViews.

Edit the properties for each iView so that they work with your IBM Cognos Business Intelligence installation. For more information, see "Deploying Cognos Portlets to SAP Enterprise Portal 6.0, 6.4, 7.0 and 7.1" on page 537.

The following table shows some of the properties you may want to modify.

Property	Description
CPS: Connection Server	Represents the URL required to connect to the Portal Services server. The URL must contain the correct protocol, server name, port number, and server path. By default, the protocol is http. If IBM Cognos BI is configured to be accessed through Secure Sockets Layer (SSL) connections, change the protocol to https. The server path must point to an IBM Cognos gateway.

Property	Description
	• For the IBM Cognos Navigator, IBM Cognos Search, and IBM Cognos Viewer iView, the path is *c10_gateway*/wsrp/cps4/portlets/nav?wsdl &b_action=cps.wsdl • For the IBM Cognos Extended Applications iView, the path is *c10_gateway*/wsrp/cps4/portlets/sdk?wsdl&b_action=cps.wsdl • For the IBM Cognos Metric List and IBM Cognos History Chart iView, the path is *c10_gateway*/wsrp/cps4/portlets/cmm?wsdl&b_action=cps.wsd
CPS: Configuration Mode Role	Specifies the SAP role whose members, typically administrators, can modify the default iView properties. For more information, see "Set the Default iView Content and Appearance for All Users" on page 541. These users can see the link **Edit the properties for all users** at the bottom of the iView properties page, and use it to modify the default iView properties. Only one SAP role can be specified to modify the default iView properties. Default: content_admin_role

Procedure

1. Log on to the portal with administrator permissions.
2. Click the **Content Administration** tab.
3. In the window on the left, on the **Browse** tab, expand the **Portal Content** folder.
4. Continue expanding the folders until you see Cognos iViews.

   By default, Cognos iViews are imported into one of these locations:
   - For IBM Cognos 8.4 and earlier: Portal Content, Content Provided by Other Vendors, End User Content, com.cognos.pct, iviews folder
   - For IBM Cognos BI 10.1, Portal Content, Content Provided by Other Vendors, End User Content, IBM Cognow Software, iviews folder
5. Double-click the iView you want to modify.

   The **Property Editor** appears in the main window.
6. In the **Property Category** drop-down list, click **Show All**.
7. Edit the properties as required.
8. Click **Save**.
9. Repeat steps 5 to 8 for each Cognos iView.
10. If you want to test the connection between IBM Cognos BI and Portal Services, click the **Preview** button.

Set the Default iView Content and Appearance for All Users

An administrator can define the default content and appearance for Cognos iViews. When end users add the iViews to their pages, the default properties are enabled.

For example, in the IBM Cognos Navigator iView, the administrator can define the default display folder or package. When users add this iView to their pages, they see the folder or package that was specified by the administrator.

End users can change the Cognos iView properties to personalize their pages. Their changes do not affect iViews of other users or other pages. The personalized settings are not affected if the administrator changes the default properties for the iView. Users can click the **Reset** button to revert to the current administrative defaults.

To change the iView properties for all users, you must be a member of the SAP role that has the required access permissions. This role is specified by the **CPS: Configuration Mode Role** property. For more information, see "Edit Properties for the iViews" on page 539.

Procedure

1. Log on to the portal with administrator permissions.
2. Browse to the page that contains Cognos iViews.
3. For the iView you want to modify, click the option menu button in the upper-right corner of the iView, and select **Personalize**.

   The iView properties page appears.
4. At the bottom of the page, click the link **Edit the properties for all users**.
5. Change the properties as required.

   These settings become the default settings for user instances of this portlet.
6. Click **Save**.
7. Repeat steps 3 to 6 for other Cognos iViews.

Deploying Cognos Portlets to Oracle WebCenter Interaction Portal 10.3

You can deploy Cognos portlets to the Oracle WebCenter Interaction portal server so that end users can add the portlets to their pages.

You must have already installed the Oracle WebCenter Interaction Development Kit for Java. For more information on download instructions, refer to your Oracle documentation.

You can deploy the following portlets:

- Cognos Content portlets

  This group includes IBM Cognos Navigator, IBM Cognos Search, IBM Cognos Viewer
- IBM Cognos Extended Applications portlets

  This group includes the IBM Cognos Extended Applications portlet.
- IBM Cognos Metric Studio

  This group includes the IBM Cognos Metric List, IBM Cognos History Chart, IBM Cognos Impact Diagram, and IBM Cognos Custom Diagram portlets.

Before you start deploying the Cognos portlets, ensure that IBM Cognos Business Intelligence, including IBM Cognos Connection and Portal Services, is installed and configured.

For the IBM Cognos Extended Applications portlet, IBM Cognos Software Development Kit must also be installed. If IBM Cognos Software Development Kit is not installed or not available, the portal administrator should disable the IBM Cognos Extended Applications portlet after the Cognos portlet package file is imported. For more information, see "Import the Cognos Portlet Package File" on page 545.

For the IBM Cognos Metric Studio portlets, Metric Studio must also be installed. If Metric Studio is not installed or not available, the portal administrator should disable the IBM Cognos Metric Studio portlets after the Cognos portlet package file is imported. For more information, see "Import the Cognos Portlet Package File" on page 545.

You must first log on to the portal with administrator privileges.

The deployment process consists of the following tasks:

- starting the remote server
- importing the portlet package file
- connecting to the remote server
- customizing the content of Cognos portlets

After you deploy the portlets, you can configure security for your WebCenter Interaction environment "Configuring Security for Portal Services" on page 564.

For more information, see the *Installation and Configuration Guide*.

Start the Remote Server

The remote server is an IBM Cognos Web application that serves as an interface between the core IBM Cognos components and the WebCenter Interaction portal. The remote server application is the cps-wci.war file installed with IBM Cognos Business Intelligence in the *c10_location*\cps\oracle\gadgets directory.

By default, after IBM Cognos BI is installed, the remote server is not started. It must be started if you want to use Cognos portlets in a WebCenter Interaction portal.

You can deploy the remote server to another server. Ensure that the settings are configured properly so that the remote server can access an IBM Cognos gateway.

You can start the remote server in its default configuration state. However, the default remote server works only if the following conditions are met:

- IBM Cognos BI is configured with a CGI gateway.
- The remote server runs on the same server as the IBM Cognos gateway, which can be accessed using http://localhost/ibmcognos.

If these conditions do not apply to your installation, you must change the configuration settings for the remote server before you start it.

To start the remote server, you must deploy the remote server into an active webapps folder:

- For Tomcat, copy the cps-wci.war file from the *c10_location*\cps\oracle\gadgets directory into the *c10_location*\webapps folder.

  Tomcat automatically updates all affected directories and starts the remote server. The process may take a few minutes.
- For other application servers, follow the instructions in their administration guides.
- If you use the default settings, then copy all the WebCenter Interaction Development Kit (IDK) jar files from the devkit folder to *c10_location*\webapps\cps-wci\WEB-INF\lib after it is created.

You can now import the Cognos Portlet Package File. For instructions, see "Import the Cognos Portlet Package File" on page 545.

Reconfigure the Remote Server

If the default remote server configuration does not apply to your installation, or you want to change the configuration, you can change the configuration settings by modifying the cpsalui.properties file. Then, you must rebuild the remote server (cps-wci.war), and start it by deploying it to an active webapps folder for your Web application server.

The following remote server parameters can be changed.

Parameter	Description
cps_endpoint	Specifies the URL to connect to the IBM Cognos server and extract the WSDL information. The default value of http://localhost/ibmcognos/cgi-bin/cognos.cgi/wsrp/cps4/portlets/[package]?wsdl&b_action=xts.run specifies that the IBM Cognos gateway is configured on the same server as the remote server that it is running. In this situation, IBM Cognos Business Intelligence can be accessed through a CGI gateway. If not, this parameter must be modified accordingly. Here are a few more examples of values for this parameter: • http://myserver/*servletgateway*/wsrp/cps4/portlets/[package]?wsdl&b_action=cps.wsdl Specifies an IBM Cognos servlet gateway installation on the server named myserver. • http://myserver/*ISAPIgateway*/wsrp/cps4/portlets/[package]?wsdl&b_action=cps.wsdl Specifies an IBM Cognos ISAPI gateway installation on the server named myserver.

Parameter	Description
forward_cookies	Specifies the names of cookies that must be forwarded to the IBM Cognos server for single signon purposes. If the single signon mechanism for the installation depends on a specific active credential cookie, it is necessary to pass this cookie from the WebCenter Interaction server to the IBM Cognos server. Default: null
cps_auth_secret	Specifies the value of the shared secret key. This parameter is optional. Use it only when your environment is configured to use the shared secret single signon mechanism. When this parameter is specified, the user's identity is sent to the IBM Cognos server through an HTTP header variable that is encrypted using the value of the shared secret. The value of this parameter must be identical to the one specified in IBM Cognos Configuration. For more information, see "Configuring Security for Portal Services" on page 564.
cps_auth_namespace	The namespace ID for the Custom Java Provider.

Procedure

1. Stop your application server, such as Tomcat, or stop the remote server application.
2. Remove the existing remote server by doing one of the following:
   - For Tomcat, delete the cps-wci folder and the cps-wci war file from the *c10_location*\webapps directory.
   - For other application servers, follow the instructions in their administration guides.
3. Open the cpsalui.properties file.

   The file is located in the *c10_location*/cps/oracle/webapps/gadgets/WEB-INF/classes directory.
4. Change the settings as required and save the file.
5. Copy all the WebCenter Interaction Development Kit (IDK) jar files from the devkit folder to *c10_location*\cps\oracle\webapps\gadgets\WEB-INF\lib.
6. Rebuild the remote server by running the following batch file:
   - for Microsoft Windows operating system, *c10_location*\cps\oracle\build.bat
   - for UNIX or Linux operating systems, *c10_location*\cps\oracle\build.sh

   The configuration settings for the remote server (cps-wci.war) are changed.

7. Start the remote server. For more information, see “Start the Remote Server” on page 542.

Results

You can now import the Cognos portlet package file. For more informtion, see “Import the Cognos Portlet Package File.”

Import the Cognos Portlet Package File

During the IBM Cognos Business Intelligence installation, the Cognos portlet package file CognosOracleWCIPortletPackage.pte is installed as one of the WebCenter Interaction components.

This file contains Web services, the remote server, and the definitions of the Cognos portlets. For more information, see “Deploying Cognos Portlets to Oracle WebCenter Interaction Portal 10.3” on page 541.

When you import the Cognos portlet package file, you create one instance of a Cognos portlet server, and one instance of each portlet. The Cognos portlet server acts as a binding layer for the portlets. You can also supply your portal users with default portlets where the users can choose the content and layout.

Each portlet appears in a default state. The portlets do not contain any Cognos content, and the default access permissions are read and write for portal administrators, and read-only for portal users.

Procedure

1. At the top of your portal page, click **Administration**.
2. Click **Select Utility** and click **Migration - Import**.
3. Select **Folder Information**, click **Browse**.
4. Select the folder you created to store the new resources, and click **OK**.
5. Under **General Info**, click **Browse** to locate the CognosOracleWCIPortletPackage.pte.

   This file is located in the *c10_location*/cps/oracle/gadgets directory.
6. Click **Open**, and then click **Load Package**.
7. Click **Finish**, and click **OK**.

Results

The Cognos portlets appear in the Portal Services folder. You can now connect to the remote server. For more information, see “Connect to the Remote Server.”

Connect to the Remote Server

The remote server must be configured and started before you can connect to it.

For instructions on configuration, see “Start the Remote Server” on page 542.

Procedure

1. Click the folder that contains the Cognos portlets.
2. Expand the **Remote Server** folder, and click **IBM Cognos Portal Services**.
3. In the **Edit Remote Server** page, in the **Remote Server Properties** box, change the **Base URL** from http://localhost:9300/ to the following, where *gadget server*

is the name or IP address of the server that hosts the IBM Cognos remote server, and *port* is the port number used by the remote server.**http://gadget_server:port**

The default port number is 9300.

Here is an example: http://myserver:9300/

4. Click **Finish**.

Customize the Content of Cognos Portlets

You can define the default content and appearance of portlets. When you customize a portlet instance, the settings become the default for all users who view this instance.

If the portlet is not locked for editing, users can customize the content for their instance of the portlet. Users retain their custom settings even if you reset the portlet. Users inherit the settings you configure only when they view the instance you configured, or when they reset the portlet using the reset button in the edit page of the portlet.

Applications that appear in the IBM Cognos Extended Applications portlet may include editable application parameters with default values defined by the developer. To change the parameter values that users see as defaults, you must edit the applications.xml file. For information about changing application parameters, see the *Developer Guide*.

The configurable properties for the Cognos portlets vary. For more information, see Appendix E, "User Reference Help for Portal Services," on page 697.

Procedure

1. Go to the page where you added the Cognos portlets.
2. Click the configure button for the portlet you want to configure.
3. Edit the settings as required.

   These become the default settings for user instances of this portlet.
4. Click **Done**.

Deploying Cognos Portlets to Microsoft SharePoint Portal Server 2003

You deploy Cognos portlets to the portal server so that users can add the portlets to their pages.

In Microsoft SharePoint Portal Server, portlets are named Web Parts. Portions of this document refer to Web Parts as portlets.

You can deploy the following portlets:

- IBM Cognos Content

  This group includes IBM Cognos Navigator, IBM Cognos Search, IBM Cognos Viewer
- IBM Cognos Extended Applications

  This group includes the IBM Cognos Extended Applications portlet.

  To deploy this portlet, IBM Cognos Software Development Kit must also be installed.
- IBM Cognos Metric Studio

This group includes IBM Cognos Metric List, IBM Cognos History Chart, IBM Cognos Impact Diagram, and IBM Cognos Custom Diagram.

To deploy these portlets, IBM Cognos Metrics Manager Server must also be installed.

Before you begin

Before deploying the Cognos portlets, ensure that IBM Cognos Business Intelligence, including IBM Cognos Connection and Portal Services, is installed and configured. Also ensure that the following conditions are met:

- You have administration access to the IIS server computer that hosts SharePoint.
- You have administration access to the IBM Cognos BI installation directory *c10_location*/cps/sharepoint.
- WSS Language Template Pack required for other supported languages is installed, one for each language.

For information about recommended operating system and SharePoint-related updates, and about the required OS patches, see the conformance information on the IBM Cognos Resource Center Web site (http://www.ibm.com/software/data/cognos/customercenter/).

Procedure

1. Set up virtual directories and change the gateway URIs

   This step applies if Microsoft Internet Information Services (IIS) is your Web server.
2. Copy the Cognos Web Parts resources to the IIS HTTP root directory.
3. Set up the IBM Cognos security trust file.
4. Modify the .NET Framework web.config file.
5. Modify the Cognos Web Parts catalog files.
6. Restart IIS.
7. Add Cognos Web Parts to a SharePoint page.
8. Customize the content of Cognos Web Parts.

Results

After you deploy the portlets, you can configure security for your SharePoint Portal Server environment “Configuring Security for Portal Services” on page 564. For more information, see the *Installation and Configuration Guide*.

Set up Virtual Directories and Change the Gateway URIs

You can set up virtual directories and change the gateway URIs.

If you use Microsoft Internet Information Services (IIS) and plan to enable single signon between the Microsoft SharePoint portal and IBM Cognos Web Parts, for the IBM Cognos server, you must

- create the **cps** and **cps/cgi-bin** virtual directories and enable anonymous access for them in Microsoft Internet Information Services (IIS).
- point the gateway URI to the Cognos Portal Services gateway in IBM Cognos Configuration.

For more information, see the Proven Practices on the Cognos Software Services Web site.

Set up the Virtual Directories

The procedure to set up the virtual directories is as follows.

Procedure

1. In Microsoft Internet Information Services (IIS), create the **cps** virtual directory and assign the following properties for this directory:
   - Specify the path to *c10_location*/webcontent.
   - Grant read permissions to this directory.
   - Enable anonymous access.
   - Ensure that **Integrated Windows authentication** is not selected.
2. Under the **cps** virtual directory, create another directory named **cgi-bin**, and assign the following properties for this directory:
   - Specify the path to *c10_location*/cgi-bin.
   - Grant execute permissions to this directory.
   - Enable anonymous access.
   - Ensure that **Integrated Windows authentication** is not selected.

Change the Gateway URIs

The procedure to change the gateway URIs is as follows.

Procedure

1. Start IBM Cognos Configuration.
2. For the **Environment** category, change the **Gateway URI** to point to the Cognos Portal Services gateway.

   When properly set up, the Cognos Portal Services gateway URI should look like this: **http://*webserver*/cps/cgi-bin/cognosisapi.dll/wrsp/cps4/portlets/nav?b_action=cps.wsdl&wsdl**.
3. Ensure that the remaining **Environment** properties point to the same URI.
4. Restart the IBM Cognos service.

Copy the Cognos Web Parts Resources to the IIS HTTP Root Directory

IBM Cognos software provides the resources required for the integration of Microsoft SharePoint Portal Server with IBM Cognos Business Intelligence. These include the Web Part DLLs for different languages, and catalog files for each Cognos Web Part. You must copy these resources to the IIS HTTP root directory to make them available to SharePoint.

Procedure

1. Go to the *c10-location*/cps/sharepoint directory.
2. Copy all files from this directory to the IIS HTTP root directory, as specified in the following table.

   An example of the IIS HTTP root directory can be C:/Inetpub/wwwroot for SharePoint Portal Server 2003.

File	IBM Cognos Directory	IIS HTTP Root Directory
Cognos.BI.WebPart.dll	/bin	/bin

File	IBM Cognos Directory	IIS HTTP Root Directory
Cognos.BI.WebPart.resources.dll	/bin/de	/bin/de
Cognos.BI.WebPart.resources.dll	/bin/en	/bin/en
Cognos.BI.WebPart.resources.dll	/bin/fr	/bin/fr
Cognos.BI.WebPart.resources.dll	/bin/ja	/bin/ja
CognosNavigator.dwp CognosSearch.dwp CognosViewer.dwp CognosSDK.dwp CognosWatchList.dwp CognosHistoryChart.dwp CognosImpactDiagram.dwp CognosCustomDiagram.dwp	/wpcatalog	/wpcatalog
dialog_error.gif	/s/ Cognos.BI.WebPart	/wpresources/ Cognos.BI.WebPart

Results

Later you can edit the Cognos*.dwp catalog files. For more information, see "Edit the Cognos Web Parts Catalog Files" on page 553.

Set Up the IBM Cognos Security Trust File

The Cognos Web Parts use the .NET Web Services Stack and they require a higher security trust level than the default minimum security. A sample of a security trust file named wss_cognostrust.config.sample is provided. This file specifies the required security trust, named WSS_Cognos, for the Cognos Web Parts.

Before you begin

Use the wss_cognostrust.config.sample file provided for your version of Microsoft SharePoint to set up the security trust for the Cognos Web Parts. For a simple SharePoint Portal Server installation the file can be used without any changes. For more complex installations, you may need to edit this file.

Note: If you already have a trust file used by other Web Parts in your SharePoint Portal Server, you can add the Cognos-specific information from the sample to the existing file so that it can also be used by the Cognos Web Parts.

Procedure

1. Go to the *c10_location*/cps/sharepoint/config directory.
2. Copy the wss_cognostrust.config.sample file:

- For SharePoint Portal Server 2003, copy the wss_cognostrust.config.sample file from the *c10_location*/cps/sharepoint/config/wss.2003 directory to the C:/Program Files/Common Files/Microsoft Shared/web server extensions/60/CONFIG directory.

3. Rename the copied file to wss_cognostrust.config.

Modify the .NET Framework web.config File

Microsoft .NET Framework provides a configuration file named web.config. This file, located in the IIS HTTP root directory, is used to configure the Microsoft SharePoint services at the application level. To configure the Cognos Web Parts, you must add configuration information to this file.

IBM Cognos Business Intelligence provides a sample configuration file named web.config.sample that shows a typical, fully functional configuration of the Cognos Web Parts with a SharePoint portal. You can use this sample to copy snippets of code and paste them into the web.config file. However, do not copy the entire sample file directly to your IIS environment.

To configure the Cognos Web Parts with your SharePoint Portal Server, edit the web.config file by adding the IBM Cognos configuration information, see "Changes in the web.config File."

Procedure

1. Go to the IIS HTTP root directory, for example, C:/ Inetpub/wwwroot for SharePoint 2003.
2. Open the web.config file in an XML editor, such as XML Spy.
3. Edit the web.config file as required, and save the file. For more information, see "Changes in the web.config File."

Changes in the web.config File

The web.config file is the central configuration point for all .NET Framework applications.

Add the following information to the `configuration` element in this file.

Add the IBM Cognos Configuration Section

In the `configSections` section, add the following `sectionGroup` element:

```
<sectionGroup name="Cognos">
  <section name="Log" type="System.Configuration.SingleTagSectionHandler,
 System,Version=1.0.5000.0,
Culture=neutral, PublicKeyToken=b77a5c561934e089"/>
  <section name="SoapLog" type="System.Configuration
  .SingleTagSectionHandler,System,
Version=1.0.5000.0, Culffture=neutral, PublicKeyToken=b77a5c561934e089"/>
  <section name="SSO" type="System.Configuration
  .SingleTagSectionHandler,
 System,Version=1.0.5000.0,
Culture=neutral, PublicKeyToken=b77a5c561934e089"
/>
  <section name="PortalContext" type="System.Configuration
  .SingleTagSectionHandler,
System, Version=1.0.5000.0, Culture=neutral, PublicKeyToken=b77a5c561934e089"
/>
  <section name="Fault" type="System.Configuration
  .SingleTagSectionHandler, System,
Version=1.0.5000.0, Culture=neutral, PublicKeyToken=b77a5c561934e089"
/>
```

```
 <section name="HttpClient" type="System.Configuration
 .SingleTagSectionHandler,
System, Version=1.0.5000.0, Culture=neutral, PublicKeyToken=b77a5c561934e089"/>
</sectionGroup>
```

Register the Cognos Web Part Assembly as a Safe Control

In the SharePoint section, add the following SafeControl element to the SafeControls element.

```
<SafeControl Assembly="Cognos.BI.WebPart, Version=1.0.0.0,
Culture=neutral,
PublicKeyToken=cb3c72729d0875cd" Namespace="Cognos.Portal.Services"
TypeName="*"
Safe="True"/>
```

Register the IBM Cognos Security Trust File

Cognos Web Parts require the security trust named WSS_Cognos that is defined in the wss_cognostrust.config file. For more information, see "Set Up the IBM Cognos Security Trust File" on page 549.

In the system.web section, add the following trustLevel element to the securityPolicy element.

- SharePoint Portal Server 2003

  ```
  <trustLevel
  name="WSS_Cognos" policyFile="C:\Program Files\Common Files\Microsoft
  Shared\Web Server Extensions\60\config\wss_cognostrust.config" />
  ```

Change the Trust Level to WSS_Cognos

WSS_Cognos is the security trust required by the Cognos Web Parts. For more information, see "Set Up the IBM Cognos Security Trust File" on page 549.

In the system.web section, change the trust level from

```
<trust level="WSS_Minimal"
originUrl="" />
```

to

```
<trust level="WSS_Cognos"
originUrl="" />
```

Enable the Session Object

- In the system.web section, add the following element to the httpModules element if the element does not already exist:

  ```
  <add name="Session"
  type="System.Web.SessionState.SessionStateModule"/>
  ```

  If the element is commented out, remove the comments.
- In the system.web section, add the following pages element.

  ```
  <pages enableSessionState="true" enableViewState="true"
  enableViewStateMac="true"
  validateRequest="false" />
  ```

  If this element already exists, change the value of its enableSessionState attribute to true.
- In the system.web section, add the following element to the httpHandlers element:

```
  <add
  verb="*"
  path="CognosResources/*.axd"type="Cognos.Portal.Services.HttpResourceHandler,
  Cognos.BI.WebPart, Version=1.0.0.0, Culture=neutral,
  PublicKeyToken=cb3c72729d0875cd" validate="false"/>
```

Register Cognos Portal Services as a SOAP Extension

In the system.web section, add the following webServices element:

```
<webServices>
  <soapExtensionTypes>
   <add type="Cognos.Portal.Services.SoapPatchExtension, Cognos.BI.WebPart,
Version=1.0.0.0, Culture=neutral, PublicKeyToken=cb3c72729d0875cd"
priority="1" group="0" />
  </soapExtensionTypes>
</webServices>
```

The soapExtensionTypes element represents all SOAP extensions that are available to your Web service at run time. If the webServices and soapExtensionTypes elements are already defined, add only the add element.

Specify the IBM Cognos Configuration Parameters

Use the Cognos element to specify the IBM Cognos configuration parameters as defined in IBM Cognos Configuration.

Insert the following Cognos element between the closing tags </system.web> and </configuration>:

```
<Cognos>
 <SoapLog filename="c:\Cognos.BI.WebPart.Soap.log"/>
 <Log filename="c:\Cognos.BI.WebPart.log" error="true" warn="false" info="false"
debug="false" performance="false" />
 <SSO cps_auth_namespace="blank or as defined in
IBM Cognos Configuration"
  cps_auth_secret="blank or as defined in IBM Cognos
Configuration"
/>
 <PortalContext gatewayURL="blank or as defined
in IBM Cognos Configuration"
  webContentURL="blank or as defined in IBM Cognos
Configuration"
/>
 <Fault stacktrace="false" />
</Cognos>
```

The elements in the Cognos element represent the different configuration settings.

- Use the SoapLog element to specify the location for the Web Services log files.
- Use the Log element to specify a different location for the log file, and to enable the different logging features by changing the attribute values from false to true.
- Use the SSO element to specify the IBM Cognos Security Namespace ID of the CPS trusted namespace named cps_auth_namespace, and the shared secret password named cps_auth_secret.

  This parameter is optional.
- Use the PortalContext element to specify the URL attributes for IBM Cognos gateway and IBM Cognos Web content, as shown in the following example:
  - PortalContext gatewayURL="http://localhost/cps/cgi-bin/cognosisapi.dll"
  - webContentURL="http://*c10_host_computer*/cps"

This parameter is optional.

- Use the `Fault` element to display the call stacks in the error page when a fault is caught by a Web Part.

Edit the Cognos Web Parts Catalog Files

The catalog files contain the definitions of the Cognos Web Parts to use in Microsoft SharePoint Portal Server.

For each Cognos Web Part catalog file, change the WSDL URL to point to your IBM Cognos gateway.

Procedure

1. Go to the IIS directory where the catalog files were copied.

   For example, for SharePoint Portal Server 2003, go to C:/Inetpub/wwwroot.
2. In each Cognos Web Part catalog file, Cognos*.dwp, change the URL in the `WSDL` element to point to your IBM Cognos gateway.

   Here is an example:

   ```
   <WSDL xmlns="http://developer.cognos.com/webpart/v1">
   http://localhost/cps/cgi-bin/cognosisapi.dll/wsrp/cps4/portlets/
   nav?b_action=cps.wsdl&amp;wsdl</WSDL>
   ```

   Tip: The ampersand characters (&) in the URL must be XML-encoded as `&`
3. Save the file.

Restart IIS

You must restart Internet Information Services (IIS) for the configuration changes to take effect.

Procedure

Restart IIS using its management console, or the iisreset.exe command line tool.

Results

The Cognos Web Parts are now available in Microsoft SharePoint Portal Server, and can be added to the portal pages. For more information, see "Add Cognos Web Parts to a SharePoint Page."

Add Cognos Web Parts to a SharePoint Page

You can use the Cognos Web Parts to add the Cognos content to your pages in Microsoft SharePoint Portal Server.

You can add or remove the Web Parts from the shared view, or from the personal view of the page. Ensure that you are in edit mode before you make changes to the page.

The following steps provide only basic instructions for adding the Cognos Web Parts to SharePoint pages. For more information, see the SharePoint Portal Server help.

Procedure

1. Log on to your SharePoint Portal Server with administrative permissions.
2. Go to the page where you want to add the Cognos Web Parts.

3. From the **Actions** list on the left side, click **Edit Page**.
4. In the upper-right corner of the page, click **Modify Shared Page**, **Add Web Parts**.
5. Click **Browse** to add a Web Part from an existing Cognos Web Part library.

   The page opens in design mode, and the **Add Web Parts** pane appears on the right side of the page.

   Tip: You can use the **Search** option to find the Web Parts in the Web Part library. If the Web Part is not in the library, you can use the **Import** option. In this situation, type the path or browse to the location of the Cognos*.dwp file that you want to import, and then click **Upload**.
6. In the **Add Web Parts** pane, click **Virtual Server Gallery**.

   The Cognos Web Parts appear in the **Web Part List**.
7. Click the Cognos Web Part you want, and then click the **Add** button at the bottom of the pane.

   The Web Part appears at the top of the page.

   Tip: You can also drag the Web Parts to different drop zones in the page.
8. In the Web Part, click the down arrow in the upper-right corner, and click **Modify Shared Web Part**.
9. In the pane on the right side of the page, specify the URL of the WSDL file under **Connection Settings**, **WSDL**.

   The URL must point to a functional IBM Cognos Business Intelligence installation.
10. Click **Discover Portlets**.
11. Specify the **Portlet handle** property.
12. Click **Apply** to make changes without closing the pane, or click **OK** when you are done.
13. Repeat steps 4 to 12 for each Cognos Web Part you want to add to the page.

Results

You can now customize the content of the Cognos Web Parts. For more information, see "Customize the Content of Cognos Web Parts."

Customize the Content of Cognos Web Parts

An administrator can define the default content and appearance for Cognos Web Parts. When users add the Web Part to their pages, the default properties are enabled. For example, in the IBM Cognos Navigator Web Part, the administrator can define the default display folder or package. When users add this Web Part to their pages, they see the folder or package that was specified by the administrator.

Users can change the Cognos Web Part properties to personalize their pages. The changes made by each individual user do not affect other users or other pages. The personalized settings are not affected if the administrator changes the default properties for the Web Part. Users can click the **Reset** button to revert to the current administrative defaults.

The configurable properties for each Cognos Web Part are different. For more information, see Appendix E, "User Reference Help for Portal Services," on page 697.

Procedure

1. Go to the page in your Microsoft SharePoint Portal Server that contains the Cognos Web Part you want to edit.
2. From the list of **Actions** on the left side, click **Edit Page**.
3. In the Web Part, click the down arrow in the upper-right corner, and click **Edit Preferences**.

   The Web Part properties page appears.
4. Specify the settings as required.

   For more information, click the help button in the upper-right corner of the properties page.
5. Click **OK**.

Deploying Cognos Portlets to Microsoft SharePoint Portal Server 2007 and 2010

You deploy Cognos portlets to the portal server so that users can add the portlets to their pages.

In Microsoft SharePoint Portal Server, portlets are called Web Parts.

You can deploy from the following portlet groups:

- IBM Cognos Content

  This group includes IBM Cognos Navigator, IBM Cognos Search, and IBM Cognos Viewer
- IBM Cognos Extended Applications

  This group includes the IBM Cognos Extended Applications portlet.

  To deploy this portlet, IBM Cognos Software Development Kit must be installed.
- IBM Cognos Metric Studio

  This group includes IBM Cognos Metric List, IBM Cognos History Chart, IBM Cognos Impact Diagram, and IBM Cognos Custom Diagram.

  To deploy these portlets, IBM Cognos Metrics Manager Server must also be installed.

Before you begin

Before deploying the Cognos portlets, ensure that IBM Cognos Business Intelligence, including IBM Cognos Connection and Portal Services, is installed and configured. Also ensure that the following conditions are met:

- You have administration access to the IIS server computer that hosts SharePoint.
- You have administration access to the IBM Cognos BI installation directory *c10_location*/cps/sharepoint.
- WSS Language Template Pack, required for other supported languages is installed, one for each language.

For information about operating system and SharePoint-related updates, see the conformance information on the IBM Cognos Resource Center Web site (http://www.ibm.com/software/data/cognos/customercenter/).

Ensure that your operating system is updated with any necessary patches.

Procedure

1. Deploy IBM Cognos Web Parts
2. Configure IBM Cognos Web Parts
3. Restart IIS
4. Configure Cognos Web Part connection settings
5. Configure Cognos Web Part preferences
6. For 2010: Configure Microsoft Internet Information Services (IIS)

Results

After you deploy the portlets, you can configure security for your SharePoint Portal Server environment. For more information, see"Configuring Security for Portal Services" on page 564 and the *Installation and Configuration Guide*.

Deploy IBM Cognos Web Parts

You deploy the Cognos Web Parts to the Microsoft SharePoint portal server 2007 and 2010 by building and importing the SharePoint solution file. When installed, the solution file is located at *c10-location*\cps\sharepoint\solution\package\ ibmcognos_webparts.wsp.

The solution file is pre-configured to point to the IBM Cognos server using "localhost". It is best to rebuild the solution file using the IBM Cognos server host before importing it. If not, the IBM Cognos server must be updated in the Web Part catalog files, *Cognos*.dwp, are imported. The Web Part catalog files are typically located at C:\Inetpub\wwwroot\wss\VirtualDirectories\80.

The updated SharePoint solution file is created in *c10-location*\cps\sharepoint\ solution\package.

Rebuilding the solution file

The solution file allows you to specify configuration settings prior to deployment. After editing the solution file, you need to rebuild it.

Before you begin

The solution file facilitates support for multiple Cognos servers. To display report content from multiple Cognos servers in SharePoint, the deployment package must first be configured to point to one of the Cognos servers. After deployment, the SharePoint Web Part can be edited to point to a different Cognos server. The following properties must be changed to specify another Cognos server:

- `gateway.wsdl.url`
- `authentication.sharedSecret`
- `authentication.namespace`
- `authentication.excludeDomain`
- `webcontent.url`
- `gateway.url`

Another option to support multiple Cognos servers is to manually create a copy of the `*Cognos*.dwp` files that exist in wpcatalog and then edit the copies to point to another Cognos server.

Procedure

1. Open the build.properties file. The file is located in *c10-location*\cps\sharepoint\solution.
2. Update the following properties:

Option	Description
gateway.wsdl.url	Names the WSDL URL used by the IBM Cognos web parts to query the IBM Cognos server.
authentication.sharedSecret	Specifies the shared secret used for single signon. This value must match the shared secret specified under **Portal Services**in the IBM Cognos configuration.
authentication.namespace	Specifies the authentication namespace ID.
authentication.excludeDomain	Excludes the domain from the username before it is sent to the Cognos namespace for authentication. The value is either true or false.
webcontent.url	Specifies the URL to Cognos webcontent
gateway.url	Specifies the URL to the Cognos CGI

3. Run the build.bat file to rebuild the solution file. The file is located at *c10-location*\cps\sharepoint\solution.

Results

The configuration settings specified in the solution file are deployed to SharePoint. After deployment, these settings can be changed in SharePoint using the settings on the **Edit preferences**page. For more information, see "Configure Cognos Web Part connection settings" on page 558.

Importing the solution file

To apply configuration settings specified prior to deployment, you must import the solution file into SharePoint.

Procedure

1. Copy the solution file located at *c10-location*\cps\sharepoint\solution\package\ibmcognos_webparts.wsp to the SharePoint server.
2. On the SharePoint server, open a command prompt.

   To add a new solution file, type:

   stsadm -o addsolution -filename ibmcognos_webparts.wsp

   To update an existing solution file, type:

   stsadm -o upgradesolution -name ibmcognos_webparts.wsp -filename ibmcognos_webparts.wsp -local -allowCasPolicies
3. Open a browser to the SharePoint Administration page.
4. **For SharePoint 2007**: Under **Central Administration**, select the **Operations** tab and click **Solution Management** to see the solution file.
5. **For SharePoint 2010**: Under **System Settings**, select **Farm Management**, select **Manage farm solutions**, to see the solution file.
6. Click the solution file, for example, ibmcognos_webparts.wsp, and from the **Solution Properties** window, click the **Deploy Solution** button.

Restart IIS

You must restart Internet Information Services (IIS) for the configuration changes to take effect.

Procedure

Restart IIS using its management console, or the iisreset.exe command line tool.

Results

The Cognos Web Parts are now available in Microsoft SharePoint Portal Server, and can be added to the portal pages. For information about adding Web Parts to SharePoint pages, see the Microsoft SharePoint documentation.

Configure Cognos Web Part connection settings

After adding a Cognos Web Part to your pages in Microsoft SharePoint Portal Server, you can edit the connection settings using the Edit Web Parts command.

Cognos connection settings are pre-populated in SharePoint with the values that you specified in the solution file prior to deployment. These settings can be changed in SharePoint. Ensure that you are in edit mode before you make changes to the page.

In SharePoint 2010, you can change the following connection settings: the WSDL location, Gateway URL, Webcontent URL, and the security settings. By editing these settings, you can specify a different Cognos server for each Web Part.

For more information about the Cognos connection settings, see "Rebuilding the solution file" on page 556.

For information about adding the Cognos Web Parts to SharePoint pages, see the SharePoint Portal Server help. To add a Cognos Web Part, go to the **Miscellaneous** folder.

Configure Cognos Web Part preferences

Users can change the Cognos Web Part properties to personalize their pages. The changes made by each individual user do not affect other users or other pages. The personalized settings are not affected if the administrator changes the default properties for the Web Part.

An administrator can define the default content and appearance for Cognos Web Parts. When users add the Web Part to their pages, the default properties are enabled. For example, in the IBM Cognos Navigator Web Part, the administrator can define the default display folder or package. When users add this Web Part to their pages, they see the folder or package that was specified by the administrator. The personalized settings are not affected if the administrator changes the default properties for the Web Part. Users can click the **Reset** button to revert to the current administrative defaults.

The configurable properties for each Cognos Web Part differ depending on the portlet. For example, the IBM Cognos Viewer properties are different from the IBM Cognos Navigator properties. For more information about the Cognos portlet properties, see Appendix E, "User Reference Help for Portal Services," on page 697.

For information about the Cognos Viewer properties in SharePoint that support IBM Cognos BI and SharePoint collaboration, see “IBM Cognos BI and SharePoint 2010 Collaboration” on page 560.

Procedure

1. In the SharePoint portal, go to the page that contains the Cognos Web Part you want to edit.
   - In SharePoint 2007, from the **Site Actions** menu, click **Edit Page**.
   - In SharePoint 2010, in the Web Part that you want to change, click the **Edit** button.
2. Click **Edit preferences**.

   The Web Part properties page appears.
3. Specify the settings as required.

   For more information, click the help button on the properties page.
4. Click **OK**.

Configure Microsoft Internet Information Services (IIS) Manager for SharePoint 2010

After you install Microsoft SharePoint Portal Server 2010, you must configure the Internet Information Services software to set up the session modules for use with Web Parts.

After deploying the Cognos web parts, make sure that the SharePoint site in IIS has the "Session" module enabled and the handler mappings named "CognosPortletResource" and "CognosPortletServices" specified. If these settings are not specified, add them manually using the instructions that are provided in this section.

To set up the session modules perform the following tasks:

- select a managed module
- add a handler mapping

The following instructions apply to Windows Server 2008 and Microsoft SharePoint Portal Server 2010 bundled with IIS version 7.

Selecting the managed module

After you install Microsoft SharePoint Portal Server 2010, you must configure the Internet Information Services software to set up the session modules for use with Web Parts.

Procedure

1. On your SharePoint server, start Microsoft Internet Information Services Manager.
2. Select your SharePoint virtual directory.
3. From the **IIS** section, select **Modules**.
4. At the top right of the screen, under **Actions**, click **Add Managed Module**.
5. In the **Add Managed Module** dialog box, enter a **Name** and in the **Type** drop-down box, select the following value:

   System.Web.SessionState.SessionStateModule,System.Web,Version=2.0.0.0.,

   Cultural=neutral,PublicKeyToken=b03f5f7f11d50a3a

Adding a handler mapping

After you install Microsoft SharePoint Portal Server 2010, make sure that the SharePoint site in Microsoft Internet Information Services (IIS) names the "CognosPortletResource" and "CognosPortletServices" handler mappings. You can add the mappings manually if they are not specified.

Procedure

1. On your SharePoint server, start Microsoft Internet Information Services Manager.
2. Select your SharePoint virtual directory.
3. From the **IIS** section, select **Handler Mappings**.
4. At the top right of the screen, under **Actions**, click **Add Managed Handler**.
5. In the **Add Managed Handler** dialog box, type the following.
   - **Request Path** = CognosResources/*.axd
   - **Name** = CognosPortletResource
6. In the **Type** drop-down box, type the following:
   Cognos.Portal.Services.HttpResourceHandler,Cognos.BI.WebPart,Version=1.0.0.0,
   Culture=neutral,PublicKeyToken=cb3c72729d0875cd.
7. Click **OK**.
8. At the top right of the screen, under **Actions**, click **Add Managed Handler** again.
9. In the **Add Managed Handler** dialog box, type the following:
   - **Request Path** = CognosResources/*.axd
   - **Name** = CognosPortletServices
10. In the **Type** drop-down box, type the following:
    Cognos.Portal.Services.CPSServiceHandler,Cognos.BI.WebPart,Version=1.0.0.0,
    Culture=neutral,PublicKeyToken=cb3c72729d0875cd.

IBM Cognos BI and SharePoint 2010 Collaboration

Collaboration between SharePoint 2010 and IBM Cognos BI facilitates information sharing among report users. Collaboration activities include publishing deployed IBM Cognos reports to a document library and creating and participating in discussion threads for a report.

You will want to manage the collaboration environment for maximum efficiency.

Publish reports

IBM Cognos reports that you deploy to a SharePoint portal and view in the IBM Cognos Viewer can be published to a SharePoint document library. The document library can be located on a website. You can publish reports within an IBM Cognos Business Insight workspace, but you cannot publish the workspace itself.

To publish a Cognos report, you must run the report or open a saved report. The **Publish** > **Run and publish** command, lets you run the report interactively, and then publish. The **Publish** >**Versions** command lets you select a saved report output version to publish.

Create discussion threads

Adding a discussion thread to a report allows you to collaborate on the content of a report with other users. The comments added to a discussion thread provide other users viewing the same report with additional context or information about the report. Those users can respond with further comments about the report. For example, this type of collaboration is useful to add a reminder to investigate low sales figures for a particular product, or to explain an anomaly in the data that could be a cause for concern.

To create a discussion thread, you run or open a saved report in the IBM Cognos Viewer portlet and click **Discuss**. The **Start a discussion** command starts a discussion in the default location, if specified. Otherwise, you are prompted to select a location. **Show related discussions** shows a list of all the discussions that have been added to a discussion board for the report that you are viewing.

Manage the collaboration environment

There are various ways that you can manage the collaboration environment for maximum efficiency.

You can set the collaboration-related default settings on a Web Part using **Edit preferences**. The settings are available for the IBM Cognos Viewer portlet. They include

- **Publish Location**. The location can be a document library or a document library folder, or a document library on website.
- **Do not prompt for location when the publish location is a document library or a folder**. If the location is a website, the user is prompted for a location.
- **Discussion Board**. The location can be a discussion list or a discussion board on a website.

In addition to specifying default collaboration settings, you can specify other Cognos Web Part preferences. For more information, see "Configure Cognos Web Part preferences" on page 558.

You can also customize the collaboration environment by editing the IBM Cognos Viewer connection settings. For more information, see "Configure Cognos Web Part connection settings" on page 558.

Migrating Cognos Portlets from IBM Cognos ReportNet 1.1 to IBM Cognos BI

When you upgrade ReportNet 1.1 to IBM Cognos Business Intelligence, you must update the portlets using the latest portlet package file installed with IBM Cognos BI.

For a WebSphere portal, use the CognosBIPortlets.war file located in the *c10_location*\cps\ibm\portlets directory. For more information, see "Deploying Cognos Portlets to WebSphere Portal 6.0, 6.1, and 7.0" on page 533.

For SAP Enterprise Portal 6.0, use the com.cognos.epa file located in the c10_location\cps\sap\package directory. For more information, see "Deploying Cognos Portlets to SAP Enterprise Portal 6.0, 6.4, 7.0 and 7.1" on page 537.

Importing the new package into the portal creates a new and distinct set of Cognos portlets and resources. The upgraded portlets are not compatible with ReportNet 1.1, and the personalized settings are lost. You must configure and test the new portlets as required for IBM Cognos BI.

Change the Root Name of File Paths in Cognos Portlets

By default, the root name shown for all file paths in Cognos portlets is Cognos. You can change the root name to another name, such as your company name, by modifying the cpsinavcrnmsgs_custom.properties file in the c10_location/webapps/p2pd/WEB-INF/classes directory. This changes the root name for the currently used content locale.

If you want to specify root names for different locales, you must create new properties files for the required locales in the *c10_location*/webapps/p2pd/WEB-INF/classes directory. For example, to specify root names for English, French, German, and Japanese locales, create the following properties files, and provide the root name value in each of them:

- cpsinavcrnmsgs_custom_en.properties
- cpsinavcrnmsgs_custom_fr.properties
- cpsinavcrnmsgs_custom_de.properties
- cpsinavcrnmsgs_custom_ja.properties

Procedure

1. Open the cpsinavcrnmsgs_custom.properties file in a text editor that supports UTF-8 encoding format.

   The file is located in the *c10_location*/webapps/p2pd/WEB-INF/classes directory.
2. Change the value 0f the property `nav.root.name` as follows, where `root_name` represents the value you change:

   `nav.root.name=`*`root_name`*

   The default is:

   `nav.root.name=Cognos`
3. Save the cpsinavcrnmsgs_custom.properties file.
4. If you want to specify root names for different locales, create the required properties files now.
5. Restart the IBM Cognos server.

Disable the Transfer of the IBM Cognos Passport ID as a URL Parameter

To ensure a higher degree of security, you can disable the mechanism that transfers the IBM Cognos passport ID as a URL parameter between users' browsers and the IBM Cognos gateway. You can do this only when single signon is implemented between the users' browsers and IBM Cognos Business Intelligence, and, if applicable, IBM Cognos Series 7, independently of Portal Services.

By default, Portal Services re-creates the active credential cookie in the user's browser by passing the passport ID as a URL parameter. If single signon is not implemented, then when portal users interact with Cognos portlets, they are authenticated both in the portal and in IBM Cognos BI. The portal, not the user's browser, maintains the active credential token generated by IBM Cognos BI. In

some situations, for example when you want to see a report in a Cognos portlet, a direct connection between the user's browser and the IBM Cognos gateway must be established. This may become a security risk because a valid IBM Cognos passport ID appears in some log files. The same applies when IBM Cognos BI is integrated with IBM Cognos Series 7 and the active credential is passed as a URL parameter.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Dispatchers and Services**.
3. Click the dispatcher you want.
4. For the **PresentationService**, in the **Actions** column, click the set properties button.
5. Click the **Settings** tab.
6. For the **Environment** category, next to **Advanced settings**, click the **Edit** link.
7. Select the **Override the settings acquired from the parent entry** check box.
8. In the **Parameter** column, type the parameter names:
   - **CPSPropagatePassport**

     This parameter controls the transfer of the IBM Cognos passport ID as a URL parameter. When set to 0, it stops the transfer.
   - **CPSPropagateTicket**

     Controls the transfer of the IBM Cognos Series 7 ticket ID as a URL parameter. When set to 0, it stops the transfer.

   The parameters are case sensitive.
9. In the **Value** column, type 0 for each parameter.
10. Click **OK**.
11. Click **OK** again.
12. Click the **Configuration** link next to the path at the top of the page.

    You return to the list of dispatchers.
13. If you have more than one dispatcher configured, perform steps 3 to 12 for each remaining dispatcher.

Set Portal Services Protocol Scheme

For WebSphere portals, if you are using multiple gateways that may not use the same HTTP or HTTPS protocol as specified for the default gateway, you can set the CSPProtocolScheme parameter to override all other protocol settings.

Procedure

1. In IBM Cognos Connection, in the upper-right corner, click **Launch**, **IBM Cognos Administration**.
2. On the **Configuration** tab, click **Dispatchers and Services**.
3. Click the dispatcher you want.
4. For **PresentationService**, in the **Actions** column, click the set properties button.
5. Click the **Settings** tab.
6. For the **Environment** category, next to **Advanced settings**, click the **Edit** link.

7. If it appears, select the **Override the settings acquired from the parent entry** check box. Otherwise, proceed to the next step.
8. In the **Parameter column**, type **CPSProtocolScheme**.
9. In the **Value column**, type **http** or **https**.
10. Click **OK** twice.
11. Click the **Configuration** link in the path at the top of the page.

    You return to the list of dispatchers.
12. If you have more than one dispatcher configured, perform steps 3 to 11 for each remaining dispatcher.

Configuring Security for Portal Services

When using Portal Services in another portal, you must enable single signon to provide seamless integration between the other portal and IBM Cognos components.

Portal Services uses single signon to authenticate users. This means that users do not have to log on to other applications separately through the portal.

You must configure a URI into IBM Cognos components for each portlet in Portal Services.

To enable security between IBM Cognos components and the other portal, do the following:

- Disable anonymous access to IBM Cognos components.

  If your security infrastructure requires you to use another method for single signon, use one of the following methods:
- Enable single signon for the other portal using shared secret.

  If your security infrastructure requires you to use another method for single signon, use one of the following methods:
  - "Enable Single Signon for WebSphere Portal Using the Application Server" on page 572
  - "Enable Single Signon for Oracle WebCenter Interaction Portal Using Basic Authentication" on page 572
  - "Enable Single Signon for Oracle WebCenter Interaction Portal Using SiteMinder" on page 573
- Configure IBM Cognos components for SSL access, if required.

  For instructions, see the *Installation and Configuration Guide*.

Disable Anonymous Access to IBM Cognos Components

Portal Services uses single signon for authentication. If anonymous logon is enabled in IBM Cognos components, Portal Services logs all portal users as anonymous. You must ensure that anonymous access is disabled in IBM Cognos components for single signon in Portal Services to be successful. However, you can test the Portal Services connections using anonymous logon to ensure that the portlets are working in the other portal.

If Portal Services fails to authenticate a user, the user receives an error message at the other portal.

Procedure

1. Start IBM Cognos Configuration.
2. In the **Explorer** window, under **Security** > **Authentication**, click **Cognos**.
3. In the **Properties** window, ensure that **Allow anonymous access** is set to **False**.
4. From the **File** menu, click **Save**.
5. Repeat steps 1 to 4 on all servers where you installed IBM Cognos components.

Enable Single Signon Using Shared Secret

You can use shared secret for single signon between IBM Cognos portlets and IBM Cognos components. The Cognos portlets send a message that contains an encrypted version of the portal user ID. The encryption key is determined by the value of a secret character string shared between the portlets and the custom Java security provider on the IBM Cognos server.

You can use shared secret for the other portal only if portal user IDs can be looked up in an NTLM, LDAP, or IBM Cognos Series 7 authentication namespace that is shared by IBM Cognos components.

IBM Cognos components must have access to a directory server that contains user IDs for all your portal users. Using IBM Cognos Configuration, you must configure an authentication namespace so that the portal and IBM Cognos components share the same authentication source.

You must also create a Custom Java Provider namespace to register the shared secret Java provider that is provided with IBM Cognos components. Within the portlets or iViews, you must link the portlets or iViews to the Custom Java Provider namespace within your respective portal:

- Cognos iViews (SAP EP)
- Cognos Portlet Application (WebSphere Portal)
- remote server (Oracle WebCenter Interaction Portal)
- Cognos WebPart (SharePoint Portal)

You are not required to configure access to the Portal Services Web content. However, if you deploy the portlets to another portal, you can configure access to an alternate URI for Portal Services images and Web content.

Configure the Required Namespaces

IBM Cognos components must have access to a directory server that contains user IDs for all your portal users. Using IBM Cognos Configuration, you must configure an authentication namespace so that the portal and IBM Cognos components share the same authentication source.

Procedure

1. In IBM Cognos Configuration, configure a namespace to authenticate portal users.

   For instructions, see the topic about configuring LDAP, NTLM, or IBM Cognos Series 7 authentication providers in the *Installation and Configuration Guide*.
2. For an LDAP namespace, configure the following properties:
   - For the **Use external identity** property, change the setting to **True**.
   - For the **External identity mapping** property, set it to **(uid=${environment("REMOTE_USER")})**

For SharePoint Portal, if SharePoint is on a different machine from the LDAP server, set **External identity mapping** to

(uid=${replace(${environment("REMOTE_USER")},"*SharePoint_Server*\\ ","")})

Other properties may be required. For more information, see the topic about configuring IBM Cognos components to use LDAP in the *Installation and Configuration Guide*.

3. For an IBM Cognos Series 7 namespace, map the portal user IDs to IBM Cognos Series 7 user IDs using OS signons.

   For more information, see the IBM Cognos Series 7 documentation.

4. In IBM Cognos Configuration, create and configure a Custom Java Provider namespace.

   For instructions, see the topic about configuring a custom authentication namespace in the *Installation and Configuration Guide*.

   - For the **Namespace ID** property, specify any new ID.

     For example, **cpstrusted**

     This new ID must be used in the portlet configuration settings.

   - For the **Java class name** property, type

     com.cognos.cps.auth.CPSTrustedSignon

     Java class names are case-sensitive.

5. In IBM Cognos Configuration, under **Environment** > **Portal Services**, configure the following properties:

   - For **Trusted Signon Namespace ID**, type the namespace ID of the LDAP, NTLM, or IBM Cognos Series 7 namespace that you configured in step 1.

     Tip: The trusted signon namespace acts as an intermediary and must be attached to a real directory-based namespace of type LDAP, NTLM, or IBM Cognos Series 7.

   - For **Shared Secret**, type the key to be used for single signon.

     This parameter represents the authorization secret that must be shared between the Cognos portlets and the IBM Cognos server. Consider this as a secret password. You must use the same character string when you configure the portlet application. You must use a single word as the key.

     For security reasons, specify a non-null value.

6. Under **Environment**, for **Gateway Settings**, set the **Allow Namespace Override** property to **true**.
7. From the **File** menu, click **Save**.
8. Restart the IBM Cognos service.

Configure Access to the Portal Services Web Content

After creating the required namespaces, you must configure access so that users can access the Web content.

Procedure

1. On the computer where you installed the Application Tier Components, start IBM Cognos Configuration.
2. In the **Explorer** window, under **Environment**, click **Portal Services**.
3. In the **Properties** window, click the **Value** box next to **Web Content URI**.
4. Specify the host name or IP address of the gateway and a port number using the format

host_or_IP_address:port

5. From the **File** menu, click **Save**.

Configure the Cognos iViews for SAP EP

Within the iViews, you must link the iViews to the Custom Java Provider namespace within your respective portal.

Procedure

1. Open the iView editor for each Cognos iView.
2. In the **Property Category** box, select **Show All**.
3. For the **cpsauthsecret: CPS Authorization Secret** property, enter the secret character string that you used for the Shared Secret property when you configured the Custom Java Provider namespace.
4. For the **cps: authentication namespace ID** property, enter the Custom Java Provider namespace ID.
5. For the **cpsserver: CPS Connection Server** property, enter the URL path to access Portal Services components through the gateway.

   The format of the URL is as follows:

   - For Cognos content portlets

     ***Gateway_URI*/wsrp/cps4/portlets/nav?wsdl&b_action=cps.wsdl**

     Example for a CGI gateway:

     http://*myserver*/ibmcognos/cgi-bin/cognos.cgi/wsrp/cps4/portlets/nav?wsdl&b_action=cps.wsdl

     Example for a servlet gateway:

     http://172.0.16.1:9500/wsrp/cps4/portlets/nav?wsdl&b_action=cps.wsdl
   - For Cognos Extended Applications

     ***Gateway_URI*/wsrp/cps4/portlets/sdk?wsdl&b_action=cps.wsdl**

     Example for a CGI gateway:

     http://*myserver*/ibmcognos/cgi-bin/cognos.cgi/wsrp/cps4/portlets/sdk?wsdl&b_action=cps.wsdl

     Example for a servlet gateway:

     http://172.0.16.1:9500/wsrp/cps4/portlets/sdk?wsdl&b_action=cps.wsdl
   - For Metrics Manager Watchlist portlets

     ***Gateway_URI*/wsrp/cps4/portlets/cmm?wsdl&b_action=cps.wsdl**

     Example for a CGI gateway:

     http://*myserver*/ibmcognos/cgi-bin/cognos.cgi/wsrp/cps4/portlets/cmm?wsdl&b_action=cps.wsdl

     Example for a servlet gateway:

     http://172.0.16.1:9500/wsrp/cps4/portlets/cmm?wsdl&b_action=cps.wsdl

Configure the Cognos Portlets for WebSphere Portal

Within the portlets, you must link the portlets to the Custom Java Provider namespace within your respective portal.

Procedure

1. For each Cognos portlet application, click the edit value icon.
2. For the **cps_auth_secret** property, enter the secret character string that you used for the **Shared Secret** property when you configured the Custom Java Provider namespace.

3. For the **cps_auth_namespace** property, enter the Custom Java Provider namespace ID.
4. For the **CPS Endpoint** property, enter the URL path to access Portal Services components through the gateway.

   The format of the URL is as follows:

   - For Cognos content portlets

     ***Gateway_URI*/wsrp/cps4/portlets/nav?wsdl&b_action=cps.wsdl**

     Example for a CGI gateway:

     http://*myserver*/ibmcognos/cgi-bin/cognos.cgi/wsrp/cps4/portlets/nav?wsdl&b_action=cps.wsdl

     Example for a servlet gateway:

     http://172.0.16.1:9500/wsrp/cps4/portlets/nav?wsdl&b_action=cps.wsdl
   - For Cognos Extended Applications

     ***Gateway_URI*/wsrp/cps4/portlets/sdk?wsdl&b_action=cps.wsdl**

     Example for a CGI gateway:

     http://*myserver*/ibmcognos/cgi-bin/cognos.cgi/wsrp/cps4/portlets/sdk?wsdl&b_action=cps.wsdl

     Example for a servlet gateway:

     http://172.0.16.1:9500/wsrp/cps4/portlets/sdk?wsdl&b_action=cps.wsdl
   - For Metrics Manager Watchlist portlets

     Gateway_URI/wsrp/cps4/portlets/cmm?wsdl&b_action=cps.wsdl

     Example for a CGI gateway:

     http://*myserver*/ibmcognos/cgi-bin/cognos.cgi/wsrp/cps4/portlets/cmm?wsdl&b_action=cps.wsdl

     Example for a servlet gateway:

     http://172.0.16.1:9500/wsrp/cps4/portlets/cmm?wsdl&b_action=cps.wsdl

Configure the Remote Server for Oracle WebCenter Interaction Portal

Within the portlets, you must link the portlets to the Custom Java Provider namespace within your respective portal.

Procedure

1. Using a plain ASCII editor, such as Notepad, edit the cpsalui.properties file in the *c10_location*/cps/oracle/webapps/gadgets/WEB-INF/classes directory.
2. Configure the settings shown in the following table.

Table 10. Settings for the cpsalui.properties file

Parameter	Value
cps_endpoint	The URL to connect to the Application Tier Components and extract the WSDL information. Specify the URI to the gateway. For a servlet or ISAPI gateway, replace the `localhost/ibmcognos/cgi-bin/cognos.cgi` portion with the values to target the gateway. For example, `http://host_name/ibmcognos/cgi-bin/cognosisapi.dll/wsrp/cps4/portlets/[package]?wsdl&b_action=cps.wsdl` For instructions, see the topic about changing the gateway in the *Installation and Configuration Guide*.
forward_cookies=	The names of the cookie that should be sent to the Application Tier Components for single signon. Leave blank.
cps_auth_secret	The shared secret code IBM Cognos uses to encrypt an HTTP header variable that carries the user identity. This parameter represents the authorization secret that must be shared between the Cognos portlets and the IBM Cognos server. Consider this as a secret password. Use the same value that you used for **Shared Secret** in IBM Cognos Configuration. For security reasons, specify a non-null value.
cps_auth_namespace	The namespace ID for the Custom Java Provider.

3. Go to the **c10_location**/cps/oracle directory and run the following build file:
   - On UNIX or Linux operating systems, **build.sh**
   - On Microsoft Windows operating system, **build.bat**

   This creates a cps-wci.war file in the **c10_location**/cps/oracle/gadgets directory.
4. If IBM Cognos BI components are using Tomcat,
   - Stop IBM Cognos BI.
   - Copy the cps-wci.war file to the **c10_location**/webapps directory.

     Tomcat automatically expands the WAR file and starts the remote server.
   - Start IBM Cognos BI.
5. If IBM Cognos BI components are running under another type of application server, copy the cps-wci.war file to the application server.

   For instructions, see the administration guide for your application server.

Results

Single signon is configured.

Configure Properties for the Cognos WebPart for SharePoint Portal

Within the portlets, you must link the portlets to the Custom Java Provider namespace within your respective portal.

Procedure

1. Using a plain ASCII editor, such as Notepad, edit the web.config file in the *drive*\Program Files\Common Files\Microsoft Shared\web server extensions\12\CONFIG directory.
2. Find the following string:

   ```
   <SSO cps_auth_namespace="" cps_auth_secret="" />
   ```
3. Set cps_auth_namespace to the namespace ID for the Custom Java Provider namespace.
4. Set cps_auth_secret to the value that you used for **Shared Secret** in IBM Cognos Configuration.

Enable Single Signon for SAP EP with the SAP Logon Ticket

If you enable single signon with the SAP Logon Ticket, you must configure IBM Cognos components with an SAP namespace that links to an SAP BW server.

Then you must copy the certificate that was generated during SAP EP installation to the SAP BW personal security environment.

Users must have the same user ID in all SAP systems that are accessed through single signon.

Before you start, ensure that you have

- configured IBM Cognos components to use an SAP authentication source

  For more information, see the *Installation and Configuration Guide*.
- enabled single signon between IBM Cognos components and SAP BW

  For more information, see the *Installation and Configuration Guide*.
- installed the latest service packs on the SAP BW server

  Service packs can be downloaded from SAPNET.
- installed the latest hot patches for the SAP portal
- installed the Enterprise Portal plug-in that corresponds to the SAP EP release or SAP BW server

  For SAP releases earlier than 6.2, on SAPNET, download EP50_PLUG-IN for Basis 620 (SAPKINE32A). Using transaction SAINT, install SAPKINE32A.
- installed the SAP Security Library on the SAP BW servers

  From sapservX, under /general/misc/security/SAPSECU/platform, download sapsecin and sepsecu.dll and place both files in the /run directory of the SAP BW server.

To enable SSO for SAP EP, complete the procedures for single signon with SAP logon tickets in the SAP Enterprise Portal *Security Guide*.

Enable Single Signon for SAP EP with User Mapping

If you enable single signon with user mapping, you define an IBM Cognos data source in SAP EP. Individual users or an administrator can enter the user IDs and passwords for IBM Cognos components in the data source. You must map the users logon credentials in the data source to an LDAP or IBM Cognos Series 7 or NTLM namespace. Portal Services iViews transmit the logon credentials to IBM Cognos components using HTTP Basic Authentication.

Prepare the Environment

Before you map user logon credentials, you must perform certain tasks in the security environment.

Procedure

1. Configure the gateway URI that will be used by Portal Services to require authentication using HTTP Basic Authentication.

   For information about configuring a URL to use HTTP Basic Authentication, see the documentation for the gateway or for your Web server.
2. Adjust the iView configuration to access the secure URL.

   For information, see the documentation for your Web server.
3. In IBM Cognos Configuration, configure a namespace to authenticate portal users.

   For instructions, see the topic about configuring LDAP, NTLM, or IBM Cognos Series 7 authentication providers in the *Installation and Configuration Guide*.
4. If you use an LDAP namespace, configure the following properties:
   - For the **Use external identity** property, change the setting to **True**.
   - For the **External identity mapping** property, set it to

     (uid=${environment("REMOTE_USER")})

   Other properties may be required. For more information, see the topic about configuring IBM Cognos components to use LDAP in the *Installation and Configuration Guide*.

Create the Data Source and Map the Users

You must set up the logon credentials and define the user mappings for the Cognos iViews.

Procedure

1. In the SAP portal, ensure that the following properties are configured for the data source in the /PortalContent/other_vendors/every_user/com.cognos.pct.c8/systems/Cognos directory:
   - **Logon Method** = UIDPW
   - **server name** = the name of the IBM Cognos server
   - **port number** = port number of the gateway
   - **Protocol of Target system** = HTTP
   - **User Mapping Type** = admin,user
   - **system alias** (Create a system alias)

   For more information, see the SAP Enterprise Portal *Administration Guide*.
2. For each Cognos iView, enable user mapping for the data source by entering the name of the system alias at the iView level, in an attribute called **CPS: User Mapping Datasource**.

   For more information, see the SAP Enterprise Portal *Administration Guide*.

3. For each Cognos iView, set the **CPS: Authentication Namespace ID** property to the namespace that you want to use for authentication.
4. Register the IBM Cognos credentials for the portal users.

   Users can enter their own user IDs and passwords.

   For more information, see the SAP Enterprise Portal *Administration Guide*.
5. Enable secure communication between SAP EP and IBM Cognos.

Enable Secure Communication Between SAP EP and IBM Cognos Components

A secure connection, using SSL, is not required between SAP EP and IBM Cognos components. It is more important if you enabled single signon with user mapping.

To enable SSL between SAP EP and IBM Cognos components, see your SAP EP security documentation.

For more information about configuring SSL in IBM Cognos components, see the topic about configuring the SSL protocol in the *Installation and Configuration Guide*.

After SSL is enabled, edit properties for the all iViews so that the **cpsserver: CPS Connection Server** property uses https instead of http.

Enable Single Signon for WebSphere Portal Using the Application Server

The Portal Services portlets can use the Active Credentials objects provided by WebSphere Portal to connect to IBM Cognos components. Portal Services supports the following Active Credentials objects: HttpBasicAuth, LtpaToken, SiteMinderToken, and WebSealToken.

Credentials for the portal user are passed to the gateway using this object. For more information about Active Credential objects, see the documentation for IBM WebSphere Portal.

To use application server single signon, see the documentation for IBM WebSphere Application Server.

For information about SSL for IBM Cognos components on a WebSphere Application Server, see the topic about enabling SSL in the application server chapter of the *Installation and Configuration Guide*.

Enable Single Signon for Oracle WebCenter Interaction Portal Using Basic Authentication

You can configure a portlet in WebCenter Interaction Portal to send the username and password as an HTTP Basic authentication header. The header can be used with an NTLM, LDAP, or IBM Cognos Series 7 authentication namespace to provide single signon.

Procedure

1. In IBM Cognos Configuration, configure a namespace to authenticate portal users.

   For instructions, see the topic about configuring LDAP, NTLM, or IBM Cognos Series 7 authentication providers in the *Installation and Configuration Guide*.
2. Install an alternate CGI or ISAPI or servlet gateway in IBM Cognos.

For instructions, see the topic about installing IBM Cognos BI in the *Installation and Configuration Guide*.

3. Configure the gateway.

   For instructions, see the *Installation and Configuration Guide*.

4. In the administration console of the Web server, configure the virtual directories to access the gateway.

   For more information, see the documentation for your Web server.

5. Configure the WebCenter Interaction remote server to access IBM Cognos BI:
   - Edit the cpsalui.properties file in the *c10_location*/cps/oracle/webapps/gadgets/WEB-INF/classes directory.
   - Change the `cps_endpoint` property to indicate the URL of the gateway.

     For a CGI gateway, you can use the default setting if the gateway and the remote server are on the same computer. Otherwise, replace the localhost portion with **host_name:port**

     For a servlet or ISAPI gateway, replace the localhost/ibmcognos/cgi-bin/cognos.cgi portion with the values to target the gateway.

     For example,

     http://*host_name*:*port*/ibmcognos/cgi-bin/cognosisapi.dll/wsrp/cps4/portlets/[package]?wsdl&b_action=cps.wsdl
   - Set the `cps_auth_namespace` property to the namespace that you want to use for authentication.

Enable Single Signon for Oracle WebCenter Interaction Portal Using SiteMinder

If you use eTrust SiteMinder to provide single signon in your security infrastructure, you can also use it for single signon withWebCenter Interaction Portal.

You must configure a SiteMinder authentication namespace in IBM Cognos BI. WebCenter Interaction Portal sends the SiteMinder active authentication token to the remote server, which sends the token to the IBM Cognos gateway.

Procedure

1. In IBM Cognos Configuration, configure a SiteMinder authentication namespace.

   For instructions, see the topic about configuring SiteMinder authentication namespaces in the *Installation and Configuration Guide*.

2. Configure the remote server to forward the authentication token:
   - Edit the cpsalui.properties file in the *c10_location*/cps/oracle/webapps/gadgets/WEB-INF/classes directory.
   - Change the forward_cookies property to include the name of the active authentication token that SiteMinder provides.
   - Change the `cps_endpoint` property to indicate the URL of the gateway.

     For a CGI gateway, you can use the default setting if the gateway and the remote server are on the same computer. Otherwise, replace the localhost portion with ***host_name*** : ***port*** .

     For a servlet or ISAPI gateway, replace the localhost/ibmcognos/cgi-bin/cognos.cgi portion with the values to target the gateway.

     For example,

http://*host_name*:*port*/ibmcognos/cgi-bin/cognosisapi.dll/wsrp/cps4/portlets/[package]?wsdl&b_action=cps.wsdl

- Change the `cps_auth_namespace` property to the namespace that you want to use for authentication.

Chapter 35. Customizing the Appearance of IBM Cognos BI

You can customize the IBM Cognos Business Intelligence interface to suit the needs of an international customer or a particular reseller. IBM Cognos BI includes a selection of predefined styles that you can use to globally change the look of the graphical user interface without affecting product functionality. Alternatively, you can create a custom style based on one of the predefined styles. You can make changes to the colors, fonts, images, and overall appearance of one or more IBM Cognos components.

Styles can be customized by

- using the style management utility

  The style management utility automates the creation of custom styles. This is the preferred method for customizing the appearance of IBM Cognos components.
- manually creating a custom style and changing the associated style sheets (.css files). Using this method, you can customize style sheets for Cognos Connection, Report Studio, Query Studio , IBM Cognos Viewer, and prompt pages.

For more information about IBM Cognos customizations, see Chapter 36, "Customizing the Functionality of IBM Cognos Software," on page 605.

Predefined Styles

IBM Cognos software provides several predefined styles to control the appearance of the IBM Cognos Web interface.

The following predefined styles are available:

- business
- classic
- contemporary
- corporate (product default)
- modern
- presentation
- windows

Note: The windows style is used only with Report Studio. It adopts the display scheme specified by the Microsoft Windows operating system settings. This style must not be modified, and the customization techniques described in this document do not apply to it.

For more information about the predefined styles, see "Styles" on page 527.

IBM Cognos Components Affected by Styles

Use styles to customize the appearance of IBM Cognos Components.

The following components are affected by styles:

- IBM Cognos Connection (including job scheduling and query setting defaults)
- IBM Cognos Administration

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- Report Studio (toolbox and preview window)
- Query Studio (filter dialogs and prompt pages)
- IBM Cognos Viewer (reports and prompt pages)
- Analysis Studio
- Event Studio
- IBM Cognos Search

Using the Style Management Utility

The style management utility is a command line utility located on each IBM Cognos gateway. With this utility, you can create custom styles based on the predefined styles that can be used to change the appearance of IBM Cognos components.

Custom styles that you create and publish using the style management utility can be used as the basis for creating other custom styles.

For information about creating and deploying custom styles for IBM Cognos Connection and IBM Cognos Administration, see "IBM Cognos Connection and IBM Cognos Administration." For information about creating and deploying custom styles for other components, see "Report Studio, IBM Cognos Viewer, Query Studio, and Prompt Pages" on page 577.

To run the style management utility, you must have a gateway installed and a dispatcher with a Presentation Service. Also, you must have permissions for the **Style and portlets** capability.

XML Style Files

After creating a custom style using the style management utility, XML style files are then used to make global changes to the appearance of Cognos Connection and Cognos Administration.

The utility also validates XML style files, saves the XML files to Content Manager, and publishes new styles making them visible to users. The utility can also delete custom styles.

Since the XML style files created using the style management utility are stored in Content Manager, they can be upgraded.

IBM Cognos Connection and IBM Cognos Administration

This section describes the process for creating and deploying a custom style for Cognos Connection and Cognos Administration using the style management utility.

- Create a custom style.

  You create a custom style based on one of the predefined styles provided with IBM Cognos. For more information, see "Predefined Styles" on page 575.

- Modify the *style*.xml file.

  Changes you make to *style*.xml affect the appearance of Cognos Connection and Cognos Administration only. They do not apply to other IBM Cognos components.

  Style.xml is created in the *c10_location*/temp directory when you create a new style. You can edit *style*.xml in an XML or text editor to use custom colors and images. For more information, see "Modifying the XML Style File" on page 580.

- Generate the custom style.

  The style management utility creates a folder for the new style on the local machine in the *c10_location*\temp folder. The folder contains all the files needed for the new style, including the cascading style sheets and images. For step-by-step information about how to create a custom style, see "Creating a Custom Style" on page 579.

  For IBM Cognos Connection and IBM Cognos Administration, you are not required to make manual changes to the .css files for changes related to colors and certain graphics. These style changes are updated dynamically by the style management utility and are upgradeable. Style changes to fonts and layout properties do require manual changes to the .css files. For more information, see "Modifying the Appearance of IBM Cognos Connection" on page 585.
- Deploy the style.

  To deploy a style, first you zip the folder that contains the new style and the associated .css and image files. Then, you extract the zip file to the *c10_location*\webcontent\skins directory on all gateway locations.
- Publish the custom style.

  Publishing a custom style makes it available to your users. When you publish a style, it appears in the list of styles in IBM Cognos Connection.

Report Studio, IBM Cognos Viewer, Query Studio, and Prompt Pages

This section describes the process for creating and deploying a custom style for Report Studio, IBM Cognos Viewer, Query Studio and prompt pages.

- Create a custom style.

  You create a custom style based on one of the predefined styles provided with IBM Cognos see "Predefined Styles" on page 575. For more information, see "Creating a Custom Style" on page 579.
- Generate the custom style.

  The style management utility creates a folder for the new style on the local machine in the *c10_location*\temp folder. The folder contains all the files needed for the new style, including the cascading style sheets and images.

  For IBM Cognos Report Studio, IBM Cognos Viewer, IBM Cognos Query Studio, and prompt pages, you must manually edit the associated cascading style sheets before you deploy the new style. For more information, see
  - "Modifying the Report Studio Style Sheets" on page 589
  - "Modifying the IBM Cognos Viewer Style Sheets" on page 596
  - "Modifying the Query Studio Style Sheets" on page 590
  - "Modifying the Prompt Page Style Sheets" on page 597
- Deploy the style.

  To deploy a style, first you zip the folder that contains the new style and the associated .css and image files. Then, you extract the zip file to the *c10_location*\webcontent\skins directory on all gateway locations.
- Publish the custom style.

  Publishing a custom style makes it available to your users. When you publish a style, it appears in the list of styles in IBM Cognos Connection.

Style Management Utility Commands

The following commands are supported.

Command	Description
Delete Syntax: `delete style_name`	Removes an existing style from Content Manager. The directory containing the style is not deleted. The delete command cannot be used to delete any of the predefined styles: Business, Classic, Contemporary, Corporate, Modern, and Presentation.
Download Syntax: `download style_name`	Downloads an existing style from Content Manager for updating.
Help Syntax: `help` `help command_name`	Retrieves a list of valid commands. The help command followed by a command name retrieves detailed information about that command.
Generate Syntax: `generate style_name`	Creates a folder for a new style on all the IBM Cognos Business Intelligence gateways in the *c10_location*\temp directory. The folder contains all the files needed for the new style, including the cascading style sheets and images. The generate command prompts you to save before proceeding. If you respond No to the prompt, the generate command does not execute.
List Syntax: `list`	Retrieves the current list of styles available. The same list appears in the **Styles** section on the **Configuration** tab in **IBM Cognos Administration**.
Logoff Syntax: `logoff` or `exit`	Exits the style management utility.
New Syntax: `new style_name_existing  style_name_new`	Creates a new style based on an existing style. An XML file is created in the *c10_location*\temp directory. You can customize *style*.xml by editing the colors and images in a text or XML editor.

Command	Description
Publish Syntax: `publish style_name`	After deploying a new style to all gateways, the publish command makes the style available to end users.
Save Syntax: `save style_name`	Saves the custom style to Content Manager for later retrieval.
Validate Syntax: `validate style_name`	Validates the custom style file, *style*.xml.
Zip Syntax: `zip style_name`	Packages the output of the generate command into a zip file named *style*.zip in the *c10_location*\temp folder. The zip file must be extracted to the c10\webcontent\skins directory on all the gateways.

Creating a Custom Style

Use the style management utility to create custom styles that you can use to affect the appearance of IBM Cognos components.

For IBM Cognos Connection and IBM Cognos Administration, after creating a custom style, you make changes to the *style*.xml file to use custom colors and images. You are not required to edit the associated cascading style sheets.

For IBM Cognos Report Studio, IBM Cognos Viewer, IBM Cognos Query Studio, and prompt pages, instead of editing the *style*.xml file after you create a custom style, you must manually edit the associated cascading style sheets.

For information about creating and deploying a custom style for IBM Cognos components using the style management utility, see one of the following:

- "IBM Cognos Connection and IBM Cognos Administration" on page 576
- "Report Studio, IBM Cognos Viewer, Query Studio, and Prompt Pages" on page 577

Procedure

1. Launch the style management utility.

   On Microsoft Windows operating system, run the batch file stylemgr.bat located in the *c10_location*\bin\utilities\StyleManager directory.

   On UNIX and Linux operating systems, run the shell script stylemgr.sh located in the *c10_location*/bin/utilities/StyleManager directory.
2. At the prompt, type your user name, password, and namespace.

   Use the namespace user id for the user name.
3. At the prompt, type

`new style_name_existing  style_name_new`

Example: `new business standard`

The new style, standard, is created in the *c10_location*\temp directory.

If you intend to use the new style to customize the appearance of IBM Cognos Connection or IBM Cognos Administration, open <style>.xml in an XML or text editor, modify the colors and images, and save your changes. For more information, see "Modifying the XML Style File."

If you intend to use the new style to customize the appearance of IBM Cognos Report Studio, IBM Cognos Viewer, IBM Cognos Query Studio, and prompt pages, proceed to step 5.

4. After the changes to the new style are completed, return to the style management utility, and validate the style file. At the prompt type

   `validate style_name`

5. To create the additional files associated with a style, at the prompt type

   `generate style_name`

   Respond yes when prompted to save the style.

   The generate command creates a folder for the new style in the *c10_location*\temp directory on all IBM Cognos Business Intelligence gateways. The folder contains all the files needed for the new style, including the .css and image files.

6. Zip the folder created by the generate command. At the prompt, type

   `zip style_name`

7. Extract the files from the .zip file created in step 7 to the *c10_location*\webcontent\skins folder on all gateway locations.

   After the files are extracted, you need to publish the style.

8. Launch the style management utility. At the prompt type

   `publish style_name`

   Publishing a style makes it available to your end users.

   After publishing a user-defined style, you can create other custom styles based on the user-defined style.

9. Exit the style management utility. At the prompt type

   `logoff`

Modifying the XML Style File

To add custom colors and images to a style, you edit the *style*.xml file.

The changes you make in *style*.xml only affect the appearance of IBM Cognos Connection and Cognos Administration.

Procedure

1. In an XML or text editor, open the *style*.xml file located in the *c10_location*\temp directory.
2. Customize the style by modifying the following sections. For example, to define a custom color palette, modify the values in the palette section.

Section	Description
<palette></palette>	Defines the color palette. The `palette` element in this file controls color settings at a global level. If you want to make changes at a more granular level, modify each specific class of objects without modifying this element.
<colors></colors>	Maps a style element, such as table text, to a color defined in the color palette, such as black.
<images></images>	Specifies the name and location of image files.
<values></values>	Defines other style values that are likely to change.

3. Save your changes.

   After saving your changes, use the style management utility to generate files for the style and publish it to your users.

Example - Change the Background Color in Style.xml:

Suppose you want to change the background color in the *style*.xml file.

In the *c10_location*\temp directory, open the *style*.xml file in an XML or standard text editor. Find the section specified below, and change the value shown in bold font as required. Note that custom colors that you specify must be defined in the palette section of the *style*.xml file.

```
<color name="text" paletteColor="black" />
  <color name="textDisabled" paletteColor="gray.dark" />
  <color name="textError" paletteColor="black" />
  <color name="background" paletteColor="white"
/>
  <color name="anchor" paletteColor="hyperlink" />
  <color name="selection" paletteColor="special1" />
  <color name="tooltip" paletteColor="tooltip" />
```

Create a Custom Style Manually

You can manually create a custom style by modifying an existing style, including the predefined styles, so that it matches your organization's user interface.

You can also use the style management utility to create custom styles. For more information, see "Using the Style Management Utility" on page 576.

When creating a custom style manually, you can do the following:

- Change colors, fonts, images, and some layout properties.

  Modify the associated style sheets in the *c10_location*/webcontent/skins/*style* directory.

- Rename the styles using **IBM Cognos Administration** so that the names are more appropriate for your environment, see "Modify a Style" on page 530. Note that renamed styles cannot be used to create other new styles using the style management utility.
- Rename the style directories in the *c10_location*/webcontent/skins directory.

  Do not rename the corporate directory, see "Customized Environment and the Corporate Style."

  When making your changes, you must ensure that the structure of the custom style directory matches the structure of the predefined styles directories.

Procedure

1. In the *c10_location*/webcontent/skins directory, make a copy of an existing style directory and rename it.

   For example, make a copy of the corporate directory and rename it to standard.
2. In the new directory, modify the style sheets, graphics, or fonts as required.
3. In **IBM Cognos Administration**, add a new style object and associate it with the style directory created in step 1. For more information, see "Add a New Style" on page 528.

   The new style is now available in **My Preferences**, see "Personalize the Portal" on page 304.

Customized Environment and the Corporate Style

Corporate is the default style in the IBM Cognos environment.

It is used when no other suitable style can be found, for example, at logon time when the user identity is unknown. A reference to the corporate directory is hard-coded in the product and this directory must always exist in the c10_location/webcontent/skins directory

You can modify the style sheets in the corporate style directory to apply your company look and feel to this style. You can also rename the corporate style object so that the name corporate does not appear in the user interface. For more information, see "Modify a Style" on page 530.

Making Other Style Changes to all Components

You can make global changes to the appearance of all IBM Cognos components.

These changes include:

- re-brand the IBM Cognos interface
- change IBM Cognos fonts
- change the global IBM Cognos style sheet
- migrate changes to future releases

Rebranding the IBM Cognos Interface

You can re-brand the product by globally replacing all instances of the company name and logo with new text and appropriate brand images.

Re-sellers and partners may use a brand-neutral version of the IBM Cognos splash screen image.

Graphics for IBM Cognos software are created using a Web-safe color palette. They are saved as non-interlaced GIF files. All interface icons are created with a transparent background, shown as the color Magenta.

Changing Brand-related Graphic

The brand-related graphics are grouped together in a directory named *c10_location*/webcontent/skins/*style*/branding where *style* represents each style directory. Depending on the style you use, see "Predefined Styles" on page 575, you change the graphics in the associated style directories.

You can replace individual IBM Cognos images, which are generally GIF files, with alternatives of a more suitable size or design.

To help you locate the correct graphics, note that those used with the product components typically have file names beginning with the prefix tools_. This differentiates them from object or action-related graphics, which typically have file names beginning with the prefix icon_.

Tip: To change the text in a graphic, such as the acronym Business Intelligence, open the relevant file in a graphics editor, replace the text, and resave the graphic in .GIF format.

Adding Custom Messages

You can add your own custom messages, such as reseller copyright information, to the existing text in the About box. However, note that you are legally required to maintain the existing IBM Cognos copyright notice.

Checking Global Text Changes

When you are finished making global text changes, we recommend that you check them in all the interfaces exposed to your users. Pay particular attention to browser page captions and generic dialog boxes, which are easy to miss.

Changing IBM Cognos Fonts

IBM Cognos style sheets specify text fonts that are suitable for UTF-8-encoded text.

Relative font sizes are specified for interface text elements. Point sizes are specified for report text elements and form controls (input fields).

All text strings except the banner, company, and portal strings are language-sensitive. However, no banner string is used in IBM Cognos Connection.

You can change the fonts used in IBM Cognos software by modifying the font-family list in the file *c10_location*/webcontent/skins/*style*/fonts.css where *style* represents the style directory. For more information, see "Predefined Styles" on page 575. Modify the fonts.css file associated with the style you want.

For example, you can change the default font used on all HTML interfaces, except Report Studio, to one more suited to rendering special Asian characters. Open the file fonts.css in a text editor, comment out the section that shows Tahoma as the first item in the font-family list, and then remove the comment from an entry that better meets your Unicode requirements.

Note: Font changes do not apply to Report Studio, which has a separate font-setting style sheet. For more information, see "Modifying the Report Studio Style Sheets" on page 589.

Changing the Global IBM Cognos Style Sheet

To globally change the default styles used for IBM Cognos reports, you can modify styles in the GlobalReportStyles.css file.

GlobalReportStyles.css is located in the following directories:

- *c10_location*/bin

  The file in this location is used by Report Server for PDF and Microsoft Excel spreadsheet software outputs.
- *c10_location*/webcontent/schemas

  The file in this location is used by IBM Cognos Viewer for HTML output.
- *c10_location*\reportstyles

  The file in this location is not currently used.
- *c10_location*\webcontent\reportstyles

  The file in this location is used by Report Studio.

The files in all directories must be modified to ensure that reports are rendered properly on both the server and the client systems. In a multiple server configuration, the style sheets on all systems must be modified. On the IBM Cognos server system, this is the file in the *c10_location*/bin directory. On the Web server systems, this is the file in the *c10_location*/webcontent/schemas directory. For example, if you have 2 IBM Cognos servers and 3 Web servers, you must update 5 copies of the GlobalReportStyles.css file.

You can also add styles to this style sheet; however, a simpler alternative is to add a style to a template in Report Studio.

Any changes you make to this style sheet are lost if you reinstall or upgrade IBM Cognos software. If this happens, you must reapply your changes. For more information, see "Migrating Changes to Future Releases" on page 585.

Both Report Studio and Query Studio use the GlobalReportStyles.css file to assign classes to report objects. Query Studio does not expose these classes. However, you can use Report Studio or the Software Development Kit to modify the class property of any report object. For example, if you create a default report and then click the title, the class property appears as Report Title Text. You can change this property as required.

If you decide to modify the GlobalReportStyles.css file, you must be aware that the class names that appear in Report Studio are multilingual and defined in the Report Studio resource files. Instead of modifying this style sheet, it may be simpler to add a new style into your report.

For more information about creating or modifying class styles, see the IBM Cognos Report Studio *User Guide*.

When you work directly with an XML report specification, you can manually set the style of the object. For example, you can edit the report title, which may appear as follows:

```
<textItem class="reportTitleText">
 <text>
  My report title
 </text>
</textItem>
```

For more information about modifying styles in a report specification, see the *Developer Guide*.

Migrating Changes to Future Releases

IBM Cognos software does not automatically preserve changes made to style sheets and other customization-related files.

We recommend that you keep a careful record of your changes. Otherwise, you may inadvertently lose them during migration to a newer version of the product.

Modifying the Appearance of IBM Cognos Connection

The style sheet default.css in the c10_location/webcontent/skins/*style*/portal directory defines the overall appearance of the IBM Cognos Connection interface for each style.

For information about the pre-defined styles, see "Predefined Styles" on page 575

Portal-specific graphics, if present, are located in the images subdirectory.

You make changes to the appearance of IBM Cognos Connection by modifying the default.css file for the styles you want. Before you begin, we recommend that you back up the original default.css file.

Other changes to the appearance of IBM Cognos Connection are made in the *c10_location*/templates/ps/portal/system.xml file.

Tip: Remember to restart IBM Cognos software after completing your modifications, so that the changes take effect.

This documentation provides the following examples of customizations in IBM Cognos Connection:

- Customizing the default Welcome page
- Changing the background color in the IBM Cognos Connection main header
- Changing the branding details in the IBM Cognos Connection main header
- Changing the portal graphics
- Changing the fonts for page titles and instructions

Example - Customize the Default Welcome Page

You can customize the default Welcome page to apply your organization look and feel to it.

You can change the colors, fonts, graphics, and some layout properties.

To customize the Welcome page for the style you want, in the *c10_location*/webcontent/skins/*style*/portal/default.css file, search for the classes that start with `welcome` and modify the values as required.

Example - Change the Branding Details in the IBM Cognos Connection Main Header

You can customize the IBM Cognos Connection main header by changing the branding details on the left-hand side.

You can change the graphic, the title, and the background color. This change also affects IBM Cognos Viewer, but not IBM Cognos Administration.

The branding details are defined by the `OEM` parameter in the portal system.xml file. You must modify this file.

Copy the image files that you want to use to the *c10_location*/webcontent/skins/*skin_name*/branding directory.

Procedure

1. Open the system.xml file in an XML editor.

   This file is located in the *c10_location*/templates/ps/portal directory.
2. Locate the `OEM` parameter and add the custom branding details as specified in the following code.

   The sequence in bold font must be repeated for each style in which you want this change to appear.

```
<param name="OEM">
  <customHeader showContext="true" contextDelimiter="-">
   <style styleFolderName="corporate">
<!--Insert well-formedHTMLhere -->
</style>
    <style styleFolderName="classic">
    </style>
        ...
  </customHeader>
</param>
```

   Setting the `showContext` attribute to true adds a report or a page name to the title. The `contextDelimiter` attribute, which can be represented by any character or sequence of characters, separates the title from the report or page name.

   Here is a code example for this change:

```
<customHeader showContext="true" contextDelimiter="-
">
  <style styleFolderName="corporate">
   <table style="background-color:#ffffff">
    <tr>
     <td><img src="../skins/corporate/branding/my_logo.gif"/>
     </td><td class="headerTitle"
     style="padding-right:2px;white-space:nowrap">Mycompany</td>
    </tr>
   </table>
  </style>
  <style styleFolderName="classic">
   <table style="background-color:#cccccc">
    <tr>
     <td><img src="../skins/corporate/branding/my_logo.gif"/>
      </td><td class="headerTitle"
      style="padding-right:2px;white-space:nowrap">Mycompany
      </td>
     </tr>
   </table>
 </style>
</customHeader>
```

3. Restart the IBM Cognos service.

Example - Change the Background Color in the IBM Cognos Connection Main Header

Suppose you want to change the background color used in the IBM Cognos Connection header.

Open the *c10_location*/webcontent/skins/*style*/shared/banner.css file in a text editor and, in the code specified below, change the value shown in bold font as required.

```
mainHeader1
{
 border-right: #000000 1px solid;
 border-left: #000000 1px solid;
 border-bottom: #000000 1px solid;
 background-color: #669966;
 height: 25px;
 background-image: url(Images/title_bar_grapic.gif);
 background-repeat: repeat-x;
 background-position: top;
}
```

Example - Change the Portal Graphics

Suppose you want to remove or replace some of the Web portal graphics for a specific style.

When replacing the images, we recommend that you retain the same file name.

The following table shows the files located in the directory *c10_location*/webcontent/skins/*style*/branding that supply the currently used images. For information about how to replace ibm-logo-white.gif with a custom logo, see "Replace the IBM Logo with a Custom Logo" on page 588.

File	Contents
branding/portal_splash.gif	The splash screen image for IBM Cognos Connection
branding/cc_about.gif	The About box image for IBM Cognos Connection
branding/cognosadmin_about.gif	The About box image for IBM Cognos Administration
branding/progress.gif	The animated progress image
branding/ibm-logo-white.gif	The IBM logo
shared/images/banner-swoosh.png	The middle banner section image
shared/images/banner-background.png	The banner background image

Replace the IBM Logo with a Custom Logo

In IBM Cognos Connection, you can add custom logos on the right side and the left side of the portal banner.

When you add a custom logo to the right side of the banner, the logo replaces the IBM logo that is visible by default. When you add a custom logo on the left side of the banner, the logo replaces the IBM logo that is hidden by default.

Tip: When adding a custom logo, you can adjust the height and width of the image. However, to ensure that the image displays correctly, size the graphic so that it is no greater than 35 pixels in height.

Add a Custom Logo on the Right Side of the Portal Banner:

In IBM Cognos Connection, you can add custom logos on the right side and the left side of the portal banner.

Procedure

1. Name your logo image ibm-logo-white.gif.
2. Copy ibm-logo-white.gif to *c10_installation*\webcontent\skins\<skin>\branding and overwrite the existing ibm-logo-white.gif.
3. Refresh the Cognos Connection portal page.

   Tip: You may need to delete your browser cache before the custom logo can display.

Add a Custom Logo on the Left Side of the Portal Banner:

In IBM Cognos Connection, you can add custom logos on the right side and the left side of the portal banner.

Procedure

1. Name your logo image file to your_logo_here.gif.
2. Copy the image file to *c10_installation*\webcontent\skins\<skin>\branding and overwrite the existing your_logo_here.gif file.
3. Modify the file banner.css located in the *c10_installation*\webcontent\skins\<skin>\shared folder location as follows:
   - In the ".logo" section, remove the line "display: none;".
   - In the "#ibmLogo" section, add the line "display: none;".
4. Modify the file portlet.css in the *c10_installation*\webcontent\skins\<skin>\fragments location as follows.
   - In the ".cogstyle-header-logo" section, remove the line "display: none;".
   - In the ".cogstyle-header-ibm-logo" section, add the line "display: none;".

Example - Change the Default Fonts for Page Titles and Instructions

Suppose you want to change the initial font settings for the page title and instructions.

Depending on the product locale or other circumstances, you can specify a different font style and size.

In the *c10_location*/templates/ps/portal/system.xml file, find the section specified below, and change the values shown in bold font as required.

```
<param name="myPages">
 <param name="fontUnit">pt</param>
      <!-- pt or px or % -->
 <param name="defaultTitleFontFace">Tahoma</param>
 <param name="defaultTitleFontSize">12</param>
 <param name="defaultInstructionsFontFace">Tahoma</param>
 <param name="defaultInstructionsFontSize">11</param>
</param>
```

Modifying the Report Studio Style Sheets

The two predefined Report Studio styles are CRN (the current default) and windows. The windows folder contains styles that apply uniquely to Report Studio.

The customizable Report Studio style sheets are located in the directory *c10_location*/webcontent/skins/*style*/pat, or *c10_location*/webcontent/skins/*style*/hal, where style represents a specific style directory. For more information, see "Predefined Styles" on page 575. The style sheets in *c10_location*/webcontent/skins/windows/pat and *c10_location*/webcontent/skins/windows/hal must not be changed. Component-specific graphics are located in the images subdirectories of these directories.

The following table describes the contents for the Report Studio style sheets.

File	Contents
style/pat/skin.css	Defines the default interface style for Report Studio, including a section that globally sets the font
style/hal/hal_*style*_skin.css	Defines the default interface styles for menus and toolbars
windows/pat/skin.css	Defines a style that applies the user's chosen Microsoft Windows operating system display settings to the Report Studio interface

Example - Change the Fonts Used in Report Studio

Suppose you want to change the default font used in the HTML interface to one that properly renders special Asian characters.

Open the *style*/pat/skin.css file in a text editor and comment out the section that shows Tahoma as the first item in the font-family list. Select or create an entry that better meets your Unicode requirements.

```
@charset "UTF-8";
DIV.clsToolbar,
...
DIV.clsTabPanels
{
 font-family:Tahoma, Arial, 'MS UI Gothic',
```

```
Gulim, SimSun, PMingLiU, Raghu8,
'Arial Unicode MS', 'Andale WT', sans-serif;
 font-size: 8pt;
}
```

Example - Change the Colors Used in Report Studio Menus

Suppose you want to change the colors used in the Report Studio menus.

Open *c10_location*/webcontent/skins/*style*/hal/hal_*style*.css style sheet in a text editor and change the code shown in bold font to your preferred colors.

```
DIV.clsMenubar,
DIV.clsToolbar
{
 background-color: black;
 border-top: solid white 1px;
 border-bottom: solid #999999 1px;
 color: white;
}
TD.clsMenubarItem,
TD.clsToolbarButton
{
 background-color: white;
 color: black;
}
TD.clsMenubarItem,
TD.clsToolbarButton
{
 background-color: white;
 color: black;
}
```

Example - Change the Report Studio Graphics

Suppose you want to remove or replace some of the graphics used in Report Studio.

When replacing images, we recommend that you retain the same directory structure and file name.

The following table shows which files supply the currently used images.

File	Contents
webcontent/pat/images/ICRS.png	The About box graphic. This graphic changes based on the user profile. The graphic file, ICRS.png, is used for Report Studio professional profile.
webcontent/hal/images/progress.gif	The animated progress image.

Modifying the Query Studio Style Sheets

To modify the appearance of Query Studio, you use the Query Studio style sheets.

The Query Studio style sheets are located in the directory *c10_location*/webcontent/skins/*style*/qs.

Graphics specific to a particular component style, such as banner.gif, are located in the images subdirectory.

The following table describes the contents for the Query Studio style sheets.

File	Contents
QSReport.css	Defines context menu styles for Query Studio. Uses points to reference font sizes.
QSSelection.css	Defines report styles for Query Studio, such as the appearances of selected columns, columns that are cut, or columns that have the pointer paused over them.
QSRVCommonUI.css	Defines styles for the Query Studio and IBM Cognos Viewer interfaces, including the application title area, left pane menu, toolbar, metadata tree, preview pane, and navigation links.
QSRVDialog.css	Defines styles for the Query Studio and IBM Cognos Viewer dialog boxes. This file is used only to avoid having to include large .css files for every dialog box.

Example - Change the Colors Used in Query Studio Menus

Suppose you want to change the colors used in Query Studio menus.

Open the QSRVCommonUI.css style sheet in a text editor and change the code shown in bold font to your preferred colors.

```
.menuHeader
{
 font-size: 70%;
 color: #336699;
 border-collapse: collapse;
 font-weight: bold;
 ...
}
.menuItem,
.menuItemSpacer,
.menuItemSpacerTop
{
 background-color: #E3E9F3;
 border: solid #336699;
 border-width: 0px 1px;
 border-collapse: collapse;
}
.menuItem
{
 font-size: 70%;
 color: 336699;
 padding: 3px 5px;
 text-decoration: underline;
 cursor: pointer;
 cursor: hand;
}
.menuItemSelected
{
```

```
 color: 336699;
 border-collapse: collapse;
 cursor: default;
 padding: 3px 10px;
 border: 1px solid #336699;
 height:20px;
 font-size: 70%;
 font-weight: bold;
}
```

Example - Change the Query Studio Graphics

Suppose you want to remove or replace some of the graphics used in Query Studio.

The branding-related graphics are grouped together in the *c10_location*/webcontent/skins/*style*/branding directory. Graphics specific to the Query Studio component, such as banner.gif, are located in the images subdirectory of the directory *c10_location*/webcontent/skins/*style*/qs.

When replacing images, we recommend that you retain the same directory structure and file names, as shown in the following table.

File	Contents
branding/about.gif	The About box graphic
branding/progress.gif	The animated progress image

Note: Query Studio has no splash screen or Welcome banner.

Customize the Query Studio Toolbar and Menus

You can customize the Query Studio toolbar and menus by adding or removing buttons and menu items.

Add a Menu Item

You can customize the Query Studio menus by adding menu items.

Procedure

1. Stop the IBM Cognos service.
2. Open the file *c10_location*/templates/ps/qs/ui.xml in an XML editor.
3. Locate the content between the `<menuContent>...</menuContent>` tags.
4. For the menu to which you want to add a new item, add the menu item ID under the `<menu>` element.

   The following example shows how to do this for a menu item named Test when adding it to the `edit` menu.

   ```
   <menu alias="edit">
    <name>
     <xts:string id="MENU_EDIT_COLUMN"/>
    </name>
    ...
    <menuItem id="Test" >
   </menu>
   ```
5. Locate the content between the `<contextMenu>...</contextMenu>` tags.

   Each `menu` element in this section represents different menu context, such as the `report` or `chart` context.

6. For the context in which you want the menu item to appear, add a new <menuItem> element.

   The following example shows how to add the Test menu item for the report context:

```
<menu alias="report">
 <menuItem id="Test" >
  <label>"Test..."</label>
<link>goApplicationManager.getFeatureManager().launchFeature("Test")</link>
  <icon useWebRoot="true">qs/images/toolbar/test.gif</icon>
 </menuItem>
</menu>
```

   The link element in this example specifies the JavaScript function defined in steps 11 and 12.

   The test.gif graphic file referenced by the *icon* element must exist in the *c10_location*/webcontent/qs/images/toolbar directory.

7. Save and close the ui.xml file.
8. Open the file *c10_location*/templates/ps/qs/features.xml in an XML editor.
9. Under the <included>...</included> tag of root element, add a new feature element corresponding to the menu item defined in the ui.xml file.

   For example, for the Test menu item, add the following:

```
<feature name="Test" >
 <menuItem type="menuItem">
  <label>"Test..."</label>
  <tooltip>"Test"</tooltip>
  <icon>
   <active useWebRoot="true">qs/images/toolbar/test.gif</active>
  </icon>
  <action>
    <parameters>
     <parameter type="string">Test</parameter>
    </parameters>
   </action>
  </menuItem>
 </feature>
```

   Note: If you are adding a corresponding button for the same functionality, add the menu item under the same feature element as the button, as shown in the following example:

```
<feature name="Test">
 <menuItem type="menuItem">
  <...
 </menuItem>
 <toolbar buttonType="button">
  <...
 </toolbar>
</feature>
```

10. Save and close the features.xml file.
11. In the *c10_location*\webcontent\qs\classes directory, create a new JavaScript file named CFeatureID.js.

    For example, for the Test menu item, the file name would be CTest.js.

    Note: If you are adding a corresponding toolbar button for the same functionality, this file is used both by the menu item and the button.

12. In the JavaScript file, define a class named *CFeatureID*, for example CTest, and the supporting functions, as shown in the following example:

```
function CTest()
{
 //Initialize
}
```

```
CTest.prototype = new AFeatureObject();
CTest.prototype.setup = function (aFeatureParams)
{
 //setup feature parameter
};
CTest.prototype.processErrorState = function()
{
 //Handle error and return error state
};
CTest.prototype.proceedWithoutDialog = function()
{
 return this.execute();
};
CTest.prototype.execute = function (aParameters)
{
 //Execute Feature
};
```

13. Save the JavaScript file.
14. Start the IBM Cognos service.

Results

The new menu item appears under the menu for which it was added when the specified context is viewed.

To remove a menu item, delete the sections of code associated with the item from ui.xml and features.xml.

Add a Toolbar Button

You can customize the Query Studio toolbar by adding buttons.

Procedure

1. Stop the IBM Cognos service.
2. Open the file *c10_location*/templates/ps/qs/ui.xml in an XML or text editor.
3. Under the `toolbarContent` element, add an ID for the new button.

   The following example shows how to do this for a button named Test.

   ```
   <button id="Test" />
   ```
4. Save and close the ui.xml file.
5. Open the file *c10_location*/templates/ps/qs/features.xml in an XML editor.
6. Under the `root` element, add a `new feature` element corresponding to the toolbar button defined in the ui.xml file.

   For example, for the Test button, add the following:

   ```
   <feature name="Test" >
     <toolbar buttonType="button">
     <tooltip>"Test"</tooltip>
      <icon>
       <active useWebRoot="true">qs/images/toolbar/test_button.gif</active>
      </icon>
     <action>
      <parameters>
       <parameter type="string">Test</parameter>
      </parameters>
     </action>
    </toolbar>
   </feature>
   ```

   The test.gif file referenced by the *icon* element must exist in the *c10_location*/webcontent/qs/images/toolbar directory.

Note: If you are adding a corresponding menu item for the same functionality, add the button under the same `feature` element as the menu item, as shown in the following example:

```
<feature name="Test" >
    <menuItem type="menuItem">
  <...
  </menuItem>
  <toolbar buttonType="button">
   <...
   </toolbar>
</feature>
```

7. Save and close the features.xml file.
8. In the *c10_location*\webcontent\qs\classes directory, create a new JavaScript file named CFeatureID.js.

   For example, for the Test button, the file name would be CTest.js.

   Note: If you are adding a corresponding menu item for the same functionality, this file is used both by the menu item and the button.
9. In the JavaScript file, define a class named CFeatureID, for example CTest, and the supporting functions, as shown in the following example:

```
function CTest()
{
    //Initialize
}
CTest.prototype = new AFeatureObject();
CTest.prototype.setup = function (aFeatureParams)
{
    //setup feature parameter
};
CTest.prototype.processErrorState = function()
{
    //Handle error and return error state
};
CTest.prototype.proceedWithoutDialog = function()
{
 return this.execute();
};
CTest.prototype.execute = function (aParameters)
{
    //Execute Feature
};
```

10. Save the JavaScript file.
11. Start the IBM Cognos service.

Results

The new button appears in the Cognos Query toolbar.

To remove a toolbar button, delete the sections of code associated with the button from ui.xml and features.xml.

Modifying the Appearance of IBM Cognos Viewer

You can make the following changes to the appearance of all IBM Cognos Viewer:

- modify the IBM Cognos Viewer style sheets
- change the language of the user interface

Modifying the IBM Cognos Viewer Style Sheets

You can modify the IBM Cognos Viewer style sheets at the same time as you customize the Query Studio interface, or as a separate exercise.

The relevant style sheets are located in the directory *c10_location*/webcontent/skins/*style*/viewer. Graphics specific to a particular component style, such as banner.gif, are located in the images subdirectory.

The following table describes the IBM Cognos Viewer style sheets.

File	Contents
RVReport.css	Defines report styles for IBM Cognos Viewer.
QSRVCommonUI.css	Defines styles for the Query Studio and IBM Cognos Viewer interfaces, including the application title area and navigation links.

Example - Change the Language of the IBM Cognos Viewer User Interface

When you view content, such as reports, in IBM Cognos Viewer in a language other than English, French, German, or Japanese, you may want to see the IBM Cognos Viewer user interface in the same language.

This requires changing the product language in IBM Cognos Viewer using IBM Cognos Configuration, and later selecting this language in IBM Cognos Connection. Ensure that IBM Cognos Viewer is translated into the language you want to use.

Suppose you want to change the IBM Cognos Viewer user interface to Greek for users of reports in Greek. At the same time, you want the user interface of other IBM Cognos components, such as IBM Cognos Connection and the studios, appear in French. To make these changes, perform the procedures to add a new product language and a new product locale mapping.

Add a New Product Language

This procedure shows how to change the product language in IBM Cognos Viewer.

Procedure

1. Start IBM Cognos Configuration.
2. From the **Actions** menu, click **Edit Global Configuration**.
3. Click the **Product Locales** tab.
4. Click the **Add** button.
5. Type the locale code for Greek, which is `el`

   Greek will appear in the list of available product languages in IBM Cognos Connection, in **My Preferences**.

   Tip: You can see the locale codes for other languages on the **Content Locales** tab.
6. Click **OK**.
7. Save the configuration.

8. Go to IBM Cognos Connection.
9. Click **My Area Options**  , **My Preferences**.
10. On the **General** tab, in the **Product Language** drop-down list, click Greek.
11. Click **OK**.

Results

The IBM Cognos Viewer user interface appears in Greek. However, other components, such as IBM Cognos Connection and the studios, continue using the default product language, which is English. To specify French as the default product language if Greek is used by the IBM Cognos Viewer user interface, add a new product locale mapping using IBM Cognos Configuration.

Note: Only languages for which a full translation of the IBM Cognos user interface exists can be specified as the default product languages.

Add a New Product Locale Mapping

This procedure shows how to specify French as the default product language for IBM Cognos components if Greek is used by the IBM Cognos Viewer user interface.

Procedure

1. Start IBM Cognos Configuration.
2. From the **Actions** menu, click **Edit Global Configuration**.
3. Click the **Product Locale Mappings** tab.
4. Click the **Add** button.
5. Map the product languages in the following way:
   - In the **Key** column, type the code for Greek, which is `el-*`
   - In the **Locale Mapping** column, type the code for French, which is `fr`
6. Click **OK**.
7. Save the configuration.

Results

When a user opens a report in IBM Cognos Viewer in Greek, the IBM Cognos Viewer user interface also appears in Greek. The user interface of other components, such as IBM Cognos Connection and the studios, appears in French.

Modifying the Prompt Page Style Sheets

You can change the style definitions for the prompt pages and related controls used with all IBM Cognos components by modifying the shared promptCommon.css style sheet.

This style sheet is located in the directory *c10_location*/webcontent/prompting/reportskin/prompting. Prompting graphics specific to a style, if present, are located in the images subdirectory.

You can modify this prompt page style sheet in much the same way as you customize any of the component style sheets.

Adding Custom Report Templates for Report Studio

Report Studio has predefined report templates that you select from when you create a new report.

You can create your own custom report templates and make them available too.

To add a custom report template, you must

- create a report specification for the template
- add a custom report template to the templates.xml file
- provide an icon for the template
- add the custom template information to the Resources.xml file

Note: When you reinstall or upgrade IBM Cognos software, the changes associated with the custom report templates are not migrated. You may need to redo the above steps. For more information, see "Migrating Changes to Future Releases" on page 585.

Create a Report Specification for a Custom Report Template

There is no template object in IBM Cognos software. Instead, you can use any report specification as a report template. You can create the report specification for your custom report template by using Report Studio, an XML editor, or a text editor.

Using Report Studio

Create a report specification for your custom report template by using Report Studio.

Procedure

1. Open Report Studio.
2. Create a new report.

   For more information, see the IBM Cognos Report Studio *User Guide*.
3. From the **File** menu, click **Convert to Template**.
4. From the **Tools** menu, click **Copy Report to Clipboard** to save the report specification XML.
5. Paste the report specification into an XML editor or text editor.
6. Delete the following information, which Report Studio adds to the XML file and which is not necessary for the template:
   - The `xmlns` attribute of the `report` element.
   - The `template` attribute of the `report` element.
   - The value of the `name` attribute of the `query` element. Delete the value, but leave the double quotation marks.
   - The value of the `name` attribute of the `page` element. Delete the value, but leave the double quotation marks.
   - The value of the `refQuery` attribute of the `list` element.
7. Add a new `template` element as a parent of the `report` element.
8. Add a `name` attribute for the `template` element.

   The name you enter appears as the name of the template in the Report Studio new report dialog box.
9. Save the report specification.

Results

Here is an example of the initial part of a report specification created in Report Studio. The portions to delete appear in bold.

```
 <template name="List - corporate">
   ...
   <report xmlns="http://developer.cognos.com/schemas/report/4.0/"
expressionLocale="en" template="true">
<queries>
   <query name="Query1">
     <source>
        <model/>
     </source>
     <selection/>
   </query>
 </queries>
 <layouts>
   <layout>
    <reportPages>
      <page class="pg" name="Page1">
        <pageBody class="pb">
          <contents>
            <list class="ls" refQuery="Query1">
              <style>
                <CSS value="border-collapse:collapse"/>
              </style>
             </list>
               ..................
   </report>
  </template>
```

Using an XML Editor or Text Editor

Create a report specification for your custom report template by using an XML editor or a text editor.

Procedure

1. Open the report specification in an XML editor or text editor.
2. Add the elements you want to appear in your template.

   For more information, see the *Developer Guide*.
3. Add a new `template` element as a parent of the `report` element.

   The name you enter appears as the name of the template in the new report dialog box.
4. Add a `name` attribute to the template element.

   The name you enter appears as the name of the template in the new report dialog box.
5. Add a `<modelPath/>` element for the `report` element.

   Here is a partial example of the XML for the template created in "Using Report Studio" on page 598.

   ```
   <xmlFragment>    <template name="List - corporate">       <report>
          <modelPath/>             ...    </template> </xmlFragment>
   ```
6. Save the report specification.

Add a Custom Report Template to the templates.xml File

The templates.xml file contains the templates that you select from when you create a new report in Report Studio.

You must add your custom report template to this file.

Procedure

1. Open the templates.xml file.
   This file is located in the *c10_location*/webcontent/pat/res directory.
2. Copy the XML code for the custom report template into the file.
   The `template` element must be a child element of the `xmlFragment` element.
3. Save and close the file.

Provide an Icon for the Custom Report Template

You can create an icon that you want to represent the custom report template.

The icons in the new report dialog box are 32 x 32 pixels .gif images.

You can use any graphic editor to create the icon.

Procedure

1. Create the icon you want.
2. Copy the image file into the *c10_location*/webcontent/pat/images directory.

Add the Custom Template Information to the Resources.xml File

The Resources.xml file defines the content of the new report dialog box in Report Studio.

You must modify this file by adding the information that refers to the custom report template.

For the `listItems` element, you add a new `listItem` element that represents the new template. The `listItem` element must have the following attributes.

Attribute	Description
idsLabel	Specifies an ID that refers to a Report Studio string resource file, such as reportstudio_en.xml or reportstudio_fr.xml, located in the *c10_location*/webcontent/pat/res directory, and a label for the template that appears in the new report dialog box. Use this attribute when you want to translate the label into other languages. If you do not wantto translate the label, use the `label` attribute instead.
label	Specifies a label for the template that appears in the new report dialog box. Use this attribute instead of the idsLabel attribute for the custom template when you do not want to translate the label into other languages, which eliminates the need to use the string resource files, such as reportstudio_en.xml or reportstudio_fr.xml, in the *c10_location*/webcontent/pat/res directory.

Attribute	Description
icon	Specifies an image file located in the *c10_location*/webcontent/pat/images directory that is associated with the template. The image appears as an icon in the new report dialog box. Use a previously created image file for the custom report template.
templateName	Specifies the name of the custom report template.

Procedure

1. Open the Resources.xml.

   This file is located in the *c10_location*/webcontent/pat/res.
2. Add a new `listItem` element using one of the following attributes for the custom report template:
   - `label`, if you do not want to translate the label into other languages
   - `idsLabel`, if you want to translate the label into other languages

   Ensure that the `templateName` attribute is the same as specified when creating the report specification for the custom report template.

   Here is an example of the edited Resources.xml file:

```
<listView id="New" view="icon" clipLabels="false">
  <listItems>
   <!-- Start custom templates-->
            <listItem label="List - Corporate"
            icon="icon_list_corp.gif" templateName="
List - corporate"/>
            <listItem label="Crosstab - Corporate"
            icon="icon_crosstab_corp.gif"
templateName="Crosstab - Corporate"/>
            <listItem label="Blank - Corporate" icon="icon_blank_corp.gif"
templateName="Blank - Corporate"/>
            <!-- End custom templates-->
   <listItem idsLabel="IDS_LBL_NEW_BLANK_REPORT" icon="icon_blank.gif"
templateName="Blank"/>
   <listItem idsLabel="IDS_LBL_NEW_LIST_REPORT" icon="icon_list.gif"
templateName="List"/>
   <listItem idsLabel="IDS_LBL_NEW_CROSSTAB_REPORT" icon="icon_crosstab.gif"
templateName="Crosstab"/>
   <listItem idsLabel="IDS_LBL_NEW_CHART_REPORT" icon="icon_chart.gif"
templateName="Chart"/>
   <listItem idsLabel="IDS_LBL_NEW_MAP_REPORT" icon="icon_map.gif"
   templateName="Map"/>
   <listItem idsLabel="IDS_LBL_NEW_FINANCIAL_REPORT"
   icon="icon_financial.gif"
templateName="Financial"/>
   <listItem idsLabel="IDS_LBL_NEW_REPEATER_REPORT" icon="icon_repeater.gif"
templateName="Repeater"/>
   <listItem idsLabel="IDS_LBL_NEW_TEMPLATE_RT" icon="icon_template_qs.gif"
templateName="Template_RT"/>
   <listItem idsLabel="IDS_LBL_NEW_BROWSE" icon="browse_32x32.gif"
   idsTooltip="IDS_TOOLTIP_NEWBROWSE"
isBrowse="true"/>
  </listItems>
 </listView>
```

3. Save and close the file.

Results

You must now restart Report Studio and clear the cache of your Web browser for the custom report template to appear in the new report dialog box.

Changing the Style of Report Objects in Workspaces

When you drag a report object onto a workspace in IBM Cognos Business Insight, it appears in the silver and blue gradient style of your IBM Cognos BI server product. You can make the report object appear in the original authored style by changing a global property in the IBM Cognos Viewer configuration file.

Report objects that are affected by the global setting include queries, analyses, reports, and report parts that were authored using IBM Cognos Version 1.x style, Version 8.x style, and financial (balance sheet) style. These objects pick up the global setting even if you saved them before changing the global setting. Workspace thumbnails are affected by the global setting only if you rerun the thumbnail.

Some report objects are not affected by the global setting and will always render in the authored style, such as PowerPlay reports and report object thumbnails.

Procedure

1. On the computers where Content Manager and Application Tier Components are installed, go to *c10_location*\webapps\p2pd\WEB-INF\classes.
2. Open the viewerconfig.properties in a text editor.
3. To make report objects appear in the original authored style, change the value for `useAuthoredReportStyles` to `true`.
4. Save the file and then restart the services.

Show Headers and Footers in Expanded Report Parts in the IBM Cognos Business Insight Content Pane

By default, the headers and footers in expanded report parts in the IBM Cognos Business Insight content pane are hidden.

You can choose to show the headers and footers if they contain important information in your environment. This is a global setting that applies to all IBM Cognos Business Insight content pane headers and footers.

For information about IBM Cognos Business Insight, see "IBM Cognos Business Insight" on page 5.

Procedure

1. Stop the IBM Cognos service.
2. Open the file *c10_location*\dropins\com.ibm.cognos.bux.service.atom_1.0.0\com\ibm\cognos\bux\service\atom\config.properties in any text editor.
3. Change the following properties to "true":

   atom.filters.entry.showReportPartsHeaders = false

   atom.filters.entry.showReportPartsFooters = false
4. Save and close the config.properties file.

5. Using IBM Cognos Configuration, restart IBM Cognos software.

   For more information about restarting IBM Cognos Business Intelligence, see the *Installation and Configuration Guide*.

Results

When IBM Cognos Business Insight users expand report parts in the content pane, the headers and footers are shown.

Enter Advanced Configuration Settings in Analysis Studio

Advanced configuration settings provide additional functionality. For example, you can set the maximum number of active areas in a chart.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.
4. In the **Configuration** pane under **Name**, click the server link to configure.
5. Under **Name** locate **ReportService**, and in the **Actions** column, click the **Properties** button  .
6. Click the **Settings** tab.
7. For the **Environment** category, next to **Advanced Settings** click the **Edit** link.
8. Select the **Override the settings acquired from the parent entry** check box.
9. In the **Parameter** column, type the parameter name. For example, ANS.PageSize.
10. In the **Value** column, type the associated value. For example, 200.
11. After you are finished specifying parameters, restart the server.

    The following table lists the advanced configuration settings for Analysis Studio with their associated Parameter and Value entries.

    Note: Adjusting advanced configuration settings from recommended values can improve or degrade server performance.

Advanced Setting	Parameter	Recommended Value
Limit the size of pages displayed at one time on the cross-tab rows	ANS.PageSize	200
Limit the size of pages displayed at one time on the cross-tab columns	ANS.ColumnPageSize	50
Viewing user interface with missing or inaccessible member	ANS.showMissingMemberUI	1
Maximum number of active areas in a chart	ANS.MaxChartHotAreas	600
Enable selection based suppression	ANS.EnableSelectionBased Suppression	1
Enable automatic position calculations feature	ANS.EnabledPositionedCalcs	1

Advanced Setting	Parameter	Recommended Value
Optimize queries based on previous gestures	ANS.AdaptiveQueryOptimizationEnabled	1
Allow default visible item count per set to be changed	ANS.DefaultVisibileItemCount	12
Default value for output purpose drill	ANS.DefaultOutputPurpose	drill
Disable the ability for the product to save a user changed column width with an analysis	ANS.EnableColumnWidthPersist	1
With column width enabled, this parameter controls the maximum number of resized columns stored in the most recently used list	ANS.PersistColumnWidthMRU	100

Chapter 36. Customizing the Functionality of IBM Cognos Software

You can customize how IBM Cognos software works to suit your particular needs.

Presentation services in IBM Cognos software maintain XML-based system configuration files named system.xml that are used to customize the product user interface and functionality. Before you start customizing IBM Cognos version 10.1, you may want to migrate the customization changes made in the system.xml files in previous IBM Cognos versions.

For more information about IBM Cognos customizations, see Chapter 35, "Customizing the Appearance of IBM Cognos BI," on page 575.

Upgrade the system.xml Files to IBM Cognos Version 10.1

The IBM Cognos presentation service supports automatic upgrade of the system.xml files.

You can use this approach if many custom changes were made in a previous version of IBM Cognos and implementing these changes manually in IBM Cognos version 10.1 would be time-consuming.

The system.xml files are upgraded to an IBM Cognos compatible version. All existing system.xml parameters can be upgraded to IBM Cognos version 10.1.

If the automatic upgrade is not successful, the system.xml file is not upgraded successfully and a message is generated in the server log. If this occurs, you can perform the upgrade manually using one of the following files in the *installation_location*/templates/ps directory:

- for UNIX operating system, system_upgrade.sh
- for Microsoft Windows operating system, system_upgrade.bat

Note: As a general approach, we recommend that you edit the system.xml files manually using a UTF-8-based XML or text editor.

Procedure

1. Back up the IBM Cognos version 10.1 system.xml files and the customized system.xml files from the prior version of IBM Cognos.
2. Copy the customized system.xml files from the installation directory to the corresponding directory in the IBM Cognos version 10.1 installation directory. For example, copy the system.xml file from the *c10_location*/templates/ps directory to the *c10_location*/templates/ps directory.

   Note: You must copy all system.xml files that require upgrade. The process cannot be repeated for each file separately.
3. Restart the IBM Cognos service.

   If the automatic upgrade fails, do a manual upgrade as follows:

   - on Windows, open a DOS prompt and from the *c10_location*/templates/ps directory run the system_upgrade.bat file.

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- on UNIX, from the *c10_location*/templates/ps directory, run the ./system_upgrade.sh file.

Customizing IBM Cognos Connection

You can do the following to customize IBM Cognos Connection.

Add or Hide User Interface Elements Based on Groups and Roles

You can customize the IBM Cognos Connection user interface based on the group and role membership.

Depending on the group or role to which users belong, certain user interface elements will or will not be available to them. For example, you can hide the preferences and studio links from some users and add links to external applications for other users.

To implement this functionality, perform the following tasks:

- Hide user interface elements
- Add user interface elements
- Reference the required groups or roles in the system.xml file

Some user interface elements are shared by IBM Cognos Connection and IBM Cognos Viewer, for example the top header (m1). If you hide these shared interface elements in IBM Cognos Connection, they are also hidden in IBM Cognos Viewer.

For a list of elements you can hide and add, see Appendix D, "User Interface Elements Reference List," on page 689.

Note: It is important to note that there is a difference between hiding a UI element and disabling it. Hiding means that the element will no longer be visible, but that the functionality is still available. Disabling a UI element means that the element is not visible and that the underlying functionality is no longer available.

Hide User Interface Elements

You can use URL commands to hide user interface elements for a session, or you can edit the applicable system.xml file to hide user interface elements permanently.

When you hide user interface elements in page headers, these elements are not hidden elsewhere in IBM Cognos Business Intelligence. For example, Report Studio can be run from the Welcome page or from the **Launch** menu in the h1 header. Hiding the IBM Cognos Business Intelligence header using the URL command does not hide the Report Studio link in the Welcome page.

Using URL Commands

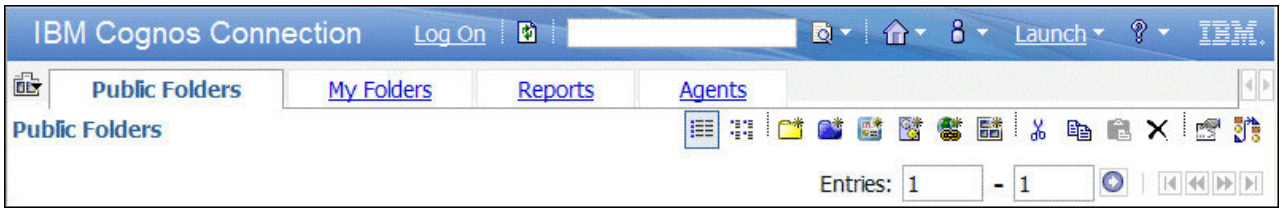
Type URL commands in your browser if you want to hide user interface elements for the current IBM Cognos request or session only. You can use URL commands to hide UI elements for both IBM Cognos Connection and IBM Cognos Viewer.

IBM Cognos Connection commands can only be appended to IBM Cognos Connection URLs, and IBM Cognos Viewer commands can only be appended to IBM Cognos Viewer URLs. For example, adding *&ui=t3m4* at the end of an IBM Cognos Viewer URL does not affect IBM Cognos Connection.

IBM Cognos Viewer commands do not affect the IBM Cognos Connection user interface. For example, adding the IBM Cognos Viewer command *&tb=0* at the end of an IBM Cognos Connection URL will show no effect.

However, IBM Cognos Connection commands may affect IBM Cognos Viewer indirectly. For example, hiding the top header in IBM Cognos Connection will also hide the header in IBM Cognos Viewer.

The following example shows the headers in the IBM Cognos Connection main page.



You can use URL commands to hide the following IBM Cognos Connection headers or sections of a header:

- the IBM Cognos Connection top header (h1) that includes the title (t1), the **Launch** menu (m1), and all right-hand side header options.
- the tab bar (h3) that includes tabs such as Public Folders, My Folders, and custom pages (t3).
- the IBM Cognos Connection header (h4) that includes the navigation path (t4), and the toolbar menu (m4).

Using the System.xml File

To hide all instances of a user interface element in IBM Cognos Connection, you must modify the system.xml file. To hide user interface elements in **Public Folders** or **My Folders**, modify the systm.xml file in the *c10_location*/templates/ps/portal directory. To hide user interface elements in portal pages and dashboards with multiple tabs, modify the systm.xml file in the *c10_location*/templates/ps directory.

Modifying the system.xml file is more flexible than using URL commands for these reasons:

- You can hide more user interface elements.
- You can restrict the appearance of user interface elements based on user type or membership in groups and roles.

Hide User Interface Elements Using URL Commands in IBM Cognos Connection:

You can use URL commands to hide user interface elements for a session.

Procedure

1. Start IBM Cognos software.
2. In IBM Cognos Connection, click in the Web address box and type the following at the end of the URL:

   &ui= ***user_interface_elements_to_hide***

   where user_interface_elements_to_hide is one or more of t1, t4, m1, m4, h1, h3, or h4.

For example, type:

&ui=h1m4

The hidden UI remains hidden for the rest of the user session.

3. To restore the hidden elements, type **&ui=** at the end of the URL.

Hide User Interface Elements Using URL Commands in IBM Cognos Viewer When Viewing Reports:

You can use URL commands to hide user interface elements for a session.

Procedure

1. Start IBM Cognos software.
2. In IBM Cognos Viewer, click in the Web address box and type on of the following at the end of the URL:

   To turn off the IBM Cognos Viewer toolbar, type:

   cv.toolbar=false

   To turn off the IBM Cognos Viewer header, type:

   cv.header=false

   The hidden UI remains hidden for the rest of the user request.

Hide User Interface Elements Using the System.xml File:

You can edit the applicable system.xml file to hide user interface elements permanently.

Procedure

1. Stop the IBM Cognos service.
2. Open the system.xml file in one of the following locations:
   - *c10_location /templates/ps/portal*

     Use the system.xml file in this directory to hide user interface elements in **Public Folders** or **My Folders**.
   - c10_location /templates/ps

     Use the system.xml file in this directory to hide user interface elements in pages and dashboards with multiple tabs.
3. Use the following syntax in the `<system>` element to hide a user interface element:

```
<param name="ui_hide">
 <!--list of user interface elements-->
</param>
```

   For example, the following XML code hides the entire IBM Cognos Connection header and the New Job button in the toolbar:

```
<param name="ui_hide">
 <CC_HEADER/>
 <CC_TOOLBAR_BUTTONS_newjobDefinition/>
</param>
```

   For information about all the user interface elements that you can hide, see "Elements You Can Hide" on page 689. Ensure that you match the case of each user interface element you want to hide.
4. Specify one or more groups or roles you want to view the hidden element by adding their IDs as values of the `show` attribute.

Use the group or role IDs as documented in the topic "Reference the Required Groups or Roles in the system.xml File" on page 610.

Separate IDs using spaces.

Here is an example:

```
<param name="ui_hide">
 <CRN_HEADER show="Administrators g1 g2 RSUsers"/>
</param>
```

5. Repeat steps 3 to 4 for each element that you want to hide.
6. Save the file.
7. Start the IBM Cognos service.

   Tip: There can be only one `<param name="ui_hide">` element in system.xml. Therefore, all items you want to hide must be placed inside this element..

Add User Interface Elements

You can add user interface elements to IBM Cognos Connection to connect to external applications or to modify the functionality of IBM Cognos Connection. You can restrict the appearance of these new user interface elements based on different types of users.

The `xml:lang` attribute of the `label` and `tooltip` elements corresponds to the product locale in use at the time of the portal page generation. If a new product locale is added to IBM Cognos software, you must add a translation for the label and tooltip fields. When no label or tooltip is found that matches the product locale, nothing is displayed.

The graphic referenced by the `icon` element must exist in the *c10_location*/webcontent/ps/portal/images directory.

To add a user interface element in IBM Cognos Connection, you must modify the system.xml file.

Procedure

1. Stop the IBM Cognos service.
2. Open the *c10_location*/templates/ps/portal/system.xml file in an XML or text editor.
3. Use the following syntax in the `<system>` element to add a user interface element:

   ```
   <param name="ui_add">
   <!--list of user interface elements-->
   </param>
   ```

   For example, the following XML code adds an option to start a Google search in a new browser window.

   ```
   <param name="ui_add">
    <CRN_HEADER_OPTIONS>
     <item>
      <url>http://www.google.com</url>
      <target>_blank</target>
      <label xml:lang="en">Google</label>
      <tooltip xml:lang="en">Google</tooltip>
      <label xml:lang="fr">Google</label>
      <tooltip xml:lang="fr">Google</tooltip>
      <label xml:lang="de">Google</label>
      <tooltip xml:lang="de">Google</tooltip>
      <label xml:lang="ja">Google</label>
      <tooltip xml:lang="ja">Google</tooltip>
   ```

```
   <icon>action_search.gif</icon>
  </item>
 </CRN_HEADER_OPTIONS>
</param>
```

For information about all the user interface elements that you can add, see "Elements You Can Add" on page 695. Ensure that you match the case of each user interface element you want to add.

4. Specify one or more groups or roles you want to view the new interface element by adding their IDs as values of the `show` attribute.

   Use the IDs as documented in the topic "Reference the Required Groups or Roles in the system.xml File." Separate IDs using spaces.

   Here is an example:

```
<param name="ui_add">
 <CC_VIEW_TOOLS>
  <item show="Administrators RSUsers g1 g2">
   <url>http://my_server_url/myApplication</url>
   <target>_blank</target>
   <label xml:lang="en">My_label in English</label>
   <label xml:lang="fr">My_label in French</label>
   <label xml:lang="de">My_label in German</label>
   <label xml:lang="ja">My_label in Japanese</label>
  </item>
 </CC_VIEW_TOOLS>
</param>
```

5. Save the file.
6. Restart the IBM Cognos service.

   Tip: There can be only one <param name="ui_add"> element in system.xml. Therefore, all items you want to add must be placed inside this element.

Reference the Required Groups or Roles in the system.xml File

Before you start implementing the customization changes in the IBM Cognos Connection user interface, you must identify the groups or roles on which your customizations will be based.

Add a reference about the groups or roles you want to use to the portal system.xml file. Modify this file by adding the `ui_groups` parameter and listing all required groups and roles within this parameter. Each group or role is represented by the `group` element that must contain a unique `id` attribute. The value of the `id` attribute is specified in the group or role search path in IBM Cognos Connection.

Include only the groups and roles you want to use for the purpose of hiding or adding user interface elements. The groups and roles must already exist in IBM Cognos software and can be associated with any namespace configured for your IBM Cognos environment. You can use the predefined groups and roles, or your custom groups and roles. For more information, see Chapter 18, "Initial Security," on page 275 and "Groups and Roles" on page 248.

The predefined groups and roles that can be used include:

User	ID	Description
Anonymous	Anonymous	Users who can access IBM Cognos software without being prompted for authentication

User	ID	Description
Administrators	Administrators	Users who have the administration capability
Consumers	Consumers	All authenticated users, which includes Administrators, Query Studio Users, and Report Studio Users
Query Studio Users	QSUsers	Users who have the Query Studio capability
Report Studio Users	RSUsers	Users who have the Report Studio capability

Procedure

1. Stop the IBM Cognos service.
2. Open the *c10_location*/templates/ps/portal/system.xml file in an XML or text editor.
3. Add a parameter named `ui_groups` and then do the following:
   - Add the `group` element for each group or role you want.
   - Specify a unique `id` attribute for each group or role.

     The IDs are case sensitive.

     For the custom groups or roles, the IDs cannot contain more than two characters, and cannot contain spaces. For example, the following IDs can be used: a1, b2, Ab, AB. The following IDs cannot be used: abc, A 1, a bc.

     For the IBM Cognos predefined groups, use the associated IDs as documented the table above.
   - Specify a value for the `id` attribute for each group element.

     Tip: To find the ID in IBM Cognos Connection, open the group or role properties page and, on the **General** tab, click the **View the search path, ID and URL** link.

   The following example shows the syntax of the `ui_groups` parameter.

```
<param name="ui_groups">
 <group id="g1">xOm5ldyBncm91cHM6dWlHMV9lbg_</group>
 <group id="g2">xOm5ldyBncm91cHM6dWlfUjI_</group>
 <group id="55">xOf5ldyBnc4htcHM6dAlfUjI_</group>
</param>
```

4. Save the system.xml file.
5. Restart the IBM Cognos service.

Hide and Disable the New URL Button

Hiding UI elements such as toolbar buttons allows you to declutter the UI, but hiding alone will not disable the functionality behind the UI element.

For security reasons, if you want to hide the new URL button, it is best to disable it. Doing so hides the button, but more importantly, eliminates the possibility of someone adding an undesirable URL.

Procedure

1. Stop the IBM Cognos service.
2. Open the *c10_location*/templates/ps/portal/system.xml file in an XML or text editor.
3. Add the following parameter:

   ```
   <param name="disableURLObjectCreation">true</param>
   ```
4. Save the system.xml file.
5. Restart the IBM Cognos service.

   The new URL toolbar button is removed, the URL field on the object creation wizard is disabled, and all URL object creation requests on the server handler will be ignored.

Limit the Number of Entries That Users Can Cut, Copy, and Paste

You can limit the number of entries that users can cut, copy, and paste to improve the performance of IBM Cognos software.

This allows you to control the storage space taken up by temporary entries and reduce the time required to execute cut, copy, and paste requests.

For example, you can set the limit to 50 entries. If users cut, copy, or paste more than 50 entries, they receive a maximum entries message.

For more information about other tasks you can perform to improve the performance of IBM Cognos software, see "Tune Server Performance" on page 126.

To change the limit, you must have access to the computer where the report server is installed.

Procedure

1. On each computer where IBM Cognos software is installed, open the *c10_location*/templates/ps/portal/system.xml file in an editor.

   Ensure that your editor supports saving files in UTF-8 format.
2. Find and edit the `maxEditEntries` parameter as follows:

   ```
   <param name="maxEditEntries">
    50
   </param>
   ```
3. Save the system.xml file.
4. Stop and then restart the IBM Cognos service.

   For more information about stopping IBM Cognos software, see the *Installation and Configuration Guide*.

Customizing Object Actions

You can customize actions available for objects, such as packages, folders, URLs, jobs, queries reports, or report views, in IBM Cognos Connection.

For example, if your IBM Cognos environment does not support creating report views or copying reports, you can remove the actions associated with these options from the user interface.

The actions include the buttons in the **Actions** column in the IBM Cognos Connection main view, and the links and icons in the **Perform an action** page that is accessed by clicking the **More** link in the **Actions** column.

The customizable actions for each object class are specified under the `base-object-actions` element in the *c10_location*/templates/ps/portal/system.xml file. To customize the actions, you must modify this file.

You can perform the following customization of actions:

- Remove an action from the main view in IBM Cognos Connection
- Remove an action from the actions page
- Add a custom action
- Expose a shortcut action

Remove an Action From the Main View in IBM Cognos Connection

You can remove object actions from the Actions column in the IBM Cognos Connection main view.

Remove object actions by deleting or commenting out the action from the `base-object-actions` section in the *c10_location*/templates/ps/portal/system.xml file.

This functionality applies only to actions that are available from the **Actions** column.

If you want to remove an action from the **Perform an action** page, but keep it in the main view in IBM Cognos Connection, perform the steps in the "Remove an Action From the Actions Page" on page 614 section instead of the steps below.

Procedure

1. Stop the IBM Cognos service.
2. Open the *c10_location*/templates/ps/portal/system.xml file in an XML or text editor.
3. Locate the following XML code that describes the actions for objects in IBM Cognos Connection:

```
<param name="base-object-actions">
  <actions>
    ...
  </actions>
</param>
```

4. Find the object class that you want to customize, and delete or comment out the required action.

   In the following example, the actions to run reports using the associated studio and to view report output versions are commented out.

```
<object class="report">
 <action name="run_options"/>
 <!-- action name="edit"/-->
 <action name="schedule"/>
 <action name="run_once"/>
 <!-- action name="previous_versions"/-->
 <action name="run_history"/>
 <action name="customview"/>
```

```
 <action name="shortcut"/>
 <action name="add_alert"/>
 <action name="remove_all_alerts"/>
</object>
```

As a result, these actions are no longer available for reports in the **Actions** column in the IBM Cognos Connection main view, but they are still available in the **Perform an action** page.

5. Save the file.
6. Start the IBM Cognos service.

Remove an Action From the Actions Page

Actions available from the Perform an action page can be removed from the user interface.

Remove actions from the user interface by adding the `exclude` attribute to the appropriate object class in the `base-object-actions` section of the *c10_location*/templates/ps/portal/system.xml file.

If the action that you want to remove from this page is also available from the **Actions** column in the main IBM Cognos Connection view, and you want to remove the action from both places, perform the steps in the "Remove an Action From the Main View in IBM Cognos Connection" on page 613 section in addition to the steps below.

Procedure

1. Stop the IBM Cognos service.
2. Open the *c10_location*/templates/ps/portal/system.xml file in an XML or text editor.
3. Locate the following XML code that describes the actions for objects in IBM Cognos Connection:

```
<param name="base-object-actions">
  <actions>
    ...
  </actions>
</param>
```

4. In this section, find the object class for which you want to remove an action.

   For example, to modify report actions, find `<object class="report">`.
5. To remove an action listed under the object class, add the `exclude` attribute to the object node, as in the following example:

```
<object class="report" exclude="customview"> >
 <action name="run_options"/>
 <action name="edit"/>
 <action name="schedule"/>
 <action name="run_once"/>
 <action name="previous_versions"/>
 <action name="run_history"/>
 <action name="customview"/>
 <action name="shortcut"/>
 <action name="add_alert"/>
 <action name="remove_all_alerts"/>
</object>
```

   This example excludes the **Create the report view of this report** action from the **Perform an action** page.

   You can remove a few actions for the same object class, as shown in the following example:

```
<object class="report" exclude="run_history previous_versions
schedule shortcut">
```

This example removes the **View report output versions**, **New schedule**, and **Create a shortcut to this entry** actions from the **Perform an action** page.

Note: The removed actions may still be available in the **Actions** column in the main IBM Cognos Connection view.

6. Save the system.xml file.
7. Start the IBM Cognos service.

Add a Custom Action

To add a custom action for an object such as a package, folder, URL, job definition, query, report, or report view in the IBM Cognos Connection user interface, you must modify the system.xml file.

Add a custom action when you want to run a Software Development Kit application for a particular class of object, such as a report.

You can pass the following properties of an object to an application:

- defaultName
- defaultOutputFormat
- searchPath
- uri
- permissions
- usage
- disabled

In the IBM Cognos Connection main view, custom action icons appear to the left of the **More** link. In the **Perform an action** page, custom actions appear under the IBM Cognos-specified actions.

Procedure

1. Stop the IBM Cognos service.
2. Open the *c10_location*/templates/ps/portal/system.xml file in an XML or text editor.
3. Locate the following XML code that describes the actions for the objects in IBM Cognos Connection:

```
<param name="base-object-actions">
  <actions>
    ...
  </actions>
</param>
```

4. Use the following syntax to add a custom action as a child of the `<object>` element for the class of object you want to associate the custom action with. The `<object>` elements are children of the `<actions>` element. Note that an English tooltip and label are required.

```
<action name="name" type="custom">
  <icon>
    icon to show for this element
</icon>
  <url>
    http-encoded URL to execute
  </url>
  <label xml:lang="en">
    link text
```

```
  </label>
  <tooltip xml:lang="en">
    tooltip text
  </tooltip>
  <label xml:lang="language">
    link text
  </label>
  <tooltip xml:lang="language">
    tooltip text
  </tooltip>
  <objProperties encode="encoding">
    <property>
      property to be passed to application
    </property>
  </objProperties>
</action>
```

For example, the following XML code defines a custom action for a report object that launches an ASP application named myapp. The *defaultName* and *searchPath* properties of the report are passed to the application.

```
<param name="base-object-actions">
  <actions>
    ...
    <object class="report">
      ...
      <action name="showPath" type="custom">
        <icon>
          action_myaction.gif
        </icon>
        <url>
          /myapp.asp</url>
        <label xml:lang="en">
          View the search path
        </label>
        <tooltip xml:lang="en">
          View the search path
        </tooltip>
        <label xml:lang="fr">
          Afficher le chemin d'accès
        </label>
        <tooltip xml:lang="fr">
          Afficher le chemin d'accès
        </tooltip>
        <objProperties encode="shift_jis">
          <property>
            defaultName
          </property>
          <property>
            searchPath
          </property>
        </objProperties>
      </action>
    </object>
    ...
  </actions>
</param>
```

5. Save the file.
6. Start the IBM Cognos service.

Expose a Shortcut Action

A shortcut action gives users the ability to create shortcuts to a class of objects.

By default, shortcut actions appear on the **Perform an action** page.

To add a shortcut action for a class of objects, such as reports, to the IBM Cognos Connection main page, you must modify the system.xml file.

Procedure

1. Stop the IBM Cognos service.
2. Open the *c10_location*/templates/ps/portal/system.xml file in an XML or text editor.
3. Locate the following XML code that describes the actions for the objects in IBM Cognos Connection:

```
<param name="base-object-actions">
  <actions>
    ...
  </actions>
</param>
```

4. Add the following line of XML code to the actions for the class of objects:

```
<action name="shortcut" visible="main"/>
```

   For example, the following XML code includes a shortcut action in the actions for folders:

```
<param name="base-object-actions">
  <actions>
    ...
    <object class="folder">
      <action name="shortcut" visible="main"/>
    </object>
    ...
  </actions>
</param>
```

5. Save the file.
6. Start the IBM Cognos service.

Results

The shortcut icon  now appears in the **Actions** column, to the left of the **More** link, in the main IBM Cognos Connection view.

Restrict Content Browsing

By default, IBM Cognos Connection and Query Studio users can browse Public Folders starting at the root content folder (/content).

You may want to restrict the folders that users can browse.

You can set the root content folder to any path for a given session using the URL interface, or for all sessions using the system.xml file. The second option does not restrict content browsing for administrators.

The consequences of specifying a root folder other than the root content folder are as follows:

- Content navigation is restricted to the specified root folder and its sub-folders.
- The location property in the properties dialog box shows the path beginning at the specified root folder.
- The choice of destination folders when a user creates new content is limited to the specified root folder and its sub-folders.

Restricting content browsing has no impact on the administrative functions, such as schedule management. It does not affect the IBM Cognos studios, either, except for Query Studio.

Restricting content browsing is not a means of enforcing security. Folder access must be controlled using the IBM Cognos security.

Restrict Content Browsing Using a URL Command

By default, IBM Cognos Connection and Query Studio users can browse Public Folders starting at the root content folder (/content). You may want to restrict the folders that users can browse.

Procedure

1. Start IBM Cognos software.
2. Click in the Web address box and delete any path parameters specified by &m_path.

   If you do not remove these path parameters, they override the root setting.
3. Type the following at the end of the URL:

   &m_root=*url-encoded search path*

   For example, if you want to restrict browsing to the Go Sales package, while hiding the tab bar, toolbar and standard IBM Cognos header options, type the following:

   &m_root=%2Fcontent%2Fpackage%5B%40name%3D'GO%20Sales'%5D &ui=m1h3m4

Restrict Content Browsing Using the System.xml File

By default, IBM Cognos Connection and Query Studio users can browse Public Folders starting at the root content folder (/content). You may want to restrict the folders that users can browse.

Procedure

1. Stop the IBM Cognos service.
2. Open the *c10_location*/templates/ps/system.xml file in an XML or text editor.
3. Modify the `<param name="consumer-root">` line in the following way:

   ```
   <param name="consumer-root">search path</param>
   ```

   For example, typing the following sets the root folder to a folder named Folder1 in the package named Pack1.

   ```
   <param name="consumer-root">
     /content/package[@name='Pack1']/folder[@name='Folder1']</param>
   ```
4. Save the file.
5. Start the IBM Cognos service.

Implementing a Custom Welcome Page

You can create a custom Welcome page and configure IBM Cognos Connection to use this page instead of the default page provided by IBM Cognos software.

The custom Welcome page can be any type of a browser page, such as .html, .asp, or .jsp. To provide Welcome pages that are locale- and style-sensitive, you must create a separate page for each language and style. For more information, see “Styles” on page 527.

When you create a custom Welcome page, you can reuse some elements from the default Welcome page to make your job easier.

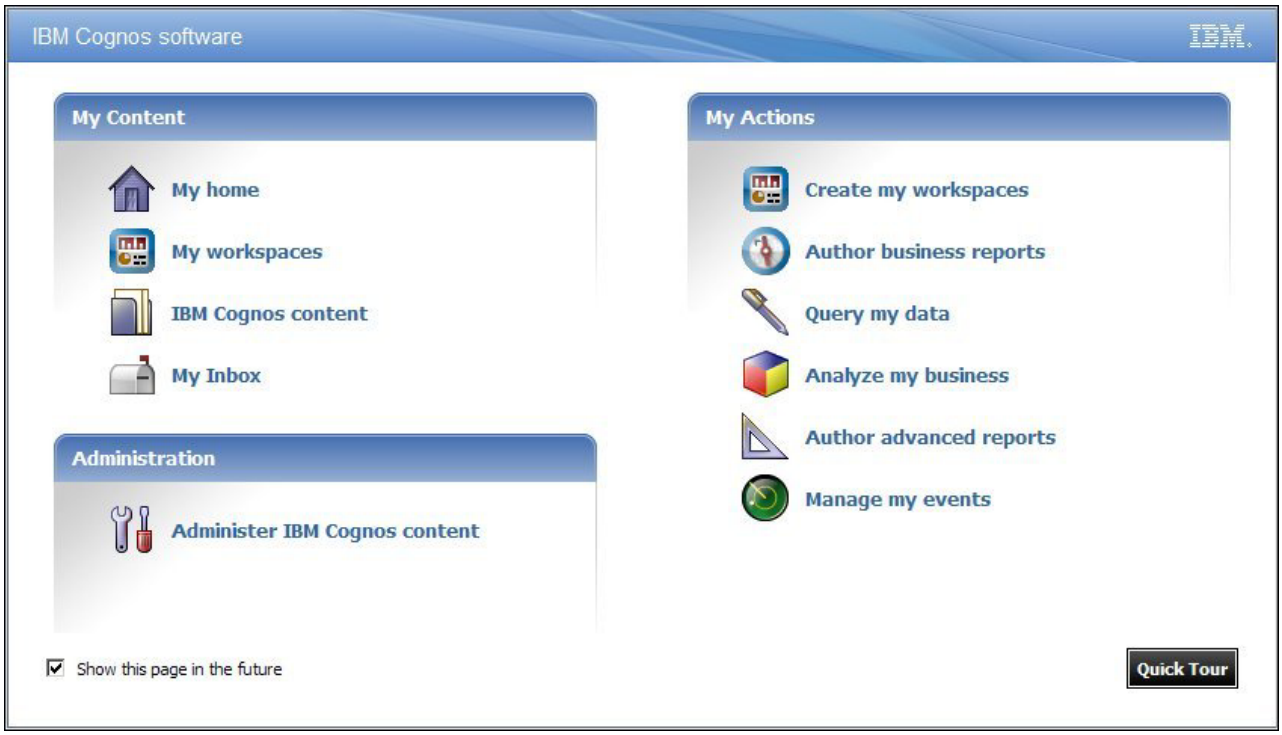
After the page is created, configure your Web server and your application server to expose the new Welcome page, and configure IBM Cognos Connection to use it.

Reuse Elements From the Default Welcome Page

There are elements in the IBM Cognos Welcome page that may be difficult to implement, especially the logon link and the links to different studios.

To make your job easier, you can reuse these elements from the default Welcome page. You can create a page with any content that, through an iFrame, frame, and so on, references the links-only section of the Welcome page.

The links-only page will look like this.



If you want to change the background color, modify the `welcomeToolPanel` parameter in the default.css file associated with the style you are using. For more information, see "Example - Customize the Default Welcome Page" on page 585.

Procedure

1. In a text editor, such as Notepad, type the code for the page using the following parameters in the page URL.

Parameter	Values	Description
basewelcome	yes no	This mandatory parameter renders the default Welcome page that only contains the links.

Parameter	Values	Description
wtarget	top parent self (default)	This optional parameter specifies where the links appear in the custom Welcome page. Do not include this parameter if you want the links to appear in the same frame.

The following URL renders the links-only, default Welcome page:

```
http://localhost/ibmcognos/cgi-bin/cognos.cgi?b_action=xts.run&
m=portal
/welcome/welcome.xts&basewelcome=yes&wtarget=top
```

For example, if you want to create a custom Welcome page with only one iFrame that uses the links-only page, the source code for the page could be as follows:

```
<html>
<head></head>
<body>
<iframe width="100%" height="100%"
src="http://localhost/ibmcognos/cgi-bin/cognos.cgi?b_action=cognosViewer&
m=portal
/welcome/welcome.xts&basewelcome=yes&wtarget=top"/>
</body>
</html>
```

2. Save the file.

Create the Required Directories

After the custom Welcome page is created, you must save it in a directory that can be accessed by IBM Cognos software.

We recommend that you place your file in a directory that is separate from your IBM Cognos installation.

If you create your page as a set of HTML pages, you can set up a virtual directory for your custom Welcome page. For example, you can create the my_welcome virtual directory in *c10_location**my_welcome*, where *my_welcome* is the location of your custom Welcome page, and grant read permissions for the directory.

After the virtual directory is set up, you can save the custom Welcome page in it. If you create custom pages for different locales and styles, you must create directories for each locale and style. The directories must be named after the style and locale.

For example, if you want to provide a custom Welcome page for the English, French, German, and Japanese locales for all the predefined styles, you must create the following directory structure for each of the en, fr, de, and ja locales, where *my_welcome* is the virtual directory, and then copy the individual custom Welcome pages into the proper directories.

- *my_welcome/locale*/business
- *my_welcome/locale*/classic
- *my_welcome/locale*/contemporary
- *my_welcome/locale*/corporate

- *my_welcome/locale*/modern
- *my_welcome/locale*/presentation

For more information about setting up virtual directories, see the *Installation and Configuration Guide*.

Configure IBM Cognos Connection to Use a Custom Welcome Page

You configure IBM Cognos Connection to use a custom Welcome page by adding the welcomeURLOverride parameter to the system.xml file located in the c10_location/templates/ps/portal directory.

The `welcomeURLOverride` parameter overrides the default Welcome page URL. Depending on the location of the custom Welcome page, the URL can be specified as a relative or absolute path.

Note: The path names are case sensitive on UNIX operating system.

If you want to implement a custom Welcome page that is style and locale-sensitive, the page URL must use the exposed replacement parameters for the locale and style. The parameters are `%LOCALE%` and `%STYLE%`. When the URL is processed, `%LOCALE%` is replaced by the product locale, and`%STYLE%` is replaced by the user's currently selected style.

For example, if the product language is English and the style is Corporate, the welcomeURLOverride parameter is as follows:

```
<param name=
"welcomeURLOverride">/ibmcognos/my_welcome/%LOCLAE%/%STYLE%/customwel.htm
<param>
```

When the URL is processed, the `%LOCALE%` parameter is replaced with en, and the `%STYLE%` parameter is replaced with Corporate. The URL for this example is as follows:

```
/ibmcognos/my_welcome/en/Corporate/customwel.htm
```

If the product locale were set to French and the style to Classic, the URL would be as follows:

```
/ibmcognos/my_welcome/fr/Classic/customwel.htm
```

Procedure

1. From the *c10_location*/templates/ps/portal directory, open the system.xml file.
2. Add the welcomeURLOverride parameter to the file, where customwel.htm is the custom Welcome page.

   If you use a relative path, the syntax is:

   ```
   <
   param name="welcomeURLOverride">/ibmcognos/customwel.htm
   </param>
   ```

   If you use an absolute path, the syntax is:

   ```
   <param name="welcomeURLOverride">http://.../customwel.htm
   </param>
   ```

   If your Welcome page supports different locales and styles and you use a relative path, the syntax is:

```
<
param name="welcomeURLOverride">
/ibmcognos/my_welcome/%LOCALE%/%STYLE%/customwel.htm
<param>
```

3. Save and close the system.xml file.
4. Refresh IBM Cognos Connection.

Customize Report Output Formats in IBM Cognos Connection and IBM Cognos Viewer

You can specify which formats are available for users to view their reports. For example, you may want to prevent users from exporting reports in Excel.

The report formats available to a user appear in the user preferences. For more information, see "Personalize the Portal" on page 304.

The report formats are controlled by the `format` element of the `reportFormats` parameter in the system.xml file located in the *c10_location*/templates/ps directory.

The `format` element has the following attributes:

Attribute	Value	Description
id	Report output formats. For example, HTML or PDF	Specifies the supported report format. This attribute cannot be modified.
browserHide	ie safari moz other	Excludes Web browsers in which the report format should be hidden from users. You can modify this attribute.
downloadable	true false	Specifies the download support. You can modify this attribute
appMode	basic - basic run options and preferences adv - advanced run options and scheduling rv - report viewing options	Specifies the IBM Cognos software functions where the report format must be supported. You can modify this attribute.
extension	Extension value For example, xls	Optional attribute that specifies the file extension of the output format. It is used to control download functionality.

Attribute	Value	Description
mime	Mime value. For example, application/vnd.ms-excel	Optional attribute that specifies the MIME type. It is used to control download functionality.
cafaction	true false	Specifies the IBM Cognos Application Firewall settings. This attribute cannot be modified.

Note: Because the `format` element settings can be used to control access to output formats, this setting can affect how reports that were saved previously are accessed. For example, if a report is saved in PDF format, users cannot view the saved report if the administrator chooses to make the PDF format unavailable.

The following example shows how to remove CSV format from the list of available format options. For example, when setting personal preferences or scheduling reports, while still allowing users access to saved CSV output in the portal.

```
<format id="CSV" browserHide="" downloadable="true"
appMode="" extension="csv"/>
```

The following example shows how to hide the report output completely.

```
<!--<format id="CSV" browserHide=""
downloadable="true" appMode="" extension="csv"/> -->
```

Procedure

1. Open the system.xml file in the *c10_location*/templates/ps directory.
2. In the following code, remove or comment out the `format` element associated with the report format you want to disable.

```
<param name="reportFormats">
<!-- Comments -->
 <format id="HTML" browserHide="" downloadable="false"
appMode="basic adv rv"/>
 <format id="XHTML" browserHide="" downloadable="false"
appMode="adv"/>
 <format id="HTMLFragment" browserHide="" downloadable="false" appMode="adv"/>
 <format id="PDF" browserHide="" downloadable="true"
appMode="basic adv rv" extension="pdf"/> -->
 <format id="spreadsheetML" browserHide="safari" downloadable="true"
appMode="basic adv rv" extension="xlsx"/>
 <format id="XLWA" browserHide="safari" downloadable="true" appMode="basic
adv rv" extension="xls" mime="application/vnd.ms-excel"/>
 <format id="singleXLS" browserHide="safari" downloadable="true"
appMode="basic adv rv" extension="xls"/>
 <format id="XLS" browserHide="safari moz other" downloadable="false"
appMode="basic adv rv" cafaction="true"/>
 <format id="CSV" browserHide="" downloadable="true"
appMode="basic adv rv" extension="csv"/>
 <format id="XML" browserHide="" downloadable="true"
appMode="basic adv rv" extension="xml"/>
</param>
```

   The following example shows how to disable the PDF format:

```
<!-- <format id="PDF" browserHide=""
downloadable="true" appMode="basic adv rv"/> -->
```

The following example shows how to disable support for the CSV format for advanced run options and scheduling by deleting the adv attribute:

```
<format id="CSV" browserHide="" downloadable="true"
appMode="basic rv"/>
```

3. Save the system.xml file.
4. Restart the IBM Cognos service.

   Note that the configuration settings you specify in the system.xml file apply only to the presentation services which includes the portal, portal administration, and IBM Cognos Viewer. The settings do not apply to the report server.

Configure the Document Lookup Table

The document format lookup table is used to look up file extensions when downloading document objects. Most browsers require file extensions to determine which program to use to open the file.

If the name of the file being downloaded does not end with the expected extension, the portal will append one based on the document lookup table, found in the system.xml file.

The following example shows the document format code:

```
<param name="documentFormats">
 <format extension="doc" id="application/vnd.coc-wd"/>
 <format extension="xls" id="application/vnd.coc-xl"/>
 <format extension="ppt" id="application/vnd.coc-pp"/>
 <format extension="xlsx"  id="application/vnd.openxmlformats-officedocument.
 spreadsheet.sheet"/>
 <format extension="pptx" id="application/vnd.openxmlformats-officedocument.
 presentationml.presentation"/>
 <format extension="docx" id="application/vnd.openxmlformats-officedocument.
 wordprocessingml.document"/>
</param>
```

Hide Inaccessible Tabs Referenced in the User Account Preferences

By default, IBM Cognos Connection shows all tabs referenced in the user account preferences regardless of the user's access permissions for the associated pages.

The tabs that a user cannot access are flagged, and a message is displayed when the tab is clicked.

You can change this functionality so that users can only see the tabs for which they have access permissions.

Procedure

1. Open the system.xml file in the *c10_location*\templates\ps\portal directory.
2. Find the hideInaccessibleTabs parameter and change its value to true.
3. Save the system.xml file.
4. Restart the IBM Cognos service.

Results

The tabs do not appear in the main IBM Cognos Connection view, but are still listed in the user's **My Preferences**, **Portal Tabs** page.

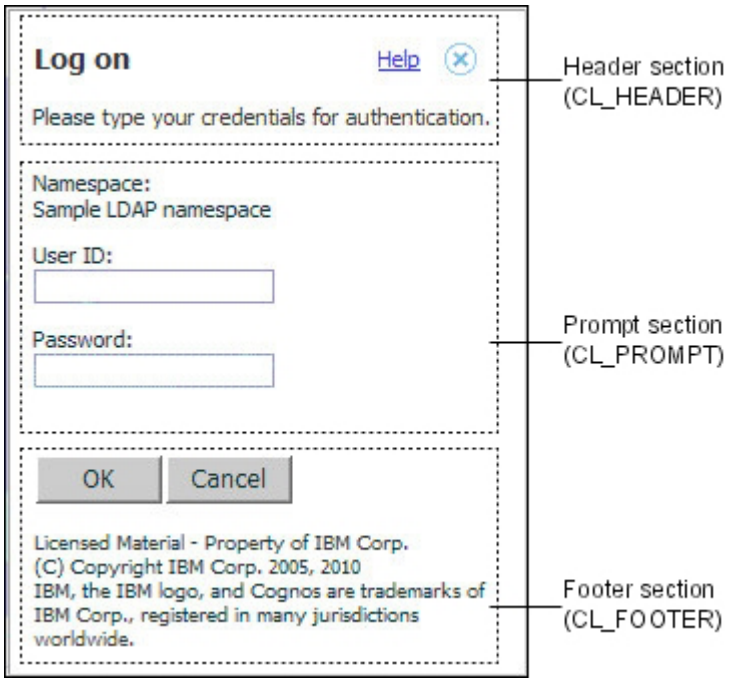
Customizing the IBM Cognos Connection Login Page

You customize the IBM Cognos Connection login page by adding predefined macros, UI element names, JavaScript, and CSS classes to a login template on the gateway machine.

Customization can include changes to the text, images, and the overall appearance of the login page. For example, you can provide bilingual messages, create a different look for the login page based on the gateway that is accessed, or redirect users to a specific Web site upon logoff. For more information, see the following topics.

Login Page

The default login page has three sections: header, prompt, and footer. Each section and any elements within a section, if they exist, can be customized.



You assemble and customize the login page using a template. The template specifies which sections appear in the login page and allows you to customize elements within a section, such as the input fields. You can also modify the style of the login page by modifying existing CSS classes.

For information about setting up the login template, see "Set Up and Configure a Login Page."

For information about customizing the login page, see "Customizing the Login Page" on page 627.

Set Up and Configure a Login Page

To set up and configure a login page, you must create a login template file and enable custom login.

When setting up the login page:

- create a login template file

  The template file is where you make login page customizations. You can create locale-sensitive template files. If locale-sensitive templates are required, you must create a template file for each locale.

  A template file can be created for each gateway installation.
- enable custom login

At run time, when custom login is enabled, IBM Cognos Connection locates the template by searching the <*installation_location*>/webcontent/ps/login directory for the following:

- the template file named by the `base-template-name` parameter specified in the system.xml file
- the session product locale
- the .xhtml extension

Create a Login Template File and a Locale-sensitive Template File

To set up and configure a login page, you must create a login template file.

The template file is where you make login page customizations. You can create locale-sensitive template files. If locale-sensitive templates are required, you must create a template file for each locale.

Procedure

1. Create a template file with an .xhtml extension and add it to the <*installation_location*>/webcontent/ps/login directory. For example, *myGateway1Template*.xhtml.
2. Optionally, create a locale-sensitive template by appending a locale identifier to the template filename. For example, *myGateway1Template*_en.xhtml contains the 'en' locale identifier. To support English and French, you must create the following template files:

   *myGateway1Template*_en.xhtml

   *myGateway1Template*_fr.xhtml

   At run time, the customizing JavaScript engine searches for the appropriate template using the active session locale. If the template cannot be found, the login page defaults to the basic login page.

Enable Custom Login

To set up and configure a login page, you must enable custom login.

Procedure

Set the **custom-auth** parameter setting to true in the system.xml file located on the server where the Presentation Service is installed, for example, <*installation_location*>/templates/ps directory. Set the parameter as follows:

```
<param name="custom-auth">
 <logon enabled="true">
  <base-template-name>myGateway1Template</base-template-name>
</logon>
</param>
```

The parameter, `base-template-name`, names the customizing template used at run time, where the file extension is expected to be .xhtml.

Customizing the Login Page

You can customize the IBM Cognos Connection login page using predefined macros, UI element names, JavaScript, and CSS classes.

Before you begin using these methods to customize the login page, you must set up and enable a login page. For more information, see "Set Up and Configure a Login Page" on page 625.

Content Macros

Use the content macros to build your login page.

You can create a basic login page using only three content macros: CL_HEADER, CL_PROMPT, and CL_FOOTER. The macros are added to the login template as follows:

```
<%CL_HEADER%>
<%CL_PROMPT%>
<%CL_FOOTER%>
```

Note that the content macros are not mandatory. If a macro is not specified in the template, the content associated with the macro is not added to the login page. For example, if a template specifies CL_HEADER and CL_PROMPT, but not CL_FOOTER, the footer is not included in the login page. Optionally, you can add your own footer.

If you create a custom login page, and the login template where customizations are defined and cannot be found, the login page defaults to the basic login page.

UI Element Names

UI elements identify each section of the login page, including the input fields and captions in a section, if they exist. Each UI element is customizable.

You customize each UI element using the UI element name that references the element. For example, to customize the namespace label so that the standard text is replaced by bilingual text, you edit the namespace label element using the UI element name, %CL_PROMPT_namespace_label%, in the template as follows:

```
<div id="%CL_PROMPT_namespace_label%">Namespace /
Espace-noms:</div>
```

The following is a list of the UI element names that are available:

Element name	Description
%CL_HEADER%	Inserts the header section in the template Usage: Content
%CL_PROMPT%	Inserts the prompt section in the template Usage: Content
%CL_FOOTER%	Inserts the footer section in the template Usage: Content
%CL_PROMPT_namespace_label%	References the namespace label input field Usage: Prompt label
%CL_PROMPT_username_label%	References the username label input field Usage: Prompt label

Element name	Description
%CL_PROMPT_password_label%	References the password label input field Usage: Prompt label
%CL_PROMPT_oldPassword_label%	References the old password label input field Usage: Prompt label
%CL_PROMPT_newPassword_label%	References the new password label input field Usage: Prompt label
%CL_PROMPT_newPasswordConfirm_label%	References the new password confirmation input field Usage: Prompt label
%CL_PROMPT_selectNamespace_caption%	References the "select a namespace" information message Usage: Prompt context message
%CL_PROMPT_enterCredentials_caption%	References the "enter user's credentials" information message Usage: Prompt context message
%CL_PROMPT_badCredentialsEntered_caption%	References the "bad credential" error message Usage: Prompt context message
%CL_PROMPT_passwordExpiry_caption%	References the "password has expired" information message Usage: Prompt context message
%CL_PROMPT_general_caption%	References the general information or error message Usage: Prompt context message

Replacement Syntax:

You can override a UI element and specify replacement content using html 'div' syntax.

At run time, the content defined by the 'div' replaces the targeted section.

Here is an example for simple text replacement using 'div' syntax:

```
<div id="%CL_PROMPT_namespace_label%">Namespace /
Espace-noms:</div>
```

Here is an example of an html code snippet that results in an image appearing next to a customized message:

```
<div id="%CL_PROMPT_newPasswordConfirm_label%">
        <span>Confirm new password / Confirmez le nouveau mot
de passe:</span>
  <img style="vertical-align:middle"
  src=_u46 ?./ps/portal/images/state_warning_lrg
  .gif"/></div
```

CSS Styles

Each customizable UI element in the login page has an associated CSS style that you can use to change the appearance of the element. .

The styles are located in the styles.css file located in the *<installation_location>*/webcontent/ps/login folder

The following is a list of the available CSS styles:

CSS class name	Description
.loginHeader	Styles the header container
.loginHeaderTitle	Styles the title in the header
.loginHeaderLink	Styles the UI sections in the header
.loginHeaderLinkAnchor	Styles the links in the header
.loginHeaderButton	Styles the buttons in the header
.loginHeaderButtonOver	Styles how buttons in the header will appear when they are hovered over
.loginPrompt	Styles the prompt container
.loginPromptCaption	Styles the caption message in the prompt body
.loginPromptInputLabel	Styles the prompt input label
.loginPromptInputText	Styles the prompt input
.loginPromptInputStaticText	Styles the static (read-only) text in the prompt
.loginFooter	Styles the footer container
.loginFooterButton	Styles the buttons in the footer
.loginFooterButtonOver	Styles how buttons in the footer will appear when they are hovered over

Example - Customize the Prompt Caption:

You want to specify that text in the prompt caption is bolded and colored red.

To do this, you must set the loginPromptCaption class name in the styles.css file.

Make the following changes:

```
.loginPromptCaption {
 font-weight bold
 color:   #FF0000;
```

}

JavaScript

You can use JavaScript functions to invoke certain actions in the login page.

These actions include `OK`, `Cancel`, `Help`, `Close`, and `getLocale`. Using the JavaScript functions, you can ignore the standard footer that handles actions, such as the `OK` and `Cancel` functions, and replace it with your own UI implementation instead. Here are some sample customizations for the `OK` and `Cancel` actions:

```
<a onclick="javascript: executeOKCommand();" href="#">Signin</a>
<a onclick="javascript: executeCancelCommand();" href="#">Goback</a>
```

The following is a list of the JavaScript functions that are available:

Function	Description
`getLocale()`	Returns the active product locale
`executeOKCommand()`	Handles the action when the OK button is clicked
`executeCancelCommand()`	Handles the action when the Cancel button is clicked
`executeCloseCommand()`	Handles the action when the Close button is clicked
`executeHelpCommand()`	Handles the action when the Help button is clicked

The Customize JavaScript Function:

Use the JavaScript function named "customize" to specify additional customizations that you want to occur last in the processing sequence.

For example, the `customize()` code in the following example can define a customization that is executed after all other customizations have been performed:

```
<script language="JavaScript">
function customize() {
 // customizing JS code
}
</script>
```

The **customize** JavaScript function can be added anywhere in the login template "Set Up and Configure a Login Page" on page 625.

Redirect User to a Web Site When They Log Off

When users log off from IBM Cognos Connection, you can redirect them to a Web site of your choice by specifying a URL for redirection.

For security reasons, this URL must be within a domain that is registered with the IBM Cognos Application Firewall software.

Procedure

1. Edit the system.xml file located in the <*installation_location*>/templates/ps directory, and specify the URL to use for redirection using the <redirect-url> </redirect-url> parameter. For example,

```
<param name="custom-auth">
 <logoff enabled="true">
  <redirect-url>http://www.google.com</redirect-url></logoff>
</param>
```

2. In the IBM Cognos Configuration component, register the domain for the URL used for redirection. Specify the domain name using the **Valid domains or hosts** property located under **Security**, **IBM Cognos Application Firewall**.

   Note that if IBM Cognos Application Firewall is enabled and the specified URL uses an unregistered domain, IBM Cognos Connection returns an error page at logoff.

Samples

To show some typical login page customizations, you are provided with several samples. You can leverage these samples to help with your own customizations.

To view the samples, see the <*installation_location*>/webcontent/ps/login/samples folder. Here is a list of the samples that are provided:

- Sample1 shows how to add a simple message to the login page.
- Sample2 shows how to call the public JavaScript functions to handle OK and Cancel actions. As a result, you can ignore the standard OK and Cancel buttons and render your own. This sample also shows how you can add a bilingual footnote at the end of the login page.
- Sample3 shows how you can replace the standard login names and messages with custom bilingual messages. It also shows how to add a background image to the login page.
- Sample4 shows how to render the out-of-the-box IBM look for the login page.

Customizing Server-side Printing for UNIX and Linux Platforms

The way in which the IBM Cognos Connection portal handles server printing can differ depending on your platform.

For this reason, you can customize the way in which the IBM Cognos Connection portal handles the printing of PDF format reports for UNIX and Linux platforms by configuring the *rsprintpdf.sh* file.

The *rsprintpdf.sh* file should not be configured for Microsoft Windows operating system print servers.

When a user selects **Run with Options**, changes the **Format** to PDF, selects **Print the Report** from the **Delivery** section, and then specifies additional formats through **advanced options** such as Landscape orientation, A4 paper size or a **Time and Mode** to run the report, problems might occur when printing to a UNIX or Linux print server. The output might not be generated, or it might appear cropped or incorrectly orientated.

Procedure

1. Open the *rsprintpdf.sh* file located in the *c10_location/bin directory*.

2. In a text editor, customize the section that is specific to your print server's platform, for example AIX®, HP-UX, or Linux.
3. Use the following information for customization. The information is passed to the *rsprintpdf.sh* script by the server process as command line options.

Option	Name	Description
-p	printer	Specifies the print queue. If no print queue is specified, the default queue is used.
-o	orientation	Specifies the page orientation for a file, for example landscape or portrait. If no orientation is specified, portrait orientation is used.
-m	media	Specifies the media size of the output, for example letter or A4 paper size. If no media, or no height or width are specified, the default paper tray is used.
-h	height	For custom page sizes. Specifies the height of the page in points. It is valid only if specified with the -w option, and without the -m option.
-w	width	For custom page sizes. Specifies the width of the page in points. It is valid only if specified with the -h option, and without the -m option.
-L	log file	Specifies a path to a user-specified file for logging error messages. The default filename for the log file is *rsprintpdf.errors.log*.

4. **Tip**: Keep a copy of the *rsprintpdf.sh* file in case it should be overwritten by a future software upgrade.

Start Query Studio in Preview Mode

You can configure Query Studio to start in preview mode. Users can then create or modify reports without retrieving actual data from the database. Instead, simulated data is shown.

If you later upgrade IBM Cognos software, you must reapply this configuration.

Procedure

1. Using IBM Cognos Configuration, stop IBM Cognos Business Intelligence.
2. Rename the *c10_location*\templates\ps\async\system.xml.sample file to system.xml.

   Tip: To restore the regular mode, rename the *c10_location*\templates\ps\async\system.xml file to system.xml.sample.

3. Using IBM Cognos Configuration, start IBM Cognos software.

Customizing Data Formats for Query Studio

You can customize the data formats that are available for selection in Query Studio.

The data formats listed in the following table are defined in the *c10_location*/configuration/cogformat.xml file.

Data format	Examples	XML code
Date	19/12/03 December 19, 2003	formatList name = qsdates
Time	11:05 PM 23:05	formatList name = qstimes
Date and time	19/12/03 13:30 Dec 19, 03 1:30 PM	formatList name = qsdatetimes
Time interval	Days Seconds Milliseconds	formatList name = qsintervals
Negative numbers	-29 (29)	formatList name = qsnegatives
Decimal character	1.23 1,23	formatList name = rsnumberinput

By modifying the cogformat.xml file, you can change the order in which data formats are presented in Query Studio. You can also change the text string that appears in Query Studio or delete a data format.

If the data formats that you prefer are not available in Query Studio, you can add them to the file.

Note: If you upgrade to a new version of IBM Cognos software, your changes to the cogformat.xml file are not reflected in the new version of the file. Make a copy of the file before the upgrade, then replace the new version with your changed version.

Modify the cogformat.xml File

To modify the cogformat.xml file, follow these steps.

Procedure

1. Make a backup of the *c10_location*/configuration/cogformat.xml file.
2. Stop the IBM Cognos service.
3. Open the cogformat.xml file in an XML or text editor.
4. Make your changes as required:
   - "Change the Order of Data Formats"
   - "Change the Text Strings" on page 635
   - "Remove Data Formats" on page 635
   - "Add a Data Format to a Locale" on page 636
   - "Add Data Formats for a New Locale" on page 637
5. Save the file.
6. Test the file.
7. Restart the IBM Cognos service.

   The changes that you made to the cogformat.xml file are implemented.

Change the Order of Data Formats

You can modify the cogformat.xml file to change the order in which data formats are presented in Query Studio.

For example, in your locale, the dates might be presented in the following order:

- 19/12/03
- 19-Dec-03
- December 19, 2003
- Friday, December 19, 2003

If your users are most likely to choose the last date format, you might want it to appear first on the list of dates.

Procedure

1. In the cogformat.xml file, locate the data format for the locale that you want to modify. For example, the following XML code defines the order of date formats for the en-CA (English Canadian) locale:

```
...
<formatList name="qsdates" xml:lang="en-CA">
  <dateFormat dateStyle="short">19/12/03</dateFormat>
  <dateFormat dateStyle="medium">19-Dec-03</dateFormat>
  <dateFormat dateStyle="long">December 19, 2003</dateFormat>
  <dateFormat dateStyle="full">Friday, December 19,
2003</dateFormat>
</formatList>
...
```

2. To change the order in which data formats appear in Query Studio, rearrange the order of the code. For example, to have Friday, December 19, 2003 appear as the first date format, change the XML code as follows:

```
...
<formatList name="qsdates" xml:lang="en-CA">
  <dateFormat dateStyle="full">Friday, December 19,
2003</dateFormat>
  <dateFormat dateStyle="short">19/12/03</dateFormat>
  <dateFormat dateStyle="medium">19-Dec-03</dateFormat>
  <dateFormat dateStyle="long">December 19, 2003</dateFormat>
</formatList>
...
```

The dates are now presented in the following order in Query Studio:

- Friday, December 19, 2003
- 19/12/03
- 19-Dec-03
- December 19, 2003

Change the Text Strings

You can modify the cogformat.xml file to change the text strings that are presented in Query Studio.

For example, in your locale, the dates might be presented as follows:

19/12/03

19-Dec-03

December 19, 2003

Friday, December 19, 2003

If your organization uses the standard date format "19/12/03," you can change the text that appears in Query Studio to "Corporate Standard (19/12/03)".

Procedure

1. In the cogformat.xml file, locate the date format for the locale you want to modify. For example, the following XML code defines the text strings for date formats for the en-CA (English Canadian) locale:

```
...
<formatList name="qsdates" xml:lang="en-CA">
  <dateFormat dateStyle="short">19/12/03</dateFormat>
  <dateFormat dateStyle="medium">19-Dec-03</dateFormat>
  <dateFormat dateStyle="long">December 19, 2003</dateFormat>
  <dateFormat dateStyle="full">Friday, December 19,
2003</dateFormat>
</formatList>
...
```

2. To change the text string for a data format, edit it in the XML code. For example, change the text string for that format as follows:

```
<dateFormat dateStyle="short">Corporate Standard
(19/12/03)</dateFormat>
```

   The dates now appear as follows:

   - Corporate Standard (19/12/03)
   - 19-Dec-03
   - December 19, 2003
   - Friday, December 19, 2003

Remove Data Formats

You can modify the cogformat.xml file to remove data formats.

For example, you may not want to present users with all the interval formats that are available.

Procedure

1. In the cogformat.xml file, locate the data format for the locale that you want to modify. For example, the following XML code defines time interval formats for the en-CA (English Canadian) locale:

```
...
<formatList name="qsintervals" xml:lang="en-ca">
  <intervalFormat units="days">2 days</intervalFormat>
  <intervalFormat>1 day 23 hours 45 minutes 12 seconds
  345 milliseconds</intervalFormat>
  <intervalFormat units="time" showSeconds="false">1
23:45</intervalFormat>
  <intervalFormat units="time" showMilliseconds="false">1 23:45:12<
  /intervalFormat>
</formatList>
...
```

2. To remove an interval format, remove the associated XML code line. For example, to remove milliseconds as an available interval format, remove the following line:

```
<intervalFormat units="time" showMilliseconds="false">1 23:45:12<
/intervalFormat>
```

3. **Note:** For information on removing a locale, see the *Installation and Configuration Guide.*

Add a Data Format to a Locale

You can modify the cogformat.xml file to add data formats. For example, you may want to add a time format that is not included for your locale.

You must use valid syntax when adding a data format.

You can use Report Studio to show you the XML code that you need for a data format. In Report Studio, create a list report that contains the data that you want. Then, select the column and change the Data Format settings in the Report Studio Properties pane to get the format you want. It's a good idea to run the report to make sure the data format looks the way you want it to. Select View XML and use the same code syntax in the cogformat.xml file. (For an XML file that you can copy and paste from, follow instructions to Open and Save a Report Locally.)

For example, if you want to add a data format for date, create a report that contains a date column. Change the format of the date. Use the appropriate XML code syntax in the cogformat.xml file.

Your syntax might look similar to the bold code shown below:

```
<formatList name="qsdates" xml:lang="en-CA">
  <dateFormat dateStyle="short" datesSeparator="."
  </dateFormat>
  <dateFormat dateStyle="full">Friday, December 19,
2003</dateFormat>
  <dateFormat dateStyle="short">19/12/03</dateFormat>
  <dateFormat dateStyle="medium">19-Dec-03</dateFormat>
  <dateFormat dateStyle="long">December 19, 2003</dateFormat>
</formatList>
```

Procedure

1. In the cogformat.xml file, locate the data format for the locale that you want to modify. For example, the following XML code defines time formats for the en-CA (English Canadian) locale:

```
...
<formatList name="qstimes" xml:lang="en-ca">
  <timeFormat timeStyle="short">1:30 PM</timeFormat>
  <timeFormat timeStyle="medium">1:30:55 PM</timeFormat>
  <timeFormat timeStyle="long">1:30:55 EST PM</timeFormat>
  <timeFormat timeStyle="full">1:30:55 o&apos;clock
PM EST</timeFormat>
</formatList>...
```

2. To add another time format, add another XML code line. For example, to add the time format "1:30 EST PM," add the following line:

```
<timeFormat timeStyle="long" showSeconds="false">1:30
EST PM</timeFormat>
```

3. Insert the text that you want to appear in Query Studio into the line you copied and pasted. For example:

```
<dateFormat dateStyle="short" dateSeparator="."
show Years="showCentury">19.12.03</dateFormat>
```

Add Data Formats for a New Locale

The cogformat.xml file contains most locales already. However, if necessary, you can add data formats for a new locale.

Add a block of XML code for each of the data formats type.

Procedure

1. Copy and paste a similar block of XML code for each data format type. For example, if you want to add a new locale such as en-xx, copy and paste the XML code that defines time formats for the en-CA (English Canadian) locale:

```
...
<formatList name="qstimes" xml:lang="en-ca">
  <timeFormat timeStyle="short">1:30 PM</timeFormat>
  <timeFormat timeStyle="medium">1:30:55 PM</timeFormat>
  <timeFormat timeStyle="long">1:30:55 EST PM</timeFormat>
  <timeFormat timeStyle="full">1:30:55 o&apos;clock
PM EST</timeFormat>
</formatList>...
```

2. Change the name of the locale. For example, for the new locale en-xx, change the first line of the copied code to:

```
<formatList name="qstimes" xml:lang="en-xx">
```

3. Change the data formats as required, following the instructions in one of the following sections:
   - "Change the Order of Data Formats" on page 634
   - "Change the Text Strings" on page 635
   - "Remove Data Formats" on page 635
   - "Add Data Formats for a New Locale"
4. Make similar changes for the other data format types for the new locale.

Change the Default Query Studio Template

All Query Studio reports use a default template. You can create a custom template, for example, to include your company logo in it, and set it up as the default template for Query Studio reports.

The templates are created in Report Studio. For more information, see the IBM Cognos Report Studio *User Guide*.

Procedure

1. Go to the *c10_location*/configuration directory.
2. Locate the file qrsvpproperties.xml.sample, and rename it to qrsvpproperties.xml.
3. Open the qrsvpproperties.xml file, and in the following code:

```
<structure>
 <!-- Default template for reports. -->
 <!--<property>defaultSystemTemplate</property>
-->
 <!--<value>/content/configuration/reportTemplate[@name='QSdefault']
       </value> -->
</structure>
```

   - Un-comment the property and value elements
   - For the value, type the search path of the new template.

   Tip: To find the template search path in IBM Cognos Connection, open the template properties page and, on the **General** tab, click the **View the search path, ID and URL** link.

   Following, is an example of the resulting code:

```
<structure>
 <!-- Default template for reports. -->
 <property>defaultSystemTemplate</property>
 <value>/content/package[@name='GO
Sales and Retailers']/folder[@name="Templates
"]/reportTemplate[@name='RS
template']
 </value>
</structure>
```

4. Save the qrsvpproperties.xml file.
5. Restart the IBM Cognos server.

Modify Properties for the CSV Output Format

You can modify properties for the comma separated values (CSV) output format. For example, you can specify encoding and field delimiter characters to suit your environment.

The CSV properties are system-wide settings and cannot be specified for specific reports.

Note: Always set the CSV output format at the server administration level. Do not override CSV output format settings at lower levels.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. From the **System** drop-down menu, click **Set properties**.
5. Click the **Settings** tab.
6. Next to **Environment**, **Advanced Settings**, click **Edit**.
7. Enter parameters and values from "CSV Properties and Values" on page 639, as required.
8. Click **OK**.

Results

After the 30 seconds required for your changes to take effect, your changes are reflected when reports are generated in CSV format.

CSV Properties and Values

The following table describes the CSV properties that you can modify. If a property is not specified or its value is empty, the default setting is used.

Parameter	Description
RSVP.CSV.ENCODING	The encoding used for CSV output. Enter a supported encoding value "Supported Encoding Values" on page 640. LOCALE Encoding is derived from the content locale. The default value is utf-16le.
RSVP.CSV.DELIMITER	The field delimiter character used for CSV output. Enter one of the following: • a single character If you enter more than one character, only the first character is used. • TAB (tab) This is the default value.
RSVP.CSV.QUALIFIER	The string qualifier used for CSV output. The default value is " (quotation mark). Enter a single character. If you enter more than one character, only the first character is used. If the qualifier appears as part of your data, it is duplicated. For example, if the qualifier is a quotation mark and your data is ab"cd, the CSV output is "ab""cd".
RSVP.CSV.TERMINATOR	The line terminator used for CSV output. Enter one of the following values: • CR (carriage return) • LF (line feed) This is the default value. • CRLF (carriage return/line feed) • LFCR (line feed/carriage return) If you enter more than one value, only the first value is used.

Parameter	Description
RSVP.CSV.MIMETYPE	The MIME type attributed to the CSV output. The default value is: application/ vnd.ms-excel/
RSVP.CSV.REPEAT_XTAB_LABELS	Specifies whether to repeat the edge labels in a nested crosstab report. For example, a crosstab has years in the rows and order method nested within years. You can show the year label in each order method row or only in the top row for each year. The values are: • True The crosstab edge labels are repeated. • False (default) The crosstab edge labels are not repeated.

Supported Encoding Values

The following table shows encoding values that are supported and tested by IBM Cognos.

Table 11. Supported encoding values

Character set	Supported encoding value
UTF-8	utf-8
Western European (ISO 8859-1)	iso-8859-1
Western European (ISO 8859-15)	iso-8859-15
Western European (Windows-1252)	windows-1252
Central and Eastern European(ISO 8859-2)	iso-8859-2
Central and Eastern European (Windows-1250)	windows-1250
Cyrillic (ISO 8859-5)	iso-8859-5
Cyrillic (Windows-1251)	windows-1251
Turkish (ISO 8859-9)	iso-8859-9
Turkish (Windows-1254)	windows-1254
Greek (ISO 8859-7)	iso-8859-7
Greek (Windows-1253)	windows-1253

Table 11. Supported encoding values (continued)

Character set	Supported encoding value
Japanese (EUC-JP)	euc-jp
Japanese (ISO-2022-JP)	iso-2202-jp
Japanese (Shift-JIS)	shift_jis
Traditional Chinese (Big5)	big5
Simplified Chinese (GB-2312)	gb2312
Korean (EUC-KR)	euc-kr
Korean (ISO 2022-KR)	ISO 2022-KR
Korean (KSC-5601)	ksc_5601
Thai (Windows-874)	windows-874
Thai (TIS-620)	tis-620

Repeat Crosstab Labels in CSV Output Format

By default, labels are not repeated for a nested cross-tab when the output is in CSV format.

This ensures upgrade compatibility with previous builds of IBM Cognos software. However, you can have nested crosstab row and column labels repeat in CSV format output by setting the report server advanced property RSVP.CSV.REPEAT_XTAB_LABELS to True.

Note that RSVP.CSV.REPEAT_XTAB_LABELS is a system level setting and applies to all CSV files. In a distributed environment using multiple dispatchers, ensure that you set this property for the report service and batch report service for each dispatcher. This same report server advanced property also applies to charts, which appear in a similar fashion to crosstabs, when output to CSV format.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. From the **All Servers** drop-down menu, click **Services**, **Batch Report**.
5. From the drop-down menu for **BatchReportService**, click **Set properties**.
6. Click the **Settings** tab.
7. For the **Environment** category, next to **Advanced settings**, click the **Edit** link.
8. If it appears, select the **Override the settings acquired from the parent entry** check box. Otherwise, proceed to the next step.
9. Enter the RSVP.CSV.REPEAT_XTAB_LABELS property and set the value to True.

10. Click **OK**.
11. Repeat steps 4 through 10 for **Services**, **Report**, **ReportService**.

Auto-Size Select and Search Prompts

Often with large text items, the select and search prompt display areas are not wide enough to display the data.

By default, the select and search prompt control display areas are fixed width and information that extends beyond the display area is truncated.

For example, the phrase Product Line: 991 Camping Equipment displays as

```
Product Line: 991 Camping Equ
```

Optionally, you can use the setting SYSTEMPROPERTY_CSEARCH_AUTO_RESIZE_RESULT_LIST to make the display areas dynamically resize to meet the demands of wider data.

Procedure

1. Open the properties.js file located in *\c10_location*\webcontent\prompting.
2. Find the SYSTEMPROPERTY_CSEARCH_AUTO_RESIZE_RESULT_LIST setting and set it to true.

   After changing this setting, the select and search prompt control display areas are variable width and wide information is no longer truncated.

   This setting also affects multi-value select and search prompts. With multi-value prompts, both the **Results** and **Choices** display areas are dynamically re-sized when this option is used.

Using in_range Filters with Character Data

If you use an in_range filter with character data, and the From value is greater than the To value, the filter returns no results. For example, if the From value is "Zone" and the To value is "Aloe Relief", the report returns no data.

To allow results within a range regardless of whether the **From** value is greater than the **To** value, the IBM Cognos administrator can enable a prompting setting.

Procedure

1. Open the properties.js file.
2. Find the SYSTEMPROPERTY_REORDER_DROPDOWN_VALUES_IN_RANGES and set it to true.

Results

After changing this setting, and you re-run the original report using the same values, the report returns all data between "Zone" and "Aloe Relief" because the range is no longer treated as absolute.

Modify Properties for the Batch Report Service and Report Service

You can modify advanced properties for the Batch Report service and the Report service. For example, you can specify that prompt values entered by a user be saved automatically.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. From the **All Servers** drop-down menu, click **Services**, **Batch Report**.
5. From the drop-down menu for **BatchReportService**, click **Set properties**.
6. Click the **Settings** tab.
7. For the **Environment** category, next to **Advanced settings**, click the **Edit** link.
8. If it appears, select the **Override the settings acquired from the parent entry** check box. Otherwise, proceed to the next step.
9. Enter parameters and values from "Batch Report Service and Report Service Properties and Values," as required.
10. Click **OK**.

Batch Report Service and Report Service Properties and Values

The following table describes the Batch Report service and Report service properties that you can modify.

If a property is not specified or its value is empty, the default setting is used.

Parameter	Description
RSVP.PARAMETERS.SAVE	Specifies that report prompt values entered by a user should be saved automatically. Default: false
RSVP.CHARTS.ALTERNATECOLOURS	Specifies that each chart instance assigns colors in palette order, and does not attempt to preserve the color of items from one chart instance to another. Default: false
RSVP.FILE.EXTENSION.XLS	Specifies to use XLS as the file extension on XLS output format email attachments instead of HTML. Default: false
RSVP.RENDER.VALIDATEURL.XLS	Specifies whether rules are applied to values specified by any URL values contained within a report specification. CAF must be enabled for the RSVP.RENDER.VALIDATEURL setting to take effect. Default: false

Customize Error-Handling on the SMTP Mail Server

The way in which an SMTP mail server handles errors can differ depending on your mail server implementation. For this reason, you can customize the actions that the delivery service should take when it encounters specific errors by setting up SMTP rules in an XML file.

A set of default rules for error-handling is stored in a sample file provided with IBM Cognos software. To customize the rules, you should create a copy of this file and amend it. You then configure the delivery service to use this file.

Procedure

1. Copy the *c10_location*\configuration\smtpRules-sample.xml file to the *c10_location*\webapps\ p2pd\WEB-INF\classes folder.

   Note: To use your own file rather than a copy of the sample file, copy it to the same folder.
2. If you are using the sample file, rename the copied file to smtpRules-custom.xml.
3. Open the required file in an XML or text editor.
4. Amend the file to customize the rules.
5. Start IBM Cognos Connection.
6. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
7. On the **Status** tab, click **System**.
8. From the **All Servers** drop-down menu, click **Services**, **Delivery**.
9. From the drop-down menu next to **DeliveryService**, click **Set properties**.
10. Click the **Settings** tab.
11. Next to **Environment**, click **Edit**.
12. In the **Parameter** column, type the parameter name **smtp.rules.properties.location**.
13. In the **Value** column, type the name of the customized xml file you are using.
14. In the **Parameter** column, type the parameter name **smtp.rules.properties.reread**.

    Although not mandatory, it is useful to set this parameter for testing purposes so that the SMTP rules are read for every request.
15. In the **Value** column, type **true**.
16. Click **OK**.
17. In the **Set properties** page, click **OK**.

    When you have finished testing the rules, you must reset the smtp.rules.properties.reread parameter.
18. Repeat steps 5 to 11 to access the advanced settings.
19. In the **Value** column for the smtp.rules.properties.reread parameter, type **false**.
20. Click **OK**.

SMTP Rules

Use the <smtpRule> tag to define an SMTP rule and the <smtpError> tag to define the error code for which you are applying a rule.

For example:

```
<smtpRule>
 <smtpError>
  <errorCode>502</errorCode>
 </smtpError>
 ...
 <smtpError>
  <errorCode>550</errorCode>
 </smtpError>
 ...
</smtpRule>
```

Note: The priority of rules is determined by the order in which they appear in the XML file.

You can define the following types of SMTP errors:

- transport errors

  For example, there is no connection to the mail server, the mail server does not exist or is not configured correctly, or the user has no access to the mail server.

  Use `<transport>true</transport>` to include this type of error in your rules.
- recipient errors

  For example, there are invalid recipients, too many recipients, or no recipients.

  Use `<invalidRecipients>true</invalidRecipients>` to include this type of error in your rules.
- other specified errors

  Any standard SMTP error code generated by the mail server.

  Use `<errorCode>nnn</errorCode>` to include this type of error in your rules.

The following actions can be performed for each error type, and are defined as behaviors in the XML file:

- resend behavior

  Specifies how many times to resend an email (n) and the resend interval in seconds (x).

  Use `<resends number="n" delaySeconds="x" />` to apply this behavior.

  Note: To resend an email indefinitely, use `<resends number="-1">.`
- keep mail behavior

  Specifies whether the delivery service should keep the failed email in a separate queue after it has been resent the required number of times and is unsuccessful. The queue is named SMTPBackupQueue.

  Note: No further action is performed on emails in the backup queue. To add emails from SMTPBackupQueue to the regular SMTPQueue, you must change the queue name in the database table and restart the server.

  Use `<keepMail>true</keepMail>` to apply this behavior.
- fail mail behavior

  Allows you to customize the email notification that is sent when an email delivery has failed.

  Use the `<failMail>` tag to apply this behavior.

  There are two further optional attributes you can use to specify the email notification subject (`<subject>`) and recipient (`<recipients>`).

  Tip: If you omit these tags, the email notification is sent by default to original recipients list with the subject "Send failed:".

To remove all current recipients, use <recipients sendToCurrentRecipients="false">.

To send an email notification to the agent owner, use <owner>true</owner> and, if required, use <recipient address="name@address.com"> to specify an email address.

- default behavior

  Defines the action to perform when no matching rule is found.

  Use the <defaultSmtpBehaviour> tag to apply this behavior.

Examples - SMTP Rules

The first example shows how to set up a rule for the default behavior.

Here, the delivery service attempts to resend the undelivered e-mail three times at hourly intervals. If it is unsuccessful, it sends an e-mail notification using the default fail mail behavior.

```
<defaultSmtpBehaviour>
 <smtpBehaviour name="default">
  <keepMail>false</keepMail>
  <resends number="3" delaySeconds="3600" />
  <failMail />
 </smtpBehaviour>
 </defaultSmtpBehaviour>
```

The second example shows how to set up a rule for a transport error. Here, the delivery service resends the e-mail indefinitely, at 30 second intervals, until it is successful.

```
<smtpRule>
 <smtpError>
  <transport>true</transport>
 </smtpError>
 <smtpBehaviour name="transport">
  <keepMail>false</keepMail>
  <resends number="-1" delaySeconds="30" />
 </smtpBehaviour>
</smtpRule>
```

The third example shows how to set up a rule for a recipient error. Here, the e-mail notification is sent to the agent owner using the e-mail address stored in their user ID. The original e-mail recipients are removed from the recipient list.

```
<smtpRule>
 <smtpError>
  <invalidRecipients>true</invalidRecipients>
 </smtpError>
 <smtpBehaviour name="invalidRecips">
  <keepMail>false</keepMail>
  <failMail>
   <recipients sendToCurrentRecipients="false">
    <owner>true</owner>
   </recipients>
  </failMail>
 </smtpBehaviour>
 </smtpRule>
```

The fourth example shows how to set up a rule for a specified error code. Here, the undelivered e-mail is sent to the backup queue whenever error 550 occurs. It remains there until you process it manually. A customized e-mail subject is set up for the fail mail notification.

```
<smtpRule>
 <smtpError>
  <errorCode>550</errorCode>
 </smtpError>
 <smtpBehaviour name="specialErrorCode-550">
  <keepMail>true</keepMail>
  <failMail>
   <subject>Error code 550 keep mail</subject>
  </failMail>
 </smtpBehaviour>
</smtpRule>
```

Disable Report Attachments in Email Messages

To prevent users from sending reports as e-mail attachments, modify the system file system.xml.

This change hides the Include the report check box under Attachments in the Set the e-mail options dialog box.

This restriction applies to all IBM Cognos Business Intelligence users.

Procedure

1. Stop the IBM Cognos service.
2. Open the *c10_location*/templates/ps/portal/system.xml file in an XML or text editor.

   For pages and dashboards, open the *c10_location*/templates/ps/system.xml file.
3. Add the following XML code to the `<system>` element:

   ```
   <param name="ui_hide">
     <CC_RUN_OPTIONS_email_attachment/>
   </param>
   ```

   If you hide other user interface elements by modifying the system.xml file, the `<param name="ui_hide">` element already exists. In this case, add the following to the element:

   ```
   <CC_RUN_OPTIONS_email_attachment/>
   ```

   For more information about modifying the system.xml file, see "Hide User Interface Elements Using the System.xml File" on page 608.
4. Save the file.
5. Start the IBM Cognos service.

Show Attachments in IBM Lotus Notes

When chart reports are sent as E-mail attachments, they may not be shown properly in Lotus Notes®. You can specify that .png file types be automatically converted to .jpg to avoid this possibility.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Status** tab, click **System**.
4. From the **All Servers** drop-down menu, click **Services**, **Delivery**.
5. For the drop-down menu next to **DeliveryService**, click **Set properties**.
6. Click the **Settings** tab.
7. Next to **Environment**, click **Edit**.

8. Select the **Override the settings acquired from the parent entry** check box.
9. In the **Parameter** column, type the parameter name **lotus.compatibility.mode**.
10. In the **Value** column, type **true**.
11. Click **OK**.
12. In the **Set properties** page, click **OK**.

Results

Chart reports are converted to .jpg files and appear properly in Lotus Notes.

Disable Support for Trigger-based Scheduling

By default, trigger-based scheduling is enabled. An occurrence acts as a trigger, causing the report to run. You can disable this feature by modifying the system.xml file.

Procedure

1. Stop the IBM Cognos service.
2. Open the *c10_location*/templates/ps/portal/system.xml file in an XML or text editor.
3. Locate the following XML code in the `system` element:

```
<param name="enable-trigger-support">
  true
</param>
<param name="enable-trigger-tab">
  true
</param>
```

4. Change the value of both trigger parameters from true to false.

   The XML code should appear as follows:

```
<param name="enable-trigger-support">
  false
</param>
<param name="enable-trigger-tab">
  false
</param>
```

5. Save the file.
6. Start the IBM Cognos service.

Results

The **By Trigger** tab on the **Schedule** page no longer appears. Entries that are already scheduled for trigger-based scheduling continue to run, but no further trigger scheduling can occur while support is disabled.

Set Up a Trigger Occurrence on a Server

As part of setting up trigger-based report scheduling, you must set up the trigger occurrence on a server.

You link the external occurrence, such as a database refresh or an e-mail, with a trigger on the server that causes the entry to run. You must also specify the name of the occurrence.

Trigger occurrences can also be set up by a Software Development Kit developer using the IBM Cognos software development kit. For more information, see the *The IBM Cognos Software Development Kit Developer Guide*.

Using the Microsoft Windows script named trigger.bat or the shell script named trigger.sh, you can trigger one or more schedules to run on the server. The script syntax follows where `URL` is the IBM Cognos server URL, `username` is a valid username in the specified namespace, `password` is the password for the username, `namespace` is the namespace for the username, and `triggerlist` is a comma separated list of trigger names:

```
trigger.bat URL [username password namespace]
triggerlist
```

For example, if users want to schedule a report based on a database refresh and want to schedule a second report based on receipt of an email, your custom trigger command line may look similar to this:

```
trigger.bat http://localhost:9300/p2pd/servlet/dispatch username
password namespace databaserefreshtriggername,emailtriggername
```

Procedure

1. If you are setting up a trigger occurrence on a server other than an IBM Cognos server, complete the following tasks:
   - Ensure that the server has a supported version of either a Java Runtime Environment or a Java Development Kit.
   - Copy the following files from *c10_location*/webapps/p2pd/WEB-INF/lib on an IBM Cognos server to the location on the server where you are setting up the trigger occurrence:

     activation.jar

     axis.jar

     axisCrnpClient.jar

     commons-discovery.jar

     commons-logging.jar

     jaxrpc.jar

     saaj.jar

     mail.jar

     xml-apis.jar

     xercesImpl.jar
   - Copy the following files from *c10_location*/webapps/utilities/trigger on an IBM Cognos server, to the location on the server where you are setting up the trigger occurrence:

     trigger.bat

     trigger.sh

     trigger.class (a Java utility that can run on any IBM Cognos-supported platform)
2. Ensure that the command line runs when the external occurrence, such as a database refresh or email, occurs.

   The mechanism that you use to invoke your custom trigger command depends on the application that you are working with, such as a database system or an email application. For information, see the documentation for your application.
3. Inform users that they can now schedule entries based on the trigger occurrence.

If a user scheduled an entry based on the occurrence, when the user clicks the schedule button for a report view, occurrence information replaces frequency information on the **Schedule** page.

Results

After the script runs, the trigger method returns an integer value representing the number of schedules that were run. The following integers represent errors:

- -1 is a usage error, such as invalid parameter or syntax
- -2 is a communication problem with IBM Cognos server

Change the Default File Extension for Excel 2002 Spreadsheets

You can change the default file extension to .xls by setting the RSVP.FILE.EXTENSION.XLS parameter to true.

By default, Excel 2002 spreadsheets sent by e-mail are created in Excel Multipart HTML format with the .mht file extension.

Setting RSVP.FILE.EXTENSION.XLS to true does not change the file content. The content remains as Excel Multipart HTML.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.
4. In the **Configuration** pane, under **Name**, click the dispatcher to configure.
5. With the dispatcher selected, on the toolbar in the upper-right corner, click **Set Properties**.
6. Click the **Settings** tab.
7. For the **Environment** category, next to **Advanced settings**, click the **Edit** link.
8. Select the **Override the settings acquired from the parent entry** check box.
9. In the Parameter column, type **RSVP.FILE.EXTENSION.XLS**.
10. In the **Value** column, type **true**.
11. Click **OK** twice.
12. Repeat steps 5 to 11 for **ReportService**.
13. Restart the server.

Specify Whether the Don't Print Style is Applied to Excel 2007 Report Output

You can use the advanced setting parameter, RSVP.EXCEL.XLS2007_PRINT_MEDIA, to control whether the Don't Print style is applied to Excel 2007 report output.

For information about the Don't Print style, see the Report Studio *User Guide*.

Procedure

1. Start IBM Cognos Connection.
2. In the upper-right corner, click **Launch**, **IBM Cognos Administration**.
3. On the **Configuration** tab, click **Dispatchers and Services**.

4. In the **Configuration** pane, in the **Name** column, click the dispatcher you want to customize.
5. In the **Name** column, find the **ReportService**, and then under **Actions**, click the set properties icon.
6. Click the **Settings** tab.
7. Under **Category**, click **Environment**, and next to **Advanced Settings**, click **Edit**.
8. Select **Override the settings acquired from the parent entry**.
9. In the **Parameter** column, type the parameter name **RSVP.EXCEL.XLS2007_PRINT_MEDIA**.
10. In the **Value** column, enter a value.

Value	Description
True	The Don't Print style affects Excel 2007 report output.
False	The Don't Print style is ignored for Excel 2007 report output.

Disabling Toolbox Widgets

System administrators can disable any of the following toolbox widgets: Web Page, RSS Feed, Image, Text, and My Inbox Features.

To disable a widget, you change its file extension. For example, to disable the Web page widget, rename htmViewer_contribution.atom to htmlViewer_contribution.atom.disabled.

The following table shows the name and location of the configuration file for each widget.

Widget	Configuration File
Web Page	<c10>\configuration\icd\contributions\contrib\HTMLViewer_contribution.atom.
RSS Feed	<c10>\configuration\icd\contributions\contrib\RSSViewer_contribution.atom
Image	<c10>\configuration\icd\contributions\contrib\ImageViewer_contribution.atom
Text	<c10>\configuration\icd\contributions\contrib\RichTextViewer_contribution.atom
My Inbox	<c10>\configuration\icd\contributions\contrib\MyInBox_contribution.atom

Chapter 37. IBM Cognos Business Insight

IBM Cognos Business Insight is a new report consumption environment that provides an integrated Business Intelligence experience for business users. This Web-based tool allows you to use IBM Cognos content and external data sources to build sophisticated, interactive workspaces. For more information about IBM Cognos Business Insight, see the IBM Cognos Business Insight *User Guide*.

Alternatively, you can create dashboards using pages and portlets in IBM Cognos Connection. For more information, see Chapter 20, "Pages and Dashboards," on page 311.

Launching IBM Cognos Business Insight

To get started using the product, there are several ways you can open IBM Cognos Business Insight.

You can launch Business Insight using the following methods:

- From the IBM Cognos Business Intelligence Welcome page
- From IBM Cognos Connection by clicking the new workspace button  in the application bar
- In a web browser by entering the URL for IBM Cognos Business Insight using the following format: http://*machinename*/ibmcognos/cgi-bin/cognos.cgi?b_action=icd or the URL that your administrator provides
- By clicking the hyperlinked name of an existing workspace object from IBM Cognos Connection
- From the **Launch** menu in IBM Cognos Connection and IBM Cognos Administration
- From a workspace listed in the search results in IBM Cognos Connection

Browser chrome

The browser chrome includes toolbars and menus on a web browser. Whether the browser chrome is displayed depends on how you launch Business Insight. Business Insight opens in a chromeless browser if you launch from the IBM Cognos Business Intelligence Welcome page. If you launch directly in a browser by entering a URL, then your browser displays the chrome.

Displaying Business Insight thumbnails from version 10.1.0

In IBM Cognos Business Insight version 10.1.1, new thumbnails replaced the thumbnails that were used in Business Insight version 10.1.0. If you want to continue using the thumbnails that appeared in version 10.1.0, you can do so by changing the default timeout value in the config.properties file.

Procedure

1. Go to the location *c10_installation_location*\dropins\com.ibm.cognos.bux.service.atom_1.0.0\com\ibm\cognos\bux\service\atom
2. Open the config.properties file.

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3. Find the property atom.config.rds.thumbnail.waitThreshold = 0.

   The timeout value is set to 0 seconds by default.
4. Increase the value of the atom.config.rds.thumbnail.waitThreshold property from 0 to 60 seconds for example, atom.config.rds.thumbnail.waitThreshold = 60

Results

Because the thumbnail images for Business Insight version 10.1.1 cannot be retrieved in the specified time, the version 10.1.0 thumbnail images are displayed instead.

Removing HTML markup from RSS feed details

In IBM Cognos Business Insight, a user can insert an RSS widget from the toolbox. After configuring the RSS feed, the RSS feed widget displays HTML markup when the feed details are enabled.

You can hide the HTML markup when the **Show feed details** option is enabled by specifying the advanced setting, **CPSRssAllowUnsafeCharacters** on the dispatcher. You must set the parameter for each dispatcher. For multiple dispatchers, you can set the parameter globally.

Procedure

1. In IBM Cognos Administration, click **Configuration** > **Dispatchers and Services**.
2. To specify the **CPSRssAllowUnsafeCharacters** setting for a single dispatcher, do the following:
   a. In the **Name** column, click a dispatcher, and click **Set properties**.
   b. Go to the **PresentationService**, and click **Set properties**.
   c. Click the **Settings** tab, and for **Environment**, **Advanced settings**, click **Edit**.
   d. Click **Override the settings acquired from the parent entry**. Now, go to step 4.
3. To specify the **CPSRssAllowUnsafeCharacters** parameter globally, for multiple dispatchers, do the following:
   a. On the **Configuration** toolbar, in the upper-right corner, click **Set properties - Configuration**.
   b. Click the **Settings** tab, and for **Environment**, **Advanced settings**, click **Edit**.
4. In the **Parameter** field, type **CPSRssAllowUnsafeCharacters**, and in the **Value** field, type **true**.
5. Click **OK**.

Results

HTML markup is not displayed in the RSS feed details.

Appendix A. Round Trip Safety Configuration of Shift-JIS Characters

Shift-JIS is a character encoding system for Japanese characters. It is equivalent to ASCII, a character encoding system for English characters.

Native Encoding and Unicode

Because Shift-JIS and ASCII both define characters for one language, they are native encoding systems. Unicode is a character encoding system that defines characters for all languages. Because software is used in a global, multilingual environment, characters for processing by computers must often be converted between native encoding systems and Unicode.

Round Trip Safety

Issues associated with conversions between native encoding systems and Unicode are referred to as round trip safety issues.

Using Unicode, applications are developed that can handle input from different languages at the same time. Input data, which is entered by users or retrieved from databases, may contain characters encoded in a native encoding system. For example, in Microsoft Windows operating system, English characters input by a user are encoded using Windows-1252.

When an application receives characters in a native encoding system, it converts the characters into Unicode for processing. After the processing is finished, the characters may be converted back into the native encoding system.

In most cases, the characters are converted without ambiguity because each native character is mapped to a single Unicode character. If the conversion of a native language character to and from Unicode results in the original character, the character is considered round trip safe.

For example, the character "A" is round trip safe in Windows-1252, as follows:

- The Windows-1252 character for "A" is 0x41.
- It converts to Unicode U+0041.
- No other Windows-1252 character converts to the same Unicode character, so it always converts back to 0x41.

Issues Specific to Shift-JIS

Although the characters from most native character encoding systems are round trip safe, the Shift-JIS encoding system is an exception. Approximately 400 characters in Shift-JIS are not round trip safe because multiple characters in this group can be mapped to the same Unicode character. For example, the Shift-JIS characters 0x8790 and 0x81e0 both convert to the Unicode character U+2252.

IBM Cognos BI and Shift-JIS

IBM Cognos Business Intelligence uses Unicode. The round trip safety of characters is essential to ensure the accuracy of data in generated reports.

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The Round Trip Safety Configuration utility ensures the round trip safety of Shift-JIS characters only when it is used both to convert characters:

- from Shift-JIS to Unicode
- from Unicode to Shift-JIS

If data is requested from a database that has its own automatic mechanism for Shift-JIS to Unicode conversion, IBM Cognos BI does not call the Round Trip Safety Configuration utility to convert the characters from Unicode to Shift-JIS. The round trip safety of characters in the data cannot be ensured.

For more information on The Round Trip Safety Configuration utility, see "The Round Trip Safety Configuration Utility."

Example: Safe Conversion of Shift-JIS

The following example illustrates the problem with Shift-JIS conversion to Unicode:

- A database contains characters encoded in Shift-JIS.
- A record in the database contains the Shift-JIS character 0x8790.
- A user enters the Shift-JIS character 0x8790 into a data entry form in a browser.
- The application receives the input form and converts the Shift-JIS character 0x8790 to the Unicode character U+2252.
- Because the database contains Shift-JIS encoded characters, the Unicode character U+2252 cannot be specified as part of the query.
- The application must convert U+2252 back to a Shift-JIS character. Both 0x8790 and 0x81e0 convert to U+2252. If the conversion process selects 0x81e0, the query returns no records.

To resolve this problem, you can use the Round Trip Safety Configuration utility to ensure that conversion is to 0x8790 and the record is found.

The Round Trip Safety Configuration Utility

You can use the Round Trip Safety Configuration utility to configure the conversion process of Shift-JIS characters so that IBM Cognos Business Intelligence always returns the right records.

This utility gives you control over the following two situations:

- More than one Shift-JIS character converts to the same Unicode character.

  If your data contains such Shift-JIS characters, you can use the utility to specify that the Unicode character always converts to the required Shift-JIS character. For more information, see "Specify Conversions" on page 657.
- More than one Unicode character represents the same or similar character after conversion.

  Such Unicode characters can be considered identical when processed by computers and can be substituted for one another. You can use the utility to ensure that the correct substitution is made. For more information, see "Specify Substitutions" on page 658.

Specify Conversions

If your data contains more than one Shift-JIS character that converts the same Unicode character, use the Round Trip Safety Configuration utility to specify that the Unicode character always converts to the required Shift-JIS character.

Before you choose the Shift-JIS character to use in a conversion, determine which Shift-JIS character is currently used in the environment. Only one of the possible Shift-JIS equivalents of a Unicode character can be used in a specific environment.

On the Conversion Tab, native encoding characters appears in the form 0xYYYY, and Unicode characters appear in the form U+YYYY, where YYYY represents the hexadecimal value of the Unicode character.

For example, the character "A" appears as follows:

- for native encoding, 0x41
- for Unicode, U+0041

Each row represents a mapping rule that associates two or three Shift-JIS characters with the Unicode character in the first column.

By default, all Shift-JIS characters in a row are converted to the associated Unicode character. For example, the Shift-JIS characters 0x8782 and 0xFA59 both convert to the Unicode character U+2116.

You can configure more than one character at a time.

Procedure

1. Start the Round Trip Safety Configuration utility in the *c10_location*/bin:
   - for Microsoft Windows operating system, rtsconfig.exe
   - for UNIX operating system, rtsconfig
2. Click the **Conversion** tab.

   Tip: To see the glyph next to the Unicode character, from the **View** menu, click **Glyphs**. Depending on the type and size of fonts you use, some glyphs may not be visible.
3. From the **Edit** menu, click **Find a character,** and then enter the hexadecimal value of the Shift-JIS character.
4. Click **OK**.
5. In the **First Shift-JIS Character**, **Second Shift-JIS Character**, or **Third Shift-JIS Character** column, select the Shift-JIS character that you want the Unicode character to convert to.
6. Repeat steps 3 to 5 for each Shift-JIS character that you want to configure.
7. Save your specifications using one of the following methods:
   - To only save your specifications, from the **File** menu, click **Save**.
   - To save and apply your specifications, from the **Tools** menu, click **Configure**.

   If you save only, you can apply your specification later. For more information, see "Apply the Conversions and Substitutions" on page 658. You can also restore default settings. For more information, see "Restore the Default Conversion Settings" on page 659.

   The specifications are saved in the file shift-jis.xml in the *c10_location*/bin directory.

Specify Substitutions

After the conversion, the Unicode data may contain characters that are identical in meaning, but different in appearance. For example, a full-width tilde (~) and a half-width tilde have different values in Unicode, but can be considered identical during processing.

You can use the Round Trip Safety Configuration utility to specify that specific pairs of similar characters be substituted by a single character. For example, you can specify that both widths of tilde are substituted by a full-width tilde.

On the Substitution tab, the first column contains pairs of characters that generally mean the same thing, but are represented by different values in Unicode. Each row represents a substitution rule. The first column lists the data before conversion. The second column lists the possible replacement characters.

Procedure

1. Start the Round Trip Safety Configuration utility in the *c10_location*/bin:
   - for Microsoft Windows operating system, rtsconfig.exe
   - for UNIX operating system, rtsconfig
2. Click the **Substitution** tab.

   Tip: To see the glyph next to the Unicode character, from the **View** menu, click **Glyphs**. Depending on the type and size of fonts you use, some glyphs may not be visible.
3. In the **Original Code** column, click the character that you want to substitute.
4. In the **Substitute Code** column, click the equivalent character.

   A list of possible substitution options appears.
5. In the list, click the Unicode character that you want to use, or click **Do not substitute**.
6. Repeat steps 3 to 5 for each Unicode character that you want to substitute.
7. Save your specifications using one of the following methods:
   - To only save your specifications, from the **File** menu, click **Save**.
   - To save and apply your specifications, from the **Tools** menu, click **Configure**.

   If you only save, you can apply your specification later. For more information, see "Specify Conversions" on page 657. You can also restore default settings. For more information, see "Restore the Default Conversion Settings" on page 659.

   The specifications are saved in the file shift-jis.xml in the *c10_location*/bin directory.

Apply the Conversions and Substitutions

If you do not apply changes when you save, you can apply the data later. Based on information saved in the file c10_location/bin/shift-jis.xml, two files are generated:

- for substitution data, i18n_res.xml
- for conversion data, ibm-943_P14A-2000.cnv

About this task

When you apply the data, by default, characters are not checked for round trip safety. When you set the configuration mode, you may choose to check for round trip safety by selecting the option that returns a conversion error at run time for

characters that are not round trip safe. This can be useful to initially detect which Shift-JIS characters must be configured.

Procedure

1. Stop IBM Cognos Business Intelligence.
2. In the Round Trip Safety Configuration utility, from the **Tools** menu, click **Set the configuration mode**.
3. Specify whether you want characters checked for round trip safety.
4. From the **Tools** menu, click **Configure**.
5. Start IBM Cognos BI.

Restore the Default Conversion Settings

At any time, you can quickly restore the default settings in your configuration and substitution data. For example, you may want to restore the configuration in the following situations:

- after your application is set to use a different data source that requires a different configuration
- after prototyping

Procedure

1. Stop IBM Cognos Business Intelligence.
2. In the Round Trip Safety Configuration utility, from the **Tools** menu, click **Restore defaults**.

   The conversion process is set to use the default values.
3. Start IBM Cognos BI.

Specify Conversions for Series 7 PowerPlay Web Reports

IBM Cognos Series 7 supplies a limited solution for the Japanese Vendor Defined Characters (VDC) in Shift-JIS encoding. To ensure data integrity and consistency when using PowerPlay Web reports with IBM Cognos Business Intelligence, you must set the character mapping to default values.

Procedure

1. Stop IBM Cognos BI.
2. Start the Round Trip Safety Configuration utility, see "The Round Trip Safety Configuration Utility" on page 656.
3. From the **Tools** menu, click **Restore defaults**.
4. From the **Tools** menu, click **Configure**.

   The conversion tables are set to use the default values in the background.
5. Close the Round Trip Safety Configuration utility.
6. Start IBM Cognos BI.

Appendix B. Initial Access Permissions

When Content Manager initializes a content store, it creates basic structures and security information.

We recommend that you modify these initial settings to secure IBM Cognos software. For more information, see Chapter 18, "Initial Security," on page 275.

The following icons are used to indicate the access permissions. For more information, see Chapter 15, "Access Permissions and Credentials," on page 253.

Icon	Permissions
	Read
	Write
	Execute
	Set policy
	Traverse

Content Manager Hierarchy of Objects

The following table shows the Content Manager hierarchy of objects and their contents.

Folder	Contents
/Root	All folders below /Root in the hierarchy.
/Root/Directory	Information about authentication providers and other information typically found in a directory service.
/Root/Directory/Cognos	The Cognos directory namespace containing Cognos groups, data sources, distribution lists, and contacts.
/Root/Directory/*other providers*	Other security namespaces, such as NTLM, LDAP, and Active Directory.
/Root/Public Folders	All application data in Content Manager.

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Folder	Contents
/Root/Directory/*application packages*	A separate folder for each application containing information about the application.
/Root/Configuration	Configuration data for all IBM Cognos components and templates.
/Root/Capabilities	Objects that can be secured through policies that restrict access to functionality, such as Administration, Report Studio, and Query Studio; and to features, such as user defined SQL, and bursting.
/Root/Import	Deployment information for each archive imported into Content Manager.
/Root/Export	Deployment information for each archive exported from Content Manager.

The Root Object

Object	Group, role, or account					
Root	Everyone	✔		✔		✔

Top-level Content Manager Objects

Object	Group, role, or account					
Capabilities	Directory Administrators				✔	✔
	Everyone					✔
Configuration	Server Administrators	✔	✔	✔	✔	✔
	Everyone			✔		✔
Public Folders	Report Administrators	✔	✔	✔	✔	✔
	Authors	✔	✔	✔		✔
	Query Users	✔		✔		✔

Object	Group, role, or account					
	Consumers	✔		✔		✔
	Express Authors	✔	✔	✔		✔
	Readers	✔				✔
Export	Report Administrators	✔	✔	✔	✔	✔
Import	Report Administrators	✔	✔	✔	✔	✔
Directory	Everyone					✔

Capabilities

Object	Group, role, or account					
Adaptive Analytics	Adaptive Analytics Administrators			✔		✔
	Adaptive Analytics Users			✔		✔
	Directory Administrators				✔	✔
Administration	Directory Administrators			✔	✔	✔
	Portal Administrators			✔		✔
	Report Administrators			✔		✔
	Server Administrators			✔		✔
	Metrics Administrators			✔		✔
	Planning Rights Administrators			✔		✔
	Adaptive Analytics Administrators			✔		✔

Object	Group, role, or account					
	Controller Administrators			✔		✔
	PowerPlay Administrators			✔		✔
Administration/ Adaptive Analytics Administration	Adaptive Analytics Administrators			✔		✔
	Directory Administrators				✔	✔
Administration/ Run activities and schedules	Report Administrators			✔		✔
	Metrics Administrators			✔		✔
	Controller Administrators			✔		✔
	Directory Administrators				✔	✔
	PowerPlay Administrators			✔		✔
Administration/ Configure and manage the system	Server Administrators			✔		✔
	Directory Administrators				✔	✔
Administration/ Users, Groups, and Roles	Directory Administrators			✔	✔	✔
Administration/ Set capabilities and manage UI profiles	Directory Administrators			✔	✔	✔
Administration/ Data Sources Connections	Directory Administrators			✔	✔	✔

Object	Group, role, or account					
Administration/ Administration tasks	Server Administrators			✔		✔
	Report Administrators			✔		✔
	Metrics Administrators			✔		✔
	Controller Administrators			✔		✔
	Directory Administrators				✔	✔
	PowerPlay Administrators			✔		✔
Administration/ Distribution Lists and Contacts	Directory Administrators			✔	✔	✔
Administration/ Printers	Directory Administrators			✔	✔	✔
Administration/ Metric Studio Administration	Metrics Administrators			✔		✔
	Directory Administrators				✔	✔
Administration/ Planning Administration	Planning Rights Administrators			✔		✔
	Directory Administrators				✔	✔
Administration/ Query Service Administration	Directory Administrators				✔	✔
	Server Administrators			✔		✔
Administration/ PowerPlay Servers	Directory Administrators				✔	✔

Object	Group, role, or account					
	PowerPlay Administrators			✔		✔
Administration/ Styles and portlets	Portal Administrators			✔		✔
	Directory Administrators				✔	✔
Administration/ Controller Administration	Controller Administrators			✔		✔
	Directory Administrators				✔	✔
Administration/ Query Service Administration	Directory Administrators				✔	✔
	Server Administrators			✔		✔
Analysis Studio	Report Administrators			✔		✔
	Authors			✔		✔
	Analysis Users			✔		✔
	Directory Administrators				✔	✔
IBM Cognos Viewer/ Context Menu Selection Toolbar	Report Administrators			✔		✔
	Authors			✔		✔
	Consumers			✔		✔
	Query Users			✔		✔
	Analysis Users			✔		✔

Object	Group, role, or account					
	Readers			✔		✔
	Express Authors			✔		✔
	Directory Administrators				✔	✔
	PowerPlay Administrators			✔		✔
	PowerPlay Users			✔		✔
IBM Cognos Viewer/Run With Options	Report Administrators			✔		✔
	Authors			✔		✔
	Consumers			✔		✔
	Query Users			✔		✔
	Analysis Users			✔		✔
	Express Authors			✔		✔
	Directory Administrators				✔	✔
	PowerPlay Administrators			✔		✔
	PowerPlay Users			✔		✔
Collaborate/ Allow collaboration features Launch collaboration tools	Analysis Users			✔		✔
	Authors			✔		✔
	Consumers			✔		✔

Object	Group, role, or account					
	Directory Administrators				✔	✔
	Express Authors			✔		✔
	PowerPlay Administrators			✔		✔
	PowerPlay Users			✔		✔
	Query Users			✔		✔
	Report Administrators			✔		✔
Controller Studio	Controller Users			✔		✔
	Controller Administrators			✔		✔
	Directory Administrators				✔	✔
Data Manager	Data Manager Authors			✔		✔
	Directory Administrators				✔	✔
Detailed Errors	Directory Administrators				✔	✔
Drill Through Assistant	Directory Administrators				✔	✔
Event Studio	Report Administrators			✔		✔
	Authors			✔		✔
	Metrics Administrators			✔		✔
	Metrics Authors			✔		✔
	Directory Administrators				✔	✔

Object	Group, role, or account					
Execute Indexed Search	Directory Administrators				✔	✔
	Everyone			✔		✔
Executive Dashboard	Analysis Users			✔		✔
	Authors			✔		✔
	Consumers			✔		✔
	Directory Administrators				✔	✔
	Express Authors			✔		✔
	Query Users			✔		✔
	Readers			✔		✔
	Report Administrators			✔		✔
	PowerPlay Administrators			✔		✔
	PowerPlay Users			✔		✔
Executive Dashboard/ Publish Dashboards to Collaboration Spaces	Directory Administrators				✔	✔
	Report Administrators			✔		✔
	PowerPlay Administrators			✔		✔
Glossary	Everyone			✔		✔
	Directory Administrators				✔	✔
Hide Entries	Everyone			✔		✔

Object	Group, role, or account					
	Directory Administrators				✔	✔
Import Relational Metadata	Directory Administrators				✔	✔
	Report Administrators			✔		✔
Lineage	Everyone			✔		✔
	Directory Administrators				✔	✔
Manage Own Data Source Signons	Directory Administrators				✔	✔
Metric Studio	Metrics Administrators			✔		✔
	Metrics Users			✔		✔
	Metrics Authors			✔		✔
	Directory Administrators				✔	✔
Metric Studio/Edit View	Metrics Administrators			✔		✔
	Metrics Authors			✔		✔
	Directory Administrators				✔	✔
Planning Contributor	Planning Contributor Users			✔		✔
	Planning Rights Administrators			✔		✔
	Directory Administrators				✔	✔
PowerPlay Studio	Authors			✔		✔

Object	Group, role, or account					
	Directory Administrators				✔	✔
	PowerPlay Administrators			✔		✔
	PowerPlay Users			✔		✔
Query Studio/ Create Advanced	Authors			✔		✔
	Query Users			✔		✔
	Report Administrators			✔		✔
	Directory Administrators				✔	✔
Report Studio	Authors			✔		✔
	Report Administrators			✔		✔
	Directory Administrators				✔	✔
	Express Authors			✔		✔
Report Studio/ Bursting HTML items in report User Defined SQL	Authors			✔		✔
	Report Administrators			✔		✔
	Directory Administrators				✔	✔
Report Studio/ Create/Delete	Authors			✔		✔

Object	Group, role, or account					
	Report Administrators			✔		✔
	Directory Administrators				✔	✔
	Express Authors			✔		✔
Report Studio/Allow External Data	Directory Administrators				✔	✔
Report Studio/Open PowerPlay Reports with Report Studio	Directory Administrators				✔	✔
Scheduling	Report Administrators			✔		✔
	Authors			✔		✔
	Consumers			✔		✔
	Query Users			✔		✔
	Metrics Administrators			✔		✔
	Metrics Authors			✔		✔
	Controller Administrators			✔		✔
	Controller Users			✔		✔
	Analysis Users			✔		✔
	Directory Administrators				✔	✔
	Express Authors			✔		✔
	PowerPlay Administrators			✔		✔
	PowerPlay Users			✔		✔

Object	Group, role, or account					
Scheduling/ Scheduling Priority	Report Administrators			✔		✔
	Metrics Administrators			✔		✔
	Controller Administrators			✔		✔
	Directory Administrators				✔	✔
	PowerPlay Administrators			✔		✔
Scheduling/ Schedule by day Schedule by hour Schedule by minute Schedule by month Schedule by trigger Schedule by week Schedule by year	Analysis Users			✔		✔
	Authors			✔		✔
	Consumers			✔		✔
	Controller Administrators			✔		✔
	Controller Users			✔		✔
	Directory Administrators				✔	✔
	Express Authors			✔		✔

Object	Group, role, or account					
	Metrics Administrators			✔		✔
	Metrics Authors			✔		✔
	Query Users			✔		✔
	Report Administrators			✔		✔
	PowerPlay Administrators			✔		✔
	PowerPlay Users			✔		✔
Self-Service Package Wizard	Directory Administrators				✔	✔
Set Entry-Specific Capabilities	Directory Administrators				✔	✔
Specification Execution	Data Manager Authors			✔		✔
	Directory Administrators				✔	✔
Statistics	Directory Administrators				✔	✔
	Statistics Authors			✔		✔
Watch Rules	Report Administrators			✔		✔
	Authors			✔		✔
	Query Users			✔		✔
	Consumers			✔		✔
	Metrics Administrators			✔		✔
	Metrics Authors			✔		✔

Object	Group, role, or account					
	Controller Administrators			✔		✔
	Controller Users			✔		✔
	Analysis Users			✔		✔
	Express Authors			✔		✔
	Directory Administrators				✔	✔
	PowerPlay Administrators			✔		✔
	PowerPlay Users			✔		✔

The Cognos Namespace

Object	Group, role, or account					
Cognos	Everyone	✔		✔		✔
	Directory Administrators	✔	✔	✔	✔	✔

Built-in and Predefined Objects in the Cognos Namespace

Object	Group, role, or account					
Adaptive Analytics Administrators	Adaptive Analytics Administrators	✔	✔	✔	✔	✔
	Directory Administrators			✔		✔
Adaptive Analytics Users	Directory Administrators	✔	✔	✔	✔	✔
	Adaptive Analytics Users	✔		✔		✔

Object	Group, role, or account					
	All Authenticated Users	✔				✔
All Authenticated Users	All Authenticated Users	✔		✔		✔
Analysis Users	All Authenticated Users	✔				✔
	Analysis Users	✔		✔		✔
	Directory Administrators	✔	✔	✔	✔	✔
Anonymous	Anonymous	✔		✔		✔
	Everyone	✔				✔
	Directory Administrators	✔	✔	✔	✔	✔
Authors	All Authenticated Users	✔				✔
	Authors	✔		✔		✔
	Directory Administrators	✔	✔	✔	✔	✔
Consumers	All Authenticated Users	✔				✔
	Consumers	✔		✔		✔
	Directory Administrators	✔	✔	✔	✔	✔
Controller Administrators	Controller Administrators			✔		✔
	Directory Administrators	✔	✔	✔	✔	✔
Controller Users	All Authenticated Users	✔				✔
	Controller Users	✔		✔		✔

Object	Group, role, or account					
	Directory Administrators	✔	✔	✔	✔	✔
Data Manager Authors	All Authenticated Users	✔				✔
	Data Manager Authors	✔		✔		✔
	Directory Administrators	✔	✔	✔	✔	✔
Directory Administrators	Directory Administrators	✔	✔	✔	✔	✔
Express Authors	Directory Administrators	✔	✔	✔	✔	✔
	Express Authors	✔		✔		✔
	All Authenticated Users	✔				✔
Everyone	All Authenticated Users	✔		✔		✔
	Anonymous			✔		
Metrics Administrators	Metrics Administrators			✔		✔
	Directory Administrators	✔	✔	✔	✔	✔
Metrics Authors	Metrics Authors	✔		✔		✔
	All Authenticated Users	✔				✔
	Directory Administrators	✔	✔	✔	✔	✔
Metrics Users	Metrics Users	✔		✔		✔
	All Authenticated Users	✔				✔
	Directory Administrators	✔	✔	✔	✔	✔

Object	Group, role, or account					
Planning Contributor Users	All Authenticated Users	✔				✔
	Planning Contributor Users	✔		✔		✔
	Directory Administrators	✔	✔	✔	✔	✔
Planning Rights Administrators	Planning Rights Administrators			✔		✔
	Directory Administrators	✔	✔	✔	✔	✔
Portal Administrators	Portal Administrators			✔		✔
	Directory Administrators	✔	✔	✔	✔	✔
Query Users	All Authenticated Users	✔				✔
	Directory Administrators	✔	✔	✔	✔	✔
	Query Users	✔		✔		✔
Readers	Directory Administrators	✔	✔	✔	✔	✔
	Readers	✔		✔		✔
	All Authenticated Users	✔				✔
Report Administrators	Directory Administrators	✔	✔	✔	✔	✔
	Report Administrators			✔		✔
Server Administrators	Directory Administrators	✔	✔	✔	✔	✔
	Server Administrators			✔		✔
System Administrators	System Administrators	✔	✔	✔	✔	✔

Access Permissions for IBM Cognos Business Insight Reports

Access permissions for IBM Cognos Business Insight reports can be specified by granting or denying permissions at the folder or package level within IBM Cognos Connection.

When permissions have been specified for a report, report part, report folder or workspace object, the user is able to perform actions based on the permissions set.

The following icons are used to indicate the assigned access permissions.

Read	Write	Traverse	Execute	Set Policy
				

Reports

					**Results**
✔					The report object is available in the content pane but cannot be dragged or expanded.
✔		✔			The report object is available in the content pane but cannot be expanded to show the report parts. If the report is dragged onto the canvas and saved output exists, the saved output displays. The error message, *The content cannot be displayed. It may have been deleted or you many not have sufficient privileges*, displays in the widget, if there is no saved output. Saved output in the workspace can be viewed. When the user runs a live report in a workspace, the error message, *RSV-CM-0006. The user does not have execute permission on this report*, displays.

					**Results**
			✔		The report object is available in the content pane and cannot be expanded to show report parts. The report will execute with no interactions available. No interactions are available if: • a report is dragged to the canvas • if a user with execute permissions saves a report, and other users open the report • if a user with execute permissions opens a workspace created by other users The error message, *The content cannot be displayed. It may have been deleted or you may not have sufficient privileges*, displays in a workspace when saved output cannot be viewed.
✔			✔		The report object is available in the content pane and executes with interactions available. The report can be expanded to show report parts. Report changes may not be saved. If the user adds the report to the workspace and saves it, changes can be saved. If the report is added to the workspace by a person who is not the report owner, changes cannot be saved. The error message, *The content cannot be saved. You do not have sufficient privileges*, displays.

					**Results**
✔		✔	✔		The report object is available in the content pane and executes with interactions available. The report can be expanded to show report parts. When a report is added to the canvas (either as live or saved output), the type of report that is added is dependent on the default action specified in the report's properties.
✔	✔	✔	✔		This set of permissions includes: • Read • Read and Traverse • Execute • Read and Execute • Read, Traverse, and Execute In addition, the report can be changed and saved.
✔			✔	✔	When a report is dragged to the workspace, a copy of the report is created when saved. The copied workspace report will inherit the permissions from the original report, if that user has set policy permissions.

Report Parts

				**Results**
✔			✔	The report object is displayed, and you can expand it to show the report parts. The report part will execute when dragged onto the canvas.

Folders

				**Results**
✔				The folder is displayed in the content pane and you can read folder properties. You cannot drag it onto the canvas or expand it to show the contents. You cannot save workspace objects in this folder.
		✔		You can drag the folder onto the canvas and expand it to see its contents, but you cannot save workspace objects in this folder.
	✔	✔		You can drag the folder onto the canvas and expand it to see the contents. You can also save workspace objects in this folder.

Workspaces

				**Results**
✔				The workspace is displayed but cannot be opened.
✔		✔		The workspace opens normally. Traverse is required to show the workspace's widgets.
✔	✔	✔		The workspace opens and saves normally.

Note: The owner of an object is automatically granted read, write, traverse, and execute permissions. If an object is disabled, you must be granted write access in order to see and edit it.

Appendix C. Localization of Samples Databases

The samples databases provided with IBM Cognos software demonstrate a multilingual reporting environment.

The samples store a selection of text fields, such as names and descriptions, in 23 languages.

This appendix provides information about how data is stored in the samples databases and how the samples databases are set up to use multilingual data.

For more information on the samples, see "Setting Up the Samples" on page 45.

One Column Per Language

In this structure, tables contain sets of 23 columns, one for each language.

A logical naming convention is used to indicate which language a column contains. The name of each column ends with a language code suffix, such as _EN for English and _FR for French. For example, the column that contains information about countries and regions is named COUNTRY_FR for French data and COUNTRY_DE for German data. All tables use this structure except for PRODUCT_LOOKUP

Determining the Language (Columns) in the Model

In Framework Manager, you can insert a macro in the SQL of the data source query subject to return a specific column of data. The query subject uses the macro to apply the locale setting and to return a language code. The locale specifies linguistic information and cultural conventions for character type, collation, format of date and time, currency unit, and messages.

The macro, runLocale, uses a parameter map to convert the user's desired content language into a complete or partial column name. This column name is then substituted in the SQL before the query runs.

Because the samples databases use a language code as the suffix for the column name, the macro uses a parameter map to convert valid run locales into a language code and then concatenates the language code to the base column name.

Sample Query

The macro in this sample query uses the runLocale session variable as the Language_lookup parameter map key.

It returns the language code to be used as the suffix of the column name. In the following Select statement, where French is the language, the macro generates the column name COUNTRY_FR.

```
Select
COUNTRY.COUNTRY_CODE,
#'COUNTRY.COUNTRY_' + $Language_lookup{$runLocale}# as
Product_Line
from
[great_outdoors].COUNTRY
```

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Because Framework Manager is flexible, your multilingual columns do not have to use the naming system used in the samples. In fact, your multilingual columns can use any naming system. You can encode your naming scheme into the parameter map, as required. You can use any session variable as the parameter map key and return any SQL syntax that you require to substitute at run-time. For more information, see the Framework Manager *User Guide*.

One Row Per Language

In this structure, each string value has a separate row with a code column that identifies the language.

Data is filtered to return only the row that contains the required language data. Normally, multilingual data is stored in a separate table to avoid duplicating non-descriptive or monolingual data.

In the samples databases, the data table contains the primary key and monolingual data, such as date information. The multilingual table contains data and a compound key composed of the foreign key and language code. For example, the PRODUCT_NAME_LOOKUP table contains the PRODUCT_NUMBER, PRODUCT_LANGUAGE, and PRODUCT_NAME columns, where PRODUCT_NUMBER and PRODUCT LANGUAGE form the primary key. Each of the localized items is expressed in 23 rows, one for each language.

The following foreign key table contains one or more localized items.

Primary key table	Foreign key table	Database
PRODUCT	PRODUCT_NAME _LOOKUP	GOSALES
SLS PRODUCT DIM	SLS_PRODUCT _LOOKUP	GOSALESDW

The samples databases use ISO language codes to identify each row of data.

Determining the Language (Rows) in the Model

In Framework Manager, you can insert a macro in the SQL of the data source query subject to return a specific row of data.

The query subject uses the macro to apply the locale setting and to return a language code.

Sample Query

The macro in the sample query below uses the runLocale session variable as the Language_lookup parameter map key and returns the corresponding language code. The sq() function specifies that the return value of the macro be enclosed in single quotation marks to produce a valid SQL filter predicate. In the following Select statement, where German is the language, the macro identifies the language as DE (German), and product the filter (PRODUCT_MULTILINGUAL."LANGUAGE" = 'DE').

```
Select
P.INTRODUCTION_DATE,
P.PRODUCT_TYPE_CODE,
P.PRODUCTION_COST,
P.MARGIN,
PRODUCT_LOOKUP.PRODUCT_NUMBER as PRODUCT_NUMBER1,
```

```
PRODUCT_LOOKUP."PRODUCT_LANGUAGE",
PRODUCT_LOOKUP.PRODUCT_NAME,
PRODUCT_LOOKUP.PRODUCT_DESCRIPTION
From
gosales].PRODUCT as P,
[gosales].PRODUCT_LOOKUP
Where
P.PRODUCT_NUMBER = PRODUCT_LOOKUP.PRODUCT_NUMBER
and
(PRODUCT_LOOKUP."PRODUCT_LANGUAGE" = #sq($Language_lookup{$runLocale})#)
```

Transliterations and Multiscript Extensions

For transliteration of Asian languages, a table contains two columns with equivalent information.

One column shows string values using only Latin characters. The other column shows string values using both Asian and Latin characters. The naming convention is to add the suffix _MB.

In the Latin-only columns, transliteration defines the phonetic equivalent of the value defined in the _MB column.

The following tables include columns that contain transliterated values.

Table	Database
ORDER_HEADER	GOSALES
RETAILER	GOSALES
RETAILER_SITE _MB	GOSALES
BRANCH	GOSALES
EMPLOYEE	GOSALES

Transliterations in the Model

The following example creates a single data source, based on a query subject of two tables. The tables are identical except for the use of Asian characters in one table.

Column with names that end with the suffix _MB store Asian-related data using Asian characters, such as Chinese ideograms. This removes some duplication and makes it easier to define relationships to other query subjects in the model.

```
Select
RS.RTL_RETAILER_SITE_CODE,
RS.RTL_RETAILER_CODE,
RS.RTL_ADDRESS1,
RS.RTL_ADDRESS2,
RS.RTL_CITY,
RS.RTL_REGION,
RS.RTL_POSTAL_ZONE,
RS.RTL_COUNTRY_CODE,
RS.RTL_ACTIVITY_STATUS_CODE,
RS_MB.RTL_ADDRESS1 as Address1_MB,
RS_MB.RTL_ADDRESS2 as Address2_MB,
RS_MB.RTL_CITY as City_MB,
RS_MB.RTL_REGION as Region_MB
from
[goretailers].RETAILER_SITE as RS,
[goretailers].RETAILER_SITE_MB
```

```
as RS_MB
where
RETAILER_SITE.RETAILER_SITE_CODE = RETAILER_SITE_MB.RETAILER_SITE_CODE
```

Multiscript Extensions

After defining the query subjects in the model, items with the _MB extension are renamed with a multiscript extension, such as Address 1 (multiscript) to ease use and readability.

Using Multi-Script Extensions for Conditional Formatting

An example of multi-script usage is a mailing address in which the multiscript values ensure that mailing labels are formatted for local handling and delivery.

To add more value to mailing labels, the GO Sales and Retailers model applies conditional formatting to generate international address formats.

In the following example, Address line 3 is the name of a user-defined calculation that is used to generate line three of a mailing label. The expression uses a Country or region code value to specify how to format the line.

```
if ([Retailers].[Retailer
site].[Country or region code] = 6) then
(' ' + [Retailers].[Retailer
site].[Address 1 (multiscript)])
else
if ([Retailers].[Retailer site].[Country or region
code] = 8) then
([Retailers].[Retailer site].[Address
2 (multiscript)])
else
if ([Retailers].[Retailer site].[Country or region
code] = 13) then
([Retailers].[Retailer site].[Region
(multiscript)] + ' ' + [Retailers].[Retailer
site].[City (multiscript)]
+ ' ' + [Retailers].[Retailer
site].[Address 1 (multiscript)] + '
' + [Retailers].[Retailer site].[Address
2 (multiscript)])
else
if ([Retailers].[Retailer site].[Country or region
code] = 14) then
([Retailers].[Retailer site].[Address
2 (multiscript)])
else
([Retailers].[Retailer site].[Address
1 (multiscript)])
```

Multiscript extensions allow a user in any language to use the same model columns to create an address block and see the address properly formatted for each delivery location. For more information, see the Mailing address data source query subjects in the gosales_goretailers sample model.

Appendix D. User Interface Elements Reference List

This appendix shows the IBM Cognos Connection user interface elements that you can hide and add.

Elements You Can Hide

The following table describes the user interface elements that you can hide in IBM Cognos Connection.

Items starting with CRN and CC indicate IBM Cognos Connection user interface elements. Items starting with RV indicate IBM Cognos Viewer elements.

For more information, see "Hide User Interface Elements" on page 606.

User Interface Element	Description
<CRN_HEADER/>	The IBM Cognos Connection top header (h1)
<CRN_HEADER _TITLE/>	Left-hand side of the IBM Cognos Connection top header (h1)
<CRN_HEADER_OPTIONS/>	Right-hand side of the IBM Cognos Connection top header (h1)
<CRN_HEADER_ LAUNCH/>	The **Launch** menu in the upper-right corner of Cognos Connection
<CRN_HEADER_USERNAME/>	Not supported
<CRN_HEADER_AUTHENTICATION/>	Authentication options
<CRN_HEADER_REFRESH/>	Refresh button
<CRN_HEADER_SEARCH/>	Search options
<CRN_HEADER_PERSONAL/>	My Area options
<CRN_HEADER_PERSONAL_myinbox/>	**My Inbox** option in My Area Options and in the Welcome page
<CRN_HEADER_PERSONAL_subscriptions/>	**My Watch Items** option in My Area Options
<CRN_HEADER_PERSONAL_preferences/>	**My Preferences** option in My Area Options
<CRN_HEADER_PERSONAL_activities/>	**My Activities and Schedules** option in My Area Options
<CRN_HEADER_HELP/>	Help menu
<CRN_HEADER_HELP_quickTour/>	Quick Tour link

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User Interface Element	Description
<CRN_HEADER_HELP_getStarted/>	Getting Started link
<CRN_HEADER_HELP_moreDocs/>	More Documentation link
<CRN_HEADER_HELP_companyWebsite/>	IBM Cognos on the Web link
<CRN_HEADER_HELP_welcome/>	Go to the Welcome Page link
<CRN_HEADER_HELP_about/>	About IBM Cognos Connection link
<CRN_HEADER_HOME/>	Home option
<CRN_HEADER_HOME_setHome/>	Set View as Home option
<CRN_HEADER_OPTIONS_mypages/>	Deprecated
<CRN_HEADER_OPTIONS_rs/>	Report Studio link
<CRN_HEADER_OPTIONS_qs/>	Query Studio link
<CRN_HEADER_OPTIONS_mm/>	Metric Studio link
<CRN_HEADER_OPTIONS_es/>	Event Studio link. Used to be <CRN_HEADER _OPTIONS_ags>
<CRN_HEADER_OPTIONS_as/>	Analysis Studio link. Used to be <CRN_HEADER_ OPTIONS_ps>
<CRN_HEADER_OPTIONS_cc/>	IBM Cognos Connection link (IBM Cognos Viewer only). Deprecated.
<CRN_HEADER_ OPTIONS_pc/>	**Contributor** link
<CRN_HEADER_OPTIONS_cs/>	**Controller Studio** link
<CRN_HEADER_OPTIONS_dt/>	**Drill-through Definitions** link
<CRN_HEADER_ OPTIONS_aa/>	**Adaptive Analytics** link
<CRN_HEADER_ OPTIONS_cbi/>	Hides the **IBM Cognos Business Insight** link on the **Launch** menu
<CRN_HEADER_ OPTIONS_cbia/>	Hides the **IBM Cognos Businsess Insight Advanced** link on the **Launch** menu
<CRN_HEADER_ OPTIONS_pps/>	Powerplay Studio link
<CC_HEADER/>	IBM Cognos Connection header (h2). Deprecated
<CC_HEADER_TITLE/>	Left-hand side of the IBM Cognos Connection header (h2). Deprecated

User Interface Element	Description
<CC_HEADER_MENU/>	Right-hand side of the IBM Cognos Connection header (h2). Deprecated
<CC_HEADER_MENU_home/>	Home link. Replaced by <CRN_HEADER_HOME/>
<CC_HEADER_MENU_return/>	Return link (IBM Cognos Viewer only)
<CC_HEADER_ MENU_search/>	Search link
<CC_HEADER_ MENU_logon/>	**Log On** link
<CC_HEADER_ MENU_logoff/>	**Log Off** link
<CC_HEADER_ MENU_about/>	About link (IBM Cognos Viewer only). Replaced by <CRN_HEADER_HELP_about/>
<CC_HEADER_ MENU_help/>	Help link
<CC_HEADER_ MENU_preferences/>	Preferences link
<CC_VIEW_TOOLS/>	Tools link. Deprecated
<CC_VIEW_TOOLS_ directory/>	Directory link. Deprecated
<CC_VIEW_TOOLS_ capabilities/>	Capabilities link. Deprecated
<CC_VIEW_TOOLS_ schedule/>	Schedule link. Deprecated
<CC_VIEW_TOOLS_ administration/>	Server administration link. Deprecated
<CC_VIEW_TOOLS_ deployment/>	Deployment link. Deprecated
<CC_VIEW_TOOLS_ csadministration/>	Content administration link. Deprecated
<CC_VIEW_TOOLS_ portal/>	Portal administration link. Deprecated
<CC_VIEW_TOOLS_ drillthru/>	**Drill-through Definitions** link
<CC_VIEW_TOOLS_ preferences/>	**My Preferences** link
<CC_VIEW/>	IBM Cognos Connection header (h3)
<CC_VIEW_TABS/>	Left-hand side of the IBM Cognos Connection header (h3) that includes the tabs

User Interface Element	Description
<CC_VIEW_ TABS_OPTIONS/>	The page menu button on left-hand side of the portal tabs
<CC_TOOLBAR/>	IBM Cognos Connection header (h4) that includes the path navigation and toolbar
<CC_TOOLBAR_PATH/>	Path navigation
<CC_TOOLBAR_BUTTONS/>	Toolbar buttons
<CC_TOOLBAR_BUTTONS_r efreshUsingGet/>	Refresh
<CC_TOOLBAR_BUTTONS_ newjobDefinition/>	New Job
<CC_TOOLBAR_BUTTONS_ newfolder/>	New Folder
<CC_TOOLBAR_BUTTONS_ newURL/>	New URL
CC_TOOLBAR_BUTTONS_ newconfigurationFolder/>	New Configuration Folder
<CC_TOOLBAR_BUTTONS_ newrole/>	New Role
<CC_TOOLBAR_BUTTONS_ newgroup/>	New Group
<CC_TOOLBAR_BUTTONS_ newnamespaceFolder/>	New Namespace Folder
<CC_TOOLBAR_BUTTONS_ newdataSource/>	New Data Source
<CC_TOOLBAR_BUTTONS_ newdataSourceConnection/>	New Connection
<CC_TOOLBAR_BUTTONS_ newdataSourceSignon/>	New Data Source Signon
<CC_TOOLBAR_BUTTONS_ newcontact/>	New Contact
<CC_TOOLBAR_BUTTONS_ newdistributionList/>	New Distribution List
<CC_TOOLBAR_BUTTONS_ newprinter/>	New Printer
<CC_TOOLBAR_BUTTONS_ newadminFolder/>	New Admin Folder
<CC_TOOLBAR_BUTTONS_ newportletFolder/>	New Portlet Folder
<CC_TOOLBAR_BUTTONS_ newcontentTask/>	New Content Task
<CC_TOOLBAR_BUTONS_ newcmmSystemTask/>	New IBM Cognos Metrics Manager task

User Interface Element	Description
<CC_TOOLBAR_BUTTONS_ newimportDeploymentFolder/>	New import deployment folder
<CC_TOOLBAR_BUTTONS_ newexportDeploymentFolder/>	New export deployment folder
<CC_TOOLBAR_BUTTONS_ import/>	New import specification
<CC_TOOLBAR_BUTTONS_ export/>	New export Specification
<CC_TOOLBAR_BUTTONS_ cut/>	Cut
<CC_TOOLBAR_BUTTONS_ copy/>	Copy
<CC_TOOLBAR_BUTTONS_paste/>	Paste
<CC_TOOLBAR_BUTTONS_ delete/>	Delete
<CC_TOOLBAR_BUTTONS_ refresh/>	Refresh
<CC_TOOLBAR_BUTTONS_ selectall/>	Select all
<CC_TOOLBAR_BUTTONS_ deselectall/>	Deselect All
<CC_TOOLBAR_BUTTONS_ list/>	List view mode
<CC_TOOLBAR_BUTTONS_ detail/>	Detailed view mode
<CC_TOOLBAR_BUTTONS_ properties/>	Current folder properties
<CC_TOOLBAR_BUTTONS_ configuration_properties/>	Configuration folder properties
<CC_TOOLBAR_BUTTONS_ order/>	Order
<CC_TOOLBAR_BUTTONS_ deployment_properties/>	Deployment Properties
<CC_TOOLBAR_BUTTONS_ enable_sched/>	Enable Schedule
<CC_TOOLBAR_BUTTONS_ disable_sched/>	Disable Schedule
<CC_TOOLBAR_BUTTONS_ view_events/>	View Events
<CC_TOOLBAR_BUTTONS_ page_sizes/>	Page sizes option in configuration tool
<CC_TOOLBAR_BUTTONS_search/>	Search

User Interface Element	Description
<CC_TOOLBAR_BUTTONS_edit_layout/>	Edit the layout of a custom portal page
<CC_TOOLBAR_BUTTONS_newpagelet/>	Add a custom portal page
<CC_TOOLBAR_BUTTONS_delete_page/>	Delete a custom portal page
<CC_TOOLBAR_BUTTONS_ newmetricsIntegrationTaskGroup/>	New data integration task
<CC_TOOLBAR_BUTTONS_ newmetricsPackage/>	New metrics package
<CC_DIALOG_HEADER/>	Not supported
<CC_DIALOG_HEADER_help/>	Help link on dialog screens
<CC_RUN_OPTIONS_ email_attachment/>	**Include the report** check box
<RV_HEADER/>	IBM Cognos Viewer header
<RV_HEADER_TITLE/>	Left hand side of the IBM Cognos Viewer header
<RV_HEADER_MENU/>	Right hand side of the IBM Cognos Viewer header
<RV_HEADER_MENU_LOGOFF/>	**Log Off** link
<RV_HEADER_MENU_LOGON/>	Log On link
<RV_HEADER_MENU_RETURN/>	Return link
<RV_HEADER_MENU_ABOUT/>	About link
<RV_HEADER_MENU_HOME/>	Home link
<RV_TOOLBAR/>	Not applicable
<RV_TOOLBAR_BUTTONS/>	Toolbar options in IBM Cognos Viewer
<RV_TOOLBAR_BUTTONS_DOWNLOAD/>	Download toolbar button. This applies when download is enabled.
<RV_TOOLBAR_BUTTONS_SAVE/>	Save toolbar button
<RV_TOOLBAR_BUTTONS_SAVEAS/>	Save As toolbar button
<RV_TOOLBAR_BUTTONS_SEND/>	Email toolbar button
<RV_TOOLBAR_BUTTONS_HISTORY/>	History toolbar option
<RV_TOOLBAR_BUTTONS_RUN/>	Run toolbar button

User Interface Element	Description
<RV_TOOLBAR_BUTTONS_HTML/>	HTML format view button
<RV_TOOLBAR_BUTTONS_PDF/>	PDF format view button
RV_TOOLBAR_BUTTONS_XLS/>	XLS format view button
<RV_TOOLBAR_BUTTONS_ XLS_CSV/>	CSV format view button
<RV_TOOLBAR_BUTTONS_XML/>	XML format view button
<RV_TOOLBAR_BUTTONS_ XLS_SPREADSHEETML/>	Microsoft Excel 2007 format view
<RV_TOOLBAR_BUTTONS_ XLS_XLWA/>	Excel 2002 format view
<RV_TOOLBAR_BUTTONS_ DRILLDOWN/>	Hides the drill down button
<RV_TOOLBAR_BUTTONS_ DRILLUP/>	Hides the drill up button
<RV_TOOLBAR_BUTTONS_ GOTO/>	Hides the go to button
<RV_TOOLBAR_BUTTONS_ ADD_THIS_REPORT/>	Hides the **Add this report** button
<RV_TOOLBAR_BUTTONS_ ADD_TO_MY_BOOKMARKS/>	Hides the **Add to My Bookmarks** button
<RV_TOOLBAR_BUTTONS_ ADD_TO_MY_FOLDERS/>	Hides the **Add to My Folders** button
<RV_TOOLBAR_BUTTONS_ KEEP_THIS_VERSION/>	Hides the **Keep this version** button

Elements You Can Add

You can add user interface elements to IBM Cognos Connection.

Use the following example to add a URL, an icon, a tooltip, and a label to the right side of the IBM Cognos Connection top header (h1), where the `target` element can be one of `_blank`, `_self`, `_parent`, or `_top`.

```
<CRN_HEADER_OPTIONS>
  <item show="user_type">
    <url>
      http-encoded URL to execute
    </url>
    <onclick>other action to take when link is
clicked
    </onclick>
    <target>browser window to target
    </target>
    <label xml:lang="en">link text
    </label>
    <tooltip xml:lang="en">tooltip text
    </tooltip>
    <label xml:lang="language">link text
```

```
    </label>
    <tooltip xml:lang="language">   tooltip text
    </tooltip>
    <icon>icon to show for this element
    </icon>
  </item>
</CRN_HEADER_OPTIONS>
```

For information about hiding user interface elements, see "Hide User Interface Elements" on page 606.

Appendix E. User Reference Help for Portal Services

Administrators typically configure default settings for each instance of a portlet before making it available to users.

When you access the Cognos portlets through your portal, you can change some settings to customize instances of each Cognos portlet. You can then save your settings for subsequent sessions.

You can change the content and layout of a portlet using the edit button  on the title bar. If the page or portlet is read-only or locked by an administrator, the edit button is disabled or does not appear on the portlet title bar.

IBM Cognos Navigator

Use this portlet to browse a list of links that open published IBM Cognos reports and other entries.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. If no title is specified, the folder name is used by default. You can specify a title for each supported language version of the product. **Note:** The title does not appear in WebSphere, WCI, and SAP portals.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
Folder	Specifies the location where the portlet navigation begins.
View	Specifies how entries are shown: • To show a list of entry names, use the **Navigator list** view. This is the default view. • To show entry names and detailed information, such as the last modification date, use the **Navigator details** view. Links open more detailed information about the entry. • To show URLs and shortcuts in an RSS-type format, use the **News list** view. RSS is a way of showing URLs in a Web page as short summaries that contain links to the associated pages.

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Property	Description
Open links	Specifies how the links in this portlet are opened. You can • open and navigate the linked entries in a new browser window. This is the default option. • open and navigate the linked entries in the currently opened browser window. This option is only available when the page containing IBM Cognos Navigator is added as a portal tab in Cognos Connection. • open and navigate the linked entries in a specified HTML frame. Type the name of the window or frame in the provided text box. • open and navigate the linked entries in the IBM Cognos Viewer portlet. Type the channel name as specified in IBM Cognos Viewer.
Open navigation links inside this portlet	Specifies whether to maximize the portlet view when navigating the folder hierarchy.
Features to expose in the Navigator views	Specifies how the IBM Cognos entries are shown in this portlet: • To show or hide the parent entry of the starting folder in the IBM Cognos folder hierarchy, use the **Parent in path** check box. • To show or hide the **Actions** column for the entries, and view the content of container entries in source applications, use the **Actions** check box. • To show or hide the modification date and description of entries in applicable views, use the **Additional information** check box. • To specify in how many columns you want the entries to appear in the details view, use the **Number of columns in a details view** check box. The default is 2 for the normal portlet view, and 4 for the maximized portlet view. You can specify a different view for normal and maximized windows. **Note:** The maximized view is not available in SharePoint Portal Server.

Property	Description
Number of entries	Specifies the maximum number of entries to show per page. The menu bar in the portlet shows how many entries are available for a folder.
Separators	Specifies whether separators are used in a list view. To make long lists of entries easier to read, use alternating background colors to separate the entries in the list.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

- In SAP Enterprise Portal, portlets are named iViews. This document may refer to iViews as portlets.
- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

IBM Cognos Search

Use this portlet to find published IBM Cognos reports and other entries.

Searches are performed against various types of IBM Cognos entries and folders. Use the advanced search options to perform more complex searches. By default, the search results are shown as links that open entries in a new browser window. You can save your search settings for future use.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. If no title is specified, the portlet name is used by default. You can specify a title for each supported language version of the product. **Note:** The title does not appear in WebSphere, WCI, and SAP portals.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
Saved searches	Specifies the saved results of previous searches. To save your most recent search results, type a name in the **Last search** box and then click **Save**. To rename a search, type the new name in the appropriate **Saved searches** text box. To delete a search, click **Delete** next to the appropriate **Saved searches** text box.
Open links	Specifies how the links are opened. You can • open and navigate the linked entries in a new browser window. This is the default option • open and navigate the linked entries in the currently opened browser window. • open the linked entries in a target browser window or frame. Type the name of the window or frame in the provided text box. • open and navigate the linked entries in the IBM Cognos Viewer portlet. Type the channel name as specified in IBM Cognos Viewer.
Number of results to show per page	Specifies the maximum number of entries to list per page.

Property	Description
Content of entry view	Specifies whether to show additional details for the entries in the search results. Use the **Show details** check box to show the entry modification date. Use the **Show actions** check box to show the entry actions. For example, you can use this option to view report outputs, run reports with options, open reports for editing, set properties, or set a schedule to run reports directly from the search results view.
Search results	Specifies how to show the search results. Select the **Maximize the view when displaying search results** check box when you want to show the results in a maximized view. This is useful when the results list is long.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

- In SAP Enterprise Portal, portlets are named iViews. This document may refer to iViews as portlets.
- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

IBM Cognos Viewer (IBM Cognos Connection)

Use this portlet to view and interact with published IBM Cognos reports and other entries, and to enable interactivity between other IBM Cognos Viewer portlets in the same page.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. If no title is specified, the entry name is used by default. You can specify a title for each supported language version of the product. **Note:** The title does not appear in WebSphere, WCI, and SAP portals.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
Entry	Specifies the location of the entry, such as a report, to display in this portlet. You can search the folders to locate the entry. After you select the entry, the **Report Properties** link appears. Use this link to access the advanced portlet properties.
Channel	Enables communication between this portlet and other Cognos portlets. To set up communication between specific portlets, type the same channel name for the portlets that you want to interact. The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, Cognos, Cognos_Portlets, or CognosPortlets.
Height (pixels)	Specifies the portlet height in pixels. If the report image is larger than this setting, scroll bars appear when you view the report.

Advanced Properties

Use these properties to override the default IBM Cognos Viewer properties, customize the portlet user interface, and enable interactivity between other portlets in the same page.

Property	Description
Fragment action	Defines the default action when the portlet is invoked in a page. When you select **Show a run action**, the run button appears in the portlet. When the button is clicked, the report runs. This feature helps to avoid running multiple reports a the same time. When **Show most recent saved output** is selected and there is no saved report output when the portlet is invoked, you can choose to run the report, or show the run button.
Prompt the user	Controls prompted reports in a page or a dashboard. When you select **Only when required parameter values are missing**, the user is prompted if the report contains required prompts and the values are missing. Otherwise the report runs successfully. When you select **Every time**, if the report contains optional or required prompts, the user is prompted to enter the prompt values before the report is run. When you select **Based on the prompt settings of the report**, IBM Cognos Viewer uses the prompts specified in the report. When you select **Never and show the report only when required values are provided**, IBM Cognos Viewer attempts to run the report, but the page remains hidden until the required prompt values are provided.

Property	Description
Portlet communication options (Prompt values)	Enables communication between the IBM Cognos Viewer portlets in the same page when using prompted reports. When you select the **Communicate with other portlets** check box, communication between this portlet and other portlets that also have this check box selected is enabled. To set up communication between specific portlets, click **Portlets using channel** and type the channel name. Only the portlets that share the same channel name can interact. By specifying the channel name, you have more control over the page. For example, you can link only reports that have matching parameters. The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, sales_reports or AbC are valid channel names.
Drill down and drill up	Enables sharing of drill-down and drill-up actions when a page contains reports based on dimensionally modeled data sources. The item on which the drill action is based must be present in all linked reports in the page. In some cases, the sharing of drill events is not recommended. For example, simultaneous drill requests may have a negative impact on performance. When you select the **Communicate with other portlets** check box, communication between the portlet and other portlets that also have this check box selected is enabled. To set up communication between specific portlets, click **Portlets using channel** and type the channel name. Only the portlets that share the channel name can interact. By specifying the channel name, you have more control over the page. For example, you can link only the reports that have matching parameters. The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, sales_reports or AbC.

Property	Description
Report-based drill through	Enables sharing of drill-through actions when a page contains a report with an authored drill-through path. You must select the **Communicate with other portlets on the page** check box, and type the channel name in the box provided. Only the portlets that share the channel name can interact. The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, sales_reports or AbC are valid channel names.
View Options (Show Toolbar)	Specify whether the portlet toolbar should appear in the normal or maximized view. The toolbar contains the edit button, help button, and refresh button.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

- In SAP Enterprise Portal, portlets are named iViews. This document may refer to iViews as portlets.
- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

IBM Cognos Viewer

Use this portlet to view and interact with published IBM Cognos reports and other entries in your portal.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. If no title is specified, the entry name is used by default. You can specify a title for each supported language version of the product. **Note:** The title does not appear in WebSphere, WCI, and SAP portals.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
Entry	Specifies the location of the entry, such as a report, to display in this portlet. You can search the folders to locate the entry.
Channel	Enables communication between this portlet and other Cognos portlets. To set up communication between specific portlets, type the same channel name for the portlets that you want to interact. The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, Cognos, Cognos_Portlets, or CognosPortlets.
Portlet action	Specifies the report run options. You can choose to show the most recent saved report output, show a run option button that a user can activate, or run the report.
Show toolbar	Specifies whether to show the portlet toolbar in the normal or maximized view. This applies to reports only. **Note:** The maximized view is not available in Microsoft SharePoint Portal Server.
Portlet width in pixels	Specifies the portlet width in pixels. If the report image is larger than this setting, scroll bars appear when you view the report.

Property	Description
Portlet height in pixels	Specifies the portlet height in pixels. If the report is larger than this setting, scroll bars appear when you view the report.
Do not wait for this portlet content to show the page	When disabled, specifies that the page will wait for content. When enabled, specifies that the page does not wait for content.
Publish Location	Specifies the default publish location for report output. Valid for SharePoint 2010 only. For information about setting this property, see "IBM Cognos BI and SharePoint 2010 Collaboration" on page 560.
Discussion Board	Specifies the default discussion board for report output. Valid for SharePoint 2010 only. For information about setting this property, see "IBM Cognos BI and SharePoint 2010 Collaboration" on page 560.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

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IBM Cognos Extended Applications

Use this portlet to view and interact with custom applications created using the IBM Cognos Software Development Kit.

The following table shows the properties that you can change.

Property	Description
Application	Specifies an application to show in the portlet.

Property	Description
Options	Some extended applications include application parameters that you can configure. These parameters affect how the application operates.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

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IBM Cognos Metric List

Use this portlet to add performance metrics to a page. The metrics are created in IBM Cognos Metric Studio.

You can configure the portlet to show different types of metric lists, such as a watch list, an accountability list, a scorecard, or a strategy list. However, if the IBM Cognos Custom Diagram portlet in a page uses the same channel, the configured metric list may not appear. Instead, a strategy metric list of the IBM Cognos Custom Diagram portlet appears. To see the configured metric list, click **Back to default entry**.

This portlet is interactive. When you click a metric name, the content of the IBM Cognos History Chart and IBM Cognos Viewer portlets using the same channel is automatically updated. When you position a pointer over a metric icon, a tooltip appears that shows the history chart associated with the metric. When you click the arrow button  , the metric opens in Metric Studio. When you position a pointer over the comment icon for a metric or a strategy, the tooltip shows the latest comment.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. You can use the default metric list name, or type a new name. If no title is specified, the portlet name is used. You can specify a title for each supported language version of the product. **Note:** The title does not appear in WebSphere, WCI, and SAP portals.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
Show title in content area	Shows the title in content area of the portlet. This option is useful when the portal does not show the title bar.
Metric package	Specifies a metric package that contains the metrics.
List type	Use to add performance metrics to a page. You can configure the portlet to show the following types of metric lists: • **Watch List** Contains the metrics that a user wants to monitor closely. • **Accountability List** Contains the metrics that a user owns. • **Scorecard metric list** Contains the metrics included in a scorecard. • **Strategy metric list** Contains metrics associated to a strategy. The metrics can befiltered by a specified scorecard. To select a scorecard, use the **Apply a scorecard filter** check box. If no scorecard is selected, all metrics in the strategy are shown.

Property	Description
Portlet communication options	Enables communication between this portlet, the IBM Cognos Viewer portlet, and other IBM Cognos Metric Studio portlets. When you select the **Communicate with other portlets** check box, communication between this portlet and other portlets that also have this check box selected is enabled. To set up communication between specific portlets, click **Portlets using channel** and type the channel name. Only the portlets that share the same channel name can interact. The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, sales_reports or AbC are valid channel names.
Number of entries	Specify the maximum number of metrics displayed in the list. For a strategy metric list, and lists viewed with grouping enabled, this value is ignored. Valid range is 1 to 1000.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

- In SAP Enterprise Portal, portlets are named iViews. This document may refer to iViews as portlets.
- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

TM1 Cube Viewer

The following table lists the properties for the TM1 Cube Viewer portlet.

Property	Description
Identify TM1	The TM1 data sources that have their connection information configured in the IBM Cognos 8 Data Source Connections are provided in the TM1 Datasources list. To select a pre-configured TM1 data source, click **Choose a TM1 Datasource** and select a TM1 data source from the **Datasources** list. To select an existing TM1 data source that is not configured in the IBM Cognos 8 Data Source Connections, click **Enter TM1 host and server name**. The Administration Host name is the computer on which the IBM Cognos TM1 Admin Server is running. For **Administration Host**, type the network reachable address of the computer. For the **Server Name**, type the name of the TM1 server.
Identify cubeview	Click **Select a cubeview** and then click **Select an entry** to browse to a cube and select it. Alternatively, click **Type in the cube and view names**. Enter the **Cube name** and the **View name** to identify the cubeview. Next, click **Public** or **Private** to identify the status of the view.
Protocol Selections	Select **Use secured sockets protocol** if the TM1 Web server uses SSL.
Display Options	Select **View**, **Toolbar**, to show the tool bar on the page. Select **Automatic recalculation** to automatically update the values on the page when a change occurs or if the portlet is responding to events from another portlet. Select **Show tabs** to show tabs on the page. Select **Show titles of dimensions** to show the titles associated with a dimension on the page.

Property	Description
Chart Options	Select the **chart only**, **grid only**, or **grid and chart** from the Display mode list. Select **3-Dimensional** to show the chart as a 3-dimensional figure. Select **Legend** to show the legend that corresponds to the display mode. Select the type of chart from **Chart Type** list. Select a color palette from the **Chart Palette** list.
Callback Options	Select **Navigation Viewer selection** to enable communication from the Navigation Viewer portlet. Select **Cube Viewer selection** to enable communication from the Cube Viewer. To set up communication between TM1 portlets, type the same channel name for the portlets that you want to interact. TM1 Viewer portlets will listen on the channel name specified in the **Listen to Channel** and will send to the channel specified in the **Send to Channel .** The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, Cognos, Cognos_Portlets, or CognosPortlets are valid.
View Options	Select a language from the **Language** list. The portlet title defaults to being the name of the viewer, if the option to show a title was chosen for the portal. To customize the title on the portlet, enter a name in **Title**. To change the height of the page, enter a value in **Height (pixels)**.

TM1 Navigation Viewer

The following table lists the properties for the TM1 Navigation Viewer portlet.

Property	Description
Identify TM1	The TM1 data sources that have their connection information configured in the IBM Cognos 8 Data Source Connections are provided in the TM1 Datasources list. To select a pre-configured TM1 data source, click **Choose TM1 Datasource** and select the TM1 data source from the **Datasources** list. To select an existing TM1 data source that is not configured in the IBM Cognos 8 Data Source Connections, click **Enter TM1 host and server name**. The Administration Host name is the computer on which the IBM Cognos TM1 Admin Server is running. For **Administration Host**, type the network reachable address of the computer. For the **Server Name**, type the name of the TM1 server.
Protocol Selections	Select **Use secured sockets protocol** if the TM1 Web server uses SSL.
Display Options	Select **Show the tool bar** to show the tool bar on the page.
Callback Options	To send information to another TM1 Viewer portlet, enter a channel name in **Send to Channel** to identify the target portlet. The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, Cognos, Cognos_Portlets, or CognosPortlets are valid.
View Options	Select a language from the **Language** list. The portlet title defaults to being the name of the viewer, if the option to show a title was chosen for the portal. To customize the title on the portlet, enter a name in **Title**. To change the height of the page, enter a value in **Height (pixels)**.

TM1 Websheet Viewer

The following table lists the properties for the TM1 Websheet Viewer portlet.

Property	Description
Identify TM1	The TM1 data sources that have their connection information configured in the IBM Cognos 8 Data Source Connections are provided in the TM1 Datasources list. To select a pre-configured TM1 data source, click **Choose a TM1 Datasource** and select the TM1 data source from the **Datasources** list. To select an existing TM1 data source that is not configured in the IBM Cognos 8 Data Source Connections, click **Enter TM1 host and server name**. The Administration Host name is the computer on which the IBM Cognos TM1 Admin Server is running. For **Administration Host**, type the network reachable address of the computer. For the **Server Name**, type the name of the TM1 server.
Identify Websheet	Click **Select a websheet** and then click **Select an entry** to browse to a websheet and select it. Click **Enter path to websheet** and enter the full path to the websheet in **Websheet path**.
Protocol Selections	Select Use secured sockets protocol if the TM1 Web server uses SSL
Display Options	Select **Show the tool bar** to show the tool bar on the page. Select **Automatic recalculation** to automatically update the values on the page when a change occurs or if the portlet is responding to events from another portlet. Select **Show tabs** to show tabs on the page.
Callback Options	Select a language from the **Language** list. The portlet title defaults to being the name of the viewer, if the option to show a title was chosen for the portal. To customize the title on the portlet, enter a name in **Title**. To change the height of the page, enter a value in **Height (pixels)**.

Property	Description
View Options	Select a language from the **Language** list. To show a title on the portlet, enter a name in **Title**. To change the height of the page, enter a value in **Height (pixels)**.

IBM Cognos History Chart

Use this portlet to add a metric history chart to a page.

The history chart is a graphical illustration of the historical performance of a metric.

When you click a metric name in other IBM Cognos Metric Studio portlets, the metric history chart in this portlet is automatically updated if the portlets are using the same channel.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. Select the **Use the entry name** check box if you want to use the name of a metric associated with the history chart as a title. If no title is specified, the portlet name is used by default. You can specify a title for each supported language version of the product. **Note:** The title does not appear in WebSphere, WCI, and SAP portals.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
Show title in content area	Shows the title in content area of the portlet. This option is useful when the portal does not show the title bar.

Property	Description
Portlet communication options	Enables communication between this portlet, the IBM Cognos Viewer portlet, and other IBM Cognos Metric Studio portlets. When you select the **Communicate with other portlets** check box, communication between this portlet and other portlets that also have this check box selected is enabled. To set up communication between specific portlets, click **Portlets using channel** and type the channel name. Only the portlets that share the same channel name can interact. The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, sales_reports or AbC are valid channel names.
Image Width	Specifies the image width in pixels. The range is 350 to 1000 pixels.
Image Height	Specifies the image height in pixels. The range is 100 to 1000 pixels.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

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- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

IBM Cognos Impact Diagram

Use this portlet to display impact diagrams associated with a metric.

When you click a metric in the IBM Cognos Custom Diagram or IBM Cognos Metric List portlet, the impact diagram associated with the metric appears in this portlet. You can select other diagrams from the drop-down menu in the top, left corner of the portlet.

The diagrams in this portlet are interactive. When you click a metric name, the content of the IBM Cognos History Chart and IBM Cognos Viewer portlets using the same channel is automatically updated. When you position a pointer over a metric icon, a tooltip appears that shows the history chart and the most recent data values associated with the metric.

The following table shows the properties that you can change.

Property	**Description**
Title	Specifies the title of the portlet. Select the **Use the entry name** check box if you want to use the name of a metric associated with the impact diagram as a title. If no title is specified, the portlet name is used by default. You can specify a title for each supported language version of the product. **Note:** The title does not appear in WebSphere, WCI, and SAP portals.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
Show title in content area	Shows the title in content area of the portlet. This option is useful when the portal does not show the title bar.
Portlet communication options	Enables communication between this portlet, the IBM Cognos Viewer portlet, and other IBM Cognos Metric Studio portlets. When you select the **Communicate with other portlets** check box, communication between this portlet and other portlets that also have this check box selected is enabled. To set up communication between specific portlets, click **Portlets using channel** and type the channel name. Only the portlets that share the same channel name can interact. The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, sales_reports or AbC are valid channel names.

Property	Description
Image Width	Specifies the image width in pixels. The range is 100 to 2000 pixels.
Image Height	Specifies the image height in pixels. The range is 100 to 2000 pixels.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

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IBM Cognos Custom Diagram

Use this portlet to display custom diagrams associated with a scorecard.

You can configure the portlet to show the default diagram associated with the scorecard. You can select other diagrams from the drop-down menu in the top, left corner of the portlet.

The diagrams in this portlet are interactive. When you click a metric name, the content of the IBM Cognos History Chart, IBM Cognos Impact Diagram, and IBM Cognos Viewer portlets is updated. When you position a pointer over a metric icon, the tooltip appears that shows the history chart and the most recent data values associated with the metric. When you click a strategy element, the content of the IBM Cognos Metric List portlet is updated. When you position a pointer over a strategy element, a tooltip appears that shows the metrics summary count.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. Select the **Use the entry name** check box if you want to use the scorecard name as a title. If no title is specified, the portlet name is used by default. You can specify a title for each supported language version of the product. **Note:** The title does not appear in WebSphere, WCI, and SAP portals.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
Show title in content area	Shows the title in content area of the portlet. This option is useful when the portal does not show the title bar.
Metric package	Specifies a metric package that contains the scorecard.
Scorecard	Specifies the scorecard associated with the configured metric package.
Portlet communication options	Enables communication between this portlet, the IBM Cognos Viewer portlet, and other IBM Cognos Metric Studio portlets. When you select the **Communicate with other portlets** check box, communication between this portlet and other portlets that also have this check box selected is enabled. To set up communication between specific portlets, click **Portlets using channel** and type the channel name. Only the portlets that share the same channel name can interact. The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, sales_reports or AbC are valid channel names.
Image Width	Specifies the image width in pixels. The range is 100 to 2000 pixels.
Image Height	Specifies the image height in pixels. The range is 100 to 2000 pixels.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

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- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

Bookmarks Viewer

Use this portlet to register and show active Web links in a page.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. If no title is specified, the name Bookmarks Viewer is used by default. You can specify a title for each supported language version of the product.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
Bookmarks	Specifies the URL address of the Web page you want to register. You can type an alias next to the URL. The alias will be shown in the portlet instead of the URL. To add boxes for new URLs, click **Add a bookmark line**. To delete URLs, select the associated check box and click **Delete**.

Property	Description
Open links	Specifies how the links in this portlet are opened. You can • open and navigate the linked entries in a new browser window. This is the default option • open and navigate the linked entries in the currently opened browser window. • open the linked entries in a target browser window or frame. Type the name of the window or frame in the provided text box. • open and navigate the linked entries in the HTML Viewer portlet. Type the channel name as specified in HTML Viewer.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

- In SAP Enterprise Portal, portlets are named iViews. This document may refer to iViews as portlets.
- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

HTML Viewer

Use this portlet to insert any Web page into a page. The Web page is specified by a URL address.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. If no title is specified, the Web page URL address is used by default. You can specify a title for each supported language version of the product.

Property	Description
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
HTML content	Specifies the URL address of the Web page you want to insert in the portlet.
Channel name	Enables communication between this portlet and other IBM Cognos Utility portlets in a page. The portlets can communicate using the default, empty channel. To set up communication between specific portlets, type the same channel name for the portlets that you want to interact. The channel name can contain only letters, numbers, and underscore (_) characters, and must not contain any spaces. For example, Cognos, Cognos_Portlets, or CognosPortlets.
Portlet height in pixels	Specifies the portlet height in pixels. If the report image is larger than this setting, scroll bars appear when you view the report.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

- In SAP Enterprise Portal, portlets are named iViews. This document may refer to iViews as portlets.
- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

Image Viewer

Use this portlet to insert an image into a page. The image must be a single file that is accessible by a URL address. The image can also be used as a link.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. If no title is specified, the image URL address is used by default. You can specify a title for each supported language version of the product.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
Image	Specifies the location of the image. Type the associated URL address.
Target URL	Specifies the Web page where a link to the image or the image appears. Type the appropriate URL address.
Open links	Specifies how the links in this portlet are opened. You can • open and navigate the linked entries in a new browser window. This is the default option • open and navigate the linked entries in the currently opened browser window. • open the linked entries in a target browser window or frame. Type the name of the window or frame in the provided text box • open and navigate the linked entries in the HTML Viewer portlet. Type the channel name as specified in HTML Viewer.
Image size	Specifies the size of the image. You can leave the original size of the image, or customize the image by changing its height and width. You can also tile the image.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

- In SAP Enterprise Portal, portlets are named iViews. This document may refer to iViews as portlets.
- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

RSS Viewer

Use this portlet to show the content of a Real Simple Syndication (RSS) 1.0 or 2.0 news feed specified by a URL address.

RSS is a format for syndicating news and is used by many Web sites to publish frequently updated content.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. If no title is specified, the Web page URL address is used by default. You can specify a title for each supported language version of the product.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
URL	Specifies the URL address that identifies the RSS channel feed. The RSS channel includes a list of links to specific Web pages. The links may include a title and a short description of the linked story.
Features to expose	Specifies how the entries in this portlet are shown. Use the **Show details** option to include a description of an entry. Use the **Show the RSS channel signature** option to include an image, such as a logo, associated with the entry. Use the **Alternating backgrounds** option to separate entries in long lists with different background colors to make the entries easier to read.

Property	Description
Open links	Specifies how the links in RSS Viewer are opened. You can • open and navigate the linked entries in a new browser window. This is the default option. • open and navigate the linked entries in the currently opened browser window. • open the linked entries in a target browser window or frame. Type the name of the window or frame in the provided text box. • open and navigate the linked entries in the HTML Viewer portlet. Type the channel name as specified in HTML Viewer.
Maximum displayed entries	Specifies the maximum number of URLs to display in the portlet.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

- In SAP Enterprise Portal, portlets are named iViews. This document may refer to iViews as portlets.
- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

HTML Source

Use this portlet to insert custom text and images into a page.

This portlet adds a Freeform HTML code to the page, as typed by the user. For security reasons, the HTML tags that could pose a cross-site scripting threat, or break the integrity of the page, are not supported. Note that using the HTML source portlet could expose your environment to malicious code and other security risks.

If you are running a new database, HTML source portlet is disabled by default.

If you delete the containing portlet producer, manually using Cognos Administration or with the IBM Cognos Software Developer Kit, when the server restarts the HTML source portlet (along with other deleted portlets) is recreated but disabled.

If you import the entire content store, the states of the HTML source portlet remain unchanged.

If invalid HTML code is added, the portlet may not render it successfully. In this situation, you may need to delete the portlet from the page and start again. For more information about supported tags, see the table in this section.

The following table shows the properties used to configure this portlet.

Property	**Description**
Title	Specifies the title of the portlet. If no title is specified, the Web page URL address is used by default. You can specify a title for each supported language version of the product.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.

Property	Description
HTML Code	Specifies the HTML code to render in the view mode of the portlet. The code can be in any supported language. Type valid HTML code that contains: • supported HTML tags The following tags are not supported: – <BODY>, </BODY>, <FORM>, </FORM>, <HTML>, </HTML> These tags are filtered and removed from the code. – <HEAD>, </HEAD>, <FRAMESET>, </FRAMESET>, <FRAME></FRAME> These tags are filtered and removed from the code including the content between the start and end tags. – <script> JavaScript is not supported. • supported attributes for the tags • matching start and end tags Ensure that all start tags have matching end tags. When the start and end tags are not matched, the missing tag is removed, but the content remains. • absolute URLs in references to images and external resources, such as CSS files The URLs must include server names. Relative URLs are not supported. **Note:** You must have the required permissions for the **Styles and portlets** secured feature to access this property

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

- In SAP Enterprise Portal, portlets are named iViews. This document may refer to iViews as portlets.

- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

Multi-page

Use this portlet to create a dashboard with multiple tabs.

The following table shows the properties that you can change.

Property	Description
Title	Specifies the title of the portlet. If no title is specified, the Web page URL address is used by default. You can specify a title for each supported language version of the product.
Language	Specifies the product language version in which the title appears. You can assign the same title for multiple language versions.
Source folder for pages	Specifies a folder or package in Public Folders where the entries for the portlet tabs reside. The entries can be pages, reports, shortcuts, folders, and so on.
Display Style	Specifies how the tabs appear in the dashboard: horizontally at the top of the page, or vertically on the left side of the page.
Show icons in tabs	Shows the icons that represent the type of entry in each tab. For example, if the entry is a shortcut, the shortcut icon will be included in the tab.
Vertical tabs width	Specifies the default width in pixels for vertical tabs.
Show tab menu	Specifies whether to show the tab menu button  in the top, left side of the page. The tab menu is used to add, delete, and reorder the page tabs, and to edit the page.
Maximum height for reports	Specifies the page height for a selected tab when the content, such as a report, is displayed in an iFrame.

How To Modify the Properties

To modify the properties for this portlet, click the edit button  to open the properties page. If the edit button is disabled or not visible, the administrator did not make these settings available to you.

In the portlet properties page, to reset the default portlet settings, or to return to the settings specified by your administrator, click the reset button  in the portlet title bar. To exit the properties page without saving the changes, click the return button  or click **Cancel**.

Notes

- In SAP Enterprise Portal, portlets are named iViews. This document may refer to iViews as portlets.
- In Microsoft SharePoint Portal Server, portlets are named Web Parts. This document may refer to Web Parts as portlets.

Appendix F. Schema for Data Source Commands

When you work with data source connections, you can also add or edit data source commands.

Data source commands are run when the query engine performs specific actions on a database, such as opening a connection or closing a user session. For example, you can use data source commands to set up an Oracle proxy connection or virtual private database. For more information, see "Passing IBM Cognos Context to a Database" on page 207.

A data source command block is an XML document that is used to specify the commands that the database should run.

This document contains reference material about each element in the XML schema that defines the command blocks.

After the description of each element, separate sections describe

- the child elements that the element can or must have
- the parent elements that can contain the element

There are also code samples that show how you can use elements in a command block.

The list of children for each element is presented as a DTD model group, and elements are listed in the order that they must occur. The following standard notation is used.

Symbol	Meaning
Plus sign (+)	The preceding element may be repeated more than once but must occur at least once.
Question mark (?)	The preceding element is optional. It may be absent or it may occur exactly once.
Asterisk (*)	An asterisk (*) after an element specifies that the element is optional. It may occur zero or more times.
None	If an element has no plus sign (+), question mark (?), or asterisk (*) following it, the element must occur only once.
Parentheses	Parentheses group elements. Element groups are controlled using the same symbols as elements.
Bar (|)	A bar (|) between elements specifies that one of the listed elements must be present.
Comma (,)	The elements that it separates must be present in the specified order.

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commandBlock

Defines a group of commands that the database runs when specific events occur. This is the root element of the schema.

Child Elements of commandBlock Element

(commands) +

Parent Elements of commandBlock Element

The commandBlock element has no parent elements.

commands

Specifies the set of commands that the database runs. The commands run in the order that they appear within the commandBlock.

Here is an example of how you can use this element in a commandBlock.

```
<commandBlock>
  <commands>
    <sessionStartCommand>
      <arguments>
        <argument>
          <name>OCI_ATTR_USERNAME</name>
          <value>PROXY_USER1</value>
        </argument>
      </arguments>
    </sessionStartCommand>
  </commands>
</commandBlock>
```

Child Elements of commands Element

(sessionStartCommand | sessionEndCommand | setCommand | sqlCommand) *

Parent Elements of commands Element

commandBlock

sessionStartCommand

Defines a command used to begin a proxy session in the database.

There should be only one sessionStartCommand per commandBlock. If the commandBlock contains more than one sessionStartCommand, only the last one will be used to create a proxy session.

Here is an example of how you can use this element in a commandBlock.

```
<commandBlock>
  <commands>
    <sessionStartCommand>
      <arguments>
        <argument>
          <name>OCI_ATTR_USERNAME</name>
          <value>PROXY_USER1</value>
        </argument>
        <argument>
            <name>OCI_ATTR_PASSWORD</name>
```

```
            <value>password1</value>
          </argument>
        </arguments>
      </sessionStartCommand>
    </commands>
```

Child Elements of sessionStartCommand Element

(arguments) ?

Parent Elements of sessionStartCommand Element

commands

sessionEndCommand

Defines a command used to terminate a proxy session in the database.

If no sessionEndCommand is supplied, the proxy session will be terminated upon disconnecting from the database.

Here is an example of how you can use this element in a commandBlock.

```
<commandBlock>
  <commands>
    <sessionEndCommand>
      <arguments/>
    </sessionEndCommand>
  </commands>
</commandBlock>
```

Child Elements of sessionEndCommand Element

(arguments) ?

Parent Elements of sessionEndCommand Element

commands

arguments

Specifies the argument values to be used with the command.

Here is an example of how you can use this element in a commandBlock.

```
<commandBlock>
  <commands>
    <sessionEndCommand>
      <arguments/>
    </sessionEndCommand>
  </commands>
</commandBlock>
```

Child Elements of arguments Element

(argument) *

Parent Elements of arguments Element

- sessionStart
- sessionEnd

argument

Defines an argument value for a call to a database API.

Here is an example of how you can use this element in a commandBlock.

```
<commandBlock>
  <commands>
    <sessionStartCommand>
      <arguments>
        <argument>
          <name>OCI_ATTR_USERNAME</name>
          <value>PROXY_USER1</value>
        </argument>
        <argument>
            <name>OCI_ATTR_PASSWORD</name>
            <value>password1</value>
        </argument>
      </arguments>
    </sessionStartCommand>
  </commands>
</commandBlock>
```

Child Elements of argument Element

(name and value)

Parent Elements of argument Element

arguments

setCommand

This element is reserved for future use.

sqlCommand

Defines a command that represents a native SQL statement to be run by the database.

Here is an example of how you can use this element in a commandBlock.

```
<commandBlock>
  <commands>
    <sqlCommand>
      <sql> BEGIN PKG1.STORED_PROC1; END; </sql>
    </sqlCommand>
  </commands>
</commandBlock>
```

Child Elements of sqlCommand Element

(sql)

Parent Elements of sqlCommand Element

commands

sql

Specifies the SQL statement for the database to run. The SQL statement must be in native SQL.

Here is an example of how you can use this element in a commandBlock.

```
<commandBlock>
  <commands>
    <sqlCommand>
      <sql> BEGIN PKG1.STORED_PROC1; END; </sql>
    </sqlCommand>
  </commands>
</commandBlock>
```

Child Elements of sql Element

The sql element has no child elements.

Parent Elements of sql Element

sqlCommand

name

Identifies the argument to be set.

The value of the name element must be one of:

- OCI_ATTR_USERNAME
- OCI_ATTR_PASSWORD

Here is an example of how you can use this element in a commandBlock.

```
<commandBlock>
  <commands>
    <sessionStartCommand>
      <arguments>
        <argument>
          <name>OCI_ATTR_USERNAME</name>
          <value>PROXY_USER1</value>
        </argument>
      </arguments>
    </sessionStartCommand>
  </commands>
</commandBlock>
```

Child Elements of name Element

The name element has no child elements.

Parent Elements of name Element

- argument
- setCommand

value

Specifies the value to be used for the argument.

Here is an example of how you can use this element in a commandBlock.

```
<commandBlock>
  <commands>
    <sessionStartCommand>
      <arguments>
        <argument>
          <name>OCI_ATTR_USERNAME</name>
          <value>PROXY_USER1</value>
        </argument>
      </arguments/>
    </sessionStartCommand>
  </commands>
</commandBlock>
```

Child Elements of value Element

The value element has no child elements.

Parent Elements of value Element

- argument
- setCommand

Appendix G. Data Schema for Log Messages

If you configure IBM Cognos software to send log messages to a database, the tables and the columns in each table are automatically created when you start the IBM Cognos services.

To avoid name conflicts with database keywords, all column names in the log database have the prefix "COGIPF". If you are upgrading from ReportNet 1.1 MR1 or MR2 to IBM Cognos Business Intelligence version 10.1, the prefixes exist in the log database already and you do not need to make any changes. However, if you are upgrading from a release before ReportNet 1.1 MR1, to continue using reports that are based on the sample model from the previous release, you must update your audit metadata package to reflect the new column names. You can either:

- reimport the Sample Deployment Archive
- republish the package using the sample model

If you have created your own log database model, you must add the prefix "COGIPF" to the column names of the logging database tables in the model.

Table Definitions

Log messages are recorded in a table in the logging database under certain conditions. These conditions depend on the logging level that you configure in the Web portal.

For information about logging levels, see “Log Messages” on page 71.

When a user logs on to IBM Cognos software, a session ID is assigned and recorded in all log messages. You can use the session ID to identify all actions performed by a user.

The database table definitions that are created in the logging database are described in the following table, with a cross-reference to associated column definitions.

Table Name	Description
COGIPF_ACTION	Stores information about operations performed on objects
COGIPF_AGENTBUILD	Stores information about agent mail delivery
COGIPF_AGENTRUN	Stores information about agent activity including tasks and delivery
COGIPF_ANNOTATIONSERVICE	Stores audit information about Annotation service operations
COGIPF_EDITQUERY	Stores information about query runs

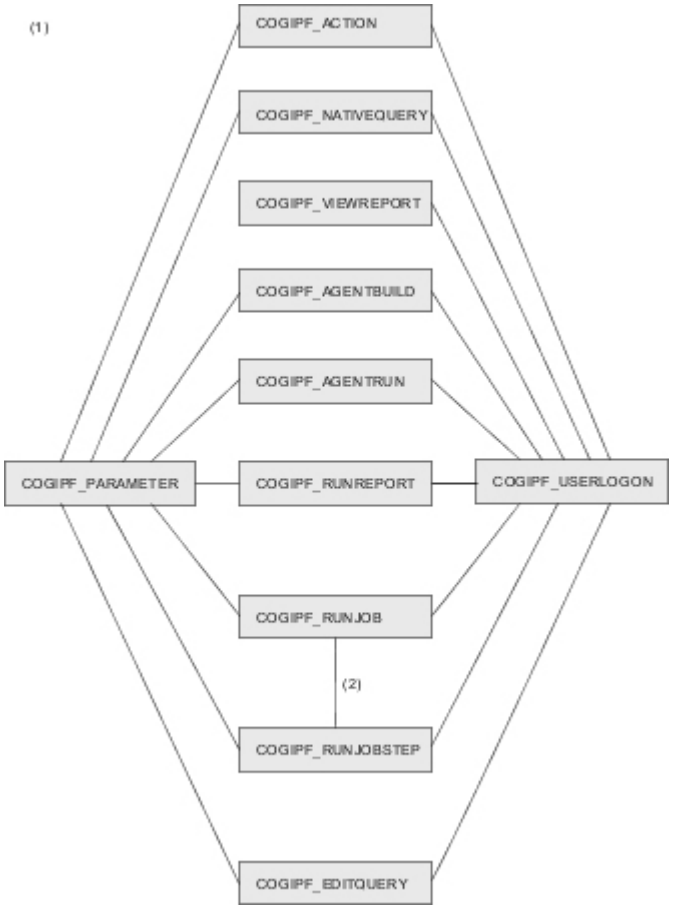
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Table Name	Description
COGIPF_HUMANTASKSERVICE	Stores audit information about Human Task service operations (tasks and corresponding task states)
COGIPF_HUMANTASKSERVICE _DETAIL	Stores additional details about Human Task service operations (not necessarily required for every audit entry, for example, notification details and human role details)
COGIPF_NATIVEQUERY	Stores information about queries that IBM Cognos software makes to other components
COGIPF_PARAMETER	Stores parameter information logged by a component
COGIPF_RUNJOB	Stores information about job runs
COGIPF_RUNJOBSTEP	Stores information about job step runs
COGIPF_RUNREPORT	Stores information about report runs
COGIPF_THRESHOLD _VIOLATIONS	Stores information about threshold violations for system metrics
COGIPF_USERLOGON	Stores user logon and logoff information
COGIPF_VIEWREPORT	Stores information about report view requests

Table Interactions

An example of table interactions is shown in the following diagram.

Your audit sample may be different depending on your needs.



1. Interactions with COGIPF_PARAMETER are COGIPF_REQUESTID= COGIPF_REQUESTID
   Interactions with COGIPF_USERLOGON are COGIPF_SESSIONID= COGIPF_SESSIONID
2. COGIPF_REQUESTID= COGIPF_REQUESTID

COGIPF_ACTION Table

The COGIPF_ACTION table contains the following columns.

Column name	Description	Data type
COGIPF_HOST_ IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_ PORT	The host port number	INTEGER

Column name	Description	Data type
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER
COGIPF_LOCAL TIMESTAMP	The local date and time when the log message was generated	TIMESTAMP
COGIPF_TIMEZONE_ OFFSET	The time zone, offset from GMT	INTEGER
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR (255)
COGIPF_ SUBREQUESTID	The alphanumeric identification of the component subrequest	VARCHAR (255)
COGIPF_THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_ COMPONENTID	The name of the component that generates the indication	VARCHAR (64)
COGIPF_ BUILDNUMBER	The major build number for the component that generates the indication	INTEGER
COGIPF_ LOG_LEVEL	The level of the indication	INTEGER
COGIPF_ OPERATION	The action performed on the object	VARCHAR (255)
COGIPF_ TARGET_TYPE	The object on which the operation is run	VARCHAR (255)
COGIPF_ TARGET_PATH	The target object path	VARCHAR (1024)
COGIPF_STATUS	The status of the operation: blank if execution has not completed, success, warning, or failure	VARCHAR (255)

Column name	Description	Data type
COGIPF_ ERRORDETAILS	Error details	VARCHAR (2000)

COGIPF_AGENTBUILD Table

The COGIPF_AGENTBUILD table contains the following columns.

Column name	Description	Data type
COGIPF_ HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated	TIMESTAMP
COGIPF_TIMEZONE_ OFFSET	The time zone, offset from GMT	INTEGER
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR (255)
COGIPF_ SUBREQUESTID	The alphanumeric identification of the component subrequest	VARCHAR (255)
COGIPF_THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_ COMPONENTID	The name of the component that generates the indication	VARCHAR (64)
COGIPF_BUILD NUMBER	The major build number for the component that generates the indication	INTEGER

Column name	Description	Data type
COGIPF_LOG_LEVEL	The level of the indication	INTEGER
COGIPF_OPERATION	The operation	VARCHAR (128)
COGIPF_ TARGET_TYPE	The object on which the operation is run	VARCHAR (255)
COGIPF_TARGET_ NAME	The target name	VARCHAR (512)
COGIPF_ TARGET_PATH	The target path	VARCHAR (1024)
COGIPF_STATUS	The status of the operation: blank, success, warning, or failure	VARCHAR (255)
COGIPF_ERRORDETAILS	Error details	VARCHAR (2000)
COGIPF_AGENT_ PATH	The agent name	VARCHAR (1024)
COGIPF_ SCHEDULETIME	The target schedule time	INTEGER
COGIPF_USER	The user who created the agent	VARCHAR (512)
COGIPF_EMAIL	The email address	VARCHAR (512)

COGIPF_AGENTRUN Table

The COGIPF_AGENTRUN table contains the following columns.

Column name	Description	Data type
COGIPF_ HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated	TIMESTAMP
COGIPF_TIMEZONE_OFFSET	The time zone, offset from GMT	INTEGER

Column name	Description	Data type
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR (255)
COGIPF_ SUBREQUESTID	The alphanumeric identification of the component subrequest	VARCHAR (255)
COGIPF_THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_ COMPONENTID	The name of the component that generates the indication	VARCHAR (64)
COGIPF_BUILD NUMBER	The major build number for the component that generates the indication	INTEGER
COGIPF_LOG_LEVEL	The level of the indication	INTEGER
COGIPF_OPERATION	The operation	VARCHAR (128)
COGIPF_ TARGET_TYPE	The object on which the operation is run	VARCHAR (255)
COGIPF_ TARGET_PATH	The target path	VARCHAR (1024)
COGIPF_STATUS	The status of the operation: blank, success, warning, or failure	VARCHAR (255)
COGIPF_ ERROR_DETAILS	Error details	VARCHAR (2000)
COGIPF_AGENTPATH	The agent name	VARCHAR (1024)
COGIPF_ SCHEDULETIME	The target schedule time	INTEGER
COGIPF_TARGET_ NAME	The target name	VARCHAR (512)

Column name	Description	Data type
COGIPF_USER	The user who created the agent	VARCHAR (512)
COGIPF_EMAIL	The email address	VARCHAR (512)
COGIPF_MESSAGEID	The identification of the message	VARCHAR (255)

COGIPF_ANNOTATIONSERVICE Table

The COGIPF_ANNOTATIONSERVICE table contains the following columns.

For more information, see Chapter 6, "System Performance Metrics," on page 87.

Column name	Description	Data type
COGIPF_ HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated	TIMESTAMP
COGIPF_TIMEZONE_ OFFSET	The time zone, offset from GMT	INTEGER
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification of the step, empty if none	VARCHAR (255)
COGIPF_SUBREQUESTID	The alphanumeric identification of the subrequest.	VARCHAR (255)
COGIPF_ THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_ COMPONENTID	The name of the component that generates the indication	VARCHAR (64)

Column name	Description	Data type
COGIPF_BUILDNUMBER	The major build number for the component that generates the indication	INTEGER
COGIPF_ LOG_LEVEL	The level of the indication	INTEGER
COGIPF_OPERATION	The action performed on the object	VARCHAR (255)
COGIPF_TARGET_TYPE	The target type	VARCHAR (255)
COGIPF_ TARGET_PATH	The object path	VARCHAR (1024)
COGIPF_ ANNOTATION	The alphanumeric identification of the annotation	BIGINT
COGIPF_USER	The userid of the user who performed the operation on the annotation, for example, create, update, or delete.	VARCHAR (1024)
COGIPF_PARENT_ID	The identification of the parent object	VARCHAR (1024)
COGIPF_ CREATION_TIME	The date and time when the annotation was created	TIMESTAMP
COGIPF_ UPDATE_TIME	The date and time when the annotation was updated	TIMESTAMP

COGIPF_EDITQUERY Table

The COGIPF_EDITQUERY table contains the following columns.

Column name	Description	Data type
COGIPF_ HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER

Column name	Description	Data type
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated While the report is executing, this is the time that the report execution started. After the report execution is complete, this is the end time of report execution. To check if execution is complete, see COGIPF_STATUS. A blank entry means an incomplete execution. A filled entry means execution completed. To calculate the execution start time for a report that has already completed execution, subtract COGIPF_RUNTIME from COGIPF_LOCALTIMESTAMP.	TIMESTAMP
COGIPF_TIMEZONE_ OFFSET	The time zone, offset from GMT	INTEGER
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR (255)
COGIPF_ SUBREQUESTID	The alphanumeric identification of the component subrequest	VARCHAR (255)
COGIPF_THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_ COMPONENTID	The name of the component that generates the indication	VARCHAR (64)
COGIPF_ BUILDNUMBER	The major build number for the component that generates the indication	INTEGER
COGIPF_LOG_LEVEL	The level of the indication	INTEGER
COGIPF_ TARGET_TYPE	The object on which the operation is run	VARCHAR (255)
COGIPF_ QUERYPATH	The report path	VARCHAR (1024)

Column name	Description	Data type
COGIPF_STATUS	The status of the operation: blank, success, warning, or failure	VARCHAR (255)
COGIPF_ ERRORDETAILS	Error details	VARCHAR (2000)
COGIPF_RUNTIME	The number of milliseconds it took the query to run	INTEGER
COGIPF_ QUERYNAME	The name of the report that was queried	VARCHAR (512)
COGIPF_PACKAGE	The package that the report is associated with	VARCHAR (1024)
COGIPF_MODEL	The model that the report is associated with	VARCHAR (512)

COGIPF_HUMANTASKSERVICE Table

The COGIPF_HUMANTASKSERVICE table contains the following columns.

For more information, see Chapter 6, “System Performance Metrics,” on page 87.

Column name	Description	Data type
COGIPF_ HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated	TIMESTAMP
COGIPF_ TIMEZONE_OFFSET	The time zone, offset from GMT	INTEGER
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request.	VARCHAR (255)
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR (255)
COGIPF_SUBREQUESTID	The alphanumeric identification of the subrequest.	VARCHAR (255)

Column name	Description	Data type
COGIPF_ THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_ BUILDNUMBER	The major build number for the component that generates the indication	INTEGER
COGIPF_ OPERATION	The action performed on the object, for example, ADD, UPDATE	VARCHAR (128)
COGIPF_TARGET_TYPE	The target type	VARCHAR (255)
COGIPF_ TARGET_PATH	The object path	VARCHAR (1024)
COGIPF_STATUS	The status of the operation: blank if execution has not completed, success, warning, or failure	VARCHAR (50)
COGIPF_ LOGENTRYID	The primary key used to link the tables COGIPF_HUMANTASKSERVICE and COGIPF_HUMANTASKSERVICE _DETAIL	VARCHAR (50) NOT NULL
COGIPF_TASKID	The task identification	VARCHAR (50)
COGIPF_ TRANSACTION_TYPE	The operation that is performed, specific to the Human Task service, for example, claim, setPriority, getTaskInfo, changeSubscription.	VARCHAR (255)
COGIPF_USER	The user who performed the transaction in COGIPF_TRANSACTION_TYPE.	VARCHAR (255)
COGIPF_TASK_PRIORITY	The priority of the task: • 1 = high • 3 = medium • 5 = low	INTEGER
COGIPF_TASK_STATUS	The status of the task: blank if execution has not completed, success, warning, or failure	VARCHAR (255)
COGIPF_TASK_ ACTIVATION_TIME	The time that the task was activated. A date/time value which is stored in the database in long numeric form.	BIGINT

Column name	Description	Data type
COGIPF_TASK_ EXPIRATION_TIME	The date and time when the task expired	BIGINT
COGIPF_TASK_NAME	The name of the task	NTEXT
COGIPF_TASK_SUBJECT	The subject of the task	NTEXT
COGIPF_TASK_ DESCRIPTION	The description of the task	NTEXT
COGIPF_TASK_ TIMEZONEID	The time zone id of the task	VARCHAR (50)
COGIPF_TASK_ ACTUAL_OWNER	The owner of the task	VARCHAR (255)
COGIPF_TASK_ INITIATOR	The initiator (creator) of the task	VARCHAR (255)
COGIPF_TASK_CLASS _NAME	The name of the task class which the task is an instance of	VARCHAR (255)
COGIPF_TASK_ CLASS_OPERATION	The action performed on the object	VARCHAR (255)
COGIPF_TASK_ COMMENT	Comments that are related to the task	VARCHAR (2048)

COGIPF_HUMANTASKSERVICE_DETAIL Table

The COGIPF_HUMANTASKSERVICE_DETAIL table contains the following columns.

For more information, see Chapter 6, “System Performance Metrics,” on page 87.

Column name	Description	Data type
COGIPF_ HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_PORT	The host port number	INTEGER
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255)
COGIPF_STEPID	The alphanumeric identification of the step, empty if none	VARCHAR (255)

Column name	Description	Data type
COGIPF_SUBREQUESTID	The alphanumeric identification of the SUBrequest.	VARCHAR (255)
COGIPF_ TASKID	The alphanumeric identification of the task	VARCHAR (50)
COGIPF_ LOGENTRYID	The primary key used to link the tables COGIPF_ HUMANTASKSERVICE and COGIPF_HUMANTASKSERVICE _DETAIL	VARCHAR (50) NOT NULL
COGIPF_NOTIFICATION_DETAILS	Details about notification emails sent about the task	NTEXT
COGIPF_HUMANROLE_USER	The userid of the user who performs a role for a task Combines with COGIPF_HUMANROLE to define the role of the user for the task	VARCHAR (255)
COGIPF_HUMANROLE_ROLE	The role of the user Combines with COGIPF_HUMAN_USER to define the role of the user for the task	VARCHAR (50)
COGIPF_SUBSCRIPTION_ OPERATION	The subscription operation, for example, SUBSCRIBE or UNSUBSCRIBE	VARCHAR (50)
COGIPF_SUBSCRIPTION_EVENT	The task event for which the user is subscribing or unsubscribing	SMALLINT
COGIPF_SUBSCRIPTION_USER	The user who is subscribing or unsubscribing for a task event	VARCHAR (255)
COGIPF_TASK_MESSAGE	The task message	NTEXT
COGIPF_TASK_MESSAGE_TYPE	The type of message stored in COGIPF_TASK_MESSAGE Values can be INPUT, OUTPUT, or FAULT	VARCHAR (20)
COGIPF_DETAIL_ID	The sequence number of the detail record	VARCHAR (50) NOT NULL

COGIPF_NATIVEQUERY Table

The COGIPF_NATIVEQUERY table contains the following columns.

Column name	Description	Data type
COGIPF_HOST_ IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_ PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated	TIMESTAMP
COGIPF_TIMEZONE_ OFFSET	The time zone, offset from GMT	INTEGER
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR2 (255)
COGIPF_ SUBREQUESTID	The alphanumeric identification of the component subrequest	VARCHAR (255)
COGIPF_THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_ COMPONENTID	The name of the component that generates the indication	VARCHAR (64)
COGIPF_ BUILDNUMBER	The major build number for the component that generates the indication	INTEGER
COGIPF_LOG_LEVEL	The level of the indication	INTEGER
COGIPF_ REQUESTSTRING	The query request string made to other components	NTEXT (1G)

COGIPF_PARAMETER Table

The COGIPF_PARAMETER table contains the following columns.

Column name	Description	Data type
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR (255)
COGIPF_OPERATION	The action performed on the object	VARCHAR (255)
COGIPF_TARGET_ TYPE	The object on which the operation is run	VARCHAR (255)
COGIPF_ PARAMETER_NAME	The name of the parameter logged by a component	VARCHAR (255)
COGIPF_ PARAMETER_VALUE	The value of the parameter logged by a component	VARCHAR (512)

COGIPF_RUNJOB Table

The COGIPF_RUNJOB table contains the following columns.

Column name	Description	Data type
COGIPF_HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER

Column name	Description	Data type
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated While the report is executing, this is the time that the report execution started. After the report execution is complete, this is the end time of report execution. To check if execution is complete, see COGIPF_STATUS. A blank entry means an incomplete execution. A filled entry means execution completed. To calculate the execution start time for a report that has already completed execution, subtract COGIPF_RUNTIME from COGIPF_LOCALTIMESTAMP.	TIMESTAMP
COGIPF_TIMEZONE_ OFFSET	The time zone, offset from GMT	INTEGER
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR (255)
COGIPF_SUBREQUESTID	The alphanumeric identification of the component subrequest	VARCHAR (255)
COGIPF_THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_COMPONENTID	The name of the component that generates the indication	VARCHAR (64)
COGIPF_BUILDNUMBER	The major build number for the component that generates the indication	INTEGER
COGIPF_LOG_LEVEL	The level of the indication	INTEGER
COGIPF_TARGET_TYPE	The object on which the operation is run	VARCHAR (255)
COGIPF_JOBPATH	The job path	VARCHAR (512)
COGIPF_STATUS	The status of the operation: blank, success, warning, or failure	VARCHAR (255)

Column name	Description	Data type
COGIPF_ ERRORDETAILS	Error details	VARCHAR (2000)
COGIPF_RUNTIME	The number of milliseconds it took the job to run	INTEGER

COGIPF_RUNJOBSTEP Table

The COGIPF_RUNJOBSTEP table contains the following columns.

Column name	Description	Data type
COGIPF_HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated While the report is executing, this is the time that the report execution started. After the report execution is complete, this is the end time of report execution. To check if execution is complete, see COGIPF_STATUS. A blank entry means an incomplete execution. A filled entry means execution completed. To calculate the execution start time for a report that has already completed execution, subtract COGIPF_RUNTIME from COGIPF_LOCALTIMESTAMP.	TIMESTAMP
COGIPF_TIMEZONE_ OFFSET	The time zone, offset from GMT	INTEGER
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR (255)

Column name	Description	Data type
COGIPF_SUBREQUESTID	The alphanumeric identification of the component subrequest	VARCHAR (255)
COGIPF_THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_COMPONENTID	The name of the component that generates the indication	VARCHAR (64)
COGIPF_BUILDNUMBER	The major build number for the component that generates the indication	INTEGER
COGIPF_LOG_LEVEL	The level of the indication	INTEGER
COGIPF_ TARGET_TYPE	The object on which the operation is run	VARCHAR (255)
COGIPF_JOBSTEPPATH	The job step path	VARCHAR (512)
COGIPF_STATUS	The status of the operation: blank, success, warning, or failure	VARCHAR (255)
COGIPF_ERRORDETAILS	Error details	VARCHAR (2000)
COGIPF_RUNTIME	The number of milliseconds it took the jobstep run	INTEGER

COGIPF_RUNREPORT Table

The COGIPF_RUNREPORT table contains the following columns.

Column name	Description	Data type
COGIPF_HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER

Column name	Description	Data type
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated While the report is executing, this is the time that the report execution started. After the report execution is complete, this is the end time of report execution. To check if execution is complete, see COGIPF_STATUS. A blank entry means an incomplete execution. A filled entry means execution completed. To calculate the execution start time for a report that has already completed execution, subtract COGIPF_RUNTIME from COGIPF_LOCALTIMESTAMP.	TIMESTAMP
COGIPF_TIMEZONE_ OFFSET	The time zone, offset from GMT	INTEGER
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR (255)
COGIPF_SUBREQUESTID	The alphanumeric identification of the component subrequest	VARCHAR (255)
COGIPF_THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_COMPONENTID	The name of the component that generates the indication	VARCHAR (64)
COGIPF_BUILDNUMBER	The major build number for the component that generates the indication	INTEGER
COGIPF_LOG_LEVEL	The level of the indication	INTEGER

Column name	Description	Data type
COGIPF_TARGET_TYPE	The object on which the operation is run. The values include: • Report ReportService is an interactive report • PromptForward ReportService is a report generated after a prompt • PromptBackward ReportService is a report generated after the user moved to the previous prompt page • Report BatchReportService is a batch or scheduled run report **Note**: The value of this column is expressed in two parts: the object type of execution and from which service the report is run, for example "Report ReportService" and "Query BatchReportService".	VARCHAR (255)
COGIPF_REPORTPATH	The report path	VARCHAR (1024)
COGIPF_STATUS	The status of the operation: blank, success, warning, or failure	VARCHAR (255)
COGIPF_ERRORDETAILS	Error details	VARCHAR (2000)
COGIPF_RUNTIME	The number of milliseconds it took the report to run	INTEGER
COGIPF_REPORTNAME	The name of the report that was run	VARCHAR (512)
COGIPF_PACKAGE	The package that the report is associated with	VARCHAR (1024)
COGIPF_MODEL	The model that the report is associated with	VARCHAR (512)

COGIPF_THRESHOLD_VIOLATIONS Table

The COGIPF_THRESHOLD_VIOLATIONS table contains the following columns.

For more information, see Chapter 6, “System Performance Metrics,” on page 87.

Column name	Description	Data type
COGIPF_ HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER

Column name	Description	Data type
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated	TIMESTAMP
COGIPF_TIMEZONE OFFSET	The time zone, offset from GMT	INTEGER
COGIPF_COMPONENTID	The alphanumeric identification of the component	VARCHAR (64)
COGIPF_BUILDNUMBER	The alphanumeric identification of the build	INTEGER
COGIPF_LOG_LEVEL	The logging level. Should always be 1 to ensure that threshold violation information is available.	INTEGER
COGIPF_ OPERATION	A threshold for the metric has been crossed	VARCHAR (128)
COGIPF_TARGET_TYPE	The target type	VARCHAR (255)
COGIPF_ TARGETNAME	The target name	VARCHAR (512)
COGIPF_ TARGET_PATH	The target path of the dispatcher that conatins the threshold manager	VARCHAR (1024)
COGIPF_RESOURCE_ TYPE	The resource type that exceeds the threshold	VARCHAR (128)
COGIPF_ RESOURCE_PATH	The path of the resource that exceeded the threshold value	VARCHAR (512)
COGIPF_METRIC_NAME	The name of the metric	VARCHAR (255)
COGIPF_METRIC_VALUE	The value of the metric	VARCHAR (128)
COGIPF_METRIC_ HEALTH	The status of the metric: good, average, or poor	VARCHAR (128)

Column name	Description	Data type
COGIPF_LOWER_AVG_THRSHLD	The lower average threshold setting. If COGIPF_LOWER_AVG_THRSHLD_XCL is 1, the metric score is average when the metric is less than this threshold setting. The metric score is good when the metric is greater than or equal than this value. If COGIPF_LOWER_AVG_THRSHLD_XCL is 0 (zero), the metric score is average when the metric is less than or equal to this value. The metric score is good when the metric is greater than this value.	VARCHAR (128)
COGIPF_LOWER_AVG_THRSHLD_EXCL	The flag that indicates if the threshold setting in COGIPF_LOWER_AVG_THRSHLD is included when determining the metric score. If it is 0, the threshold setting is included when the metric score is determined. If it is 1, the threshold setting is not included when the metric score is determined.	DECIMAL (1,0)
COGIPF_LOWER_POOR_THRSHLD	The lower poor threshold setting. If COGIPF_LOWER_POOR_THRSHLD_XCL is 1, the metric score is poor when the metric is less than this threshold setting. If COGIPF_LOWER_POOR_THRSHLD_XCL is 0 (zero), the metric score is poor when the metric is less than or equal to this value.	VARCHAR (128)
COGIPF_LOWER_POOR_THRSHLD_EXCL	The flag that indicates if the threshold setting in COGIPF_LOWER_POOR_THRSHLD is included when determining the metric score. If it is 0, the threshold setting is included when the metric score is determined. If it is 1, the threshold setting is not included when the metric score is determined.	DECIMAL (1,0)
COGIPF_UPPER_AVG_THRSHLD	The upper average threshold setting If COGIPF_UPPER_AVG_THRSHLD_XCL is 1, the metric score is poor when the metric is less than this threshold setting. If COGIPF_UPPER_AVG_THRSHLD_XCL is 0 (zero), the metric score is average when the metric is greater than or equal to this value. The metric score is good when the metric is less than or equal to this value.	VARCHAR (128)

Column name	Description	Data type
COGIPF_UPPER_AVG_ THRSHLD_EXCL	The flag that indicates if the threshold setting in COGIPF_UPPER_AVG_THRSHLD is included when determining the metric score. If it is 0, the threshold setting is included when the metric score is determined. If it is 1, the threshold setting is not included when the metric score is determined.	DECIMAL (1,0)
COGIPF_UPPER_POOR_ THRSHLD	The upper poor threshold setting. If COGIPF_UPPER_POOR_THRSHLD_XCL is 1, the metric score is poor when the metric is less than this threshold setting. If COGIPF_UPPER_POOR_THRSHLD_XCL is 0 (zero), the metric score is poor when the metric is greater than or equal to this value.	VARCHAR (128)
COGIPF_UPPER_POOR_ THRSHLD_EXCL	The flag that indicates if the threshold setting in COGIPF_UPPER_POOR_THRSHLD is included when determining the metric score. If it is 0, the threshold setting is included when the metric score is determined. If it is 1, the threshold setting is not included when the metric score is determined.	DECIMAL (1,0)

COGIPF_USERLOGON Table

The COGIPF_USERLOGON table contains the following columns.

Column name	Description	Data type
COGIPF_ HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_ HOST_PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated	TIMESTAMP
COGIPF_TIMEZONE_ OFFSET	The time zone, offset from GMT	INTEGER

Column name	Description	Data type
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR (255)
COGIPF_ SUBREQUESTID	The alphanumeric identification of the component subrequest	VARCHAR (255)
COGIPF_THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_ COMPONENTID	The name of the component that generates the indication	VARCHAR (64)
COGIPF_ BUILDNUMBER	The major build number for the component that generates the indication	INTEGER
COGIPF_LOG_LEVEL	The level of the indication	INTEGER
COGIPF_STATUS	The status of the operation: blank, success, warning, or failure	VARCHAR (255)
COGIPF_ ERRORDETAILS	Error details	VARCHAR (2000)
COGIPF_ LOGON_OPERATION	Logon, logoff, or logon expired	VARCHAR (255)
COGIPF_USERNAME	The display name of the user	VARCHAR2 (255)
COGIPF_USERID	The username of the user	VARCHAR (255)
COGIPF_ NAMESPACE	The namespace display name	VARCHAR (255)
COGIPF_REMOTE_IPADDR	The IP address of the user	VARCHAR (128)

COGIPF_VIEWREPORT Table

The COGIPF_VIEWREPORT table contains the following columns.

Column name	Description	Data type
COGIPF_HOST_IPADDR	The host IP address where the log message is generated	VARCHAR (128)
COGIPF_HOST_PORT	The host port number	INTEGER
COGIPF_PROC_ID	The process ID assigned by the operating system	INTEGER
COGIPF_ LOCALTIMESTAMP	The local date and time when the log message was generated While the report is executing, this is the time that the report execution started. After the report execution is complete, this is the end time of report execution. To check if execution is complete, see COGIPF_STATUS. A blank entry means an incomplete execution. A filled entry means execution completed. To calculate the execution start time for a report that has already completed execution, subtract COGIPF_RUNTIME from COGIPF_LOCALTIMESTAMP.	TIMESTAMP
COGIPF_TIMEZONE_ OFFSET	The time zone, offset from GMT	INTEGER
COGIPF_SESSIONID	The alphanumeric identification of the user session	VARCHAR (255)
COGIPF_REQUESTID	The alphanumeric identification of the request	VARCHAR2 (255) NOT NULL
COGIPF_STEPID	The alphanumeric identification for the step within a job run (empty if there is none)	VARCHAR (255)
COGIPF_SUBREQUESTID	The alphanumeric identification of the component subrequest	VARCHAR (255)
COGIPF_THREADID	The alphanumeric identification of the thread where the request is run	VARCHAR (255)
COGIPF_COMPONENTID	The name of the component that generates the indication	VARCHAR (64)
COGIPF_BUILDNUMBER	The major build number for the component that generates the indication	INTEGER

Column name	Description	Data type
COGIPF_LOG_LEVEL	The level of the indication	INTEGER
COGIPF_TARGET_TYPE	The object on which the operation is run	VARCHAR (255)
COGIPF_REPORTPATH	The report path	VARCHAR (1024)
COGIPF_STATUS	The status of the operation: blank, success, warning, or failure	VARCHAR (255)
COGIPF_ERRORDETAILS	Error details	VARCHAR (2000)
COGIPF_REPORTNAME	The name of the report that was viewed	VARCHAR (512)
COGIPF_PACKAGE	The package with which the report is associated	VARCHAR (1024)
COGIPF_REPORTFORMAT	The format of the report. For more information, see “Report Formats” on page 410	VARCHAR (255)
COGIPF_MODEL	The model that the report is associated with	VARCHAR (512)

Appendix H. Performing tasks in IBM Cognos BI using URLs

The URLs provide a quick and efficient way to start IBM Cognos Business Intelligence components and open specified content, such as reports, metrics, folders, or pages.

You can use the URLs to

- start IBM Cognos BI components
- access an IBM Cognos Connection page

You can use the URL Report sample program included with the IBM Cognos Software Development Kit to see examples that demonstrate how to perform basic tasks by clicking embedded links on an active server page. For information about the samples installed with the Software Development Kit, see the *Software Development Kit Developer Guide*. However, for complex tasks, such as scheduling, we recommend that you use the Software Development Kit to create a custom application.

You can use various declarations to identify the requested action, depending on the IBM Cognos BI component.

Note: These declarations are not the same as the Software Development Kit methods exposed by the BI Bus API.

For more information on using URLs see the IBM Cognos BI *Administration and Security Guide.*

Recommendations for URLs

Depending on your goals, some or all of the following URL-programming recommended practices described here may apply to your situation.

The recommended practices include the following:

- Ensure that your URLs do not include spaces. For example, if you use JavaScript for a post declaration, you must convert any spaces into the %20 form. (If you enter values using the get technique, the Web browser handles this encoding for you.)
- Use the equal sign (=) followed by a single-quotation-mark-enclosed space when submitting empty form variables to accommodate the notational requirements of all web servers. For example, to end a complex type array in a post declaration, use the following syntax: ...name='EA' value=' '/>
- Use &backURL= syntax to specify the URL location to return to, when users click Return in their output window.

Tip: To avoid launching a new browser window, you can specify a target name of "_self" as an attribute of the <a> anchor tag.

CGI Program and Alternative Gateways

All URL commands begin with a declaration of the end point for the request: either cognos.cgi or an alternative gateway.

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For IBM Cognos Business Intelligence, the complete syntax is `http://webservername:portnumber/ibmcognos/cgi-bin/cognos.cgi`.

If you configured IBM Cognos BI to use a gateway other than the default CGI program, type the URL that corresponds to your gateway. For information about configuring gateways, see the *Installation and Configuration Guide*.

The supported gateways are listed in the following table:

Gateway	URL
ISAPI	http://*webservername*/ibmcognos/isapi
Apache Connector (Microsoft Windows operating system)	http://*webservername*/ibmcognos/cgi-bin/mod_cognos.dll
Apache Connector (Solaris and AIX)	http://*webservername*/ibmcognos/cgi-bin/mod_cognos.so
Apache Connector (HPUX)	http://*webservername*/ibmcognos/cgi-bin/mod_cognos.sl
Gateway Servlet	http://*webservername:*9300/ServletGateway/servlet/Gateway
CGI	http://*webservername*/ibmcognos

URL Methods

There are two methods to start most IBM Cognos components: parameterized URL and cognosLaunch. Both methods perform the same function and use the same parameters. You can use either method to perform many UI tasks.

Parameterized URL Method

The parameterized URL method performs tasks or starts specific components using parameters typed in the Web browser address bar.

Using both get and post methods, the `launch.xts` or `cc.xts` parameter starts the specified IBM Cognos Business Intelligence component.

This method requires that the parameters use the following format:

```
&ArgumentName=ArgumentValue
```

The `ArgumentName` parameter specifies the type, and the `ArgumentValue` parameter specifies the value of the called arguments. All names and values must be character strings.

This method is easier to begin using than the cognosLaunch method because it does not require advance preparation. However, the longer URL-encoded entries are restrained by browser character limits.

You can use these commands to browse content in IBM Cognos Connection or view pages in IBM Cognos Viewer.

Mandatory Parameterized URL Parameters

If you are using the parameterized URL method to start any component, you must use the following parameters with this syntax:

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=portal/launch.xts
```

followed by the specific component parameters you want to use.

If you want to start IBM Cognos Viewer using the parameterized URL method, use the following parameters with this syntax:

```
http://localhost/cgi-bin/cognos.cgi?b_action=cognosViewer
```

If you want to start IBM Cognos Connection using the parameterized URL method, use the following URL:

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=portal/cc.xts
```

The mandatory building blocks for parameterized URL commands are as follows:

- `gateway`

  This is the mandatory argument value that specifies the IBM Cognos BI gateway. The gateway name in this example is `http://server/ibmcognos/cgi-bin/cognos.cgi?`.

  IBM Cognos Application Firewall validation is enforced on URLs that contain this parameter.
- `b_action=xts.run`

  Identifies the action. To specify IBM Cognos Viewer, use `b_action=cognosViewer`.
- `m=portal/launch.xts&ui.tool=tool_name`

  Identifies the IBM Cognos BI component interface that displays the result. To start IBM Cognos Connection, use `m=portal/cc.xts`.
- `ui.action`

  Specifies the action to take. Acceptable values for the Studio components are `new` and `edit`. The default is `new`. Acceptable values for IBM Cognos Viewer are `run` and `view`. The default is `view`.

cognosLaunch Method

The cognosLaunch method uses a JavaScript function to perform tasks and start components.

To use the launch utility in a Web page, you must first include the following statement in the HTML file from which you start the specific component:

```
<script language="JavaScript" src="CognosGateway/cognoslaunch.js">
</script>
```

`CognosGateway` is the main IBM Cognos Business Intelligence gateway defined in IBM Cognos Configuration.

This statement enables the page to open a specified report in the chosen IBM Cognos component using the `cognosLaunch` JavaScript parameters.

This method requires that the parameters use the following format:

```
"Argument Name","Argument Value"
```

The Argument Name parameter specifies the type, and the Argument Value parameter specifies the value of the called arguments. All names and values must be character strings.

The cognosLaunch method uses a simpler construction than the parameterized URL method, but requires an enabled starting page.

Mandatory cognosLaunch Parameters

If you are using the cognosLaunch method to start any component, use the following parameters with this syntax:

```
cognosLaunch("ui.gateway"," gateway ","ui.tool","
component")
```

- "ui.gateway"

  This is the mandatory argument value that specifies the IBM Cognos BI gateway.

  IBM Cognos Application Firewall validation is enforced on URLs that contain this parameter. For more information see, "URL Validation" on page 769.

- "ui.tool"

  This is the mandatory argument value that specifies the IBM Cognos BI component.

- ui.action

  Specifies the action to take. Acceptable values for the Studio components are new and edit. The default is new. Acceptable values for IBM Cognos Viewer are run and view. The default is view.

  You cannot use this parameter with Metric Studio.

Common Optional Parameters

In addition to the mandatory parameters required by each IBM Cognos Business Intelligence component, you can use the optional parameters listed below, unless otherwise specified.

- ui.object

  Specifies the path of the target object. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.

  This parameter is mandatory for Event Studio, Analysis Studio, and Metric Studio.

- ui.folder

  Specifies the target folder. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.

  You cannot use this parameter with Analysis Studio.

- ui.backURL

  Specifies the URI to open after you close the selected component.

  IBM Cognos Application Firewall validation is enforced on URLs that contain this parameter. For more information see, "URL Validation" on page 769.

URL Validation

IBM Cognos Application Firewall validation is enforced on URLs using the following rules.

- Fully qualified, or absolute URLs:

  `protocol://host[:port]/path[?query]`

  Where protocol is either 'http' or 'https' and the host is validated against the valid domain list, which is specified by the administrator in IBM Cognos Configuration. For more information, see the *Installation and Configuration Guide*.
- URLs relative to the IBM Cognos BI installation web root:

  `/<install root>/.*`

  Where `<install root>` is the gateway file path, taken from the Gateway URI from Cognos Configuration Tool. For example, `/ibmcognos/ps/portal/images/`.
- One of the following specifically allowed URLs:
  - `about:blank` (case insensitive)
  - `JavaScript:window.close()` (case insensitive, with or without trailing semi-colon)
  - `JavaScript:parent.close()` (case insensitive, with or without trailing semi-colon)
  - `JavaScript:history.back()` (case insensitive, with or without trailing semi-colon)
  - `parent.cancelErrorPage()` (case insensitive, with or without trailing semi-colon)
  - `doCancel()` (case insensitive, with or without trailing semi-colon)

In addition, an advanced configuration setting, RSVP.RENDER.VALIDATEURL, can be used to specify whether these rules are applied to values specified by any URL values contained within a report specification. CAF must be enabled for the RSVP.RENDER.VALIDATEURL setting to take effect.

Starting IBM Cognos BI Components

Use a URL to start IBM Cognos Business Intelligence components and open specified content. For example, you can quickly open a report in Query Studio, or a metric Metric Studio without using IBM Cognos Connection.

The components can be started from any enabled Web page.

You can use a URL to start the following IBM Cognos BI components:

- Report Studio
- Query Studio
- Analysis Studio
- Metric Studio
- Event Studio
- IBM Cognos Viewer

Start Parameters

Before using either the parameterized URL or cognosLaunch method you must first locate the object that you want to access.

The easiest way to identify the location of an object, such as a saved report, is to start IBM Cognos Connection and copy the object search path "Using a Page ID Instead of the Object Search Path" on page 784 into the required URL command. The full path must be copied, as listed in the report properties, including the relevant package name and report names.

For example, using the following parameterized URL starts IBM Cognos Viewer and runs the report named 2005 Sales Summary:

```
http://localhost/cgi-bin/cognos.cgi?b_action=cognosViewer&ui.
action=run&ui.object=/content/folder
[@name='Samples']/folder
[@name='Models']/package
[@name='GO DataWarehouse (analysis)']/folder
[@name='Report Studio Report Samples']/report
[@name='EmployeeSatisfaction 2006']
```

The following script performs the same function using the cognosLaunch method in an enabled Web page:

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos
/cgi-bin/cognos.cgi','ui.tool','CognosViewer','ui.
action','run','ui.object','/content/folder
[@name=\'Samples\']/folder[@name=\'Models\']/package
[@name=\'GO DataWarehouse (analysis)\']/folder
[@name=\'Report Studio Report Samples\']/report
[@name=\'EmployeeSatisfaction 2006\']'
```

The following topics describe each of the parameters used in this example, and examples of some other commonly used parameters.

Starting Report Studio

You can use a URL to open and run a specific report in IBM Cognos Report Studio.

Use the following parameters to start Report Studio with the parameterized URL method:

```
http://localhost/ibmcognos/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.tool=ReportStudio&ui.gateway=
http://localhost/ibmcognos/cgi-bin/cognos.cgi?&ui.option=/content
```

When starting Report Studio with the parameterized URL method, specify both the `gateway` (`http://localhost/ibmcognos/cgi-bin/cognos.cgi?`) and the `ui.gateway` parameter.

For a list of mandatory parameterized URL launch parameters, see "Mandatory Parameterized URL Parameters" on page 767.

Use the following parameters to start Report Studio with the cognosLaunch method:

```
cognosLaunch("ui.gateway","http://localhost/ibmcognos/cgi-bin/cognos.cgi?","ui.
tool","ReportStudio","ui.option","/content")
```

For a list of mandatory cognosLaunch parameters, see "Mandatory cognosLaunch Parameters" on page 768.

In addition to the mandatory parameters required, you can also use the following optional parameters:

- `ui.object`

Specifies the path of the target object. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.

- `ui.folder`

  Specifies the target folder. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.

- `ui.backURL`

  Specifies the URI to open after you close the selected component.

  IBM Cognos Application Firewall validation is enforced on URLs that contain this parameter. For more information see, "URL Validation" on page 769.

Parameterized URL Examples

This section provides examples for performing specific functions when starting IBM Cognos Report Studio using the parameterized URL method.

- Starting Report Studio

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.gateway=
http://localhost/ibmcognos/cgi-bin/cognos.cgi&ui.
tool=ReportStudio&ui.object=/content&ui.action=new
```

- Starting Report Studio to a specific package

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.gateway=
http://localhost/ibmcognos/cgi-bin/cognos.cgi&ui.tool=ReportStudio&ui.
object=/content/folder[@name='Samples']/folder
[@name='Models']/package
[@name='GOData Warehouse (query)']&ui.action=new
```

- Editing a report in Report Studio

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.gateway=
http://localhost/ibmcognos/cgi-bin/cognos.cgi&ui.tool=ReportStudio&ui.
object=/content/folder[@name='Samples']/folder[@name='Models']/package
[@name='GOData Warehouse (query)']/folder
[@name='Report Studio Report Samples']/report
[@name='HealthInsurance']&ui.action=edit
```

cognosLaunch Examples

This section provides examples for performing specific functions when starting IBM Cognos Report Studio using the CognosLaunch method.

- Starting Report Studio

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','ReportStudio')
```

- Starting Report Studio to a specific package

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','ReportStudio','ui.action','new','ui.object','/content/folder
[@name=\'Samples\']/folder
[@name=\'Models\']/package
[@name=\'GO DataWarehouse (query)\']')
```

- Editing a report in Report Studio

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','ReportStudio','ui.action','edit','ui.object','/content/folder
[@name=\'Samples\']/folder
[@name=\'Models\']/package[@name=\'GO DataWarehouse (query)\']/folder
[@name=\'Report Studio Report Samples\']/report
[@name=\'HealthInsurance\']')
```

Starting Business Insight Advanced

You can use a URL to open and run a specific report in IBM Cognos Business Insight Advanced.

Use the following parameters to start Business Insight Advanced with the parameterized URL method:

```
http://localhost/ibmcognos/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.tool=ReportStudio&ui.profile=BUA_standalone&ui.
gateway=http://localhost/ibmcognos/cgi-bin/cognos.cgi?&ui.option=/content
```

When starting Business Insight Advanced with the parameterized URL method, specify both the `gateway` (`http://localhost/ibmcognos/cgi-bin/cognos.cgi?`) and the `ui.gateway` parameter.

For a list of mandatory parameterized URL launch parameters, see "Mandatory Parameterized URL Parameters" on page 767.

Use the following parameters to start Report Studio with the cognosLaunch method:

```
cognosLaunch("ui.gateway","http://localhost/ibmcognos/cgi-bin/cognos.cgi?","ui.
tool","ReportStudio","ui.option","/content","ui.profile","BUA_standalone")
```

For a list of mandatory cognosLaunch parameters, see "Mandatory cognosLaunch Parameters" on page 768.

In addition to the mandatory parameters required, you can also use the following optional parameters:

- `ui.object`

  Specifies the path of the target object. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.
- `ui.folder`

  Specifies the target folder. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.
- `ui.backURL`

  Specifies the URI to open after you close the selected component.

  IBM Cognos Application Firewall validation is enforced on URLs that contain this parameter. For more information see, "URL Validation" on page 769.

Parameterized URL Examples

This section provides examples for performing specific functions when starting IBM Cognos Report Studio using the parameterized URL method.

- Starting Business Insight Advanced

  ```
  http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
  portal/launch.xts&ui.gateway=
  http://localhost/ibmcognos/cgi-bin/cognos.cgi&ui.tool=ReportStudio&ui.
  profile=BUA_standalone&ui.object=/content&ui.action=new
  ```
- Starting Business Insight Advanced to a specific package

  ```
  http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
  portal/launch.xts&ui.gateway=
  http://localhost/ibmcognos/cgi-bin/cognos.cgi&ui.tool=ReportStudio&ui.
  ```

```
profile=BUA_standalone&ui.object=/content/folder[@name='Samples']/folder
[@name='Models']/package
[@name='GOData Warehouse (analysis)']&ui.action=new
```

- Editing a report in Business Insight Advanced

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.gateway=
http://localhost/ibmcognos/cgi-bin/cognos.cgi&ui.tool=ReportStudio&ui.
profile=BUA_standalone&ui.object=/content/folder[@name='Samples']/folder
[@name='Models']/package[@name='GOData Warehouse (analysis)']/folder
[@name='Business Insight Advanced']/report
[@name='PromotionSuccess']&ui.action=edit
```

cognosLaunch Examples

This section provides examples for performing specific functions when starting IBM Cognos Business Insight Advanced using the CognosLaunch method.

- Starting Business Insight Advanced

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','ReportStudio','ui.profile','BUA_standalone')
```

- Starting Business Insight Advanced to a specific package

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','ReportStudio','ui.profile','BUA_standalone','ui.action','new','ui.
object','/content/folder[@name=\'Samples\']/folder
[@name=\'Models\']/package
[@name=\'GOData Warehouse (analysis)\']')
```

- Editing a report in Business Insight Advanced

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','ReportStudio','ui.profile','BUA_standalone','ui.action','edit','ui.
object','/content/folder[@name=\'Samples\']/folder
[@name=\'Models\']/package
[@name=\'GOData Warehouse (analysis)\']/folder
[@name=\'Business Insight Advanced\']/report
[@name=\'PromotionSuccess\']')
```

Starting Query Studio

You can use a URL to quickly open a specific report in IBM Cognos Query Studio.

Use the following mandatory parameters to start Query Studio with the parameterized URL method:

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.tool=
QueryStudio&ui.object=/content&ui.action=new
```

Use the following mandatory parameters to start Query Studio with the cognosLaunch method:

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','QueryStudio','ui.action','new')
```

The `ui.action` parameter is a mandatory for both methods.

The following parameters are optional for Query Studio:

- `cv.header`

  Specifies whether to display the header. Acceptable values are `true` and `false`.

- `ui.spec`

Specifies an XML document that contains an IBM Cognos BI report specification. For information about IBM Cognos BI report specifications, see the report specification topics in the IBM Cognos Software Development Kit *Developer Guide*.

- `run.outputLocale`

  Specifies the output language. Acceptable values are expressed as a hyphenated language-region pair, in accordance with the RFC3066 standard. The default value is `en-us`.

- `run.prompt`

  Specifies whether the report service issues prompts, so you can enter report option values. Acceptable values are `true` and `false`. The default value is `true`.

- `ui.object`

  Specifies the path of the target object. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.

- `ui.folder`

  Specifies the target folder. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.

- `ui.backURL`

  Specifies the URI to open after you close the selected component.

  IBM Cognos Application Firewall validation is enforced on URLs that contain this parameter. For more information see, "URL Validation" on page 769.

Use the following parameters for debugging purposes only:

- `run.outputFormat`

  Specifies the output format. Acceptable values are `CSV`, `HTML`, `PDF`, `singleXLS`, `XHTML`, `XLWA`, and `XML`.

- `asynch.primaryWaitThreshold`

  Specifies the maximum amount of time, in seconds, that the server can use to process the request before sending a response to the client. Acceptable values are any integer. Use a value of `0` to make the client wait indefinitely. The default value is `7`.

- `asynch.secondaryWaitThreshold`

  Specifies the maximum amount of time, in seconds, that the server can use to process the request before sending a response to the client. Acceptable values are any integer. Use a value of `0` to make the client wait indefinitely. The default value is `30`.

For a list of all common optional launch parameters for both methods, see "Common Optional Parameters" on page 768.

Parameterized URL Examples

This section provides examples for performing specific functions when starting IBM Cognos Query Studio using the parameterized URL method.

- Starting Query Studio to a specific package

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.tool=
QueryStudio&ui.object=/content/folder[@name='Samples']/folder
[@name='Models']/package
[@name='GOData Warehouse (analysis)']&ui.action=new
```

- Starting Query Studio to a specific report

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.tool=
QueryStudio&ui.object=/content/folder[@name='Samples']/folder
[@name='Models']/package[@name='GOData Warehouse (analysis)']/folder
[@name='Query Studio Report Samples']/query
[@name='ReturnQuantity by Product Line']&ui.action=edit
```

cognosLaunch Examples

This section provides examples for performing specific functions when starting IBM Cognos Query Studio using the CognosLaunch method.

- Starting Query Studio to a specific package

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','QueryStudio','ui.action','new','ui.object','/content/folder
[@name=\'Samples\']/folder
[@name=\'Models\']/package
[@name=\'GO DataWarehouse (analysis)\']')
```

- Starting Query Studio to a specific report

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','QueryStudio','ui.action','edit','ui.object','/content/folder
[@name=\'Samples\']/folder[@name=\'Models\']/package
[@name=\'GO DataWarehouse (analysis)\']/folder
[@name=\'Query Studio Report Samples\']/query
[@name=\'ReturnQuantity by Product Line\']')
```

Starting Analysis Studio

You can use a URL to quickly open and run a specific report in IBM Cognos Analysis Studio.

Use the following parameters to start Analysis Studio with the parameterized URL method:

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.gateway=
http://localhost/ibmcognos/cgi-bin/cognos.cgi&ui.
tool=AnalysisStudio&ui.action=new
```

When starting Analysis Studio with the parameterized URL method, specify both the `gateway` (`http://localhost/ibmcognos/cgi-bin/cognos.cgi?`) and the `ui.gateway` parameter.

Use the following parameters to start Analysis Studio with the cognosLaunch method:

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','AnalysisStudio','ui.action','new')
```

The `ui.object` parameter is mandatory for both methods. However, if it is missing, you are prompted to select a package.

In addition to the mandatory parameters required, you can also use the following optional parameter:

- `ui.backURL`

  Specifies the URI to open after you close the selected component.

  IBM Cognos Application Firewall validation is enforced on URLs that contain this parameter. For more information see, "URL Validation" on page 769

Parameterized URL Examples

This section provides examples for performing specific functions when starting IBM Cognos Analysis Studio using the parameterized URL method.

- Starting Analysis Studio to a specific package

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.gateway=
http://localhost/ibmcognos/cgi-bin/cognos.cgi&ui.
tool=AnalysisStudio&ui.object=/content/folder[@name='Samples']/folder
[@name='Cubes']/package[@name='Salesand Marketing (cube)']/folder
[@name='Analysis Studio Report Samples']&ui.action=new
```

- Viewing an analysis report in Analysis Studio

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.gateway=
http://localhost/ibmcognos/cgi-bin/cognos.cgi&ui.
tool=AnalysisStudio&ui.tool=AnalysisStudio&ui.object=/content/folder
[@name='Samples']/folder[@name='Cubes']/package
[@name='Salesand Marketing (cube)']/folder
[@name='Analysis Studio Report Samples']/analysis
[@name='CustomRank Sample']&ui.action=edit
```

cognosLaunch Examples

This section provides examples for performing specific functions when starting IBM Cognos Analysis Studio using the CognosLauch method.

- Starting Analysis Studio to a specific package

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','AnalysisStudio','ui.action','new','ui.object','/content/folder
[@name=\'Samples\']/folder[@name=\'Cubes\']/package
[@name=\'Salesand Marketing (cube)\']/folder
[@name=\'Analysis Studio Report Samples\']')
```

- Viewing an analysis report in Analysis Studio

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','AnalysisStudio','ui.action','edit','ui.object','/content/folder
[@name=\'Samples\']/folder[@name=\'Cubes\']/package
[@name=\'Salesand Marketing (cube)\']/folder
[@name=\'Analysis Studio Report Samples\']/analysis
[@name=\'CustomRank Sample\']')
```

Starting Metric Studio

You can use a URL to quickly open a metric in IBM Cognos Metric Studio.

Use the following parameters to start Metric Studio with the parameterized URL method:

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.
tool=MetricStudio&ui.action=new
```

Use the following parameters to start Metric Studio with the cognosLaunch method:

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','MetricStudio','ui.action','new')
```

The `ui.object` parameter is mandatory for both methods. However, if it is missing, you are prompted to select a package.

In addition to the mandatory parameters required, you can also use the following optional parameters:

- `ui.folder`

  Specifies the target folder. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.

- `ui.backURL`

  Specifies the URI to open after you close the selected component.

  IBM Cognos Application Firewall validation is enforced on URLs that contain this parameter. For more information see, "URL Validation" on page 769

Parameterized URL Examples

This section provides an example when starting IBM Cognos Metric Studio using the parameterized URL method.

- Starting Metric Studio to a specific package

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.
tool=MetricStudio&ui.object=/content/package
[@name='GOMetrics']&ui.action=new
```

cognosLaunch Examples

This section provides an example when starting IBM Cognos Metric Studio using the CognosLaunch method.

- Starting Metric Studio to a specific package

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','MetricStudio','ui.action','new','ui.object','/content/package
[@name=\'GOMetrics\']')
```

Starting Event Studio

You can use a URL to quickly access and edit an agent in IBM Cognos Event Studio.

Use the following parameters to start Event Studio with the parameterized URL method:

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.tool=EventStudio&ui.object=/content/package
[@name='GOSales (analysis)']&ui.action=new
```

Use the following parameters to start Event Studio with the cognosLaunch method:

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','EventStudio','ui.action','new')
```

The `ui.action` and `ui.object` parameters are mandatory. If `ui.object` is missing, you are prompted to select a package.

In addition to the mandatory parameters required, you can also use the following optional parameters:

- `ui.folder`

  Specifies the target folder. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.

- `ui.backURL`

  Specifies the URI to open after you close the selected component.

  IBM Cognos Application Firewall validation is enforced on URLs that contain this parameter. For more information see, "URL Validation" on page 769.

Parameterized URL Examples

This section provides an example when starting IBM Cognos Event Studio using the parameterized URL method.

- Opening an agent in Event Studio

```
http://localhost/cgi-bin/cognos.cgi?b_action=xts.run&m=
portal/launch.xts&ui.tool=EventStudio&ui.object=/content/folder
[@name='Samples']/folder
[@name='Models']/package[@name='GOSales (query)']/folder
[@name='Event Studio Samples']/agentDefinition
[@name='ELMEscalation Agent']&ui.action=run
```

cognosLaunch Examples

This section provides examples for performing specific functions when starting IBM Cognos Event Studio using the CognosLaunch method.

- Starting Event Studio

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','EventStudio','ui.action','new','ui.object','/content/package
[@name=\'GOSales and Retailers\']')
```

- Opening an agent in Event Studio

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','EventStudio','ui.action','edit','ui.object','/content/folder
[@name=\'Samples\']/folder[@name=\'Models\']/package
[@name=\'GO Sales(query)\']/folder
[@name=\'Event Studio Samples\']/agentDefinition
[@name=\'ELMEscalation Agent\']')
```

Starting IBM Cognos Viewer

You can use a URL to quickly open a specified report in IBM Cognos Viewer.

Use the following parameters to start IBM Cognos Viewer with the parameterized URL method:

```
http://localhost/cgi-bin/cognos.cgi?b_action=cognosViewer&ui.
object=/content/folder[@name='Samples']/folder[@name='Cubes']/package
[@name='Salesand Marketing (cube)']/folder
[@name='Report Studio Report Samples']/report
[@name='Actualvs. Planned Revenue']&ui.action=run
```

Use the following parameters to start IBM Cognos Viewer with the cognosLaunch method:

```
cognosLaunch('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','CognosViewer')
```

For a complete list of the IBM Cognos Viewer parameters, see the "URL API Reference" Appendix in the Software Development Kit Developer Guide.

The following parameters are optional for IBM Cognos Viewer:

- `run.outputFormat`

  Specifies the output format. Acceptable values are `CSV`, `HTML`, `PDF`, `singleXLS`, `XHTML`, `XLWA`, and `XML`. The default value is `HTML`.

  Note: To protect IBM Cognos BI and your servers, the IBM Cognos Application Firewall (CAF) rejects URL-based requests for output in XLS format.

- `run.outputLocale`

  Specifies the output language. Acceptable values are expressed as a hyphenated language-region pair, in accordance with the RFC3066 standard. The default value is `en-us`.

- `run.prompt`

  Specifies whether the report service issues prompts, so you can enter report option values. Acceptable values are `true` and `false`. The default value is `true`.

- `run.xslURL`

Specifies the location of an XSL stylesheet that can be applied to the report, thereby rendering it in the requested format. An acceptable value is a URI.

When referencing the XSL file, ensure that the specified file is valid, and exists on the application server in the templates/rsvp/xsl directory. Referencing an invalid stylesheet terminates the process.

- `run.outputEncapsulation`

  Specifies how output documents in the response are encapsulated. Acceptable values are `HTML`, `URL`, `URLQueryString`, `none`.

- `asynch.attachmentEncoding`

  Specifies how attachments to the response are encoded. Acceptable values are `base64`, `MIME`, `MIMECompressed`. The default value is `base64`.

- `asynch.primaryWaitThreshold`

  Specifies the maximum amount of time, in seconds, that the server can use to process the request before sending a response to the client. Acceptable values are any integer. Use a value of `0` to make the client wait indefinitely. The default value is `7`.

- `asynch.secondaryWaitThreshold`

  Specifies the maximum amount of time, in seconds, that the server can use to process the request before sending a response to the client. Acceptable values are any integer. Use a value of `0` to make the client wait indefinitely. The default value is `30`.

- `ui.object`

  Specifies the path of the target object. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.

- `ui.folder`

  Specifies the target folder. Acceptable values are the Content Manager search path or store ID. For more information, see "Using Search Paths and Page IDs" on page 783.

- `ui.backURL`

  Specifies the URI to open after you close the selected component.

  IBM Cognos Application Firewall validation is enforced on URLs that contain this parameter. For more information see, "URL Validation" on page 769.

Parameterized URL Examples

This section provides examples for performing specific functions when viewing reports using the parameterized URL method.

- Viewing saved reports

```
http://localhost/cgi-bin/cognos.cgi?b_action=cognosViewer&ui.
object=/content/folder[@name='Samples']/folder
[@name='Models']/package[@name='GOSales (analysis)']/folder
[@name='Report Studio Report Samples']/report
[@name='2005SalesSummary']&ui.action=run
```

- Running live reports

```
http://localhost/cgi-bin/cognos.cgi?b_action=cognosViewer&ui.
object=/content/folder[@name='Samples']/folder[@name='Models']/package
[@name='GOSales (analysis)']/folder
[@name='Report Studio Report Samples']/report
[@name='2005SalesSummary']&ui.action=run
```

- Viewing reports in different output modes

```
http://localhost/cgi-bin/cognos.cgi?b_action=cognosViewer&ui.
object=/content/folder[@name='Samples']/folder[@name='Models']/package
[@name='GOSales (analysis)']/folder
[@name='Report Studio Report Samples']/report
[@name='2005SalesSummary']&ui.
action=run&run.outputFormat=PDF
```

cognosLaunch Examples

This section provides examples for performing specific functions when viewing reports using the CognosLaunch method.

- Viewing saved reports

```
cognosLaunch
('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','CognosViewer','ui.action','view','ui.object','defaultOutput
(/content/folder
[@name=\'Samples\']/folder[@name=\'Models\']/package
[@name=\'GOSales (analysis)\']/folder
[@name=\'Report Studio Report Samples\']/report
[@name=\'2005Sales Summary\'])')
```

- Running live reports

```
cognosLaunch
('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','CognosViewer','ui.action','run','ui.object','/content/folder
[@name=\'Samples\']/folder[@name=\'Models\']/package
[@name=\'GO Sales(analysis)\']/folder
[@name=\'Report Studio Report Samples\']/report
[@name=\'2005Sales Summary\']')
```

- Viewing reports in different output modes

```
cognosLaunch
('ui.gateway','http://localhost/ibmcognos/cgi-bin/cognos.cgi','ui.
tool','CognosViewer','ui.action','run','ui.object','/content/folder
[@name=\'Samples\']/folder
[@name=\'Models\']/package
[@name=\'GO Sales(analysis)\']/folder
[@name=\'Report Studio Report Samples\']/report
[@name=\'2005Sales Summary\']','run.outputFormat', 'PDF')
```

Starting IBM Cognos BI Components in a Specified Browser Window

This feature allows you to start an IBM Cognos Business Intelligence component in a named browser window.

To do this, you must use the following parameters with this syntax:

`cognosLaunchInWindow(windowName, windowProperties, "ui.gateway","`*`gateway`*`","ui.tool","`*`component`*`")`

The `windowName` and `windowProperties` parameters represent the values specific to starting an IBM Cognos BI component in a named browser window.

The `windowName` string is the name of the browser window, frame, or iframe in which to start the specified component. If the specified name does not exist, a newly created pop-up browser window appears with the name. To create a new pop-up window, use `"_blank"` as the value.

The `windowProperties` string defines the properties applied to the new pop-up window. This only applies to newly created windows. The available values depend

on the type of the Web browser you are using, and correspond to the values supported by the JavaScript `window.open()` function. Some options may not work in all browsers.

The `windowProperties` parameter consists of a comma-separated list. Each item consists of an option and a value, separated by the equals sign (=). For example, `"fullscreen=yes , toolbar=yes"`. Some common examples include:

- `channelmode`

  Specifies whether to display the window in theater mode, and show the channel band. The default is `no`. Acceptable values are `yes` and `no`.

- `directories`

  Specifies whether to add directory buttons. The default is `yes`. Acceptable values are `yes` and `no`.

- `fullscreen`

  Specifies whether to display the browser in full-screen mode. This mode hides the browser's title bar and menus. A window in full-screen mode must also be in channelmode. The default is `no`. Acceptable values are `yes` and `no`.

- `height`

  This integer specifies the height of the window, in pixels. The minimum value is `100`.

- `left`

  This integer specifies the left position, in pixels, relative to the upper-left corner of the screen.

- `location`

  Specifies whether to display the input field for entering URLs directly into the browser. The default is `yes`. Acceptable values are `yes` and `no`.

- `menubar`

  Specifies whether to display the menu bar. The default is `yes`. Acceptable values are `yes` and `no`.

- `resizable`

  Specifies whether to display resize handles at the corners of the window. The default is `yes`. Acceptable values are `yes` and `no`.

- `scrollbars`

  Specifies whether to display horizontal and vertical scroll bars. The default is `yes`. Acceptable values are `yes` and `no`.

- `status`

  Specifies whether to display a status bar at the bottom of the window. The default is `yes`. Acceptable values are `yes` and `no`.

- `titlebar`

  Specifies whether to display a title bar for the window. This parameter is only valid if the calling application is an HTML Application, or a trusted dialog box. The default is `yes`. Acceptable values are `yes` and `no`.

- `toolbar`

  Specifies whether to display the browser toolbar. The default is `yes`. Acceptable values are `yes` and `no`.

- `top`

  This integer specifies the top position, in pixels. This value is relative to the upper-left corner of the screen.

- `width`

This sets the width of the window, in pixels. The minimum value is 100.

The ui.gateway, ui.tool, along with some additional parameter values are described in "Start Parameters" on page 769.

Access an IBM Cognos Connection Page

Using a URL, you can quickly access any IBM Cognos Connection page. For example, if you use a corporate portal not supported by Portal Services, and use IBM Cognos portlets to populate frames in that portal, you can embed any IBM Cognos Connection page using the page URL. This page appears in a targeted frame, using your corporate look and feel.

Before you can access an IBM Cognos Connection page using URLs, you must prepare the page for standalone access "Preparing a Page for Standalone Access" on page 783.

Procedure

In a browser, type a URL using the following parameters:

```
http://[gateway]?b_action=xts.run&m=portal/cc.xts&m_page=path:[search
path]&style=[stylesheet]&ui=h1&m_pagemode=view]
```

The parameters for starting a page are as follows:

- gateway

  Full prefix that identifies the IBM Cognos BI gateway. For example, localhost/ibmcognos/cgi-bin/cognos.cgi.

- m=portal/cc.xts

  Identifies the component interface.

- m_page=path:[search path]

  Identifies an IBM Cognos Connection page. For more information, see "Using Search Paths and Page IDs" on page 783.

- style=[stylesheet]

  Identifies the .css file that overrides the default IBM Cognos BI style.

  The IBM Cognos Connection pages use the IBM Cognos BI stylesheet by default. You can use your own corporate style to maintain a consistent look and feel of your page. To do so, edit the URL to set the style=[stylesheet] parameter to the location of the required .css file. For example, style=http://myserver/mystyles.css.

- ui=h1

  Hides some of the IBM Cognos BI user interface elements.

  When an IBM Cognos Connection page appears as a portion of another Web page, some of its user interface elements, such as top headers, links, and toolbars, may became redundant. You can hide these elements and leave only the required content of the page. In this example, h1 hides the main IBM Cognos Connection header. For more information about hiding user interface elements, see the customization chapters in the *Administration and Security Guide*.

- m_pagemode=view

  Hides some of the portlet user interface elements, and makes the page read-only.

  Some of the portlet user interface elements, such as frames around the portlets and title bars, may become redundant when the portlet appears within another page. You can hide these elements.

Preparing a Page for Standalone Access

You must prepare each page in IBM Cognos Connection so that the page can be accessed by using a URL. You must do this even if you intend to use only one portlet in the page.

Ensure that the following conditions are met:

- The page is saved in a public folder in IBM Cognos Connection.

  The objects in Public Folders can be accessed by all users. An individual users can access a standalone page from his own My Folders directory, but that page is only accessible to that user.
- The IBM Cognos BI logon mechanism is implemented by your application.

  Your application is responsible for authenticating users. This is not required if the host application and IBM Cognos BI have already established single signon.

  For more information about setting single signon, see the *Installation and Configuration Guide*.
- The required access permissions are set for the page.

  Read permissions are granted to all users of a portal page or application that embeds the IBM Cognos Connection page. Write permissions are granted to the portal administrator and the page owner. This makes the page read-only, preventing other users from editing the portlet settings inside the page.

  For more information about setting access permissions, see the *Administration and Security Guide*.

The page is now ready for standalone access "Access an IBM Cognos Connection Page" on page 782.

Using Search Paths and Page IDs

When building URLs, you need to know the search paths of the objects you want to access using the URLs.

If you want to access an IBM Cognos Connection page, you can use its search paths or its ID. Search paths define the fully qualified location of the entry in the content store and are not installation-specific. IDs are installation-specific. For ease of use, we recommend that you access the page using search paths. For more information, see "Using a Page ID Instead of the Object Search Path" on page 784.

When using the cognosLaunch method, you specify the object's search path after the "ui.object" parameter.

If you are using the parameterized URL method, specify the object's search path using the following `m_page` parameter format, where `search path` is the search path of the page object:

```
&m_page=path:[[search
path]]
```

For example,

```
m_page=path:/content/folder[@name='Public
Pages']/pagelet[@name='EP
portlet Demo'
```

Tip: To find the page search path and ID in IBM Cognos Connection, navigate to the folder that contains the page and click the page properties button. On the **General** tab, click **View the search path, ID and URL**.

Using a Page ID Instead of the Object Search Path

Instead of the search path, you can also specify the object's page ID using the following cognosLaunch parameters.

```
"ui.object","storeID('storeID')
```

If you are using the parameterized URL method “Parameterized URL Method” on page 766, you can specify the object's page ID using the following `m_page` parameter format, where `page ID` is the object's page ID:

```
m_page=[page ID]
```

The ID appears as an unseparated series of characters. For example,

```
i80E9B692820A4F91B8655D4E84F292AF
```

To find the IDs, follow the instructions in “Using Search Paths and Page IDs” on page 783.

Deployment Considerations

References to deployment objects are based on search paths, not IDs. For a specific IBM Cognos Connection page, the object's page ID remains valid until the application's deployment mechanism transfers the original object to another IBM Cognos BI server. In the destination environment, all IDs are different. In such an event, you must map all ID references to the new IDs on the system.

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Glossary

This glossary includes terms and definitions for IBM Cognos Business Intelligence.

The following cross-references are used in this glossary:

- See refers you from a term to a preferred synonym, or from an acronym or abbreviation to the defined full form.
- See also refers you to a related or contrasting term.

To view glossaries for other IBM products, go to www.ibm.com/software/globalization/terminology.

"A" "B" "C" "D" on page 790 "E" on page 791 "F" on page 791 "G" on page 791 "H" on page 792 "I" on page 792 "J" on page 792 "L" on page 792 "M" on page 792 "N" on page 793 "O" on page 793 "P" on page 793 "Q" on page 794 "R" on page 794 "S" on page 794 "T" on page 795 "U" on page 795 "W" on page 795

A

access permission
A privilege that permits the access or use of an object.

accountability scorecard
A scorecard that Metric Studio automatically builds for each user which contains the metrics and projects they own.

agent A process that performs an action on behalf of a user or other program without user intervention or on a regular schedule, and reports the results back to the user or program.

alias An alternative name used instead of a primary name.

anonymous access
A type of access that allows users and servers to access a server without first authenticating with it.

application tier component
For installation, the set of processors that access the query databases to gather information and then render the results as PDF and HTML reports and metrics. Application tier components also pass requests to Content Manager and render the results that Content Manager retrieves from the content store.

attribute
In BI Modeling, a characteristic of an entity which is descriptive rather than a unique identifier or an aggregative measure.

authentication
The process of validating the identity of a user or server.

authentication provider
The communication mechanism to an external authentication source. Functionalities, such as user authentication, group membership, and namespace searches, are made available through authentication providers.

B

burst To create several report results by running a single report once. For example, the user can create a report that shows sales for each employee, and run it once, sending different results to regional managers by bursting on region.

burst key
The dimension or level of a query in the report specification that is used to create, or burst, a set of report results.

C

CA See certificate authority.

calculated member
A member of a dimension whose measure values are not stored but are calculated at run time using an expression.

canvas
An area within a dashboard or workspace that users interact with to create, view, and manipulate content and data.

capability
A group of functions and features that

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can be hidden or revealed to simplify the user interface. Capabilities can be enabled or disabled by changing preference settings, or they can be controlled through an administration interface.

cardinality

1. For relational data sources, a numerical indication of the relationship between two query subjects, query items, or other model objects.

2. For OLAP data sources, the number of members in a hierarchy. The cardinality property for a hierarchy is used to assign solve orders to expressions.

cascading prompt
A prompt that uses values from a previous prompt to filter the values in the current prompt or pick list.

certificate
In computer security, a digital document that binds a public key to the identity of the certificate owner, thereby enabling the certificate owner to be authenticated. A certificate is issued by a certificate authority and is digitally signed by that authority. See also certificate authority.

certificate authority (CA)
A component that issues certificates to each computer on which components are installed.

CGI See Common Gateway Interface.

cipher suite
The combination of authentication, key exchange algorithm, and the Secure Sockets Layer (SSL) cipher specification used for the secure exchange of data.

class style
A combination of formatting characteristics, such as font, font size, and border, that the user names and stores as a set.

CM See Content Manager.

Common Gateway Interface (CGI)
An Internet standard for defining scripts that pass information from a web server to an application program, through an HTTP request, and vice versa.

condition
An expression that can be evaluated as true, false, or unknown. It can be expressed in natural language text, in mathematically formal notation, or in a machine-readable language.

constraint

1. A security specification that denies one or more users the ability to access a model component or to perform a modeling or authoring task.

2. A restriction on the possible values that users can enter in a field.

contact
A named e-mail address to which reports and agent e-mails can be sent. Contacts are never authenticated.

content locale
A code that is used to set the language or dialect used for browsers and report text, and the regional preferences, such as formats for time, date, money, money expressions, and time of day.

Content Manager (CM)
The service that retrieves information from the content store, and saves information to the content store.

content store
The database that contains the data needed to operate, such as report specifications, published models, and security rights.

credential
A set of information that grants a user or process certain access rights.

cube A multidimensional representation of data needed for online analytical processing, multidimensional reporting, or multidimensional planning applications.

custom set
In Analysis Studio, a named object which can include filter rules, calculations, and sort rules. Custom sets can define a set of members that is different from any set originally defined in the cube model. See also predefined set, set.

D

dashboard
A web page that can contain one or more widgets that graphically represent business data.

data source
The source of data itself, such as a database or XML file, and the connection information necessary for accessing the data.

data source connection
The named information that defines the type of data source, its physical location, and any sign-on requirements. A data source can have more than one connection.

data tree
Within a studio, a structure that contains objects such as query subjects, query items, dimensions, levels, and members. A data tree is used as a palette of the available data that can be inserted into calculations, filters, display areas, and other authoring gestures.

deployment
The process of moving an application (such as a report or model) to a different instance. For example, reports are often created in a test environment and then deployed to production. When an application is deployed, it is exported, transferred, and imported.

deployment archive
A file used for deployment. A deployment archive contains the data from the content store that is being moved.

deployment specification
A definition of what packages to move (deploy) between source and target environments, the deployment preferences, and the archive name. Deployment specifications are used for import and export.

derived index
A calculated metric that provides a status and a score based on other metrics.

details-based set
A set based on an item and its immediate details. See also set.

dimension
In Cognos BI and TM1, a broad grouping of descriptive data about a major aspect of a business, such as products, dates, or locations. Each dimension includes different levels of members in one or more hierarchies and an optional set of calculated members or special categories.

dimensional data source
A data source containing data modeled using OLAP concepts, including dimensions, hierarchies, and measures.

drill down
In a multidimensional representation of data, to access information by starting with a general category and moving downwards through the hierarchy of information, for example from Years to Quarters to Months.

E

event A change to a state, such as the completion or failure of an operation, business process, or human task, that can trigger a subsequent action, such as persisting the event data to a data repository or invoking another business process.

event key
A combination of data items that uniquely defines an event instance. Identifying an event instance enables the agent to determine if it is new, ongoing or stopped.

event list
The set of detected event instances evaluated by the task execution rules to determine which agent tasks should be performed.

F

fact See measure.

G

gateway
An extension of a web server program that transfers information from the web server to another server. Gateways are often CGI programs, but may follow other standards such as ISAPI and Apache modules.

glyph The actual shape (bit pattern, outline) of a character image. For example, italic A and roman A are two different glyphs representing the same underlying character. Strictly speaking, any two images which differ in shape constitute different glyphs. In this usage, glyph is a

synonym for character image, or simply image (The Unicode Standard – Version 1.0).

group A collection of users who can share access authorities for protected resources.

grouping
In reporting, the process of organizing common values of query items together and only displaying the value once.

H

hierarchy
The organization of a set of entities into a tree structure, with each entity (except the root) having one or more parent entities and an arbitrary number of child entities.

I

information card
A display of high-level information about dashboard, workspace, or report content, such as owner, contact information, date modified, and an optional thumbnail view of the dashboard, workspace, or report.

information pane
In Analysis Studio, a pane that helps the user to confirm their selection in the data tree by displaying related information, such as the level and attributes.

initiative
A task developed to achieve objectives or close the gap between performance and targets. Initiatives are associated with individual objectives and often known as projects, actions, or activities.

item See member.

J

job A group of runnable objects, such as reports, agents, and other jobs that the user runs and schedules as a batch.

job step
The smallest part of a job that can be run separately. A job step can be a report or it can be another job.

L

layout The arrangement of printed matter on a screen or page, including margins, line spacing, type specification, header and footer information, indents, and more.

level A set of entities or members that form one section of a hierarchy in a dimension and represent the same type of object. For example, a geographical dimension might contain levels for region, state, and city.

locale A setting that identifies language or geography and determines formatting conventions such as collation, case conversion, character classification, the language of messages, date and time representation, and numeric representation.

M

MDX See Multidimensional Expression Language.

measure
A performance indicator that is quantifiable and used to determine how well a business is operating. For example, measures can be Revenue, Revenue/Employee, and Profit Margin percent.

member
A unique item within a hierarchy. For example, Camping Equipment and 4 Man tent are members of the Products hierarchy.

metric A measure to assess performance in a key area of a business.

metric extract
A set of mappings between an existing Cognos data source and a Metric Studio object or value. For example, a cube measure named Revenue is mapped to a Metric Studio metric named Revenue Actual Value.

metric package
In Cognos Connection, a representation of a Metric Studio application. A metric package contains connection information, reports, and metric management tasks for that application. See also package.

metric store
A database that contains content for

metric packages. A metric store also contains Metric Studio settings, such as user preferences.

metric type
A category of metrics that defines the business rules such as performance pattern, units, and meaning of a group of metrics. For example, Revenue can be a metric type, and European Revenue and North American Revenue would be metrics of this type.

model A physical or business representation of the structure of the data from one or more data sources. A model describes data objects, structure, and grouping, as well as relationships and security. In Cognos BI, a model is created and maintained in Framework Manager. The model or a subset of the model must be published to the Cognos server as a package for users to create and run reports.

multidimensional data source
See dimensional data source.

Multidimensional Expression Language (MDX)
The multidimensional equivalent of Structured Query Language (SQL).

N

named set
See predefined set.

namespace
A part of the model in which the names may be defined and used. Within a namespace, each name has a unique meaning.

news item
A single entry in a Really Simple Syndication (RSS) compatible format. It can include a headline, text, and a link to more information. A news item task in an agent can be used to create news items for display in a Cognos Connection portlet.

O

object In Report Studio, an empty information container that can be dragged to a report from the Toolbox tab and then filled with data. Reports are made up of objects, which include crosstabs, text items, calculations, graphics, and tables.

object extract
An extract that defines the metadata for a Metric Studio object, such as a user defined column, a scorecard, or a data source.

P

package
A subset of a model, which can be the whole model, to be made available to the Cognos server. See also metric package.

page set
In Report Studio, a set of one or more designed pages which repeat in the report output for each instance of a chosen query item. See also set.

passport
Session-based information, stored and encrypted in Content Manager memory, regarding authenticated users. A passport is created the first time a user accesses Cognos 8, and it is retained until a session ends, either when the user logs off or after a specified period of inactivity.

portlet
A reusable component that is part of a web application that provides specific information or services to be presented in the context of a portal.

predefined set
A set of members defined inside an OLAP data source as a list or by an expression. Predefined sets can be used in analysis and report authoring. See also custom set, set.

product locale
The code or setting that specifies which language, regional settings, or both to use for parts of the product interface, such as menu commands.

project

1. In Metric Studio, a task or set of tasks undertaken by a team and monitored on a scorecard. A project tracks dates, resources, and status.

2. In Metric Designer, a group of extracts. Each extract contains the metadata that is used to populate the Metric Studio data store or to create applications.

prompt
A report element that asks for parameter values before the report is run.

properties pane
Within a studio, a pane that provides an overview of the properties for selected data. The properties pane can also be used to make several changes and apply them at the same time, instead of repeating several different commands.

publish
In Cognos BI, to expose all or part of a Framework Manager model or Transformer PowerCube, through a package, to the Cognos server, so that the data can be used to create reports and other content.

Q

query The simple report specifications created and edited by Query Studio.

query item
A representation of a column of data in a data source. Query items may appear in a model or in a report and contain a reference to a database column, a reference to another query item, or a calculation.

query subject
A named collection of query items that are closely functionally related. Query subjects are defined using Framework Manager to represent relational data and form the set of available data for authoring reports in Query Studio and Report Studio. A query subject is similar to a relational view in that it can be treated as a table but does not necessarily reflect the data storage.

R

Really Simple Syndication (RSS)
An XML file format for syndicated Web content that is based on the Really Simple Syndication specification (RSS 2.0). The RSS XML file formats are used by Internet users to subscribe to websites that have provided RSS feeds. See also Rich Site Summary.

repeater
In Report Studio, a cell container that repeats values within itself with no predefined internal structure.

repeater table
In Report Studio, a table-like container that repeats cells across and down the page or row in the associated query.

report A set of data deliberately laid out to communicate business information.

report output
The output produced as a result of executing a report specification against a data set.

report specification
An executable definition of a report, including query and layout rules, which can be combined with data to produce a report output.

report view
A reference to another report that has its own properties, such as prompt values, schedules, and results. Report views can be used to share a report specification instead of making copies of it.

response file
An ASCII file that can be customized with the setup and configuration data that automates an installation. The setup and configuration data would have to be entered during an interactive install, but with a response file, the installation can proceed without any intervention.

Rich Site Summary (RSS)
An XML-based format for syndicated web content that is based on the RSS 0.91 specification. The RSS XML file formats are used by Internet users to subscribe to websites that have provided RSS feeds. See also Really Simple Syndication.

RSS

1. See Really Simple Syndication.
2. See Rich Site Summary.

S

score A number or ranking that expresses applicability in relation to a standard.

scorecard
A collection of metrics representing the performance of one unit or aspect of an organization.

scorecard structure
The hierarchy of scorecards that reflects how an enterprise organizes its metrics.

security provider
See authentication provider.

selection-based set
A collection of individual items that the user has explicitly selected. The items or members may be selected from one or more levels of the same hierarchy. See also set.

session
The time during which an authenticated user is logged on.

set A collection of related items or members. Members in a set may be specifically chosen, or selected by one or more filter rules. See also custom set, details-based set, page set, predefined set, selection-based set, stacked set.

stacked set
Two or more sets arranged one above another in rows or side-by-side in columns. See also set.

strategy
The overall plan of action (such as for a brand unit, business unit, channel, or company) to achieve a stated goal. Strategies normally cover a period of more than one year.

strategy map
In Metric Studio, a visual representation of the strategy and the objectives of that strategy for an organization. For example, a strategy map may show employees how their jobs are aligned to the overall objectives of the organization.

summary
In reporting and analysis, an aggregate value that is calculated for all the values of a particular level or dimension. Examples of summaries include total, minimum, maximum, average, and count.

T

task An action performed by an agent if the event status meets the task execution rules. For example, an agent can send an e-mail, publish a news item, or run a report.

task execution rule
A user-specified option within an agent that determines which statuses and values cause a task to be run. It determines which tasks to execute for each event instance.

template
In report authoring, a reusable report layout or style that can be used to set the presentation of a query or report.

thumbnail
An icon-sized rendering of a larger graphic image that permits a user to preview the image without opening a view or graphical editor.

tuple An ordered collection of two or more members from different dimensions. For example, the tuple (2007, Camping Equipment, Japan) returns the value for the intersection of the three members: 2007, Camping Equipment, and Japan. Tuples can be used to filter and sort data, and to create calculations.

U

union set
See stacked set.

user Any individual, organization, process, device, program, protocol, or system that uses the services of a computing system.

user-defined column
In metric management, a column used to represent a value other than the actual or target. It may be an industry benchmark or any other useful additional numerical information for a period, including a calculation based on the other values of the metric. User-defined columns may be different for each metric type.

W

watch list
A list of metrics that each user has chosen to monitor closely. If notification is enabled in Metric Studio, the user will receive e-mail notification of changes to these metrics. Users can also choose to display their watch list as a portlet within Cognos Connection.

watch rule
A user-defined condition that determines

whether a report is delivered to the user. When the rule is run, the output is evaluated and, if it satisfies the condition or rule, the report is delivered by e-mail or news item. Watch rules limit report delivery to those reports containing data of significance to the user.

Web Services for Remote Portlets
A standard for creating presentation-oriented web services so that they can be easily integrated within other applications, such as web portals.

widget
A portable, reusable application or piece of dynamic content that can be placed into a Web page, receive input, and communicate with an application or with another widget.

work area
The area within a studio that contains the report, analysis, query, or agent currently being used.

workspace
See dashboard.

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