ITCAM for SOA Reports
7.2 Fix Pack 1 (updated November 2015)

ITCAM for SOA Reports Installation and User Guide

SC27-4367-01

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Note

Before using this information and the product it supports, read the information in "Notices" on page 47.

Edition Notice

This 2013 edition applies to agents included in Version 7.2 Fix Pack 1 of IBM Tivoli Composite Application Manager for Applications and to all subsequent releases and modifications until otherwise indicated in new editions.

About this guide

This book provides a user, installation, and troubleshooting guide for IBM® Tivoli® Composite Application Manager (ITCAM) for SOA Reports.

Who should read this guide

This user guide is intended for users of ITCAM for SOA Reports.

Publications

This section lists publications in the product library and related documents. It also describes how to access Tivoli publications online and how to order Tivoli publications.

To access publications in the ITCAM for Applications library, see the ITCAM for Applications information center.

ITCAM for Applications library

The following publications are included in the ITCAM for Applications library, available in the ITCAM for Applications Information Center:

- *IBM Tivoli Composite Application Manager for SOA Installation Guide*

  Provides an overview of the IBM Tivoli Management Services environment and the planning information and procedures you need to install and upgrade the application support files and the monitoring agent in a distributed operating system environment.

  This guide also includes procedures for configuring support for the service-to-service topology function, including creating databases and configuring SOA Domain Management Server and Tivoli Common Object Repository in your Tivoli Enterprise Portal Server environment.

  This guide also includes procedures for enabling and disabling the various supported runtime environments for data collection by the ITCAM for SOA, version 7.2 and later monitoring agent, and optional administrative tasks to further configure your installation.
- *IBM Tivoli Composite Application Manager for SOA User's Guide*

  Provides information on monitoring and managing resources in the Tivoli Enterprise Portal environment, including details about Take Action commands, situations, workspaces and views, including service-to-service topology workspaces and views. Some problem determination information about the various components of ITCAM for SOA is also provided, as well as information about log files and informational, warning, and error messages. This publication complements the Tivoli Enterprise Portal online help information for this monitoring agent.
- *IBM Tivoli Composite Application Manager for SOA Tools*

  Provides information about installing and using the IBM Web Services Navigator, an Eclipse based plugin for extracting services information that has been collected by monitoring agents and stored, either locally or in a historical database. This tool provides the capability to retrieve historical metric data from a connected database, or assemble several locally stored metric and content log

files, and display the resulting data in several views to assist a services architect in visualizing relationships between services.

- *IBM Tivoli Composite Application Manager for Discovery Library Adapters Guide*

  Provides information about installing and running the following discovery library adapters (DLAs) provided with ITCAM for SOA: WebSphere® Service Registry and Repository Discovery Library Adapter, Business Process Execution Language for Web Services Discovery Library Adapter, and IBM Tivoli Composite Application Manager for SOA Discovery Library Adapter.
- *IBM Tivoli Composite Application Manager for SOA Troubleshooting Guide*

  Provides information about recovering from problems that you might encounter while installing, configuring, and using the product. Typical problem scenarios are described, and recovery procedures are provided. Error messages for the product are also documented in this guide.
- *IBM Tivoli Composite Application Manager for SOA WSRR Integration Guide*

  Provides information about integrating ITCAM for SOA version 7.2 with WebSphere Services Registry and Repository version 7.5 or later. The procedure for subscribing to WSRR events related to service-level definitions and the procedure for creating and deploying an SDMS configuration file is documented. The configuration file defines the rules for processing WSRR events in SDMS. Based on these rules, situations are automatically created, updated, or deleted by IBM Tivoli Monitoring when a lifecycle changes notification is received from WSRR.
- *IBM Tivoli Composite Application Manager for SOA BPM Monitoring Deployment Guide*

  Provides information about implementing an IBM BPM monitoring solution.
- *IBM Tivoli Composite Application Manager for SOA Reports Guide*

  Provides information about installing and using ITCAM for SOA Reports.

Related publications

The following documentation also provides useful information:

- IBM Tivoli Documentation Central:

  Information about IBM Tivoli Documentation is provided on the following website:

  https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/Tivoli Documentation Central
- IBM WebSphere Application Server:

  Information about IBM WebSphere Application Server is provided on the following website:

  http://www.ibm.com/software/webservers/appserv/was/library/
- ITCAM for Application Diagnostics library:

  Information about ITCAM for Application Diagnostics Managing Server is provided on the following website:

  http://publib.boulder.ibm.com/infocenter/tivihelp/v24r1/index.jsp?topic=%2Fcom.ibm.itcamfad.doc_7101%2Fic-homepage.html
- IBM DB2®:

  Information about IBM DB2 is provided on the following website:

  http://www.ibm.com/software/data/sw-library/
- IBM Support Assistant:

  Information about IBM Support Assistant is provided on the following website:

http://www.ibm.com/software/support/isa/index.html?rcss=rtlrre

Accessing publications online

The documentation CD contains the publications that are in the product library. The format of the publications is PDF, HTML, or both.

IBM posts publications for this and all other Tivoli products, as they become available and whenever they are updated, to the Tivoli Documentation Central website at https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/Tivoli Documentation Central

Note: If you print PDF documents on other than letter-sized paper, set the option in the **File → Print** window that allows Adobe Reader to print letter-sized pages on your local paper.

Ordering publications

You can order many Tivoli publications online at: http://www.elink.ibmlink.ibm.com/public/applications/publications/cgibin/pbi.cgi.

You can also order by telephone by calling one of these numbers:

- In the United States: 800-879-2755
- In Canada: 800-426-4968

In other countries, contact your software account representative to order Tivoli publications. To locate the telephone number of your local representative, perform the following steps:

1. Go to http://www.elink.ibmlink.ibm.com/public/applications/publications/cgibin/pbi.cgi
2. Select your country from the list and click **Go**.
3. Click **About this site** in the main panel to see an information page that includes the telephone number of your local representative.

Accessibility

Accessibility features help users with a physical disability, such as restricted mobility or limited vision, to use software products successfully. With this product, you can use assistive technologies to hear and navigate the interface. You can also use the keyboard instead of the mouse to operate all features of the graphical user interface.

For additional information, see Appendix E, “Accessibility,” on page 41.

Application Performance Management community on Service Management Connect

Connect, learn, and share with Service Management professionals: product support technical experts who provide their perspectives and expertise.

Access Service Management Connect at https://www.ibm.com/developerworks/servicemanagement/apm/index.html. Use Service Management Connect in the following ways:

- Become involved with transparent development, an ongoing, open engagement between other users and IBM developers of Tivoli products. You can access early designs, sprint demonstrations, product roadmaps, and prerelease code.
- Connect one-on-one with the experts to collaborate and network about Tivoli and the Application Performance Management community.
- Read blogs to benefit from the expertise and experience of others.
- Use wikis and forums to collaborate with the broader user community.

Tivoli technical training

For Tivoli technical training information, refer to the following IBM Tivoli Education website:

http://www.ibm.com/software/tivoli/education/

Support information

If you have a problem with your IBM software, you want to resolve it quickly. IBM provides the following ways for you to obtain the support you need:

Online
Access the IBM Software Support site at http://www-947.ibm.com/support/entry/portal/Open_service_request/Software/Software_support_(general).

Troubleshooting Guide
For more information about resolving problems, see the *IBM Tivoli Composite Application Manager for SOA Troubleshooting Guide*.

Conventions used in this guide

This guide uses several conventions for special terms and actions, and operating-system-dependent commands and paths.

Typeface conventions

This guide uses the following typeface conventions:

Bold

- Lowercase commands and mixed case commands that are otherwise difficult to distinguish from surrounding text
- Interface controls (check boxes, push buttons, radio buttons, spin buttons, fields, folders, icons, lists, items inside lists, multicolumn lists, containers, menu choices, menu names, tabs, property sheets), labels (such as **Tip**, and **Operating system considerations**)
- Keywords and parameters in text

Italic

- Words defined in text
- Emphasis of words (for example, "Use the word *that* to introduce a restrictive clause.")
- New terms in text (except in a definition list)
- Variables and values you must provide

`Monospace`

- Code and other examples

- File names, programming keywords, and other elements that are difficult to distinguish from surrounding text
- Message text and prompts addressed to the user
- Text that the user must type
- Values for arguments or command options

Operating-system-dependent variables and paths

The publications in this library use the UNIX convention for specifying environment variables and for directory notation.

When using the Windows command line, replace **$***variable* with **%***variable***%** for environment variables and replace each forward slash (**/**) with a backslash (\) in directory paths. The names of environment variables are not always the same in Windows and UNIX. For example, %TEMP% in Windows is equivalent to $tmp in UNIX.

Note: If you are using the bash shell on a Windows system, you can use the UNIX conventions.

Tivoli command syntax

The following special characters define Tivoli command syntax:

[ ] Identifies elements that are optional. Required elements do not have brackets around them.

... Indicates that you can specify multiple values for the previous element. Separate multiple values by a space, unless otherwise directed by command information.

If the ellipsis for an element follows a closing bracket, use the syntax within the brackets to specify multiple values. For example, to specify two administrators for the option [**–a** *admin*]..., use **–a admin1 –a admin2**.

If the ellipsis for an element is within the brackets, use the syntax of the last element to specify multiple values. For example, to specify two hosts for the option [**–h** *host*...], use **–h host1 host2**.

| Indicates mutually exclusive information. You can use the element on either side of the vertical bar.

{ } Delimits a set of mutually exclusive elements when a command requires one of them. Brackets ([ ]) are around elements that are optional.

In addition to the special characters, Tivoli command syntax uses the typeface conventions described in "Typeface conventions" on page vi. The following examples illustrate the typeface conventions used in Tivoli command syntax:

- **wcrtpr** [**–a** *admin*]... [**–s** *region*] [**–m** *resource*]... *name*

  The *name* argument is the only required element for the **wcrtpr** command. The brackets around the options indicate they are optional. The ellipses after the **–a** *admin resource* option means that you can specify multiple administrators multiple times. The ellipses after the **–m** *resource* option means that you can specify multiple resources multiple times.

- **wchkdb** [**–o** *outfile*] [**–u**] [**–x**] {**–f** *infile* | **–i** | *object*...}

  The **–f**, **–i**, and *object* elements are mutually exclusive. Braces that surround elements indicate that you are including a required element. If you specify the *object* argument, you can specify more than one object.

Part 1. Introduction

Chapter 1. ITCAM for SOA Reports

This document describes the steps for installing and using ITCAM for SOA Reports. You can use the ITCAM for SOA Reports package to create historical reports based on the data that is collected by ITCAM for SOA.

Chapter 2. ITCAM for SOA Reports Architecture Overview

ITCAM for SOA Reports is deployed in a Tivoli Monitoring environment. Tivoli Monitoring includes Tivoli Common Reporting and Tivoli Data Warehouse. ITCAM for SOA Reports is installed on Tivoli Common Reporting versions 2.1.1 or 3.1. The user interface for Tivoli Common Reporting is Tivoli Integrated Portal. You can create and view reports in the Tivoli Integrated Portal.

ITCAM for SOA Reports consists of two components:

- ITCAM for SOA Cognos® Reports
- ITCAM for SOA BIRT Reports

Note: ITCAM for SOA BIRT Reports are included for legacy purposes only and are not supported. ITCAM for SOA Reports version 7.2 and higher is a reporting tool based on the Tivoli Common Reporting Cognos model and this model will be used for subsequent releases.

Tivoli Data Warehouse is the data source for ITCAM for SOA Reports. When you enable historical data collection for ITCAM for SOA, the collected data is stored in Tivoli Data Warehouse.

ITCAM for SOA Reports includes Cognos Data Model.

Chapter 3. Prerequisites and preinstallation tasks for ITCAM for SOA Reports

Verify that your computer meets the system and software prerequisites.

System and Software Prerequisites

The following software prerequisites are required before you install ITCAM for SOA Reports:

Table 1. Software prerequisites

Prerequisite	Information center
Tivoli Monitoring version 6.2.2 FP3 or higher	IBM Tivoli Monitoring information center
Tivoli Common Reporting version 2.1.1 or version 3.1	Tivoli Common Reporting information center
ITCAM for SOA 7.2 fix pack 1	ITCAM for SOA Agent information center
Tivoli Data Warehouse	Tivoli Data Warehouse is part of IBM Tivoli Monitoring IBM Tivoli Monitoring information center
Java™ Runtime Environment (JRE) 1.5 or higher when you install ITCAM for SOA Reports using the installer	

See the Software product compatibility reports website to generate various reports that are related to product and component requirements.

To view the system requirements for server-side components in ITCAM for SOA version 7.2 and later, see the Server-side components detailed system requirements report.

To view the system requirements for agent-side components in ITCAM for SOA version 7.2 and later, see the Agent-side components detailed system requirements report.

Databases supported

The databases that are supported are the same as the databases supported by Tivoli Data Warehouse:

- IBM DB2 Universal Database™ V9.5.2 with fix packs
- IBM DB2 Universal Database V9.7 with fix packs
- IBM DB2 Universal Database V9.8 with fix packs
- IBM DB2 Universal Database V10.1 with fix packs
- Oracle Database 10g Release 2
- Microsoft SQL Server 2005 SP3
- Microsoft SQL Server 2008 SP2
- Microsoft SQL Server 2012

Chapter 4. Installing ITCAM for SOA Reports

You can install ITCAM for SOA Reports using the installer or you can perform a manual installation.

There are three methods for using the installer: GUI installation, silent installation, and console installation.

Determining whether to use the installer or a manual installation

You can use the installer to install ITCAM for SOA Reports. Be aware that when you use the installer in GUI mode, console mode, or silent mode, if you accept the default values, all data in the Tivoli Reporting and Analytics Model (TRAM) tables is lost. If an existing reports package was installed for another agent or if ITCAM for SOA Reports was previously installed, all data in the TRAM tables is overwritten. As a result, all customization is lost. If you want to avoid loss of customization, do a manual installation.

Installer Installation

Preinstallation steps:

- "Editing the create_table_oracle.sql script (Oracle only)" on page 13
- "Modifying the time period that is used to populate the TIME_DIMENSION table" on page 12
- "Enabling historical data collection" on page 12
- Configuring database connections on the Tivoli Common Reporting environment, see "Configuring database client connections" on page 10

Installation steps:

- "GUI Installation of ITCAM for SOA Reports" on page 14
- "Installing ITCAM for SOA Reports using the console mode" on page 18
- "Silent Installation of ITCAM for SOA Reports" on page 21

Manual Installation

Preinstallation steps:

- "Enabling historical data collection" on page 12
- Configuring database connections on the Tivoli Common Reporting environment, see "Configuring database client connections" on page 10.

Installation steps:

- Importing the report package into the Tivoli Common Reporting, see "Import the report package" on page 22

Pre-installation Steps

You must complete a number of pre-installation steps before you install ITCAM for SOA Reports.

If you are using the installer to install ITCAM for SOA Reports or performing a manual installation, complete the following pre-installation steps:

- "Configuring database client connections"
- "Enabling historical data collection" on page 12
- "Modifying the time period that is used to populate the TIME_DIMENSION table" on page 12
- "Editing the create_table_oracle.sql script (Oracle only)" on page 13

If you are performing a manual installation, you must also configure data connections on the Tivoli Common Reporting environment (see "Configuring database client connections").

Configuring database client connections

The data store for Tivoli Common Reporting is Tivoli Data Warehouse. Tivoli Data Warehouse can use a DB2, Oracle, or Microsoft SQL Server database. Tivoli Common Reporting uses native database clients to connect to the database. For Microsoft SQL, however, the installer sets up an ODBC connection, but a native client can be used also.

If Tivoli Common Reporting and the Tivoli Data Warehouse database are on different servers, you must complete three steps to configure database settings on Tivoli Common Reporting:

1. Install a database client on Tivoli Common Reporting
2. Connect the database client on Tivoli Common Reporting to Tivoli Data Warehouse database
3. If you are doing a manual installation, create a data source connection in Tivoli Common Reporting.

Depending on your database, complete the following steps to configure the database settings:

- Microsoft SQL Server: "Configuring Microsoft SQL Server database"
- Oracle:"Configuring an Oracle database" on page 11
- DB2: "Configuring a DB2 database" on page 11

Configuring Microsoft SQL Server database

Procedure

1. Install the Microsoft SQL Server database client on the Tivoli Common Reports computer where you will install ITCAM for SOA Reports. Use the same version of Microsoft SQL Server database client as the version of the Microsoft SQL Server database that Tivoli Common Reporting is using.
2. To connect the Microsoft SQL Server client to the database server, run the Microsoft SQL Server Management Studio Express®. Configure the local net service name configuration, and reboot.
3. If you are doing a manual installation, complete the following steps in Tivoli Common Reporting to create a Microsoft SQL Server data source:
   a. In the **IBM Cognos Administration** window, select **Data Source Connections**. From the **Type** list, select **Microsoft SQL Server (SQL 2005 Native Client).**
   b. In the **Server name** field, specify the host name of the Microsoft SQL Server. In the **Database name** field, enter the Tivoli Data Warehouse database name (usually WAREHOUS), and specify the login details.

Configuring an Oracle database

Procedure

1. Install the Oracle database client on the Tivoli Common Reporting computer where you plan to install ITCAM for SOA Reports. Use the same version of the Oracle database client as the version of the Oracle server database that Tivoli Common Reporting is using.
2. To connect the Oracle database client to the database server, start the Oracle Net Configuration Assistant. Configure the local net service name configuration, and reboot. If Net Configuration Assistant is not available, follow the instructions on the Oracle website for creating a connection for your database version.
3. If you are doing a manual installation, complete the following steps to create an Oracle data source in Tivoli Common Reporting:
   a. In the **IBM Cognos Administration window,** select **Data Source Connections**. From the **Type** list, select **Oracle.**
   b. In the **SQL*Net connect string** field, enter WAREHOUS. This is the service name you provided in the Oracle Net Configuration Manager Assistant.
4. Export the *TNS_ADMIN* environmental variable, and restart the Tivoli Common Reporting server before installing ITCAM for SOA Reports. The TNS_ADMIN variable should point to the location of the Oracle `tnsnames.ora` file.

Configuring a DB2 database

Procedure

1. Install the DB2 database client on the Tivoli Common Reporting computer where you will install ITCAM for SOA Reports. Use the same version of the DB2 client as the version of the DB2 server database that Tivoli Common Reporting is using.
2. Connect the DB2 database client to the DB2 database server. Configure the local net service name configuration, and reboot. For more details, see "Connecting to a DB2 database"
3. For a manual installation, in Tivoli Common Reporting in the **IBM Cognos Administration window,** select **Data Source Connections** and enter the database name and Tivoli Monitoring user login details.
4. Copy the database library to the *cognos_home*`/bin` directory. If Tivoli Common Reporting is installed on a UNIX or Linux system, copy the `libdb2.a` (or `libdb2.so`) file from the DB2 installation directory to the *cognos_home*`/bin` directory. To resolve directory path variables, see Appendix C, "Variables for directories," on page 37.

Connecting to a DB2 database:
Procedure

Run the following DB2 commands:

```
db2 catalog tcpip node TDW_datasource remote host.domain.com server 50000
db2 catalog database WAREHOUS as db_alias at node TDW_datasource authentication server
```

where
TDW_datasource is the name of the Tivoli Data Warehouse datasource that connects to the database.
host.domain.com is the DNS name of the computer where the DB2 database is located.

WAREHOUS is your Tivoli Data Warehouse database name. *db_alias* can be any name of your choice.

For example:

```
db2 => catalog tcpip node TDW remote dbserver.domain.com server 50000
db2 => catalog database WAREHOUS as WAREHOU1 at node TDW authentication server
```

Enabling historical data collection

Before you install ITCAM for SOA Reports, enable historical data collection and configure summarization and pruning for ITCAM for SOA.

Enable historical data collection for the following attribute groups:

- Fault_Log_610
- Services_Inventory_610
- Services_Inventory_ReqID_610

Important:

- When you enable historical data collection for the Fault_Log_610 attribute group, ensure that the collection interval is less than 10 minutes. The Fault_Log_Table_610 is recycled every 10 minutes. If the collection interval is set to greater than 10 minutes, some fault logs might not be collected. For more information about how to configure historical data collection, see http://publib.boulder.ibm.com/infocenter/tivihelp/v15r1/index.jsp?topic=%2Fcom.ibm.itm.doc_6.2.2fp2%2Fhistory_configureintro_tep.htm.
- No summarization is performed on the Fault_Log_610 table. Because there is no calculation column in the table, there is nothing to summarize. As a result, the detail in Tivoli Data Warehouse is the same as the detail in the Fault_Log_610 table. If you are creating an on-demand report based on the Fault_Log_610 table, any summarization must be achieved via the report query.

Modifying the time period that is used to populate the TIME_DIMENSION table

The Tivoli Reporting and Analytics Model (TRAM) tables are created when you install ITCAM for SOA Reports.

About this task

When you install ITCAM for SOA Reports, the following tables are created in Tivoli Data Warehouse:

- ComputerSystem
- MONTH_LOOKUP
- TIMEZONE_DIMENSION
- TIME_DIMENSION
- WEEKDAY_LOOKUP

These tables are called the Tivoli Reporting and Analytics Model (TRAM) tables. If an existing reports package was installed for another agent, or if ITCAM for SOA Reports was previously installed, all data in the TRAM tables is overwritten. As a result, all customization is lost.

To specify the time period for reports, you run a script to populate the TIME_DIMESION table. You can specify the period of time and the interval of time

for your reports. For example, if historical data collection is running for the ITCAM for SOA for the previous three months, you can specify that you want to populate the table with data from only the last month at 60-minute intervals.

Procedure

1. Open one of the following scripts in a text editor:

   DB2: `call_proc_DB2.sql`
   Microsoft SQL Server: `call_proc_MSSQL.sql`
   Oracle: `call_proc_ORACLE.sql`

   The script is located in the *ITCAM for SOA_Agent_Reports_HOME*`\reports\cognos_reports\itcam_soa_cognos_report\db_scripts` folder. The script has three parameters: start_date, end_date, and data frequency.
2. Modify the following line in the script

```
call IBM_TRAM.CREATE_TIME_DIMENSION('2011-01-01-00.00.00.000000','2012-01-01-00.00.00.000000',5)
```

   where

   start_date
   use the following format: YYYY-MM-DD-HH.MM.SS.MS

   end_date
   use the following format YYYY-MM-DD-HH.MM.SS.MS

   data frequency
   enter a numeric value to indicate the data frequency in minutes

Editing the create_table_oracle.sql script (Oracle only)

This task applies only to implementations where Oracle is used.

About this task

When you install ITCAM for SOA Reports, the TRAM tables are created in Tivoli Data Warehouse. If you use an Oracle database, amend the script so that it includes system user credentials.

Procedure

1. Open the `create_table_ORACLE.sql` file that is located in *ITCAM for SOA_Agent_Reports_HOME*`\reports\cognos_reports\itcam_soa_cognos_report\db_scripts`.
2. Set the parameters based on the following table:

Table 2. Parameters for `create_table_ORACLE.sql`

Parameter	Description
DEFAULT_TBSPC	Defines default tablespace for IBM_TRAM
TEMPORARY_TBSPC	Defines temporary tablespace for IBM_TRAM
ITM_USER	Defines Tivoli Data Warehouse user ID
TCR_PASS	Defines IBM_TRAM user password
SYS_USER	Defines the ID of the system user with permission to create a user account

Table 2. Parameters for `create_table_ORACLE.sql` (continued)

Parameter	Description
SYS_PASS	Defines the password for SYS_USER

Using the Installer to install ITCAM for SOA Reports

Use the installer to install ITCAM for SOA Reports on Tivoli Common Reporting.

There are three methods for using the installer: GUI installation, silent installation, and console installation.

- "GUI Installation of ITCAM for SOA Reports"
- "Installing ITCAM for SOA Reports using the console mode" on page 18
- "Silent Installation of ITCAM for SOA Reports" on page 21

GUI Installation of ITCAM for SOA Reports

About this task

Install ITCAM for SOA Reports on an existing installation of Tivoli Common Reporting. To install, complete the following steps:

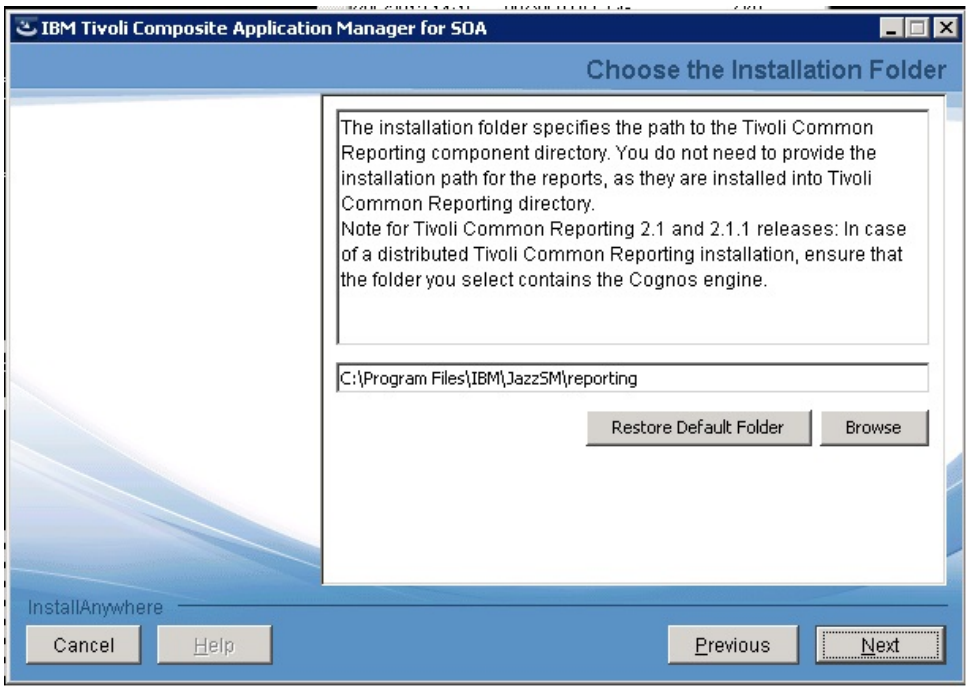
Procedure

1. To begin the installation, run one of the following commands:

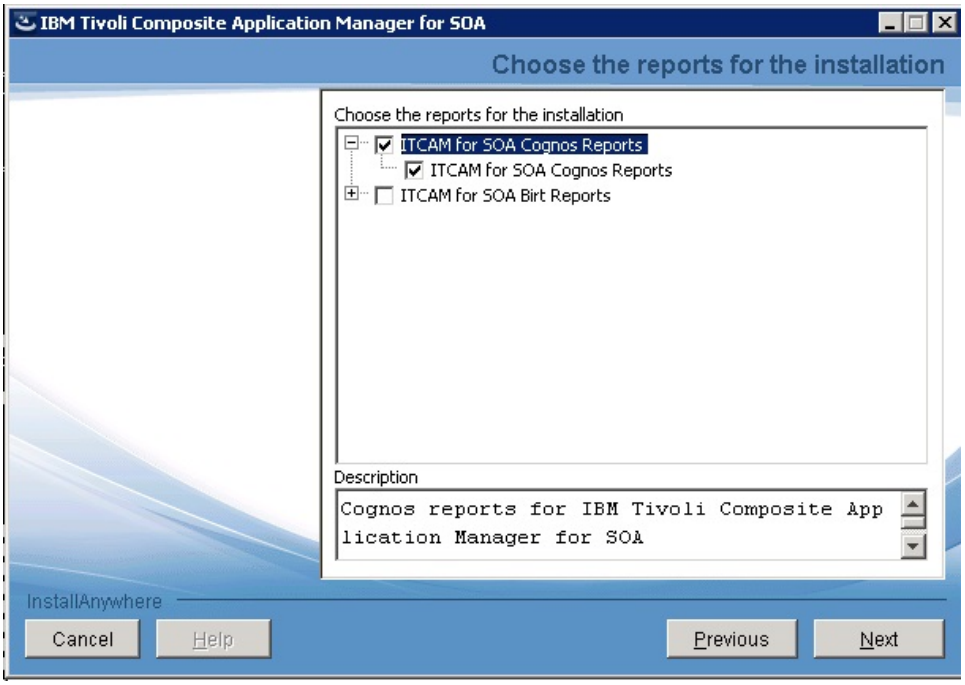
   Windows: `setup_windows.exe`
   AIX: `setup_aix.bin`
   Linux: `setup_linux.bin`
   HP (Tivoli Common Reporting 2.1.1 only): `setup_hpux.bin`
   Solaris: (Tivoli Common Reporting 2.1.1 only): `setup_solaris.bin`

   The Tivoli Report Installer opens.

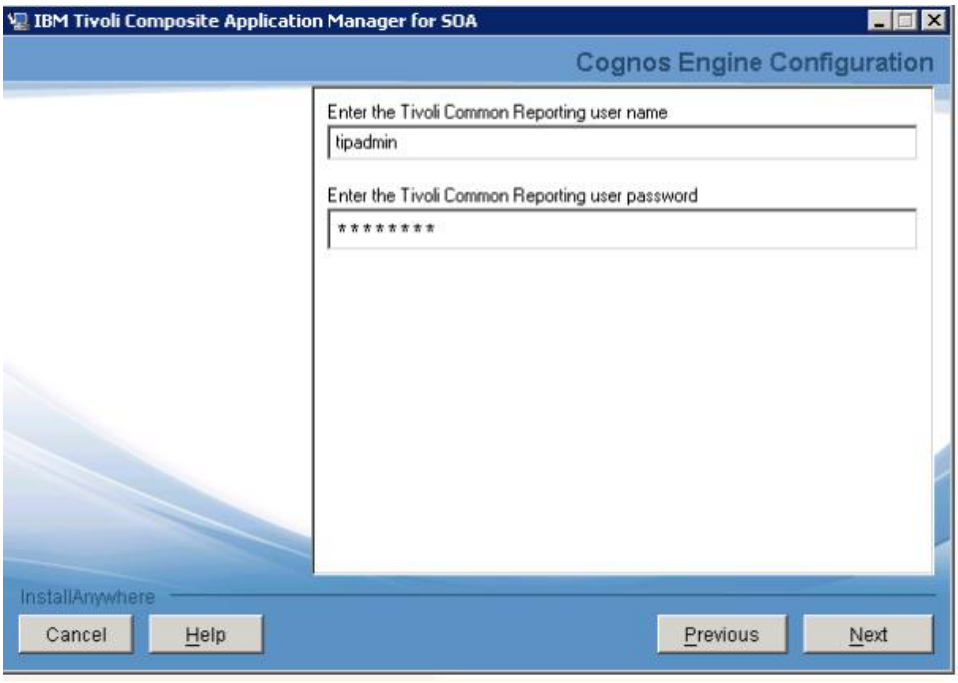
2. Select the installation language and click **OK.** The **Choose the Installation Folder** window opens.



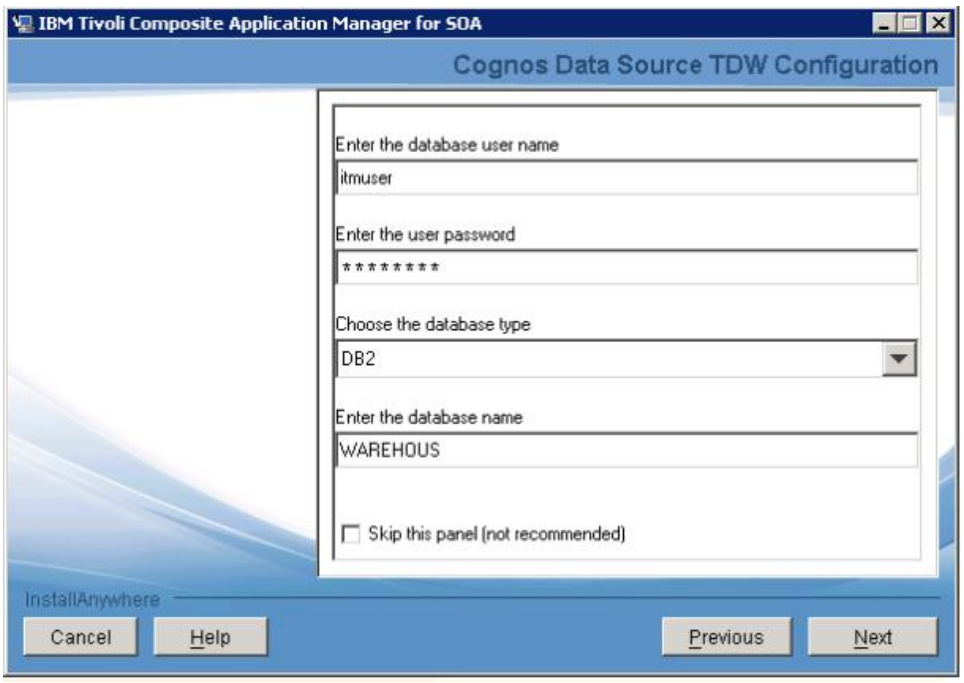
3. Enter the location of the Tivoli Common Reporting Component directory. Click **Next.** The **Choose the reports for the installation** window opens.



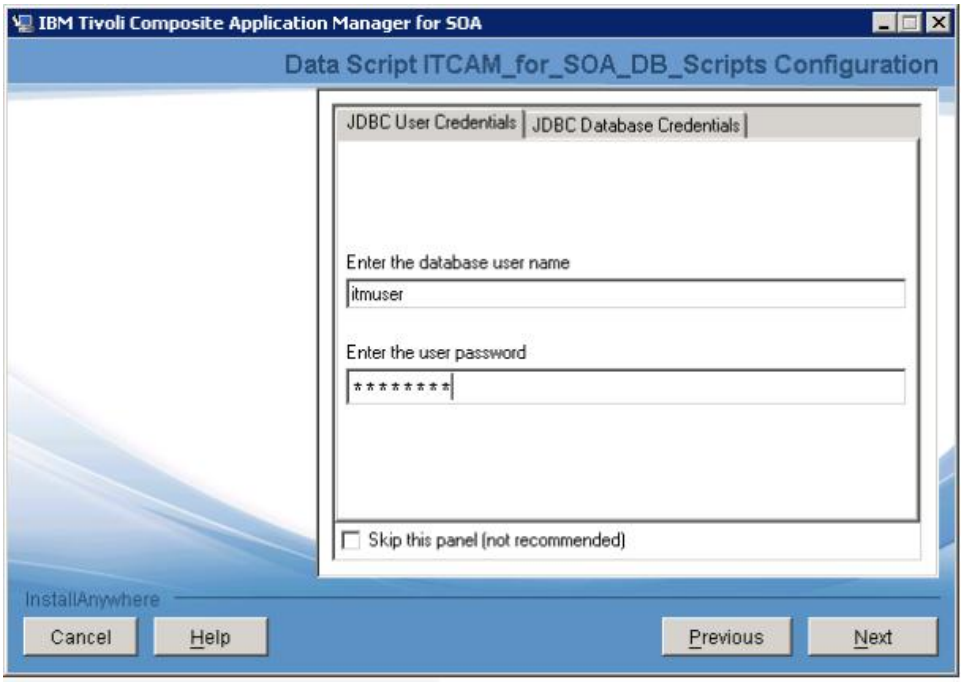
4. Select **ITCAM for SOA Cognos Reports** or **ITCAM for SOA Birth Reports**, or both, and click **Next.** The **Cognos Engine Configuration** window opens.



5. Enter the Tivoli Common Reporting user name and password. Click **Next.** The **Cognos Data Source TDW Configuration** window opens.



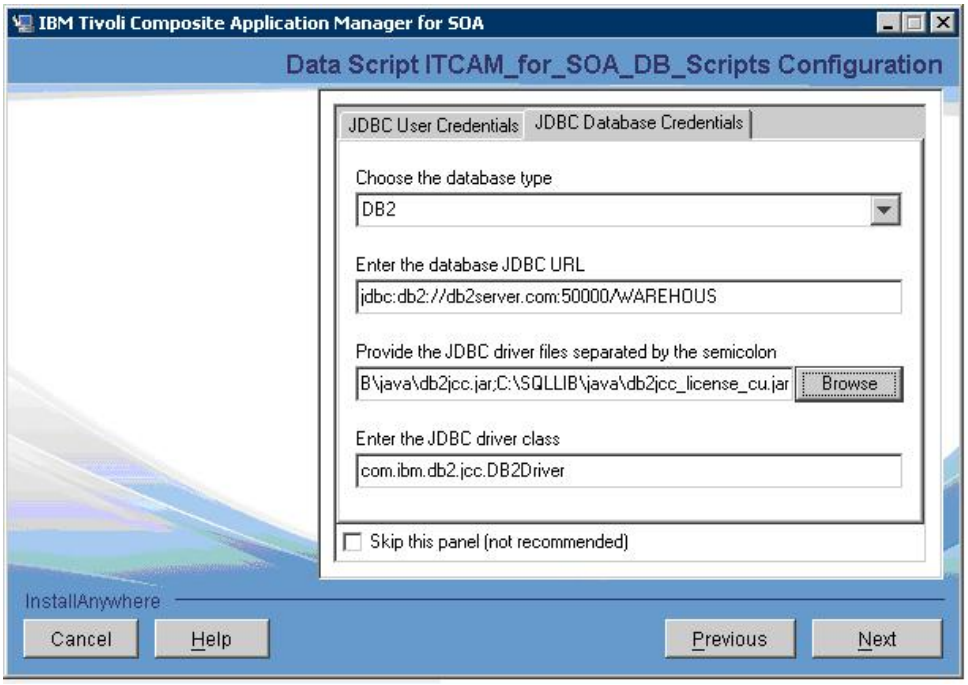
6. Enter the Tivoli Data Warehouse details. If you previously installed a reports package, the Tivoli Data Warehouse data source is already created and you can skip this step. Click **Next.** The **Data Script ITCAM_for_SOA_DB_Scripts Configuration** window opens.



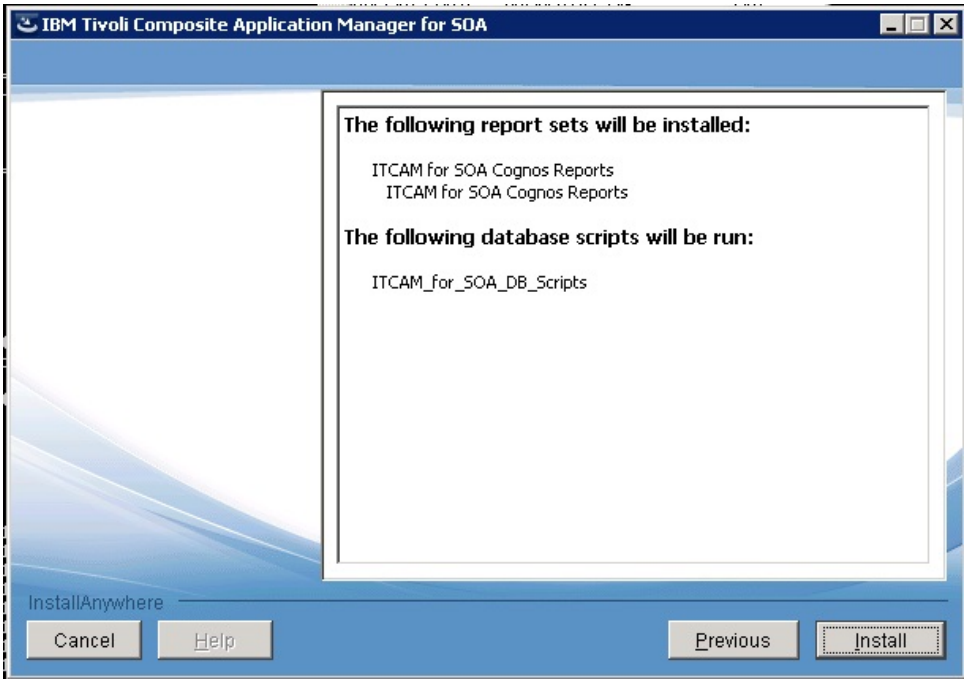
7. Enter the JDBC User Credentials. If you are installing both ITCAM for SOA Cognos Reports and ITCAM for SOA BIRT Reports, JDBC information must be entered twice. Select the JDBC Database Credentials tab.

   Remember: If you customized the TRAM tables as part of an existing ITCAM for SOA Cognos Reports installation or reports installation by another agent, you must check the **Skip this panel** check box to retain your customizations.

8. Enter the JDBC Database Credentials. Click **Next.**



9. Verify that the features you selected are listed and click **Install**.



To verify the installation, open Tivoli Common Reporting. ITCAM for SOA is listed in the Common Reporting tab.

Installing ITCAM for SOA Reports using the console mode

You can install ITCAM for SOA Reports from a command line. You can use this method if an X window server is not available during the installation on a Linux or UNIX system.

Procedure

1. Open a command line and run of the following commands:

   Windows: `setup_windows.exe -i console`
   AIX: `setup_aix.bin -i console`
   Linux: `setup_linux.bin -i console`
   HP (Tivoli Common Reporting 2.1.1 only): `setup_hpux.bin -i console`
   Solaris (Tivoli Common Reporting 2.1.1 only): `setup_solaris.bin -i console`

2. The installation program displays the following information:

   ```
   Choose Locale...
   1- GERMAN
   2- English
   3- SPANISH
   4- FRENCH
   5- ITALIAN
   7- PORGUGUESE_BRAZIL
   ```

   Enter the number that corresponds to your installation language.

3. The installation program displays the following welcome message:

   ```
   Welcome
   -------

   InstallAnywhere will guide you through the installation of IBM Tivoli Composite
   Application Manager for SOA.

   It is strongly recommended that you quit all programs before continuing with
   this installation.

   Press Enter to proceed to the next window. If you must change anything in the
   previous window, type "back" and press Enter.

   You may quit this installation at any time by typing "quit" and pressing Enter.

   PRESS <ENTER> TO CONTINUE
   ```

   Press **Enter**.

4. The installation program displays the following information:

   ```
   Choose the Installation Folder
   ------------------------------

   The installation folder specifies the path to the Tivoli Common Reporting
   component directory. You do not need to provide the installation path for the
   reports, as they are installed into Tivoli Common Reporting directory.
   Note for Tivoli Common Reporting 2.1 and 2.1.1 releases: In case of a
   distributed Tivoli Common Reporting installation, ensure that the folder you
   select contains the Cognos engine.


     Default Install Folder: C:\Program Files\IBM\JazzSM\reporting

   ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
   ```

   Press **Enter**.

5. The installation program displays the following information:

   ```
    1- ITCAM for SOA Cognos Reports
    2- ITCAM for SOA Birt Reports

    3- After selecting the report sets, choose this option to
   continue the installation
   ```

Enter *1*.

6. The installation program displays the following information:

```
1- ITCAM for SOA Cognos Reports
2- Choose this option to select or deselect all the above report sets
Choose the report sets for the installation or press Enter to continue:
```

   Enter *1* to indicate that you want to install ITCAM for SOA Reports.

7. Complete the following Cognos Engine configuration steps:
   a. The following message is displayed:

```
Enter the Tivoli Common Reporting user name (DEFAULT: tipadmin):
```

   b. The following message is displayed:

```
Enter the Tivoli Common Reporting user password:
```

8. Complete the following Cognos Data Source Tivoli Data Warehouse configuration steps:
   a. The following message is displayed:

```
Do you want to configure the TDW datasource? (if not, this configuration
   will be skipped) (Y/N): Y
```

      Enter *y* for yes.

   b. The following message is displayed:

```
Enter the database user name (DEFAULT: itmuser):
```

   c. The following message is displayed:

```
Enter the user password:
```

   d. The installation program displays:

```
1- DB2
2- ORACLE
3- MSSQL

Choose the database type:
```

   e. The installation program displays:

```
Enter the database name
```

   f. The installation program displays:

```
Enter the ODBC Data Source Name (DEFAULT: IBMDB):
```

9. The Data Script Configuration step is next. The installation program displays:

```
Do you want to run the ITCAM_for_SOA_DB_Scripts database script? (Y/N): Y
```

   Enter *y* for yes.

10. The Data Script SOA_Agent_DB_Scripts Configuration steps are next. Complete the following steps:
    a. The following message is displayed:

```
Enter the database user name (DEFAULT: itmuser):
```

    b. The following message is displayed:

```
Enter the user password:
```

    c. The following message is displayed:

```
1- DB2
2 -ORACLE
3- MSSQL
Choose the databse type:
```

    d. The following message is displayed:

```
Enter the database JDBC URL in the following format
jdbc:db2://<host>:<port>/<database_name>
```

e. The following message is displayed:

```
Provide the JDBC driver files separated by the semicolon
```

f. The following message is displayed:

```
Enter the JDBC driver class
```

11. The installation program displays the following summary message:

```
The following report sets will be installed:

[ITCAM for SOA Cognos Reports] ITCAM for SOA Cognos Reports

The following database scripts will be run:

ITCAM_for_SOA_DB_Scripts

PRESS <ENTER> TO CONTINUE
```

Press **Enter** to complete the installation.

12. On successful installation, the following prompt is displayed:

```
The installation results
SUCCESS The database scripts: SOA_Agent_DB_Scrips
SUCCESS Install the reports: ITCAM Agent for SOA Reports
SUCCESS Create Cognos data source:TDW
```

Silent Installation of ITCAM for SOA Reports

Instead of doing a GUI installation or using the interactive command mode, you can use a command that points to a response file to install and configure ITCAM for SOA Reports.

Procedure

1. Before you run a silent installation, create the silent installation response file. The `silent_install.properties` file is a sample response file. Use this file as a template for your response file.
2. Run one of the following commands to perform a silent installation:

   UNIX or Linux: `setup_`*`platform`*`.bin –i silent –f` *`path_to_the_response_file`*
   Windows: `setup_windows.exe –i silent -f` *`path_to_the_response_file`*

   For an example of the response file template, see Appendix A, “Silent Response file,” on page 31

Results

ITCAM for SOA Reports is installed and the following log files are created:

Table 3. Installer log files

UNIX or Linux	/root/Report_Installer_For_TCR_Output.txt /root/Report_Installer_InstallLog.log
Windows	C:\Users\Administrator\Report_Installer_For_TCR_Output.txt C:\Users\Administrator\Report_Installer_InstallLog.log

Manually Installing ITCAM for SOA Reports

You can manually install ITCAM for SOA Reports on Tivoli Common Reporting.

Before you manually install ITCAM for SOA Reports, complete the following preinstallation steps:

- "Enabling historical data collection" on page 12
- "Configuring database client connections" on page 10

To manually install ITCAM for SOA Reports, import the reports package into Tivoli Common Reporting (see "Import the report package").

If you have not previously used the installer to create the Tivoli Reporting and Analytics Model (TRAM) tables, you might want to create the TRAM schema and tables manually. For information about creating the TRAM tables, see the section "Creating and maintaining the dimension tables" in the Tivoli Common Reporting Information Center .

Import the report package

You can manually install ITCAM for SOA Reports by importing the reports package located on the installation media into Tivoli Common Reporting.

About this task

The reports package is available here: *ITCAM for SOA_Agent_Reports_HOME*/reports/cognos_reports/itcam_soa_cognos_report/package

Procedure

1. Extract the reports package, `ITCAM_for_SOA_Reports_v72.zip` on Windows systems or `ITCAM_for_SOA_Reports_v72.tar.gz` on Linux or AIX® systems.
2. Copy the `ITCAMfSOA_v72.zip` file to the *TCR_home* folder.
3. Log in to Tivoli Common Reporting interface and select **Common Reporting.**
4. Under **Work with Reports,** click **Launch** -> **IBM Cognos Administration.**
5. On the **Configuration** tab, select **Content Administration.**
6. Click the **New Import** icon.
7. Select **ITCAMforSOA_v72** deployment archive in the table. Compete the wizard with the default values.
8. Select **Save and run once** and click **Finish.**
9. Run the import step at the end.

Manually install BIRT Reports

You manually install BIRT reports into ITCAM for SOA Reports using the `trccmd` command.

Procedure

1. Copy the required JDBC driver files to the following directory:

TCR_home\reporting\lib\birt-runtime-2_2_2\ReportEngine\plugins\org.eclipse.birt.report.data.oda.jdbc_2.2.2.r22x_v20071206\drivers.

The required JDBC files are as follows:

- For DB2, copy `db2jcc.jar` and `db2jcc_licence_cu.jar`
- For Oracle, copy `ojdbc14.jar` and `ojdbc14_g.jar`
- For Microsoft SQL, copy `sqljdbc.jar`

Important: The sqljdbc4.jar file requires JRE version 6 which comes with Tivoli Common Reporting 2.1.1. If the Tivoli Common Reporting also has JRE version 5 installed, the installation will fail if the sqljdbc4.jar file is used for both ITCAM for SOA BIRT Reports and ITCAM for SOA Cognos database scripts configuration. In this case, run the installer with the sqljdbc4.jar file for ITCAM for SOA BIRT Reports data source configuration and the sqljdbc.jar file for ITCAM for SOA Cognos database scripts configuration. Alternatively, you can launch the installer to use a specific JRE version 6 for the installation process, for example, on Windows systems, start the installer with the following parameter: C:\temp\setup_windows.exe LAX_VM "C:\IBM\Tivoli\tipv2\java\jre\bin\java.exe".

2. To import BIRT reports, run the following command from the *TCR_home*\reporting\bin directory:

```
trcmd -import -bulk pkgFile [-reportSetBase rsBase] [-resourceBase resourceBase] [-designBase designBase] [-help]
```

For example,

```
trcmd -import -bulk C:\ITCAM\SOA711FP3\KD4\Reports\ITCAMForSOAReports.zip -user tipadmin -password tipadmin
```

3. To set the data source, run the following command from the *TCR_home*\reporting\bin directory:

```
rcmd -modify -dataSources -reports [-reportName cognosSearchPath] [-displayName displayNameQuery] [-dataSource
p1 p2 p3] [-caseSensitive] -setDatasource p1 p2 p3 [-help]
```

For example

```
trcmd -user administrator -password password -modify -datasources -reports -reportname "/content/package[@name=
'Tivoli Products']/folder[@name='ITCAM for SOA Reports']/report[@name='Services Inventory']" -setdatasource
odaDriverClass=com.ibm.db2.jcc.DB2Driver "odaURL=jdbc:db2:/
/9.162.125.34:50000/WAREHOUS:currentSchema=ITMUSER;" odaUser=db2admin odaPassword=4db2admin
```

Note: In all steps, replace TCR_home with the name of the Tivoli Common Reporting installation directory.

Chapter 5. Create Reports

You can run predefined reports or create on-demand or customized reports.

There are three types of reports available in ITCAM for SOA Reports:

Predefined
These are available immediately after you install ITCAM for SOA Reports.

On-Demand
You create these in Query Studio.

Customized
You create these in Reports Studio.

Query Studio

Query Studio contains two views:

Query view
Use this view to create on-demand reports based on the relational data model

Analysis view
Use this view to create on-demand reports based on the dimensional data model

Running predefined reports

A number of predefined reports are available in ITCAM for SOA Reports.

About this task

To run predefined reports, complete the following steps:

Procedure

1. Go to the Tivoli Common Reporting Cognos home page in the Tivoli Integrated Portal.
2. Select the ITCAM for SOA v7.2 Reporting package. The list of predefined reports is displayed.
3. Click a report name to run that report. To run a report with options, such as changing the report format, click the green arrow icon to the right of the report name. For more details on running reports, see the Tivoli Common Reporting information center.

Creating on-demand reports based on the relational data model

In addition to running predefined reports, you can also create on-demand reports.

Create on-demand reports using the query view in Query Studio. The query view contains the relational data model, consisting of *dimensions* and *metrics.* Metrics are measurable numeric attributes that can be aggregated by dimensions. The relationships between the metric tables are defined using various dimensions, including the common dimension, Time.

Dimensions are grouped into two separate groups:

- ITCAM for SOA Shared Dimensions: Use these tables to create reports based on multiple ITCAM for SOA tables, see "Modifying the time period that is used to populate the TIME_DIMENSION table" on page 12
- TRAM Shared Dimension: Use these tables to create reports based on data collected by any Tivoli product. The following table describes the TRAM shared dimensions table:

Table 4. TRAM shared dimensions table

Dimension	Description	Related Metrics Tables
Time	This is a Tivoli Reporting and Analytics Model shared dimension and includes various attributes of time by which the metrics can be grouped, such as Date (08/14/2012), Standard Timestamp (08/14/2009 12:00 AM), Weekday (Friday), Month (August), Quarter (3), Year (2009). This has a relationship to the metric tables for all tables.	All metric tables
AppServerName	Unique application server names that are being monitored	All metric tables
Service Name	Unique service names per application server name	All metric tables
Operation Name	Unique operation names per application server and service name	All metric tables

To create an on-demand report, drag a dimension or metric to the reporting area. This groups the data by selected dimensions. You can either see the data live as you drag selected metrics and dimensions into the reporting area, or you can switch the mode to show placeholders for the data and then run the report. To run the report without data or limited data, select **Run Report** and then select **Preview with limited data or Preview with No Data.**

Creating on-demand reports with the dimensional data model

Use the analysis view in Query Studio to create reports that are based on the dimensional data model.

Create on-demand reports using the IBM Cognos Reporting application.

Cognos Query Studio contains two views, the analysis view and the query view. Use the query view to create on-demand reports. Use the analysis view to create reports that you can drill down on. The dimensions in the analysis view provide drill through capabilities. The tree model structure is similar for both of these views, however the analysis view contains only one table, the Services Inventory ReqID 610 table. Select a dimension from this table and drag it to the reporting area. Dimension labels are underlined indicating it is a link that you can drill down on. The following table describes the dimensions:

Table 5. Dimensions

Dimension	Description	Related Metrics Tables
Time (year, quarter, month, week, day, hour, min)	You can use the Time dimension to drill down through from month to week, from week to day, and so on.	All metric tables.
All Service Requesters	You can use the All Service Requesters dimension to drill down from application server name to requester ID. The drill down path is : application server -> service name -> operation name -> requester ID.	All metric tables.

Creating customized reports in IBM Cognos Reporting

You can create customized reports in IBM Cognos Reporting

Report Studio

Use the Cognos Report Studio component in IBM Cognos Reporting to create customized reports. For more information on IBM Cognos Report Studio, see the Cognos product manuals. http://publib.boulder.ibm.com/infocenter/c8bi/v8r4m0/index.jsp.

Editing the Data Model

You can edit the data model to add any custom models specific to your reports requirements. The model files are available from the *ITCAM_for_SOA_Report_Installer_Home*/*model*/ITCAM_for_SOA_Data_Model directory, where *model* is the version of the Cognos model. Extract the files and open the ITCAM_for_SOA_Data_Model.cpf in your Cognos Framework Manager.

Note: Do not modify any existing models and structures; add only your new models. For more information about connecting IBM Cognos Framework Manager with Tivoli Common Reports, see the Tivoli Common Reporting Information Center.

Part 2. Appendixes

Appendix A. Silent Response file

This is the silent response file template (silent_install.properties).

```
# Report installer response file
#----------------------------------------
# License agreement must be accepted otherwise the installer
# will quit the installation immediately and no features will
# be installed.  LICENSE_ACCEPTED must be either 'true' or 'false'.
LICENSE_ACCEPTED=true

#----------------------------------------
# Choose Install Folder. This is the folder where TCR is installed.
# Note that this folder must point to 'TCRComponent' directory for TCR 2.1/TCR 2.1.1
# or it must point to 'reporting' directory for TCR 3.1.
# In case of Windows system should contain double backslash as
# directory separator, e.g.:
#USER_INSTALL_DIR=/opt/IBM/tivoli/tipv2Components/TCRComponent
#USER_INSTALL_DIR=C:\\IBM\\tivoli\\tipv2Components\\TCRComponent
USER_INSTALL_DIR=C:\\Program Files\\IBM\\JazzSM\\reporting

#----------------------------------------
# SELECTED_FEATURES_LIST - Comma-separated list of features chosen for installation.
# List items are composed out of the following parts:
# 1. Report type (technology) defined in reports.properties ('birt' or 'cognos')
# 2. Project - defined in package.properties for a certain type
# 3. Report set - defined by <project>.report.sets in package.properties for a certain type
#  For example: <report_type>.<project>.<report_set> ==> birt.itpa_reports.os
SELECTED_FEATURES_LIST=cognos.itcamfsoa,birt.itcamfsoa

#----------------------------------------
# TCR engine configuration

# TCR user name
tip.user.name=tipadmin

# Enter password for tipadmin
tip.user.pass=tipadmin

#----------------------------------------
# Number of JDBC-based data sources configured in to be created or altered.
# Number of database scripts or Cognos data sources is not included here.
#Do not change the value
current_jdbc_ds_diag=1

#----------------------------------------
# Data sources configuration for BIRT reports
# These data use JDBC drivers. Thus all necessary JDBC information
# need to be entered.
#
# Data source property naming convention:
# <report_type>.ds.<number>.<suffix>
# Where:
# report_type may be 'birt' or 'cognos'
# number - data source number within the giver report_type (starts from 1)
#   if there is more than one data source there should be two definition blocks:
# one for data source 1, second for data source 2, etc.
# suffix - identifies the property

# Indication if creation/editing of this datasource should be skipped:
# set 'true' to skip, 'false' to create/edit existing
birt.ds.1.skip=false
```

```
# TDW data source - BIRT reports
# datasource name - unique name defined in package.properties
birt.ds.1.name=IBM ITM Datawarehouse Data source

# JDBC user name
birt.ds.1.db.user.name=db_user

# JDBC user password
birt.ds.1.db.user.pass=db_password

# Database type. The following databases are allowed:
# DB2, ORACLE, MSSQL
birt.ds.1.db.type=DB2

# JDBC URL. The url must be appropriate for the driver used.
# Before applying an URL make sure it fits the driver.
# Here are some examples:
# DB2: jdbc:db2://<host>[:<port>]/<database_name>
# Oracle: jdbc:oracle:thin:@<host>:<port>:<database>
# MSSQL: jdbc:sqlserver://<host>[:<port>];databasename=<database>
birt.ds.1.jdbc.url=jdbc:db2://localhost:50000/WAREHOUS

# Fully qualified path to JDBC driver(s) - driver files must be separated by a semicolon
# (no matter the os platform)
birt.ds.1.jdbc.driver=F:\\MyFiles\\db2jcc.jar;F:\\MyFiles\\db2jcc_license.jar

# JDBC driver class. To the URLs given above the following driver classes can be applied (respectively):
# DB2: com.ibm.db2.jcc.DB2Driver
# Oracle: oracle.jdbc.driver.OracleDriver
# MSSQL: com.microsoft.sqlserver.jdbc.SQLServerDriver
birt.ds.1.jdbc.driver.class=com.ibm.db2.jcc.DB2Driver


#-------------------------------------
# Data sources configuration for Cognos reports
# All cognos data sources are DSN-based (non-JDBC)

# Data source property naming convention:
# <report_type>.ds.<number>.<suffix>
# Where:
# report_type may be 'birt' or 'cognos'
# number - data source number within the giver report_type (starts from 1)
#   if there is more than one data source there should be two definition blocks:
# one for data source 1, second for data source 2, etc.
# suffix - identifies the property


# Data source name.
# Note that data source names must be unique within reports of the same type (like 'birt' or 'cognos').
#The datasource name should not be changed
cognos.ds.1.name=TDW


# skip=true means that this data source will not be configured
# To enable configuration of this data source set skip=false
cognos.ds.1.skip=false

# Login for the TDW database
cognos.ds.1.db.user.name=itmuser

# User password for the TDW database
cognos.ds.1.db.user.pass=itmpswd1

# TDW Database name (according to DSN definition).
cognos.ds.1.db.name=WAREHOUS

# TDW db type: DB2, ORACLE, MSSQL
```

```
cognos.ds.1.db.type=DB2

#-------------------------------------
# Database custom scripts configuration (if applicable)

# NOTE: This example is prepared for 'runDbScript' script.

# Data script property naming convention:
# rs.<script_name>.<suffix>
# Where:
# script_name - data script name defined in package.properties
#  in a proper directory of the given report type
# suffix - identifies the property

# skip=true means that this database script task will not be run
# To make this database script run set skip=false
rs.ITCAM_for_SOA_DB_Scripts.skip=false

# Database type. The following databases are allowed:
# DB2, ORACLE, MSSQL
rs.ITCAM_for_SOA_DB_Scripts.db.type=DB2

# JDBC URL. The url must be appropriate for the driver used.
# Before applying an URL make sure it fits the driver.
# Here are some examples:
# DB2: jdbc:db2://<host>[:<port>]/<database_name>
# Oracle: jdbc:oracle:thin:@<host>:<port>:<database>
# MSSQL: jdbc:sqlserver://<host>[:<port>];databasename=<database>
rs.ITCAM_for_SOA_DB_Scripts.jdbc.url=jdbc:db2://db2server.domain.com:50000/WAREHOUS

# JDBC driver class. To the URLs given above the following driver classes can be applied (respectively):
# DB2: com.ibm.db2.jcc.DB2Driver
# Oracle: oracle.jdbc.driver.OracleDriver
# MSSQL: com.microsoft.sqlserver.jdbc.SQLServerDriver
rs.ITCAM_for_SOA_DB_Scripts.jdbc.driver.class=com.ibm.db2.jcc.DB2Driver

# TDW database user id
rs.ITCAM_for_SOA_DB_Scripts.user.name=itmuser

# TDW database user password
rs.ITCAM_for_SOA_DB_Scripts.user.pass=itmpswd1

# Fully qualified path to JDBC driver(s) including driver files;
# If more than one driver is provided (e.g. for DB2), they need to be separated
# by a semicolon (on Windows systems) or a colon (on non-Windows systems).
#DB2: <SQLLIB_home>/java/db2jcc.jar;<SQLLIB_home>/java/db2jcc_license_cu.jar;
#Oracle: <instant_client_home>/ojdbc14.jar
#MSSQL: <mssql2005installdir>/sqljdbc_1.0/enu/sqljdbc.jar
rs.ITCAM_for_SOA_DB_Scripts.jdbc.driver=C:/Program Files/IBM/SQLLIB/java/db2jcc.jar;C:/Program Files/IBM/SQLLIB/java/db2
```

Appendix B. Predefined Reports

Predefined reports are available when you install ITCAM for SOA Reports.

The following predefined reports are available:

Message Count and Elapsed Time

Table 6. Message Count and Elapsed Time Report

Description	This report provides data trending information over a selected date range. Use this report to determine if there are spikes in the message count and elapsed time for selected services and operations.
Parameters	Date Range: Select one of the predefined reporting periods or select the exact start and end times from the calendar. Summarization Type: Hourly, Daily, Weekly, Monthly, Quarterly, and Yearly. Required parameters: Application Server Name, Service Name, Operation Name
Tables Used	Services_Inventory_610

Message Count and Elapsed Time Details

Table 7. Message Count and Elapsed Time Details Report

Description	This report is a drill-down report from the Message Count and Elapsed Time Report, but it can also be used as a stand-alone report. You can use this report to focus on a two hour time period with the selected time stamp in the middle. The time stamp can be entered manually if you are running this report as a stand-alone report. The time stamp will be passed automatically if you reach this report by drilling down from the Message Count and Elapsed Time Report.
Parameters	Date Range: Select the date and time Required parameters: Application Server Name, Service Name, Operation Name
Tables Used	Services_Inventory_610

Performance by Service and Operation

Table 8. Performance by Service and Operation Report

Description	This report provides metrics data that is aggregated by date, service, and operation names per application server. You can select only application server name to list all service and operation names or select a specific server, service, operation name, and requester ID. Use a threshold to set the number of faults to flag as critical.

Table 8. Performance by Service and Operation Report (continued)

Parameters	Date Range: Select one of the predefined reporting periods or select exact start and end times from the calendar. Required parameters: Application Server Name Optional parameters: Service Name, Operation Name, Requester ID, Threshold on Fault Count
Tables Used	Services_Inventory_ReqID_610 table

Performance by Requester ID

Table 9. Performance by Requester ID Report

Description	This report provides metrics data that is aggregated by date, service, and operation names per Requester ID. Select only requester ID to list all application servers, service, and operation names or select a specific server, service, and operation name. Use a threshold to set the number of faults to flag as critical.
Parameters	Date Range: select one of the predefined reporting periods or select exact start and end times from the calendar. Required parameters: Application Server Name Optional parameters: Application Server Name, Service Name, Operation Name, Threshold on Fault Count
Tables Used	Services_Inventory_610

Services Inventory

Table 10. Services Inventory Report

Description	Use this chart to quickly spot low availability per service and operation for selected time range.
Parameters	Date Range: Select one of the predefined reporting periods or select the exact start and end times from the calendar. Required parameters: Application Server Name
Tables Used	Services_Inventory_610

Appendix C. Variables for directories

This guide refers to the following variables:

ITCAM_for_SOA_Report_Installer_Home
The top-level directory where the report package has been extracted.

TCR_home
The top-level directory for the installation of Tivoli Common Reporting.

For Tivoli Common Reporting version 2.1.1, the default locations are as follows:

On Windows systems: `C:\IBM\tivoli`
On Linux and AIX systems: `/opt/IBM/tivoli`

For Tivoli Common Reporting version 3.1, the default locations are as follows:

On Windows systems: `C:\Program Files\IBM\JazzSM`
On Linux and AIX systems: `/opt/IBM/JazzSM`

cognos_home
The top-level directory for the installation of Cognos reports.

For Tivoli Common Reporting version 2.1.1, the default locations are as follows:

On Windows systems: *TCR_home*`\tipv2Components\TCRComponent\cognos`
On Linux and AIX systems: *TCR_home*`/tipv2Components/TCRComponent/cognos`

For Tivoli Common Reporting version 3.1, the default locations are as follows:

On Windows systems: *TCR_home*`\reporting\cognos`
On Linux and AIX systems: *TCR_home*`/reporting/cognos`

Appendix D. Known issues and solutions

The following are troubleshooting tips and techniques for problems that can occur when installing or using ITCAM for SOA Reports.

Error message when joining two tables

The problem: Joining two tables results in an error message similar to the following:

```
QE-DEF-0359 The query contains a reference to at least one object '[KD4 Database)]. [KD42JT_HV].[Node]'
that does not exist. RSV-SRV-0042 Trace back:RSReportService.cpp(779):
```

The solution: This error can occur as a result of two separate problems:

- Tables cannot be joined directly, they must be joined by using shared dimensions.
- Make sure that you have enabled Requester ID and enabled historical data collection with summarization.

Report shows no data

The problem: A report shows no data even though there is data in Tivoli Data Warehouse. This can happen if either of these two conditions are not met:

- If the time dimensions which are defined in the TIME_DIMENSION table do not fully cover the selected reporting period.
- If the selected start and end dates for the report do not correspond to the selected summarization type.

The solution:

1. Run these queries to check current start and end times defined in the table:

   ```
   SELECT MIN(DAY_KEY) FROM IBM_TRAM.TIME_DIMENSION
   SELECT MAX(DAY_KEY) FROM IBM_TRAM.TIME_DIMENSION
   ```

2. If required, modify the time period and data frequency that is used to populate the TIME_DIMENSION table, see "Modifying the time period that is used to populate the TIME_DIMENSION table" on page 12

Empty chart with no visible data points

The problem: Line charts do not have markers set, as a result, if there is only one data point, it is not visible.

The solution: Line markers are not used because it can cause readability issues when the lines are too thick. Select a different reporting time period to get more than one data point.

On demand reports show negative values

The problem: Some column values in a report might show negative values.

The solution: This is a known behavior on some table columns, for example, Missing Valid Response Percentage, Missing Response Percentage, Valid Response Percentage, Average Elapsed Message Round Trip Time. Negative values are used

to note undefined values like zero divided by zero or when there is no data for a specific column. If negative numbers are not desirable values in the report, set filters to process only positive values. To set filters, select a column heading, right click and select the Filter option. For more information about attribute groups, see the ITCAM for SOA User Guide.

ITCAM for SOA BIRT Reports installation fails

The problem: ITCAM for SOA BIRT Reports installation fails when Microsoft SQL Server is the data source and Tivoli Common Reporting has jre5 as default.

The solution: BIRT reports require the `sqljdbc4.jar` to run on Tivoli Common Reporting 2.1.1. The `sqljdbc4.jar` file requires jre6 which comes with Tivoli Common Reporting 2.1.1. If the Tivoli Common Reporting also has jre5 installed, the installation will fail if the `sqljdbc4.jar` file is used for both ITCAM for SOA BIRT Reports and ITCAM for SOA Cognos database scripts configuration. In this case, run the installer with the `sqljdbc4.jar` file for ITCAM for SOA BIRT Reports data source configuration and `sqljdbc.jar` for ITCAM for SOA Cognos database scripts configuration.

The installer fails to launch

The problem: The installer fails to launch

The solution: The installer requires that java 5 or higher available in the system path. Run the installer with a parameter that points to a java, for example

```
setup_windows.exe LAX_VM "C:\Program Files\IBM\Java60\jre\bin\java.exe"
```

The command prompt hangs when you install ITCAM for SOA Reports in console mode on Windows systems

The problem: When you run the command `setup_windows.exe -i console` from a command prompt, the prompt hangs.

The solution: Verify that you are running the command as the administrator user.

Start and end times are not displayed for the Message Count and Elapsed Time Detail report

The problem: Start and end times are not displayed in the Message Count and Elapsed Time Detail report. This occurs when no data is present in the TDW for the selected time interval.

The solution: Functions as designed.

Welcome panel is blank when you are performing a GUI installation in Japanese

The problem: During installation of ITCAM for SOA Reports 7.2, when you click Next, while configuration is occurring, the Please Wait panel is briefly displayed. The text on the Please Wait panel is truncated.

The solution: The text on the Please Wait panel should read: 'Please wait Report Installer is being configured for your system. This may take a moment'.

Appendix E. Accessibility

Accessibility features help users with physical disabilities, such as restricted mobility or limited vision, to use software products successfully.

The accessibility features in the product enable users to:

- Use assistive technologies, such as screen reader software and digital speech synthesizers, to hear what is displayed on the screen. Consult the product documentation of the assistive technology for details on using the technology with this product.
- Perform tasks with the software using only the keyboard.

General Navigation

Each page has four main sections:

- Headerbar
- Toolbar
- Main tabs
- Content

Each page has navigation points for screen readers. The following navigation points are all H1:

- Title bar
- Main tabs
- Main form
- Section labels
- Table labels

Menu Navigation

You use the Go To menu at the top of the screen to navigate to any of the applications that you have access to. The Go To menu is a cascading menu that is three levels deep at its deepest point. The following instructions describe how to get started with JAWS:

1. To get to the Go To menu press Alt+G.
2. When you open the menu, JAWS reads the first application in the menu. If JAWS does not begin to read the entry, restart the screen reader.
3. Navigate the list of applications in the menus by using the arrow keys.
4. JAWS indicates if a menu item has submenus. To get to a submenu, press the right arrow or enter.
5. Press the left arrow to move up a level in the hierarchy. If you press the left arrow at the highest level of the Go To menu, you leave the menu completely.
6. Press the Enter key to enter an application.

Accessibility help

The Accessibility Help panels provide details on general navigation, menu navigation, and hot keys. Click **Accessibility Help** from the toolbar of the product to access the help panels.

Screen reader setting

The product contains a screen reader flag. When you turn on the screen reader flag, the user interface is optimized to work with JAWS for Windows®. You use the **User** tab in the Users application to turn on the screen reader flag.

Keyboard shortcuts

You can navigate within the applications by using a combination of keys.

Accessible reports

To use the accessibility tools to read reports, you must access the reports in Microsoft Excel. In the reports applications, select the **Run Reports** option in the **Select Action** menu. With this option, you can email an .xls file version of a report to yourself at a scheduled time.

IBM and accessibility

For more information about the commitment that IBM has to accessibility, see the IBM Human Ability and Accessibility Center. The IBM Human Ability and Accessibility Center is at the following web address: http://www.ibm.com/able

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