Information Management Software





IBM® Support Assistant Lite for IBM InfoSphere Information Server

User's Guide

Release 7.6



Note:

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Introduction

The IBM® Support Assistant (ISA) Lite for InfoSphere® Information Server tool helps you troubleshoot IBM InfoSphere Information Server problems. The tool focuses on automatic collection of problem data and provides diagnostic verifications of an InfoSphere Information Server installation. Information that is pertinent to a problem is collected and analyzed to identify the origin of the problem.

This reference describes the data collection details that the IBM Support Assistant Lite for InfoSphere Information Server tool provides for solving problems with the InfoSphere Information Server software products.

Data collection guidelines

You can use the IBM Support Assistant Lite for InfoSphere Information Server tool to collect data, files, and artifacts from the local installation of InfoSphere Information Server. The tool performs nondestructive tests and passive collections of data to report the system health and verify the correct configuration of the installation. The tool adheres to the following guidelines:

- All collection and diagnostic tools perform functions that are nondestructive. The tools perform operations that do not modify, change, or delete data from the InfoSphere Information Server installation. However, the Detect, view, and fix issues with invalid InfoSphere DataStage projects utility options modify data in the InfoSphere Information Server installation. Also the Metadata Repository (XMeta) Diagnostic test may apply fixes to the repository database. These operations can be triggered and requested only by the user. The operations are not part of an automatic collection or automated task.
- All collection tools collect files and data from the InfoSphere Information Server local installation. The tools do not gather personal data nor include data in the customer databases or other sensitive information.
- Passwords that are prompted by the tool to perform and verify connection operations are not included in the collection data nor stored or saved in files. The passwords are also not logged in log files.
- If sensitive information such as passwords is contained in the collected files, it is detected and hidden. In some instances, files that contain other types of sensitive data are removed from the collection .zip file.
- No data, file, or information is sent automatically or without your knowledge to IBM Support. Collection .zip files that are created by the tool remain local to your disk until you use FTP to send the files to IBM Support.
- The user interface, messages, and HTML reports are only in English. The tool can run on platforms that have a non-English locale, but the user interface remains in English. Dates and times that are displayed in reports and messages also use a standardized international format and do not adhere to the locale of the machine where the tool is running.

Getting started

The ISALite for InfoSphere Information Server tool is installed automatically by the InfoSphere Information Server, Version 8.5.x, 8.7.x, or 9.1.x installer. However, a newer version of the tool may be available from the <u>Download the IBM Support Assistant Lite for InfoSphere Information Server tool</u> download site. Also, you may want to download the tool on a clean system that does not have the InfoSphere Information Server product installed, in order to invoke the prerequisite checker or the Install Log Analyzer tool.

If the tool is installed under the home installation folder of InfoSphere Information Server, in the <code>%IS_HOME%\ISALite</code> folder, see <u>Tool usage</u> for instructions on how to interact with the tool as it collects data.

To install the tool or upgrade a previous installation of the tool, follow these instructions:

- 1. Download the tool, and then install the tool by extracting the files from the archive file that you downloaded.
 - > See <u>Tool installation</u> for details on extracting the files.
- 2. If needed, set the JAVA_HOME environment variable. See <u>Setting the JAVA_HOME Environment</u> <u>Variable</u> for details on whether this step is required. Once you have done this, you can run the tool.
- 3. Run the tool in the GUI mode or the command-line console mode.
 - > See <u>Tool usage</u> for instructions on how to interact with the tool as it collects data.

Tool installation

Getting the latest version of the tool

The IBM Support Assistant Lite for InfoSphere Information Server tool is in the <code>%IS_HOME%\ISALite</code> directory of InfoSphere Information Server, Version 8.5.x or above. The tool is not included in the installation of InfoSphere Information Server in versions prior to Version 8.5.

As the tool gets updated periodically, <u>Download the IBM Support Assistant Lite for InfoSphere Information</u> <u>Server tool</u> to get the latest version of the tool.

Verifying the version of the tool that is installed

A newer version of the tool might be available at the download site. Verify the version of the tool that is installed by using one of the following methods:

- **4** Open the ISALite\buildinfo.txt file and review the BUILD_VERSION property.
- From the GUI version of the tool, **click Help => About IBM Support Assistant Lite**.

🚰 About IBM Support Assistant Lite					
0	System Plug-in: 4.0.1.101123-1186 Common Inventory Sub Agent: 1.3.01.20101119 IBM Support Assistant Lite: 1.3.4.101123-1186 IBM ISALite for InfoSphere Information Server: S9.1.007.6 Jakarta Oro Plug-in: 2.0.7.101123-1186 IBM Support Assistant Lite Core: 1.3.4.101123-1186 IBM Support Assistant Lite Shared: 1.3.4.101123-1186				
	ОК				

From a command prompt, issue the following command: runISALite.bat[/.sh] -console The version of the tool is displayed in the first screen.

C:\IBM\InformationServer\ISALite>runISALite.bat -console

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System Plug-in: 4.0.1.101123-1186 Common Inventory Sub Agent: 1.3.01.20101119 IBM Support Assistant Lite: 1.3.4.101123-1186 IBM ISALite for InfoSphere Information Server: S9.1.007.6 Jakarta Oro Plug-in: 2.0.7.101123-1186 IBM Support Assistant Lite Core: 1.3.4.101123-1186 IBM Support Assistant Lite Shared: 1.3.4.101123-1186

Downloading the latest version of the tool

A more recent version of the tool may be available as an archive file at the <u>Download the IBM Support</u> <u>Assistant Lite for InfoSphere Information Server tool</u> site. The following files are available:

- ISALiteInformationServer_S9.1.<nnn>.zip archive file for Windows®
- ISALiteInformationServer_S9.1.<nnn>.tar.gz archive file for the other supported environments

The documentation is also available to download.

Installing the tool

Where to install

The ISALite tool performs tests, verifications, and collections that are local to the computer where ISALite is installed and started. Therefore, to get a complete analysis of the InfoSphere Information Server installation, the tool needs to be installed and run on every computer where InfoSphere Information Server tiers are installed. For immediate benefit and a valuable summary of debugging information, run the tool on the services tier and engine tier, at minimum.

Installing the first time

If the tool is not installed in the <code>%IS_HOME%\ISALite</code> folder of the InfoSphere Information Server installation, extract the files from the archive file that you downloaded into the home installation directory of InfoSphere Information Server. For example, extract the files into the <code>C:\IBM\InformationServer</code> folder in Windows systems or the <code>/opt/IBM/InformationServer</code> folder in UNIX, AIX, and Linux. The extraction process creates an <code>ISALite</code> directory in that folder.

If InfoSphere Information Server is not installed, and you want to use the ISALite for InfoSphere Information Server tool to run the prerequisite checker, extract the archive file that you downloaded in any folder. The path name of this installation folder cannot contain a space or a period.

Upgrading a previous installation

If you are upgrading to a newer version of the tool, remove or rename the ISALite folder of the previous installation before you install the upgrade.

Extract the files from the archive file that you downloaded in the home installation folder of InfoSphere Information Server. The extraction process creates an ISALite directory in that folder.

Extracting files on Windows® systems

- 1. Navigate to the home installation directory of InfoSphere Information Server, for example C:\IBM\InformationServer.
- Use any extraction utility to extract the files from the archive file that you downloaded to the home installation folder of InfoSphere Information Server. The operation creates the subdirectory \ISALite in the target directory.

Extracting files on Linux®, AIX®, HP-UX®, and Solaris® systems

Navigate to the home installation directory of InfoSphere Information Server, for example /opt/IBM/InformationServer.

1. To extract the .tar file from the .gz archive, enter the following command: gzip -d ISALiteInformationServer_S9.1.<nnn>.tar.gz

where <nnn> in the package file name is the current version number of the package.

2. To create the /ISALite subdirectory under your target directory and extract the files for the tool, enter the following command:

tar -xvf ISALiteInformationServer_S9.1.<nnn>.tar

where <nnn> in the package file name is the current version number of the package

Disk space for the tool and collection artifacts

The IBM Support Assistant Lite for InfoSphere Information Server tool's file and documentation takes approximately 44 MB of disk space. Additionally, when the tool is run, log files and .zip files that contain collected data are also generated. Given the amount of data and files collected, and the size of log files (which might be as large as several megabytes), the collection .zip files can take a large amount of disk space. To ensure that enough disk space is available for a collection task, complete the following steps:

- When prompted by the tool, select a file location for the collection .zip file with plenty of disk space. Do not use the same disk location where the Information Server installation is located.
- After you send collection .zip files to IBM Support, delete the files if they are no longer needed.



The tool cannot determine the disk space requirements for the collection .zip file, nor can it ensure that enough disk space is available once the task starts. Therefore, the tool cannot prevent an out of disk space situation. Ensure that enough disk space is available at the location where you create the collection .zip file.

Setting the JAVA_HOME environment variable

Because the tool is implemented as a Java[™] application, the tool needs to find an IBM Java Runtime Environment (JRE) before the tool can start.



If the tool is installed under the home installation folder of InfoSphere Information Server, in the <code>%IS_HOME%\ISALite</code> folder, the tool recognizes the installation and uses the IBM JRE that is included in the installation. You can skip these instructions and start using the tool immediately. If the **JAVA_HOME** environment variable is already set, clear it, and let the tool use the value that is included with the installation of InfoSphere Information Server.

If you installed the tool outside of an installation of InfoSphere Information Server or outside of the <code>%IS_HOME%\ISALite</code> folder, you must set the **JAVA_HOME** environment variable to point to an IBM JRE.

Use these instructions only if you have installed the tool outside of the home installation folder of InfoSphere Information Server, or you do not have an installation of InfoSphere Information Server and you plan to run the prerequisite checker or the Install Log Analyzer.

To set the **JAVA_HOME** environment variable:

- If InfoSphere Information Server is installed on your computer:
 - For Windows, point to the JRE in the %IS_HOME%\ASBNode\apps\jre folder. The default folder is C:\IBM\InformationServer\ASBNode\apps\jre.
 - For Linux, AIX, HP-UX, or Solaris, point to the JRE in the %IS_HOME%/ASBNode/apps/jre folder.

The default folder is /opt/IBM/InformationServer/ASBNode/apps/jre.

- Depending on the InfoSphere Information Server tiers that are installed, the %IS_HOME%\ASBNode folder might not exist. Set the JAVA_HOME variable to the %IS_HOME%\ASBServer\apps\jdk\jre folder instead.
- **If IBM WebSphere Application Server is installed on your computer:**
 - Point the JAVA_HOME variable to the %WAS_HOME%\java\jre folder. For Windows, the default folder is C:\IBM\WebSphere\AppServer\java\jre. For Linux, AIX, HP-UX, or Solaris the default folder is /opt/IBM/WebSphere/AppServer/java/jre.

If you want to set the JAVA_HOME variable explicitly:

- Ensure that an IBM JRE at level 1.5, also known as version 5.0, is installed.
- From a console view, you can invoke java –version to verify the version of the java JRE that is installed.
- If you do not have an IBM JRE installed, you can download one from <u>https://www.ibm.com/developerworks/java/jdk/</u>.
 The Solaris JRE, Windows JRE, and JRE for machines that are not IBM machines can be

found at www.java.com/en/download/manual.jsp.
The HP-UX JRE can be found at
https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?produc
tNumber=HPUXJDKJRE60

- If you have the installation media for InfoSphere Information Server Version 8.5 or later, the JRE can be found under <IS_MEDIA_DIR>/_jvm (for example /is_suite/_jvm).
- Issue an operating system-specific command to set the JAVA_HOME variable to point to the JRE root folder. The Java executable file is found in the [JAVA_HOME]\bin folder.
 - For **Windows**, if IBM jdk1.5 is installed, for example at C:\jre 1.5, and the java.exe file is under C:\jre 1.5\bin, set the **JAVA_HOME** variable by using the following command:

SET JAVA_HOME=C:\jre 1.5

For Linux, AIX, HP-UX, or Solaris, the command syntax to set the JAVA_HOME variable varies depending on the shell that you use. For example, if you use bash shell and IBM JRE Version 1.5 is installed in /opt/jre15 with the java executable in /opt/jre15/bin, set the JAVA_HOME variable by using the following command:
 export JAVA_HOME=/opt/jre15

Starting the tool as system administrator

Before you run the IBM Support Assistant Lite for InfoSphere Information Server tool, log in to the system as Administrator on a Windows system or as 'root' (or sudo root) on an AIX, Linux, or UNIX system. Some operations require this administration role to access certain files or data and to create topology graphs. You can start the tool as another user, but some tasks might not provide the full functionality. The following menu tasks require Administrator access:

- o Database Collector
- Create a Topology Export File from the Deployment Manager
- o InfoSphere Information Server Prerequisite checker

To properly collect all data from the DB2 collection, the user who invokes the collection must also have the SYSADM access role to the database.



On a Windows 2008 system, right-click the runISALite.bat script file and select the 'Run as Administrator' option to invoke the tool. Use the runas.exe command in console mode.

Starting the tool in GUI mode

After you ensure that the **JAVA_HOME** environment variable points to a JVM at the correct level, start the tool by issuing the launch script. For the GUI mode, invoke one of the following scripts in the \ISALite directory:

- > For **Windows** systems, invoke the following script:
 - o runISALite.bat
- For Linux, AIX, HP-UX, or Solaris systems, invoke the following script: o ./runISALite.sh

You need an X-Windows installation in order to run the GUI windows mode in AIX, Linux, or UNIX system. Make sure the DISPLAY variable is set properly in the system environment.

Starting the tool in console mode

After you ensure that the **JAVA_HOME** environment variable points to a JVM at the correct level, start the tool by invoking the launch script. For the console mode, invoke one of the following scripts in the \ISALite directory:

- For Windows systems, invoke the runISALite batch script with the –console option:
 runISALite.bat –console
- For Linux, AIX, HP-UX, or Solaris systems, invoke the following script with the –console option: o ./runISALite.sh -console



The same tasks and functions are available in the GUI mode and the console mode version of the tool.

Starting multiple concurrent instances of the tool

Due to the sharing of the same temporary storage between concurrent sessions, multiple concurrent invocations of the IBM Support Assistant Lite for InfoSphere Information Server tool are not supported.

Interacting with the tool in GUI mode

After the IBM Support Assistant Lite for InfoSphere Information Server tool is started in GUI mode, the graphical interface shown in Figure 1 displays:

🚈 IBM Support Assistant Lite	_ D _ X					
<u>File</u> <u>H</u> elp						
Provide the information requested below and press the "Collect Data" button:						
Problem Type:						
 Data Collection Options General Diagnostic Health Checker InfoSphere Information Server Collector Tool InfoSphere DataStage Job Logs Collector Additional Collectors Additional Diagnostic Tools Symptom Analysis System Requirements Help 						
Filename for saving the collected data:						
Collect Data Quit 0%	JERM.					

Figure 1: The tool in GUI mode under Windows

Before the tool can perform data collection and analysis, you must select a problem type in the **Problem Type** window. This window shows different groups of collection (problem) types:

Data Collection menu	Description
Data Collection	These tasks are useful when reporting the initial data and information that is
Options	related to a PMR to IBM Support., Tasks include the Information Server
-	Collector, the General Diagnostic Health Checker, and the InfoSphere
	DataStage Job Log collector.
Additional Collectors	These tasks collect data, logs, and artifacts from the system. The tasks collect
	data even when the InfoSphere Information Server installation is not functioning
	or is in a stopped state. Also, these tools do not depend on or expect specific
	InfoSphere Information Server components to be installed.
	The InfoSphere Information Server collector also gathers logs and artifacts from
	WebSphere Application Server if it is installed. A separate collector task can be
	invoked for the IBM DB2 database.
	The Basic System Summary report contains details about the InfoSphere
	Information Server Installation and system and hardware information. This report
	is also automatically generated by almost all the ISALite for InfoSphere
	mormation Server tool's tasks, and is included in those collections.
	Additional tasks can create a collection of log records from the InfoSphere
	Information Server repository database, and a collection of artifacts from the
	SAP Packs component.
	When running the tool on an InfoSphere Information Server, clustered
	installation, you can use separate options to collect artifacts on remote cluster
	nodes.
Additional	This set of tools performs configuration and operational checks to validate the
Diagnostic Tools	runtime environment of InfoSphere Information Server components and reports
	possible issues. These tools do not modify the system, unless specifically
	requested. To run these tools, some InfoSphere Information Server components
	must be installed and functioning properly. For example, to run the Information
	Server Client Remote Connectivity Test, the InfoSphere Information Server
	Client tier must be installed. Other tools require that other into Sphere information
	Server tiers be installed, such as the metadata repository, service, engine, and
	but does not need an installation of InfoSphere Information Server in order to
Symptom Analysis	This function analyzes the logs from the WebSphere Application Server and
	InfoSphere Information Server installation and reports known errors and issues
	You can specify and provide a log file from an InfoSphere DataStage job run.
	which is analyzed for errors. Known symptoms are then reported with indications
	and links to documents that help fix the problem.
System	This tool performs configuration and operational checks to validate that the
Requirements	computer meets the requirements for an installation of Information Server,
-	Version 8.5, Version 8.7, or Version 9.1. Use this tool before installing
	InfoSphere Information Server to ensure that your computer meets the system
	requirements. You can also run this tool after a failed installation to help
	diagnose issues.
	An additional task can be invoked to verify the requirements of an installation of
	IntoSphere Information Server SAP Packs.
Utilities	I his set or utilities lets you view issues and attempts to repair a corrupt
	inicophere DataStage project. When requested, the utilities may modify the
Help	System. This antion provides information about the tool's tasks and a summary of runtime
l leih	variables and version information.

In the initial view, the tree is collapsed to show only its top-level folders. You can expand the top-level folders to reveal the folders nested below them and the tasks within them. To run a task, follow these steps:

1. Select a task from the available options as shown in Figure 2.



Figure 2

Refer to The ISALite tasks for a description of the collection options that the tool supports.

- 2. Provide a file name for the data collection .zip file. For example, use the PMR number in the file name or a short description of the content of the .zip file. A short description might indicate a collection or the results from the health checker run. Do not use spaces in the file name. Append the "zip" extension to the file name. In the file name, you might also include the timestamp or date of the collection, in cases where several .zip files were uploaded to IBM Support at different times. Because an appropriate .zip file name helps IBM Support find and sort the data that is used to debug a problem, at the end of the collection the tool provides a way to rename the file using information from the completed task.
- 3. Select **Collect Data**. The collection script prompts you for any additional information that is required to complete its collection activities, such as details on the InfoSphere Information Server installation, the PMR associated with the collection, and a brief description of the problem encountered, as shown in Figure 3. Although the input is optional, this information helps IBM Support to debug the problem.



Figure 3: Optional data input

4. Most Information Server collection tasks prompt for the Information Server root directory, as shown in Figure 4.

🞏 IBM Support Assistant Lite Tool Input Dialog	$\overline{\mathbf{X}}$
Enter the installation directory for InfoSphere Information Serve	r:
C:\IBM\InformationServer	Browse
	OK Cancel



- 5. Some collection tasks also require additional configuration information or InfoSphere Information Server login credentials to perform validation test cases against an InfoSphere Information Server installation. After the script has the required information, the script completes the collection and analysis operations. The results of the operations, such as the data collected and log files, are stored in the data collection .zip file, as specified in Figure 2.
- 6. When the collection completes, the tool provides a way to rename the collection .zip file to a standard convention, using information gathered during the collection task. The recommended file name follows the format:

ISA + <ISALiteTask> + <hostname> + <Client/Eng/Serv tier> + <datestamp> .zip
where:

ISALiteTask = short acronym of the task that created the ZIP file (GenHC, Prereq etc) hostname = host of the machine where the collection/diagnostic was run Cli/Eng/Serv tier = InfoSphere Information Server tiers found on the machine Timestamp = creation time of the file, in format YYYY-MM-DD_hh.mm

ᆓ IBM Support Assistant Lite Tool Input Dialog	×		
Rename the collection .ZIP file name before you transfer the file to IBM Software Support:			
The recommended file name to ensure that IBM Software Suppor collection .zip file is: ISA_DSColl_pisa_EngServCli_2012-10-12_18.04.zip	ecognizes the content of a		
Select OK to rename the file to this recommended file name. Sele name.	SKIP to keep the original file		
	Skip Cancel		

7. When the collection completes, use the automatic FTP feature to transfer the .zip file to IBM Support, as shown in Figure 5. Because the ISA tool provides an HTTPS Secure Transfer option only when the .zip file is less than 20 MB in size, you can also email or upload the file manually by using the IBM Enhanced Customer Data Repository Service. Follow instructions at the <u>ECuRep</u> web site. The FTP step is optional.

🕯 IBM Support Assistant Lite Tool Input Dialog 🛛 🛛 🔀					
Question Regarding How the Script Should Proceed					
Would you like the tool to transfer the logs automatically? For other ways to exchange data with IBM, see <u>Exchanging data with IBM</u> Select one:					
Send the Logs to IBM using secure transfer (HTTPS) 🗸					
Send the Logs to IBM using secure transfer (HTTPS)					
FTP the Logs to IBM Support (unencrypted)	OK Cancel				
F I P the Logs to a Different Location (unencrypted)					

Figure 5



The .zip file that is created by the tool might contain embedded .zip files and files stored in subfolders. When you extract a file with a long path into a location with a long path, the combined path length might exceed the capability of some extraction utilities, such as the Windows Extraction Wizard, and you might get a warning or an error. As a workaround, extract the files to the root of a drive or to a subfolder with a shorter path.

Feedback regarding task progress

After a collection task starts, the tool provides you with progress feedback in the progress window. As shown in Figure 6, the IBM Support Assistant Tool Data Collection Progress pane shows the step number of the collection in progress. In some cases, such as when you invoke the WebSphere Collector tool, the tool might pause for several minutes, and the progress bar does not update. This result is normal. The last step of any collection or diagnostic health checker provides the option to use FTP to send the collection .zip file to IBM. After this last step, the progress window indicates that the task completed and the **Collect Data** button is enabled.

Problem Type:	
Data Collection Options General Diagnostic Health Checker InfoSphere Information Server Collector Tool InfoSphere DataStage Job Logs Collector Additional Collectors	
Basic System Summary DB2 Database Collector Repository Log Records Collector SAP Packs Collector	~
Filename for saving the collected data:	
Collect Data Quit 100%	
Show execution details	[.
IBM Support Assistant Lite Tool Data Collection Progress: C:\ISALIT~4\ISALite\.\tmp\recovery/autopd_2010.08.24- 11.31.00.968-0400 OS is: Windows XP	^
[2010.08.24-11.31.18.203EDT] Step 1: Start system information collection	
The operation completed successfully [2010.08.24-11.31.31.296EDT] Step 2: Gathering input data	
Information Server installed version: 8.5. [2010.08.24-11.31.52.906EDT] Step 3: System information collection completed	
[2010.08.24-11.32.11.343-0400] Step 4: Asking the user whether to transfer the collection zip file	~

Figure 6

If a collection task fails due to an unexpected error or because you stop the collection process manually, the Progress window shows a message, as shown in Figure 7. If a collection task stopped due to an error, some data might have been collected in the .zip file that you specified. However, this data is likely to be incomplete, and you should correct the problem, if possible, and invoke the collection task again.



The final message "The collection has completed successfully" does not indicate that all the steps of the collection were successful and that all the necessary data was collected.

Verify the ISA Lite logs for more details on the completion of the collection steps. For more information, see IBM Support Assistant Lite Log and Property Files.

	DI0WSE	
Collect Data G	Juit 100%	
BM Support Assistar	nt Lite Tool Data Collection Progress:	
(unknown),Windo	ວພຣ	1
Vista,Linux,OS/	400,AIX,SunOS,Solaris,Windows Server	
2003,HP-UX,z/09	š	
os.version = 5.	.1 build 2600 Service Pack 2	
isValidWindows:	: true	
OSNameIncluded:	: true	
[2009.04.07-16.	.56.30.406EDT] Step 1: Ask for Collection F	ile
Name		
Collection File	e Name is : C:\PMR1234.zip	
The collection	has ended because you canceled it.	
The collection	results (which may not exist in all cases)	_
are located in	C:\PMR1234.zip	

Figure 7

Reduced typing

When you use the tool in console mode, you can use the following features to reduce the amount of repetitive typing that is required:

1. Default values

When you must supply a value such as a product's root directory, the tool might already have a value assigned to it. In this case, the tool presents the value to you on the console interface between angle brackets. For example:

_							
**		************	*********	****	*********	÷	
×	Enter the	installation	directory	for	InfoSphere	Information	Server:
×	<c:\ibm\ir< th=""><th>nformationServ</th><th>ver85>: -</th><th></th><th></th><th></th><th></th></c:\ibm\ir<>	nformationServ	ver85>: -				
>	-						

To accept the value that is provided by the tool, press Enter.

2. Yes/No and OK/Cancel/Skip choices

When the tool provides you with a series of actions, such as whether to proceed with a collection or cancel it, each of the choices is associated with a number. For example:



Type the number at the command prompt, and then press Enter. In addition, you can select the first choice, which is typically the most common one, by pressing Enter. This second alternative is not supported for the initial menu where you choose which collection script to run or when a choice is needed in a list of data items.

Support of input dialogues

When you use the IBM Support Assistant Lite for InfoSphere Information Server tool in GUI mode, collection scripts often solicit input by using elements such as text fields and text boxes. In console mode, these input requests are handled through a command-line display and input. To maintain the same interaction patterns that the GUI mode achieves with the buttons **OK** and **Cancel**, which are used to close the window, the console mode provides additional delimiters that bracket an input sequence. These delimiters give you the same opportunity to accept or cancel the results as the buttons in the GUI mode. For example, the Input Dialog in GUI mode is shown in Figure 8:

b IBM Support Assistant Lite Tool Input Dialog 🛛 🛛 👔					
All fields are required Information Server user ID: Information Server user password:					
Choose Server OR Server[:Port]	k116124vl.ibm.com:9080 💌 OK Cancel				

Figure 8

This window is replicated in console mode as shown in Figure 9:





The input dialogue is bracketed with lines of asterisks that indicate the end of a set of data inputs, followed by the text OPTIONS FOR COMPLETING THE INPUT DIALOG. You can use the "reduced typing" capability that was described in the previous section by pressing Enter and accepting the default action. Note that the **Choose Server** list in Figure 9 has no default because you must choose a server from the list, and the "reduced typing" capability will not work.

Record and playback of an ISALite session

You can run the IBM Support Assistant Lite tool in recording mode. In this mode, the input commands and data that you enter during a collection task are recorded and saved in a response text file. You can then play back the session that you recorded by providing the response file in place of the manual input.

Creating a response file

To save the input commands in a response file, invoke the tool in console mode with the -record option. For example, you can run the following command:

```
runISALite.bat -console -record CollectionResponse.txt
```

When you invoke the tool in this way, a console opens, and you specify options for the current collection process, like during a non recorded tool's invocation. However, your responses are also saved in the file that you named in the command. After the interactive session completes, you can use this response file to execute the same script in the future without the need for explicit user input.



When recording a console session, consider the following points:

- Some inputs show a variable list of options, such as a list of InfoSphere DataStage projects. This list can dynamically change from one run to the other, as the projects list might vary over time. A selection of a specific project cannot be assured across several runs of the tool or across platforms. During the recording, select a low index number for the project to work with.
- The FTP screen has four available choices. The first choice is the HTTPS FTP, which is a secure FTP method. This option is available only when the size of the .zip file to send is less than 20 MB. In other cases, the option is removed. Therefore, the four choices may not be available at all times in the same order.
- Some tasks require you to specify passwords. When recording, these passwords are not encrypted or hidden in the response file.
- Under the Utilities menu, the "Detect, view, and fix with invalid InfoSphere DataStage projects" task, as well as the options available on the Help menu, are not intended to be recorded and played back using a response file. The playback of these tasks will fail.
- A recorded response file can only be played back by the same version of the ISALite tool that
 recorded it. Because of changes in the recording and playback technology and new input screens
 and prompts that characterize new versions of the ISALite tool, a recorded response file cannot be
 safely used across different versions of the tool.

Playback of an ISALite session

The automated playback of a recorded session can be invoked from the console mode version of the tool. To invoke automatic playback, enter the name of the response file that contains the recorded commands as an argument to the console batch file or shell script that is used to start the tool. For example, suppose that you run the following command:

runISALite.bat -console CollectionResponse.txt

This command starts the tool in console mode and reads its command line input from the CollectionResponse.txt file. The runISALite.sh shell script for AIX, Linux, and UNIX systems can be used in a similar fashion.

Figure 10 provides a sample input script file. The first line specifies the collection .zip file name for the collection. The following values and sequence of numbers navigate down through the menu tree. The sequence is the same as if the user had entered the values at the console manually.

CollectionResponse.txt - Notepad	3
<u>File E</u> dit F <u>o</u> rmat <u>V</u> iew <u>H</u> elp	
######################################	
CollectionZipName=ISCollection.zip	=
<pre>####################################</pre>	
CreateCollectionZipFile=1	
######################################	
<pre>####################################</pre>	
CollectionOption=2	-

Figure 10: Sample of a recorded response file

IBM Support Assistant Lite log and property files

The IBM Support Assistant Lite tool generates log and property files that are included in the data collection .zip file that is sent to IBM Support. These files address the following requirements:

- Provide a record of how the tool diagnosed an InfoSphere Information Server problem. The log contains the same information that appears in the scrolling progress window when the tool is executed in GUI mode and additional debug and trace information.
- Provide detailed information for diagnosing problems with the tool itself.
- Record the values of the input data that the user provided during a collection task. Passwords are omitted.

By default, each time that you run the ISALite tool, a trace file and an error log file are created in the <USER_HOME>\.ISALite\log folder, as shown in Figure 11. The instance #0 of the logs is the most recent. If a log reaches the size of 2 MB or you start a new invocation of the ISALite tool, a new instance of log #0 is created, and the old log files are renamed to instance #1, #2, and so on. By default, three instances of a log file are kept. The two most recent error and trace log files are included in the data collection .zip file that is sent to IBM Support.

- The "isalite-trace<#>" captures the text that was displayed in the progress window during one execution of a collection script and any additional trace messages that come from the tool itself.
- The "isalite-error<#>" log file provides only the error messages that come from the tool itself. These messages are also included in the trace log file.

The logger.properties file, which is in the ISALite\properties folder, contains the properties that control the log file name, size, and trace level that are used by the logging system.



The ISALite tasks

The following sections provide details of each of the tasks and functions that the tool supports. Each section contains information that falls into four categories:

- The usage scenario for the task
- Data inputs needed for the tool to run
- + The list of files that are collected by the tool and included in the collection .zip file for that task
- Liagnostic and troubleshooting information and tips how to solve selected problems

You can invoke the following collection tools and diagnostic utilities, also known as problem types, from the IBM Support Assistant Lite for InfoSphere Information Server tool menu:





IBM Support recommended tasks

These tasks are the collector and diagnostic tasks that are usually required by IBM Support for the documentation of a customer problem. The tasks are listed under the main tasks menu. This menu serves as a bookmark for three tasks:

- **General Diagnostic Health Checker** •
- InfoSphere Information Server Collector •
- InfoSphere DataStage Job Log Collector

For more information about these tasks, see the sections later in this document.

InfoSphere Information Server collectors

The collector tools gather and collect files, data, and artifacts from InfoSphere Information Server components and assemble a .zip file. The collector tools perform the following functions:

- Collect files and artifacts from the local installation of InfoSphere Information Server. If the required **.** file is found, it is collected, but no error is given if a file is missing. For a complete list of the files that are collected, see the MustGather Document for IBM InfoSphere Information Server.
- Collect files, server logs, and artifacts from the local installation of IBM WebSphere Application Server.
- Perform passive collections. For example, they do not modify or change any data in the user system or in the InfoSphere Information Server installation.
- Collect files and data that are available on the local file system only. Collectors do not require the input of user credentials.
- Gather files even when the system is not functioning, is partly installed, or is not running. However, all collectors prompt for the folder name where an installation of InfoSphere Information Server components is present, as shown in Figure 14. Collectors do not require all InfoSphere Information Server components or modules to be installed, active, or running,

ᆓ IBM Support Assistant Lite Tool Input Dialog	
Enter the installation directory for InfoSphere Information Serve	er.
C:\IBM\InformationServer	Browse
	OK Cancel

Figure 14

The lists of files that are shown for the various collector tools represent the maximum set of files that can be gathered for each problem type. In some instances, only a subset of the indicated files exists. In all cases, the IBM Support Assistant Lite for InfoSphere Information Server log files are also included in the .zip file.

InfoSphere Information Server Collector

This collection gathers files and data from the local installation of InfoSphere Information Server and WebSphere Application Server. It collects files from all InfoSphere Information Server modules and components, but no error is given if a file is not found. The collector produces a .zip file that contains the following files:

- IS-Collection.zip: the InfoSphere Information Server collection .zip file
- Heapdumps_JavaCore.zip: contains heap dump, core, and java core files
- SYSTEM-SUMMARY.html: contains system and hardware information, environment, registry, and network information

The IS-Collection.zip file contains the files that are described in the InfoSphere Information Server Must-Gather document. For more information, see the <u>MustGather Document for IBM InfoSphere</u> Information Server.

In addition, the following four files listings are included in the IS-Collection.zip:

- File listing of all the heap dumps, core, and java core files found in the InfoSphere Information Server installation
- File listing of the InfoSphere Information Server home folder and subfolders
- File listing of the system temporary folders
- File listing of the WebSphere Application Server profile folders (if present)

Name	Туре	Size
FileList.HeapDumpFiles.txt	Text Document	340
FileList.InformationServer.txt	Text Document	2,018,181
FileList.TempFiles.txt	Text Document	22,614
FileList.WASProfile.txt	Text Document	9,868



To reduce the size of the collection .zip file, especially in a clustered environment, the tool implements the following logic:

 The tool uses a filter to exclude log files that are older than a certain threshold that is specified by the user. This filter is applied only to types of log files that might have several dated instances, such as the SystemErr.log, SystemOut.log, orbtrc*.txt, and orbmsg*.txt, IBM WebSphere Application Server log files, the InfoSphere DataStage log files, and others.

	🗐 SystemErr.log	51 KB	Text Document	07/19/2010 11:39 AM
	🗐 SystemOut.log	273 KB	Text Document	07/03/2010 4:03 PM
	E SystemOut_10.06.29_16.47.59.log	1,024 KB	Text Document	06/29/2010 4:48 PM
	E SystemOut_10.07.01_14.39.46.log	1,024 KB	Text Document	07/01/2010 2:39 PM
	🗐 SystemOut_10.07.01_16.01.49.log	1,024 KB	Text Document	07/01/2010 4:01 PM
	SystemOut_10.07.01_17.14.54.log	1,024 KB	Text Document	07/01/2010 5:14 PM
F	Figure 15			

 When the InfoSphere Information Server collector is run, you enter the maximum age of the log files to collect, as in the following Figure 16:

🏂 IBM Support Assistant Lite 1	Fool Input Dialog	\mathbf{X}				
Select the age of system logs that ye	Select the age of system logs that you want to collect:					
The following log files may have da	The following log files may have dated instances that are old and therefore would be of limited					
can also take space in the collection	on zip file. Specify the maximum age of the instances of these					
log files that you want to collect.						
WebSphere Application Server Sys	stemErr*.log and SystemOut*.log. orbtrc.*.txt, orbmsg.*.txt, java					
core files, heapdump* files.						
Maximum age of the log files to colle	ect:					
1 day old 🗸 🗸 🗸						
1 day old						
2 days old						
3 days old						
7 days old						
14 days old						
21 days old						
ALL instances of these log files						

Figure 16

- The date filter to exclude files that are older than <N> days, specified in Figure 16, is also used to gather debugging files like java heap dump, core, javacore, and snap files, which are collected in a separate Heapdumps_JavaCore.zip. These debugging files, if present, are gathered from the following InfoSphere Information Server folders:
 - <InformationServerRoot>/ASBNode
 - <InformationServerRoot>/ASBNode/bin
 - <InformationServerRoot>/Clients/Classic
 - <InformationServerRoot>/Clients/ISC
 - <InformationServerRoot>/Server/DSEngine
 - <InformationServerRoot>/Server/Projects/<AllProjects>
- To facilitate the handling of large collection files, if the size of the Heapdumps_JavaCore.zip at the end of the collection is larger than 500 MB, an option is given to the user to not include the large file in the main collection .zip, otherwise the file is automatically included.

Basic System Summary

The Basic System Summary report contains details about the InfoSphere Information Server installation and system and hardware information. This report is also automatically generated by any of the ISALite for InfoSphere Information Server tool's tasks, and is included in those collections.

Report file SYSTEM_SUMMARY.html is generated and contains the following content:

Table of Contents

- ISALite tool and environment
- <u>PMR and Problem identifier</u>

1. InfoSphere Information Server Installation

- Version and Tiers installed
- o InfoSphere Information Server Products installed
- o InfoSphere Information Server Pack Products installed
- InfoSphere Information Server Components installed
- Installation and Patch History
- Installation Variables
- Topology Map and Tiers
- <u>WebSphere Cluster Topology Maps</u>
- <u>NLS Configuration Settings</u>
- Microsoft .NET Framework
- <u>Data Direct Drivers</u>

2. Computer description

<u>Computer and System information</u>

3. Network information

o Computer network configuration

4. Environment

Environment variables

5. Windows Registry

- InfoSphere Information Server registry information
- Software installed registry information

6. Windows System and Application Events

o Windows System and Application Events

A sample of the InfoSphere Information Server summary is shown in figure 18.

InfoSphere Information Server Version and Tiers Installed

Table of Contents

Current Version: 8.5.0.0						
	Tiers installed					
Services Engine		Repository	Client	Documentation		
true	true	true	true	true		

InfoSphere Information Server Products installed

Table of Contents

NOTE:

The InfoSphere DataStage and QualityStage products, if present in the table below, may have been installed as part of other products' installation. See the InfoSphere DataStage and QualityStage enabled options table in the General Diagnostic Health Checker or Migration Reference reports to verify the options enabled for these products.

Products installed

Name

Ivame
IBM InfoSphere DataStage (* This product may not be enabled. See DataStage and QualityStage enabled options)
IBM InfoSphere QualityStage (* This product may not be enabled. See DataStage and QualityStage enabled options)
IBM InfoSphere Information Analyzer
IBM InfoSphere Business Glossary
IBM InfoSphere Business Glossary Anywhere
IBM InfoSphere Metadata Workbench
IBM InfoSphere FastTrack
IBM InfoSphere Information Services Director

InfoSphere Information Server Pack Products installed

Table of Contents

Client: IBM InfoSphere Information Server Pack for SAP R3: Client [Version: 6.5.0.1] IBM InfoSphere Information Server Pack for SAP BW: Client [Version: 4.3.2.1] Server: IBM InfoSphere Information Server Pack for SAP R3 [Version: 6.5.0.1] IBM InfoSphere Information Server Pack for SAP BW [Version: 4.3.2.1]

Figure 18

InfoSphere Information Server collection of remote cluster nodes

IBM InfoSphere Information Server Version 8.5 or later server components can be installed on a WebSphere Application Server clustered environment. A typical clustered environment comprises a Deployment Manager component and one or more cluster nodes, which can be configured either locally, in the same computer as the Deployment Manager, or remotely, on a separate computer with a WebSphere Application Server installation. A remote WebSphere Application Server cluster node computer does not have a normal installation of InfoSphere Information Server, but the computer is used by the clustered WebSphere Application Server and other InfoSphere Information Server artifacts are found at this location and might need to be collected for troubleshooting purposes.

Presently, artifacts can be collected only by running the ISA Lite collection locally on each computer where the files to be collected reside. Therefore, the ISA Lite for InfoSphere Information Server tool needs to be installed and run on the Deployment Manager computer and on any of the remote cluster nodes where a collection is required, as shown in Figure 19.



Figure 19: Steps to collect artifacts from all remote cluster nodes

Under the All Collector menu, the tool provides a remote cluster nodes collection menu with two options:

L		🖶 🔒 Col	lection of remote cluster nodes
L		- T-+	Create a topology export file from the Deployment Manager and extract an ISALite tool package
		•	InfoSphere Information Server Collector on a remote cluster node
Fi	igι	ıre 20	

Create a topology export file and extract an ISALite tool package

A topology export file (.TEF) is a text file that contains WebSphere Application Server information about the clustered topology that is used by the installation of InfoSphere Information Server version 8.5 or later. The file can be generated by invoking this option in the ISALite tool that runs on the WebSphere Application Server Deployment Manager computer. The tool prompts for the name of the topology export file to create, as shown in Figure 21.

晕 IBM Support Assistant Lite Tool Input Dialog	×
A Topology Transfer File (.tef) can be created on the WebSphere Deployment Manager machine of an InfoSphere Information Server 8.5 or higher installation. The .tef file is used by the Collector that is running on a remote cluster node to collect files residing on that remote machine. This task creates a topology transfer file, extracts an ISALite for InfoSphere Information Server tool package, and includes them in the zip. Unzip/untar the tool's zip file on the remote cluster node, and run the ISALite tool there.	
Specify the path and filename of a Topology Transfer File (.tef) to create C:\Temp\TopologyExport tef	Browse
	OK Cancel

Figure 21

This option also generates and exports an ISALite tool package in .zip or .gz format. Both generated artifacts are included in the collection .zip file, as shown in Figure 22. These files can be used on the cluster remote node computer to collect files and data.

Name	Туре	Modified	Size	Ratio	Path	<
ISALite4IS_RemoteCluster.zip	WinZip File	08/13/2010 10:34 AM	7,831,710	2%		
📋 ISAversion.txt	Text Document	08/12/2010 4:31 PM	340	28%		
📋 registry.sware.installed.export.txt	Text Document	08/13/2010 10:34 AM	281,494	95%		
🖬 SYSTEM-SUMMARY.html	Firefox Document	08/13/2010 10:34 AM	125,015	82%		
🔤 TopologyExport.tef	TEF File	08/13/2010 10:33 AM	1,247	66%		

Figure 22

Copy the collection .zip file to each of the remote cluster node computer. Extract the collection file and install the ISALite tool that is in the collection file (ISALite4IS_RemoteCluster.zip/.gz).

Even though the ISALite4IS_RemoteCluster.zip/.gz package contains only a subset of the entire ISALite tool functionality, install the tool by using this .zip or .gz file. Follow the installation instructions that are described in the <u>Tool installation</u> chapter. Run the ISALite tool on the remote cluster node computer and select **InfoSphere Information Server Collector on a remote cluster node** from the menu options to collect logs and artifacts, as described in the following section.

InfoSphere Information Server Collector on a remote cluster node

This option can be invoked on a remote cluster node of an InfoSphere Information Server Version 8.5 or later installation. The option collects logs and artifacts on the remote cluster node.

Because InfoSphere Information Server is not installed on the remote cluster computer, the collector gathers log files as indicated by the topology export file that is exported from the Deployment Manager computer.

Provide the name of the topology export file, as shown in Figure 23. If you do not have a topology export file, you can provide the location of the local WebSphere Application Server installation folder,

IBM Support Assistant Lite Tool Input Dialog		×
InfoSphere Information Server 8.5 or higher Remote Cluster Node collection		
The remote collection option can only be invoked on a WebSphere Application Server remote cluster		
node of an InfoSphere Information Server 8.5.x or higher installation. If this machine is not an		
InfoSphere Information Server 8.5 or higher remote cluster node, press Cancel to exit the task. If		
this is an InfoSphere Information Server 8.5 or higher remote cluster node, you can either provide		
the filename of a Topology Transfer File created on the Deployment Manager machine, or provide the		
local installation\AppServer\bin folder of WebSphere Application Server.		
Path and filename of a Topology Export File created on the Deployment Manager machine (leave blank		
if not used):		
	Browso	
IC: (LSALICe(TopologyExport.te)	browse	
Path of the local <was_home>\AppServer\bin installation folder (for instance: C:</was_home>		
\IBM\WebSphere\AppServer\bin in Windows or /opt/IBM/WebSphere/AppServer/bin in UNIX). Leave blank		
if not used:		
	Browse	
		1
		Cancel

Figure 23

The collector gathers logs and data artifacts from the WebSphere Application Server installation and stores them in the collection .zip file that you specified. The collector gathers only logs and files from the WebSphere Application Server profiles that are used by the InfoSphere Information Server deployment.

DB2 Collector

This option is the standard and formal collection from the IBM DB2 product. The collector gathers configuration files, logs, and data from the local DB2 installation. The collector requires the path location of the local installation of InfoSphere Information Server. Aside from standard DB2 installation and log files, the collector gathers statistical data from the metadata repository database and a listing of the tables and table sizes. No user data is extracted from the database tables, and no personal information is made available to IBM Support that could compromise the security of the data. The collection produces a .zip file that contains the following files:

- DB2-Collection.zip: The DB2 collection .zip file
- DB2-Collection-SUMMARY.html: A summary of DB2 configuration information
- SYSTEM-SUMMARY.html: The system and hardware information, environment, registry, and network information



If DB2 was installed before InfoSphere Information Server and the metadata repository database was configured manually with InfoSphere Information Server, the IBM Support Assistant Lite for InfoSphere Information Server tool cannot detect a current installation of DB2 and invoke the DB2 Collector tool.

InfoSphere Information Server Repository Log Records Collector

InfoSphere Information Server logs trace and debugging events in the metadata repository database. This collector exports all of the log events that are generated by the different InfoSphere Information Server components from the database, and it creates a separate .log file for each of the different categories of log events.

To run the collector, enter your credentials to the metadata repository database, as shown in Figure 24.

👙 IBM Support Assistant Lite Tool Input Dialog						
Metadata Repository user ID: Metadata Repository user password:						
	OK Cancel	,				

Figure 24

As shown in Figure 25, you can specify a date range, to use during the export function so that only events within the specified data range are included in the log files.

🗁 IBM Support Assistant Lite Tool Input Dialog				
Log Start Date(YYYY-MM-DD) [optional]				
Log End Date(YYYY-MM-DD) [optional]				
OK Cancel				

The collection .zip file contains the following log files:

	ASCL-OMD.log:	OMD Services log events
	FT.log:	InfoSphere FastTrack events
	GLOSSARY.log:	InfoSphere Business Glossary events
	IBM-IA.log:	InfoSphere Information Analyzer events
E	IIS-DSTAGE.log:	InfoSphere DataStage events
	IIS-ISTOOLS.log:	InfoSphere Information Server Tools events
	ISF-AGENT.log:	ISF Agent events
E	ISF-CAS.log:	ISF Connector Access events
E	ISF-REPORTING.log:	Reporting service events
	ISF-SCHEDULING.log:	Scheduling service events
	ISF-WEB.log:	ISF Web services events
E	ISF-CACHING.log	
	ISF-DS4J.log	
	ISF-LICENSING.log	
	ISF-REGISTRATION.lc	bg
E	ISF-SECURITY.log	
E	WISD.log:	InfoSphere Information Services Director events
E	WORKBENCH.log:	InfoSphere Information Server Metadata Workbench events

Additionally, a LogTemplate.txt file is included in the .zip file. The LogTemplate.txt file contains descriptions of the column names in the data that is exported to the log files. All log files from the logging categories have the same table columns in the same format: a comma-separated list of column data. The first column is the time stamp of the event in the format "YYYY-MM-DD-hh.mm.ss.ssss". All log files are sorted by this time stamp, with the older events first.

Not all columns carry data in all log categories. However, because all columns are exported, if data is missing, the section in the log file is empty and surrounded by commas. Strings are surrounded by quotation marks (""). The following sample shows event data from the <code>WISD.log</code> file:

Column 19 contains the severity level of the logged event, as follows:

- 1- Trace
- 2- Debug
- 3- Information
- 4- Warning
- 5- Error
- 6- Fatal

InfoSphere Information Server SAP Packs Collector

This collector gathers files and artifacts from the SAP Packs installation. If no SAP Packs installation is found, only the system and hardware information, environment, registry, and network information are collected. The collection produces a .zip file as shown in Figure 26, containing the following files:

- SAP-Collection.zip: The SAP Packs collection .zip file
- SYSTEM-SUMMARY.html: The system and hardware information, environment, registry, and network information

Name	Туре	Modified	Size	Ratio	Path 🜜	-
🗐 ISAversion.txt	Text Document	08/12/2010 4:31 PM	340	28%		
📋 registry.sware.installed.export.txt	Text Document	08/12/2010 5:56 PM	281,494	95%		
SAP-Collection.zip	WinZip File	08/12/2010 5:56 PM	7,967	19%		
SYSTEM-SUMMARY.html	Firefox Document	08/12/2010 5:57 PM	125,196	82%		
autopd-collection-environment-v2.xml	XML Document	08/12/2010 5:56 PM	3,313	70%	autopdzip\autopd\	
ids_and_versions.properties	PROPERTIES File	08/12/2010 4:31 PM	410	47%	autopdzip\properties\version\	
le version.properties	PROPERTIES File	08/12/2010 4:31 PM	327	40%	autopdzip\properties\version\	
📋 isalite-error0.log	Text Document	08/12/2010 5:57 PM	44,143	89%	ISAlogs\log\	
📋 isalite-error1.log	Text Document	08/12/2010 5:55 PM	44,461	89%	ISAlogs\log\	
📋 isalite-trace0.log	Text Document	08/12/2010 5:57 PM	58,128	89%	ISAlogs\log\	
📋 isalite-trace1.log	Text Document	08/12/2010 5:55 PM	59,285	89%	ISAlogs\log\	
autopdcurrentstate.properties	PROPERTIES File	08/12/2010 5:56 PM	504	37%	ISAlogs\properties\	1
() () () () () () () () () ()						

Figure 26
InfoSphere DataStage job logs Collector

This collector gathers log files and debugging information from an InfoSphere DataStage project and job that ran. This collector is available on InfoSphere Information Server, Version 8.5 or later installations and can be invoked from the client and engine tiers. After you specify your InfoSphere DataStage credentials, you choose the project to collect information for and the type of information to collect, as shown in Figure 27.

晕 IBM Support Assistant Lite Tool Input Dialog	l.	×
This task allows you to collect job logs and job assets from an InfoSphere DataStage project.		
Select an InfoSphere DataStage project to work with:		
Select the information you want to collect: Job logs and job assets Job logs and job assets Job logs only Process or retrieving the list of jobs is ready to start. Depending on the number of jobs in the selected project, this process may take several minutes.		
	OK Cancel	

Figure 27

Select the InfoSphere DataStage job and the number of job runs from which to collect logs.

🚔 IBM Support Assistant Lite Tool Input Dialog	×
Select a job and the number of job runs to collect.	
Select a job to work with: CA_DDA_AMT02_logging_multi_Instance2	
Each job run produces a log. Select the number of job runs to collect:	
Collection process is ready to start. This process may take a few minutes, particularly if there are a large number of log events and job assets for the selected job.	
OK Cancel	

Figure 28

If multiple invocations of the job are detected, select a job invocation, as shown in Figure 29.

晕 IBM Support Assistant Lite Tool Input Dialog	×
There are multiple invocations for the selected job.	
Select the job invocation you want to collect: CA_DDA_AMT02_logging_multi_Instance2.Invocation1	
OK Cancel	

Figure 29

The tool exports the job run log file and, if selected, an .isx file that contains the job archive assets. Files are stored in the collection .zip file, as in the example in Figure 28. The format of the log file name is dsjob-<hostname>-<project>-<job>-<#>.log where <#> is the number of the job run. If logs from multiple job runs are collected, job run 0 is the most recent run, and 1, 2, and so on are older runs.

Name	Туре
🗐 dsjob-pisa-dstage1-bw_dummy-0.log	Text Document
國 pisa-dstage1-bw_dummy.isx	ISX File
SYSTEM-SUMMARY.html	Firefox Document
Figure 30	

The InfoSphere DataStage Job Log Collector creates an output report file with debugging information and data about the InfoSphere DataStage project and job that was selected. The report is included in the collection .zip file:

HTML report DS-Collector.html.

InfoSphere Information Server Diagnostic Tools

The diagnostic tools perform a comprehensive set of configuration and operational checks to validate the runtime environment of InfoSphere Information Server components and report possible issues. You can invoke any of these diagnostic tools on systems where any of the InfoSphere Information Server components or modules are installed. However, some tools test specific InfoSphere Information Server tiers and therefore require the installation of that tier. The diagnostic tools do not require the component to be running or correctly configured; however, some diagnostics might fail.

The diagnostic tools are listed in the following subsections:

InfoSphere Information Server General Health Checker tool

This tool runs on InfoSphere Information Server configurations that have the services (domain), client, or engine tiers installed.

Before you start the tests, you must specify the following credential information:

- o WebSphere Application Server Administrator ID and password
- InfoSphere Information Server metadata repository user ID and password, as created during the installation of InfoSphere Information Server
- o InfoSphere Information Server user ID and password

All fields are re	quired			
/abSobara Ao	nlication Server admin	user ID		
	plication berver aufilin			
Masauniin				
VebSphere Ap	plication Server admin	user passwor	Ч	

/letadata Repo	sitory user ID			
xmeta	•			
Amoca				
4etadata Repo	sitory user password			
4etadata Repo ******	sitory user password			
Metadata Repo ******* nfoSphere Info	sitory user password	D		
Metadata Repo ****** nfoSphere Info admin	sitory user password ormation Server user 1	D		
4etadata Repo ******* nfoSphere Infi admin	sitory user password prmation Server user 1	D		
Metadata Repo ******* infoSphere Info admin nfoSphere Info	sitory user password ormation Server user 1 ormation Server user 1	D		
Metadata Repo ****** InfoSphere Info admin nfoSphere Info *****	sitory user password ormation Server user) ormation Server user (D		
Metadata Repo ****** infoSphere Info admin infoSphere Info *****	sitory user password ormation Server user 1 ormation Server user (D		
Metadata Repo ******* infoSphere Info admin nfoSphere Info *****	sitory user password ormation Server user 1 ormation Server user 1	D		

Figure 31

The following groups of health checks are performed, comprising about 90 different tests:

- Health Checker Runtime Environment
- o Database Health Check
- Information Server Binding Properties Check
- WebSphere Server Health Check
- Information Server Health Check
- Client Health Check
- o Logging Agent Health Check
- Logging Service Health Check
- Information Server Agent Health Check
- Connector Access Service Health Check
- o Information Analyzer Health Check
- o Information Services Director Health Check
- DataStage Health Check
- Business Glossary Health Check

Some of the tests are available only on certain InfoSphere Information Server tiers. When a tier is not installed, the tier-specific test is skipped.

The health checker tool produces two .html reports:

- SuiteHealthChecker.html contains all results from all tests, divided by test group.
- SuiteHealthChecker-Failures.html contains only the failed diagnostic tests.

Figures 32 and 33 show extracts from a sample output.

Test Group	Group Result	Total Tests Run	Successful	Failed	Warning	Skipped
Health Checker Runtime	PASSED	1	1	0	0	0
Environment						
Database Health Check	PASSED	9	9	0	0	0
Information Server Binding	PASSED	1	1	0	0	0
Properties Check						
WebSphere Server Health Check	PASSED	20	20	0	0	0
Information Server Health Check	WARNING	16	15	0	1	0
Client Health Check	PASSED	2	2	0	0	0
Logging Agent Health Check	PASSED	3	3	0	0	0
Logging Service Health Check	PASSED	2	2	0	0	0
Information Server Agent Health	FAILED	4	3	1	0	0
Check						
Connector Access Service Health Check	PASSED	2	2	0	0	0
Information Services Director	FAILED	4	2	2	0	0
Health Check						
DataStage Health Check	PASSED	7	7	0	0	0
Information Analyzer Health Check	PASSED	5	4	0	0	1
Business Glossary Health Check	PASSED	4	4	0	0	0

Figure 32: Summary of results

Summary of Results by Component and Test Group

WARNING:

The Component Status map shows status of the Information Server components visible only from this machine. Components that are not installed or are not available for testing are shown with no results.

Business Glossary	PASSED
Information Server Director	FAILED
Connector Access Service (CAS)	PASSED
Information Analyzer	PASSED
	•

INFORMATION SERVER SERVICES

Repository Services:	
Repository Management	PASSED
Model Management	PASSED
Metadata Asset Manager	-

ISF Core Services:	
Agent Service	PASSED
Registration Service	PASSED
ISF Common Services:	
Session Service	PASSED
Logging Service	PASSED
Caching Service	PASSED
Reporting Service	PASSED
Licensing Service	PASSED
Security Service	PASSED
Directory Service	PASSED

INFORMATION SERVER ENGINE		
Logging Agent	PASSED	
Information Server Agent	FAILED	
DataStage Server	PASSED	

INFORMATION SERVER REPOSITORY

Metadata Repository	PASSED
Information Analyzer Repository	PASSED

INFORMATION SERVER CLIENTS		
Clients	PASSED	

Test group: Information Server Health Check

Result	Description	Result Details
PASSED	CDIHC1011I Create an initial context	
PASSED	CDIHC1012I Authenticate to the Information Server using the WebSphere administrator	Authenticate to IS host pisa.ibm.com:80 (ip=9.22.99.56) with user "wasadmi
PASSED	CDIHC1012I Authenticate to the Information Server	Authenticate to IS host pisa.ibm.com:80 (ip=9.22.99.56) with user "admin"
PASSED	CDIHC1013I Verify the current directory provider configuration	Provider name: ASBDirectoryProvider. Provider attributes: CONNECTION.Supports all Attributes: true CONNECTION.Writable: true USER.Enable: false USER.Principal ID: false USER.Principal ID: false

Figure 33: Summary of results by component and a sample of test results

As part of the General Health Checker results, Figure 34 shows the topology map with details of communication channels between InfoSphere Information Server components. The example shows a two-engine configuration; however, in this case, only the engine on the local machine is verified.

When the tool is run on a computer where only the client tier is installed, some of the component information is not available. Some components, such as the metadata repository or logging agent, cannot be detected from a client-only tier.



Figure 34

If you installed InfoSphere Information Server, Version 8.5 or later, the SuiteHealthChecker.html report also contains two WebSphere Application Server cluster topology maps:

- **Physical Topology Map:** Describes the host computers that comprise the WebSphere Application Server cluster and the deployment manager and servers running on each computer.
- **Logical Topology Map**: Describes the logical topology, which includes a deployment manager and a number of cluster nodes. One or more servers can run on each node.

Figures 35 and 36 show examples of the two maps:

WebSphere Cluster: Physical Topology Map

HOST	pisa.ibm.com (9.22.9	9.56)
DEPLOYMENT MANAGER	DMgr Node Name: Bootstrap Port: Server Name: Profile Location: SystemOut Log file: Server started and connected:	pisaCellManager01 9809 dmgr C:\IBM\WebSphere\AppServer\profiles\Dmgr01 C:\IBM\WebSphere\AppServer\profiles\Dmgr01/logs/dmgr/SystemOut.log true
SERVER	Node Name: Bootstrap Port: Server Name: Profile Location: SystemOut Log file: Server started and connected:	pisaNode01 9810 server1 C:\IBM\WebSphere\AppServer\profiles\Custom01 C:\IBM\WebSphere\AppServer\profiles\Custom01/logs/server1/SystemOut.log true
SERVER	Node Name: Bootstrap Port: Server Name: Profile Location: SystemOut Log file: Server started and connected:	pisaNode01 9812 server5 C:\IBM\WebSphere\AppServer\profiles\Custom01 C:\IBM\WebSphere\AppServer\profiles\Custom01/logs/server5/SystemOut.log FALSE

ноѕт	torrino.ibm.com (9.2	2.99.57)
SERVER	Node Name: Bootstrap Port: Server Name: Profile Location: SystemOut Log file: Server started and connected:	torrinoNode01 9811 server2 C:\IBM\WebSphere\AppServer\profiles\Custom02 C:\IBM\WebSphere\AppServer\profiles\Custom02/logs/server2/SystemOut.log
SERVER	Node Name: Bootstrap Port: Server Name: Profile Location: SystemOut Log file: Server started and connected:	torrinoNode01 9812 server3 C:\IBM\WebSphere\AppServer\profiles\Custom02 C:\IBM\WebSphere\AppServer\profiles\Custom02/logs/server3/SystemOut.log

Figure 35: WebSphere Cluster: Physical Topology Map

WebSphere Cluster: Logical Topology Map

	CLUSTERED Cluster Name: Cluster01
TOPOLOGY:	🖽 ERROR: 2 WebSphere clusters were detected. The multiple cluster configuration is not supported by the
	InfoSphere Information Server product. Contact IBM Support.
# of Node:	3: 2
# of Servers	s: 4

MANAGER	DMgr Node Name: pisaCellManager01
Host:	pisa.ibm.com
IP Address:	9.22.99.56
Bootstrap Port:	9809
Server Name:	dmgr
Profile Location:	C:\IBM\WebSphere\AppServer\profiles\Dmgr01
SystemOut Log file:	C:\IBM\WebSphere\AppServer\profiles\Dmgr01/logs/dmgr/SystemOut.log
Server started and	true
connected:	uue

NODE	Node Name: pisal Node Agent started: true	NodeO1
	Server Name: Profile Location: SystemOut Log File:	server1 C:\IBM\WebSphere\AppServer\profiles\Custom01 C:\IBM\WebSphere\AppServer\profiles\Custom01/logs/server1/SystemOut.log
SERVER	Host: IP Address: Bootstrap Port:	pisa.ibm.com 9.22.99.56 9810
	Server started and connected:	true
SED)/ED	Server Name: Profile Location: SystemOut Log File: Host:	server5 C:\IBM\WebSphere\AppServer\profiles\Custom01 C:\IBM\WebSphere\AppServer\profiles\Custom01/logs/server5/SystemOut.log pisa.ibm.com
SERVER	IP Address: Bootstrap Port:	9.22.99.56 9812
	Server started and connected:	W FALSE

NODE	Node Name: torri Node Agent started: 🖽 F#	noNode01 ALSE
SERVER	Server Name: Profile Location: SystemOut Log File: Host: IP Address: Bootstrap Port:	server2 C:\IBM\WebSphere\AppServer\profiles\Custom02 C:\IBM\WebSphere\AppServer\profiles\Custom02/logs/server2/SystemOut.log torrino.ibm.com 9.22.99.57 9811
	Server started and connected:	FALSE
SERVER	Server Name: Profile Location: SystemOut Log File: Host: IP Address: Bootstrap Port: Server started and connected:	server3 C:\IBM\WebSphere\AppServer\profiles\Custom02 C:\IBM\WebSphere\AppServer\profiles\Custom02/logs/server3/SystemOut.log torrino.ibm.com 9.22.99.57 9812 IFALSE

Figure 36: WebSphere Cluster: Logical Topology Map

Install Logs Analyzer and collector

The Install Logs analyzer tool provides an analysis and summary of an installation event, as logged in one InfoSphere Information Server install log. It reports the installation steps and highlights errors and warnings that were encountered during the installation event.

You do not need to have a local installation of InfoSphere Information Server in order to run the analysis, as the tool only requires an install log file that could have been generated outside of the current system.

Select an install log from default Installer-logs location or you can browse and select any log file from any location. The default location of the Installer is <java.io.tmp>/ibm_is_logs, which in UNIX, AIX, and Linux could be the /tmp/ibm_is_logs or /var/tmp/ibm_is_logs folder. In Windows it defaults to the location of the TMP environment variable, for example

C:\Users\<Administrator>\AppData\Local\Temp\ibm_is_logs. Once an installation is completed, its log file is also found in the %IS HOME%\log folder.

JIBM Support Assistant Lite Tool Input Dialog	X
Select an InfoSphere Information Server install log file to analyze. Install logs are located by default in the /tmp/ibm_is_logs folder ar name ISInstall <date>.log You can also provide a log file from another InfoSphere Information installation.</date>	nd have file 1 Server
/tmp/ibm_is_logs/ISInstall2010.11.12.12.21.20.log	Browse
	OK Cancel

Figure 37

Confirm the selection of the log file to analyze:



Figure 38

The analysis produces HTML reports including analysis and summary of the installation steps. The original install log file and the analysis HTML report are included in the collection .zip file. For example:

ISInstall2010.11.12.12.21.20.log

ISInstall2010.11.12.12.21.20.Analysis.HTML



Due to the nature of the installation log file that contains messages and information in the locale of the machine where the log file was created, the analysis of log files generated by non English systems may contain incomplete or incorrect results.

A sample of the output from the analysis of a log from an initial Suite installation or installation of additional tiers or products is shown in Fig. 39.

Installation Summary

Log File:	/tmp/ibm_is_logs/ISInstall2010.11.12.12.21.20.log
Installation Type:	Suite
Information Server:	8.7.1.0
Overall Result	Installation Details
₽ASSED	Analyzer Version: 1.0.0.008 Log file: ISInstall2013.09.26.17.08.44.log Architecture: amd64 OS Name: Linux OS Version: 2.6.18-348.16.1.el5 Installer build number: 8.7.1.0-905 Information Server Home Directory: /opt/IBM/ISServices Install start time: Thu Sep 26 17:08:44 EDT 2013 Install finish time: Thu Sep 26 17:58:06 EDT 2013 Install duration: 0 days, 0 hours, 49 minutes, 22.17 seconds Severe messages: 5 Warning messages: 1 Log type: initial install or addition of tiers or products

Pre-Installation Exceptions

Exception	Log Lines
External Command Failure starting at Line 10123 Command Line: cd /opt/IBM/ISServices/ASBServer Exit Code: 1	10123-10124

Installation Actions

Result Unit	Action	Results	Log Lines
PASSED ISFSer	ver xmeta.core.batch.deploy.mode	18	11125- 12132
PFAILED ISFSet	<pre>xmeta.core.batch.deploy.mode</pre>	<pre>1s External Command Failure starting at Line 12133 Command Line: /opt/IBM/ISServices/ASBServer/bin/model_deploy.sh /opt/IBM/ISServices/ASBServer/bin/out/XMetaBasePackage.jar /opt/IBM/ISServices/ASBServer/bin/out/XMetaCore.jar Working Directory: /opt/IBM/ISServices/ASBServer/bin Exit Code: 1 *** SEVERE starts at Line 12283 *** 2013-09-26T17:58:06.717, SEVERE: com.ibm.is.install.engine.action.builtin.mds.BatchModelDeployActions CDIIN4361E: Model deploy failed: returned an exit code of 1. *** End of SEVERE at line 12284 *** 2013-09-26T17:58:06.717, SEVERE: com.ibm.is.install.engine.action.builtin.mds.BatchModelDeployActions CDIIN4361E: Model deploy failed: returned an exit code of 1. *** End of SEVERE at line 12284 *** 2013-09-26T17:58:06.717, SEVERE: com.ibm.is.install.engine.action.builtin.mds.BatchModelDeployActions CDIIN4361E: Model deploy failed: returned an exit code of 1. *** End of SEVERE at line 12285 *** 2013-09-26T17:58:06.718, SEVERE: com.ibm.is.install.engine.runtime.InstallEngine com.ibm.is.install.engine.runtime.InstallEngine InstallAction (_id = xmeta.core.batch.deploy.models, _installUnitModelId = ISFServer) at com.ibm.is.install.engine.runtime.InstallEngine.executeAction (InstallEngine.java:113) at com.ibm.is.install.engine.runtime.InstallEngine.processInstallActionStep (InstallEngine.java:135) at com.ibm.is.install.engine.runtime.InstallEngine.processActionStep</pre>	12133-12282

Figure 39: Analysis of a Suite installation log

The analysis of a Patch or Fixpack Install log produces slightly different output than the Suite Installation log, as shown in Figure 40:

Install Logs Analyzer and Collector

Installation Summary		
Log File:	/home_/dsadm/IS85AIXFP3RollbackServiceAdmin.log	
Installation Type:	Patch	
Information Server:	unknown	

Overall Result	Installation Details
BFAIL	
	Analyzer Version: 1.0.0.018
	Log file: IS85AIXFP3RollbackServiceAdmin.log
	Architecture: ppc
	OS Name: AIX
	OS Version: 6.1
	Installer build number: 8.5.0.0-663
	Suite model version number: 8.5.0.0
	Information Server Home Directory: /opt/IBM/InformationServer
	Install start time: Tue Apr 23 18:56:03 EDT 2013
	Install finish time: Tue Apr 23 22:02:19 EDT 2013
	Install duration: 0 days, 3 hours, 6 minutes, 16.72 seconds
	Severe messages: 9
	Warning messages: 103
	Log type: application of patch or fixpack

Patch Exceptions

External Command Failure starting at Line 38256
External Command Failure starting at Line 38256
Commend I in a low fundation of the second ACDC and the Administration of the second and the NMT Deals 2 commission and the second at \$\$\$
Command Line: sn /opt/IBM/InformationServer/ASDServer/oin/ServiceAdmin.sn -v -undeploy ANL Pack 5 services -user wasadmin -password
Working Directory: null
Exit Code: 11
*** SEVERE starts at Line 38438 ***
2013-04-23T19:53:30.184, SEVERE: com.ibm.is.install.update.installer.Updater
java.lang.Exception: Exit Code: 11, Info: *** Exception::ASB_admin_client:com.ascential.asb.admin.service.tools::Code(11), Message=An error occurred trying to
instantiate an object of the entry point client implementation "com.ascential.asb.admin.service.ejb.EJBServiceAdmin"
······································
ServiceAdminCommand:Exit(11), Error: com.ascential.asb.util.invocation.EntryPointInstantiationException: An error occurred trying to instantiate an object of the er
point client implementation "com.ascential.asb.admin.service.ejb.EJBServiceAdmin"
at com.ascential.asb.util.invocation.EntryPointFactory.createImplementation(EntryPointFactory.java:269)
at com.ascential.asb.admin.service.ServiceAdminFactory.getImplementation(ServiceAdminFactory.java:278)
at com.ascential.asb.admin.service.tools.ServiceCommandCommon.getServiceAdmin(ServiceCommandCommon.java:131)
at com.ascential.asb.admin.service.tools.ServiceAdminCommand.processUndeploy(ServiceAdminCommand.java:247)
at com.ascential.asb.admin.service.tools.ServiceAdminCommand.handleRequest(ServiceAdminCommand.java:481)
at com.ascential.asb.admin.service.tools.ServiceAdminCommand.main(ServiceAdminCommand.java:559)
Caused by: java.lang.reflect.InvocationTargetException
at sun reflect. NativeConstructorAccessorImpl.newInstance0(Native Method)
at sun.reflect.NativeConstructorAccessorImpl.newInstance(NativeConstructorAccessorImpl.java:44)
at sun reflect.DelegatingConstructorAccessorImpl.newInstance(DelegatingConstructorAccessorImpl.java:59)
at java.lang.reflect.Constructor.newInstance(Constructor.java:516)

Figure 40: Analysis of a Patch or Fixpack Installation log

InfoSphere Information Server Client Remote Connectivity Test

The Client Remote Connectivity tests verify that the local client can connect to a remote (or local) installation of InfoSphere Information Server and WebSphere Application Server. To run the tool, you must specify the data that is shown in the following figure:

🎏 IBM Support Assistant Lite Tool Input Dialog 🛛 🛛 🔀
All fields are required
InfoSphere Information Server user ID
InfoSphere Information Server user password
Choose Server
infosrv.ibm.com:80
OR
Server[:Port]
OK Cancel
Figure 41

- An InfoSphere Information Server user ID and password
- An InfoSphere Information Server and optional port that you can select from a list of servers or specify in the appropriate text field. The list contains the server names to which the local InfoSphere Information Server client attempted to connect.

The health checker utility produces two HTML reports, SuiteHealthChecker.html and SuiteHealthChecker-Failures.html that are included in the user .zip file. The format of the reports is similar to the reports that are created by the General Diagnostic Health Checker tool...

InfoSphere Information Server XMeta Diagnostic Test

The InfoSphere Information Server XMeta diagnostic utility runs diagnostic probes found in the local services tier of InfoSphere Information Server and analyzes the local or remote Metadata Repository database. When you run this test, ensure that users are not logged into InfoSphere Information Server, as active users can affect the results of the diagnostics. Once the test starts, the test can take from several minutes to several hours to complete.

The tool invokes the following standard diagnostic probes of the InfoSphere Information Server metadata repository:

8.5 or later installations:

- ✓ Dangling References Probe✓ Duplicate References Probe
- ✓ Unbalanced References Probe
- ✓ Abandoned References Probe
- ✓ Oib Verification Probe
- Environment Compatibility Diagnostic Probe
- ✓ Model Registry Validation Probe
- ✓ Intermediate Table Corruption probe

The Unbalanced References probe and the Intermediate Table Corruption probe have an option to fix the issues found. You need to confirm the fix operation, as the task makes changes to the repository database.

Figures 42 and 43 show extracts from the results of the InfoSphere Information Server XMeta diagnostic utility, with a summary of the probe runs.

XMeta Diagnostic Summary of Results		
Table of Contents		
	Dangling References Probe Summary	
Description:	This probe reports references in the xmeta database that point to an object that no longer exists.	
Recommended Action:	This probe did not find any issues.	
TODO:	No action is required.	
Results:		
Total dangling references Found: 0 Total dangling weak references Found: 0		
Total Uncheckable R Total References Ch	eferences: 0 ecked: 3748	
The probe found no	problems.	

Figure 42: Results from one of the probes run

```
Diagnostic Utility Execution Summary
  _____
Number of Probes Run : 8
Number of Probes Successful : 7
Number of Probes with Warnings : 1
Number of Probes with Errors : 0
Number of Probes that Could Not Run : 0
Total Elapsed Time: 9 minutes, 26 seconds
Individual Diagnostic Probe Results :
- DanglingReferencesProbe : SUCCESS
- UnbalancedReferencesProbe : SUCCESS
 - AbandonedReferencesProbe : SUCCESS
 - CorruptClobReferencesProbe : SUCCESS
- EnvironmentCompatibilityDiagnosticProbe : WARNINGS FOUND
- ModelRegistryValidationProbe : SUCCESS
 - OjbVerificationProbe : SUCCESS
 - CorruptIntermediateTableReferencesProbe : SUCCESS
```

Figure 43: Summary of the probes runs

The InfoSphere Information Server XMeta Diagnostic test creates two output report files that are included in the user .zip file:

- HTML report XMETAHealthChecker.html: (see sample above).
- MetaDiagnosticReport.xml: Diagnostic information that is useful to IBM Support.

Information Server DataStage Diagnostic Test tool

This diagnostic tool includes a set of test commands that gather InfoSphere DataStage and QualityStage information. These tests are not run from the General Health Checker tool. The InfoSphere DataStage Diagnostic Test tool is invoked on the engine tier of InfoSphere Information

Server and performs the following tests:

- ✓ Verifies the InfoSphere DataStage credentials by retrieving them from InfoSphere Information Server and using them to get a list of InfoSphere DataStage projects on an engine tier.
- ✓ Lists the connections on the current system that are made to an InfoSphere DataStage server. Includes the IP address to identify the InfoSphere DataStage server.
- Lists the InfoSphere DataStage or InfoSphere QualityStage processes that are running on the server.
- ✓ Lists the InfoSphere DataStage or InfoSphere QualityStage projects.
- ✓ Lists information such as the InfoSphere DataStage engine uvconfig settings, lock information, and dynamic hashed files.
- ✓ List the issues that were found with each InfoSphere DataStage or InfoSphere QualityStage project.

The results of the run are included in the HTML report DataStageHealthChecker.html as shown in Figure 44. The HTML report is included in the collection .zip file.

1105	phere DataStage Diagnostic Test	Results	
able of (Contents		
est 1:			
Test	Provides network details of the dsrpc co invoke [netstat -a {pipe} grep dsrpc]	nnection	
Results	tcp 0 0 *.dsrpc	*_*	LISTEN
est 2:			
Test	Check for job run processes invoke [ps -ef{pipe}grep RUN]		
Results	root 26388 26381 0 01:43:37 pts/2	0:00 grep RUN	
Cest 3:			
Test	Check for any osh processes invoke [ps -ef{pipe}grep osh]		
Results	root 26390 26381 0 01:43:37 pts/2	0:00 grep osh	
est 4:			
Test	List DataStage projects invoke [/dsenv] invoke [/opt/IBM/InformationServer/Serve	r/DSEngine/bin/dsadmin	-domain infosrv&
	ANALYZERPROJECT DataClick		

InfoSphere Information Server PX Engine Configuration Test

This diagnostic test verifies the basic health of the parallel engine and its ability to compile and execute a simple parallel job by using a two-node configuration file and a more complex parallel job that involves a transformer stage.

The results of the test are described in two files, which are included in the .zip file:

PXhealthChecker.log and PXHealthCheckerOsh.log.

A summary of the test results is included in the <code>PXHealthChecker.html HTML report</code>.

Figure 45 shows an example of the PXHealthChecker.html file.

PX Engine Configuration Test Steps

Table of Contents

PX Engine Configuration Test

Result	Status Code	Description	
PASSED	PXEHC1001I	Health checker setup test	
PASSED	PXEHC1002I	PXEngine home validation test	
PASSED	PXEHC1003I	Environment configuration test	
PASSED	PXEHC1004I	Configuration file test	
PASSED	PXEHC1005I	Basic osh execution test	
PASSED	PXEHC1006I	Compiler detection test	
INFO	PXEHC1007I	Transform compilation test	
INFO	PXEHC1007I	APT_COMPILER = cxx	
INFO	PXEHC1007I	APT_COMPILEOPT = -W/TP -W/EHa -DAPT_USE_ANSI_IOSTREAMS -c - W/Zc:wchar_t-	
INFO	PXEHC1007I	APT_LINKER = cxx	
INFO	PXEHC1007I	APT_LINKOPT = -s -W/dll -W/base:0x50000000 -W/Zc:wchar_t-	
FAILED	PXEHC1007I	Transform compilation test - Missing or misconfigured compiler/linker and/or options. Resolution: Check the PXHealthCheckerOsh log file and update the compiler environment. PXEHC2000I PXEngine Health Checker: END EXECUTION at Wed Jan 20 15:33:20 2010	

PX Engine Configuration Test Results

Table of Contents

```
##I IIS-DSEE-TFCN-00001 15:33:05(000)
 IBM WebSphere DataStage Enterprise Edition 8.1.0.4987
 Copyright (c) 2001, 2005-2008 IBM Corporation. All rights reserved
 ##I IIS-DSEE-TFCN-00006 15:33:05(001) conductor uname: -s=Windows_NT; -r=1; -v=5; -n=FERRARI; -m=Pentium
 ##I IIS-DSEE-TOSH-00002 15:33:05(002) orchgeneral: loaded
 ##I IIS-DSEE-TOSH-00002 15:33:05(003) orchsort: loaded
 ##I IIS-DSEE-TOSH-00002 15:33:05(004) orchstats: loaded
 ##E IIS-DSEE-TBLD-00076 15:33:15(000) Error when checking composite operator: Subprocess command failed with exit status
 ##E IIS-DSEE-TFSR-00019 15:33:15(001) Could not check all operators because of previous error(s)
 ##W IIS-DSEE-TFTM-00012 15:33:15(002) Error when checking composite operator: The number of reject datasets "O" is less t
 ##I IIS-DSEE-TBLD-00000 15:33:15(003) Error when checking composite operator: Output from subprocess: C:\IBM\InformationS
         with
         Г
             _Ty=APT_KeyLookupRange::rangeOption
         1
 \tmp\osh_tmp\checkosh_Transformer.C(180) : warning C4101: 'output' : unreferenced local variable
 \tmp\osh_tmp\checkosh_Transformer.C(175) : warning C4101: 'input' : unreferenced local varia
 ##I IIS-DSEE-TBLD-00000 15:33:15(004) Error when checking composite operator: Output from subprocess: ble
 ##W IIS-DSEE-TFEV-00025 15:33:15(005) Error when checking composite operator: Converting string to number.
 ##W IIS-DSEE-TFEV-00023 15:33:15(006) Error when checking composite operator: Implicit conversion from source type "Strir
Figure 45
```

Connectors Load Test

One of the most common issues with InfoSphere DataStage connectivity stages is the inability to load a connectivity library. This issue occurs when the connectivity stages cannot load the third-party libraries that they depend on (for example, an Oracle client library) because the libraries are not installed or the PATH or LIBPATH environment variables are not defined correctly. The Connectors Configuration Test tool reports whether the InfoSphere Information Server connectivity libraries, such as plugins, operators, connectors, and related libraries, can be loaded. If one cannot be loaded, the tool reports a reason for the failure.

To run the Connectivity Configuration Test, the InfoSphere Information Server DataStage server tier must be installed. After you invoke the tool, provide the credentials to the InfoSphere DataStage server and services tier. Select an InfoSphere DataStage project from the list of projects in the repository. The project that you select is used only as a reference by the tool, and the tool does not modify the project. The diagnostic results include information on the environment variables that are set in the project.

The tool creates the ConnectorsHealthChecker.html HTML report file, which contains all the results from the tests, and a ConnectorsHealthChecker-Failures.html file, which contains only results from the failed tests. An extract of a sample report file is shown in Figures 46 and 47.

Connectors Configuration Test Results

Table of Contents

WARNING:

A component must be installed to be loaded. The tool does not verify whether the component is installed, but only if it can be loaded. A failure reported in the test results is only meaningful if the component is known to be installed.

Environment Variables for project dstage1

Result	Description	
PATH	C:\IBM\InformationServer\Server\DSEngine\.\PXEngine\bin;;C:\IBM\INFORM~1\ISALite\cisa\bin;C:	
	\IBMINFORM~1\ISALite\levelreport;C\IBMUNFORM~1\ISALite\levelreport\lib;C\IBMUnformationServer	
	\ASBNode\apps\jre\bin;C\IBMInformationServer\Server\DSEngine\bin;C\IBMInformationServer\DSEngine	
	\bin;C\IBMInformationServer\Server\DSComponents\bin;C\IBMInformationServer\ASBNode\apps\jre	
	\bin\classic;C\IBMUnformationServer\ASBNode\lib\cpp;C\IBMUnformationServer\ASBNode\apps\proxy\cpp\vc60	
	MT_dll\bin;C\Program Files\MKS Toolkit\mksnt;C\PROGRA~1\MKSTOO~1\bin;C\PROGRA~1\MKSTOO~1	
	\bin\X11;C\PROGRA~1\MKSTOO~1\mksnt;C\PROGRA~1\ULTRAE~1;C\WINDOWS\system32;C	
	\WINDOWS;C:\WINDOWS\system32\wbem;c:\ibm\itm\bin;c:\ibm\itm\tmaitm6;c:\program files\ibm\gsk8\lib;C:	
	\IBM\SQLLIB\BIN;C\IBM\SQLLIB\FUNCTION;C\IBM\SQLLIB\SAMPLES\REPL;c\tools;C\IBM\ITM	
	\InstallTTM;C\IBM\InformationServer\Server\DSEngine\\.\Clients\Classic;	

Figure 46: The environment variable set in the InfoSphere DataStage project

Connector Configuration Test - All Results - Netezza Connector

Result	Description	Recommendations
INFO	CC_GUARDIUM_EVENTS = No value.	
INFO	$TMPDIR = N \circ value.$	
INFO	CC_NZ_LOG_LEVEL = No value.	
INFO	ODBCINI = No value.	
INFO	NZ_ODBC_INI_PATH = No value.	
FAILED	Netezza Connector Connector - failed to load library ccnz.dll The specified module could not be found.	Ensure that the Netezza ODBC driver directory is set properly in odbc.ini. On unix, ensure ODBCINI and NZ_ODBC_INI_PATH are set correctly. Ensure IS and external product libraries are both 32-bit or both 64-bit.

Connector Configuration Test - All Results - Teradata 12 Connector

Result	Description	Recommendations
INFO	CC_GUARDIUM_EVENTS = No value.	
INFO	TMSM_ENABLED = $N \circ value$.	
INFO	$TMSM_HOME = N \circ value.$	
	CC TERA RECONNECT ELAG = No value	

Figure 47: Results from loading the connectors



The WebSphere MQ, Oracle, and DB2 Connector stages link to the product libraries that are required dynamically at run time. Because the libraries are loaded dynamically, the InfoSphere Information Server Connectors Configuration Test cannot verify the presence of the dependent WebSphere MQ, DB2, or Oracle client libraries. Therefore, the WebSphere MQ, Oracle, and DB2 Connector stages tests might not report failures even when a runtime failure occurs. Because the WebSphere MQ, DB2, and Oracle Connector stages share requirements with their plugins and operators, use the results of the plugin and operator stage tests as results of the connector stages tests.

For example, if the WebSphere MQ Plugin stage fails when you use the WebSphere MQ Client libraries, the WebSphere MQ Connector stage will also fail when it is used in a job that requires the WebSphere MQ Client libraries, even though its connector stage test may show a PASSED result.

Connectors Configuration Test

The tool verifies the correct operations of the InfoSphere Information Server Connectors by testing the connection to a specified resource or repository, using a chosen connector. It allows users to:

- a. Select a connector to test among the ones installed
- b. Get a list of connection properties for the connector
- c. Provide values for these properties
- d. Test the connection using the properties provided

晕 IBM Support Assistant Lite Tool Input	Dialog 🛛 🗙
Select the Connector you want to test for	connectivity issues
DB2 Connector version 9.1	
DB2 Connector version 9.1	
ODBC Connector version 3.5	
Oracle Connector version 10	OK Cancel
Oracle Connector version 11	
Teradata Connector version 8.1	
Teradata Connector version 12	
WebSphere MQ Connector version 5.3	

Figure 48: Selecting a Connector to test

Once an InfoSphere DataStage project and a connector have been selected, provide the values of the parameters to be used for the connection to the specified data source.

IBM Su	pport Assistant Lite Tool Input Dialog	×
Drewid		
Frovia	s values for all listed parameters.	
Databa	se *	
myData	abase	
User na	me	
xmeta		
Passwo	rd	
*****	0¥	
Instanc	e	
db2inst	:1	
DB2 clie	nt library file	

Figure 49: Providing values for the connector's parameters

The tool connects to the data source and reports connection results and diagnostic data, as shown in Figure 50

HIBM Support Assistant Lite Tool Input Dialog	×
Getting a connection to DB2 Connector 9.1 (D5 Server PISA) Caught ConnectorException	
Failed to send the request to the handler: The agent at pisa:31531 is not available.	
What next?	
Select another Connector	
	ОК

Figure 50: Testing the connection

Results of all the attempted connections are gathered in html reports that are include in the collection .zip file, as shown in Figure 51.

Name	
ConnectivityTestConnection.DB2Connector.1.html	
ConnectivityTestConnection.DMConnector.2.html	
ConnectivityTestConnection.TeradataConnector.3.html	
ConnectivityTestConnection-Failures.DB2Connector.1.html	
ConnectivityTestConnection-Failures.DMConnector.2.html	
ConnectivityTestConnection-Failures.TeradataConnector.3.htm	1
SYSTEM-SUMMARY.html	

Figure 51: Results in the collection .zip file

A sample of the report in the following figures shows the test environment, the results of the loading of the connector and the results of the connection to the repository using the parameters provided.

Connector Configuration Test Results

Table of Contents

WARNING:

A component must be installed to be loaded. The tool does not verify whether the component is installed, but only if it can be loaded. A failure reported in the test results is only meaningful if the component is known to be installed.

Environment Variables for project ANALYZERPROJECT

Result	Description	
PATH	C.\IBM\912.QA4\InformationServer\Server\DSEngine\\DSEngine\bin;C.\IBM\912.QA4	
	\InformationServer\Server\DSEngine\.\PXEngine\bin;;C\IBM\912.QA4\INFORM~1\ISALIT~1.6	
	\cisa\bin;C\IBM\912.QA4\INFORM~1\ISALIT~1.6\levelreport;C\IBM\912.QA4\INFORM~1\ISALIT~1.6	
	Vevelreport\lib;\bin;C\UBM\912.QA4\InformationServer\Server\DSComponents\bin;C\Program Files\MKS	
	Toolkit\mksnt;C\PROGRA~1\MKSTOO~1\bin;C\PROGRA~1\MKSTOO~1\bin\X11;C\PROGRA~1	
	MKSTOO~1\mksnt;C\IBM\912.QA4\InformationServer\ASBNode\apps\jre\bin\classic;C\IBM\912.QA4	
	\InformationServer\ASBNode\lib\cpp;C.\IBM\912.QA4\InformationServer\ASBNode\apps\proxy\cpp\vc60	
	\MT_dll\bin;C\Windows\system32;C\Windows;C\Windows\system32\wbem;c\\program files\ibm\gsk8	
	Wb;C/IBM/SQLLIB/BIN;C/IBM/SQLLIB/FUNCTION;C/IBM/SQLLIB/SAMPLES/REPL;C/IBM/912.QA4	
	\InformationServer\Server\PXEngine\bin;C\IBM\912.QA4	
	\InformationServer\Server\DSEngine\\.\Clients\Classic;	

Figure 52: The test environment, as defined by the project selected

Connector Configuration Test - All Results - DB2 Connector

Result	Description	Recommendations
INFO	DB2INSTANCE = DB2	
INFO	CC_GUARDIUM_EVENTS = No value.	
INFO	$CC_DB2_ZLOAD_MAXBLOCKSIZE = N \circ value.$	
INFO	CC_DB2_ZLOAD_BYTESPERTRACK = No value.	
INFO	$CC_DB2_ZLOAD_TRACKSPERCYL = No$ value.	
PASSED	DB2 Connector Connector - Successfully loaded library ccdb2.dll	
PASSED	DB2 Connector Connector - Successfully loaded library db2app.dll	

Connectivity Test Parameters

Table of Contents

Parameter	Value
Database *	xmeta
User name	xmeta
Password	
Instance	
DB2 client library file	

Connectivity Test Results

Table of Contents

```
Getting a connection to DB2 Connector Succeeded!
```

Figure 53: The Connector loading and the connectivity test results

InfoSphere Information Server SAP Packs Configuration Test

The SAP Configuration Test loads the InfoSphere Information Server SAP Packs connectivity libraries and reports if they can be loaded. If a library cannot be loaded, the test reports a reason for the failure. The connectivity libraries include a set of libraries for the services tier and a set for the client tier. To run the SAP Packs Configuration Test, the InfoSphere Information Server SAP Packs must be installed.

After you invoke the tool, you must provide the credentials to the InfoSphere DataStage server and domain. Then, you select an InfoSphere DataStage project from a list of projects in the repository, as shown in Figure 54. This project is used only as a reference by the tool, and no modifications to the project are made.

晕 IBM Support Assistant Lite Tool Input Dialog	×
Select an InfoSphere DataStage project to use as reference for the test. No modifications to the project are made.	OK Cancel

Figure 54

The tool creates the SAPHealthChecker.html and SAPHealthChecker-Failures.html HTML reports. The reports, which are in the .zip file, contain results from the tests. An example of the report is shown in Figure 55.

nformation Ser	ver SAP Packs Configuration Test	
erver Tier		
Result	Description	
PASSED	RFC lib Plugin - Successfully loaded library librfc32.dll	
PASSED	R/3 Pack - IDOC Extract Plugin - Successfully loaded library dsidoc.dll	
PASSED	R/3 Pack - IDOC Extract EN Resource Plugin - Successfully loaded library dsidocenu.dll	
PASSED	R/3 Pack - IDOC Extract JP Resource Plugin - Successfully loaded library dsidocjpn.dll	
PASSED	R/3 Pack - IDOC Load Plugin - Successfully loaded library dsidocld.dll	
✓PASSED	R/3 Pack - IDOC Load EN Resource Plugin - Successfully loaded library dsidocldenu.dll	
PASSED	R/3 Pack - IDOC Load JP Resource Plugin - Successfully loaded library dsidocldjpn.dll	
☑PASSED	R/3 Pack - ABAP Extract Plugin - Successfully loaded library dsr3.dll	
✓PASSED	R/3 Pack - ABAP Extract EN Resource Plugin - Successfully loaded library dsr3enu.dll	
☑PASSED	R/3 Pack - ABAP Extract JP Resource Plugin - Successfully loaded library dsr3jpn.dll	
PASSED	R/3 Pack - R3CONN Plugin - Successfully loaded library r3conn. dll	
✓PASSED	R/3 Pack - BAPI Plugin - Successfully loaded library dsr3bapi.dll	
PASSED	R/3 Pack - BAPI EN Resource Plugin - Successfully loaded library dsr3bapienu.dll	
PASSED	R/3 Pack - BAPI JP Resource Plugin - Successfully loaded library dsr3bapijpn.dll	
✓PASSED	BW Pack - BW Extract Plugin - Successfully loaded library dsbwextr.dll	
₽ASSED	BW Pack - BW Extract EN Resource Plugin - Successfully loaded library dsbwextrenu.dll	
PASSED	BW Pack - BW Extract JP Resource Plugin - Successfully loaded library dsbwextripn.dll	
PASSED	BW Pack - BW Load Plugin - Successfully loaded library dsbwload.dll	

Figure 55

Information Analyzer Diagnostic test

The test verifies the configuration of the InfoSphere Information Analyzer component in InfoSphere Information Server Version 8.5 FP1 or later environments. It provides tests for:

- **The global-level settings of InfoSphere Information Analyzer:**
 - o global-level job execution settings
 - o global-level connection to the InfoSphere Information Analyzer database
 - o global-level connection to the InfoSphere DataStage engine
- **The project-level settings of** InfoSphere Information Analyzer:
 - o project-level job execution settings
 - o project-level connection to the InfoSphere Information Analyzer database
 - o project-level connection to the InfoSphere DataStage engine

The tool requires data inputs as shown in the following figures:

1. Provide connection information to the InfoSphere Information Server (services tier):

ioini auppo	A NAME AND TO A THE DIAL DIAL DIAL DIAL DIAL DIAL DIAL DIAL	
The Informatio	Analyzer tests verify connection to DataStage, the IA Database, and global and project job execution capability.	
Provide conr	action information and credentials. All input fields are required.	
Domain serve	(example: <hostname>)</hostname>	
isserverhost		
Server port (e:	ample: 9080)	
9080		
nformation Se admin	ver User name	
Password		
* * * * *		
Process of re this process (rieving list of projects is ready to start. Depending on the number of projects, lay take several minutes.	
		OK Cancel

- Figure 56
- 2. Select an InfoSphere Information Analyzer project or <ALL Projects> to test:

💺 IBM Support	Assistant Lite Tool Input Dialog 🛛 🗙
Select a project to	test or select skip to bypass project verifications
Project to test	
anu010511 🗸	
anu010511	
anu_db2	
testAnu	
<all projects=""></all>	

The tool creates an HTML report file, IAHealthChecker.html which contains all the results from the tests, and IAHealthChecker-Failures.html, which contains results from only the failed tests.

Information Analyzer connection information

Table of Contents

Information Server Host:	localhost
Information Server Port:	9080
Information Server User ID:	admin

Information Analyzer Global level diagnostics

Table of Contents

Information Analyzer Global level diagnostics - All Results

Result	Description	Result Details
PASSED	4004 Validate IADB Connection	
		Driver = com.ibm.db2.jcc.DB2Driver;
		DatabaseUrl = jdbc:db2://wb-gecko-
		xp:50000/iadb; User = iauser
PASSED	4002 Validate DataStage Connection	
		DS Project = dstage1; Host =
		WB-GECKO-XP; Port = 31538; User =
		admin
PASSED	4006 Validate EngineJobExecution	
		DS Project = dstage1; Host =
		WB-GECKO-XP; Port = 31538; DSUser
		= admin; Driver =
		arm the oth 2 in DP2Driver Datchars Tet

Information Analyzer project level diagnostics

Table of Contents

Information Analyzer Project selected: []

Information Analyzer Project diagnostics - All Results

Result	Description	Result Details
PASSED	4005 Validate IADB Connection For Project testAnu	
		Driver =
		com.ibm.db2.jcc.DB2Driver;
		DatabaseUrl = jdbc:db2://wb-gecko-
		xp:50000/iadb; User = iauser
PASSED	4005 Validate IADB Connection For Project anu_db2	
		Driver =
		com.ibm.db2.jcc.DB2Driver;
		DatabaseUrl = jdbc:db2://wb-gecko-
		xp:50000/iadb; User = iauser
PASSED	4005 Validate IADB Connection For Project anu010511	
		Driver =
		com.ibm.db2.jcc.DB2Driver;
		DatabaseUrl = jdbc:db2://wb-gecko-
		xp:50000/iadb; User = iauser
PASSED	4003 Validate DataStage Connection For Project testAnu	
		DS Project = dstage1: Host =

Symptoms Analysis

The tool provides a facility to search, recognize, and report errors and critical events that are found in InfoSphere Information Server log files. Known symptoms are reported with indications and links to documents that help fix the problem.

The Symptom Analysis menu provides two options, as shown in Figure 59:

- Search a log from an InfoSphere DataStage job run.
- o Search all the InfoSphere Information Server logs that were found in the installation.



Analysis of an InfoSphere DataStage log file

The tool prompts you for a log text file that was created by the run of an InfoSphere DataStage job. The log is generated by the InfoSphere DataStage Director tool. Because you can specify the path and file name of the InfoSphere DataStage job log file, you can analyze logs that are generated by external systems. Therefore, this analysis does not depend on an installation of InfoSphere Information Server. The log file to analyze is provided at runtime, as shown in Figure 60.

🞏 IBM Support Assistant Lite Tool Input Dialog	
InfoSphere DataStage director log file	
Enter the path and filename of an InfoSphere DataStage Director log file to analyze:	
C:\DSRuns\logs\Log-From-DSJob-Run.txt	Browse
Select the InfoSphere Information Server version of the log file:	
	OK Cancel

Figure 60: Selecting a DataStage log file to analyze

The tool analyzes the log file and creates an HTML report that contains search results for each error symptom that was used in the analysis. Each error symptom analysis might contain the following information:

- Total number of the instances of the error found in the log
- Time stamp of the first and last instance of the error (if the event in the log files has a time stamp)
- Complete log record of the last event of the error found in the log
- Recommendations and explanation of possible fixes
- Additional URL links to APARs and Technote pages with detailed error descriptions and solutions

The tool recognizes the following types of symptoms:

- o Parallel job failure
- Job not running
- Job does not appear to have started
- Parallel engine startup failure.
- SAP Packs: Invalid SAP connection details ABAP stage
- SAP Packs: Incorrect BW RFC server settings
- Oracle Connector: Oracle client not supported

Figure 61 shows a parallel job failure error found in the job run log.

Symptom .	Analysis and Error Search Results		
Error:	Parallel job failure		
Component:	DataStage		
Error String:	Parallel job reports failure (code -99)		
Found in log:	C:\ISALite\ISALiteP4-10\ISAInformationServer\BVT\DSJobLog.txt		
# of Occurrences:	1 First Occurrence: 2009-03-25 08:38:03 Last Occurrence:		
Most recent Log Record:	Item #: 1208 Event ID: 2014 Timestamp: 2009-03-25 08:38:03 Type: Fatal User Name: dsadm Message Id: DSTAGE_RUN_E_0372 Message: Parallel job reports failure (code -99)		
Description a	nd Recommendations		
There are a number of related problems that can occur when you are running multiple instances of a job either from or from a script that sequences jobs by using the dsjob command. See the referenced technote for more informatic resolutions.			
Links:	http://www-01.ibm.com/support/docview.wss?rs=2321&uid=swg21405584		

Figure 61

Analysis of other InfoSphere information Server logs

This task uses the same search functionality that is used for an InfoSphere DataStage log. The analysis extends to the log files of other components that are found in the InfoSphere Information Server installation. The following symptoms are recognized:

- WebSphere non-root configuration: permission denied
- InfoSphere Information Server Console JVM heap size is too large
- o InfoSphere Information Server Metadata Workbench and Business Glossary object limit
- o InfoSphere Information Server Metadata Workbench startup process failure
- o InfoSphere Information Server Metadata Workbench migration or upgrade warning
- o XMeta: Backward compatibility The lockObjects(List mementos) method is no longer supported
- XMeta: Backward compatibility –ObjectMemento
- XMeta: Error browsing repository folder
- o XMeta: Possible data inconsistencies in the metadata repository
- NULL user IDs found in LDAP configuration
- Oracle repository use of escape characters

The tool analyzes the log files of the local installation of InfoSphere Information Server and creates an HTML report that contains search results for each error symptom that was used in the analysis, as shown in Figure 61.

InfoSphere Information Server System Requirements

Information Server Prerequisites Checker tool

The Prerequisite Checker tool evaluates the system state and can reduce the overall time that it takes to install InfoSphere Information Server. The tool uses a set of predefined rules to detect the operating system level, package installation, kernel parameters, and system files and to uncover potential problems that can cause installation issues. The tool can be used in the following situations:

Clean installation

Before you start a new installation of InfoSphere Information Server, you can invoke the Prerequisite Checker to determine if the system is ready for the InfoSphere Information Server installation. Even on a clean operating system, packages that are required might not be installed, kernel parameters can be too low for a successful installation, or the settings of environment variables can cause problems. The Prerequisite Checker detects problematic situations. You can address issues before you start the installation process.



When the tool is run on a computer where InfoSphere Information Server components are installed, some of the conditions report a failure. These failures are normal, as the Prerequisite Checker for a clean installation does not expect to find an existing installation of InfoSphere Information Server. For example, the Prerequisite Checker checks to verify if a directory is empty. In other cases, however, the failure indication might be misleading. Contact IBM Support.

Evaluation of a failed installation attempt

If an installation attempt failed, run this tool to help diagnose potential issues and identify artifacts that need to be cleaned up before you retry the installation.

Upgrade installation

Before you can upgrade an InfoSphere Information Server installation from version 8.7 to version 9.1, ensure that you have a functional installation of InfoSphere Information Server 8.7. First, invoke the IBM Support Assistant Lite for Information Server – General Diagnostic Health Checker tool to validate the runtime environment of the current installation and fix any issues that are reported. Then, invoke the Prerequisite Checker to verify that the installation is ready for the upgrade. Remove any issues that are identified before you start the upgrade process.



Always perform a full backup of the system before you attempt to upgrade the installation. Even when the Prerequisite Checker for an upgrade reports no errors, an upgrade installation might fail.

The tool generates two HTML reports, which are included in the collection .zip file:

- PrereqChecker.html Summarizes all findings by InfoSphere Information Server tier and highlights which tests that it performed on the system passed and failed. If a test fails, a recommendation is made on how to correct the problem. A warning can also be reported if a potential problem is encountered.
- PrereqChecker-Failures.html Summarizes only the failed tests that were performed on the system.

Prerequisite Check of a Clean Install of Information Server

When you invoke the Prerequisite Checker to verify a new installation of InfoSphere Information Server, you can specify to use a response file that was created by a previous installation of the same version of InfoSphere Information Server. The response file contains installation data, folder paths, and parameters that were used by an installation. You can reuse this information in the prerequisite check verifications. You can also skip this step and elect to use default values. In both cases you will be able to edit and modify any of the parameters' values before the prerequisite tests are invoked.

-	IBM Support Assistant Lite Tool Input Dialog	×
	To expedite the input of installation parameters, you can specify an input response file created by a previous installation or prerequisite check, or you can use default values. You will have a chance to modify all these values. If you have a response file, enter its path and filename and select OK to accept it, or leave the response filename blank and select Skip to use default values.	
	Path and filename of a response file (leave blank if not used):	Browse
		OK Skip Cancel

Figure 62

Specify the InfoSphere Information Server installation folder and select the InfoSphere Information Server tiers to verify, as shown in Figure 63.

晕 IBM Support Assistant Lite Tool Input Dialog	×
Select the InfoSphere Information Server tiers that need to be verified	
Engine	
true	
Services	
true 🔽	
Repository tests are skipped if a database other than DB2 or Oracle is used	
Repository	
true	
Client	
true	
	OK Cancel

Figure 63

Modify parameters that are shown in Figure 64 to suit the installation to verify. Depending on the components selected, there may be other screens with additional data that needs to be provided.

IBM Support Assistant Lite Tool Input Dialo	9
Modify parameters from the response file	
Path location of DB2	
⊧:\IBM\SQLLIB	
DB2 instance	
D82	
, DP2 port	
502 port	
190000	
DB2 admin user ID	
db2admin	
DB2 admin user password	
Select WebSphere Application Server installation	
Install WebSphere Application Server	_
publication of the back and a share of the second	
Path location of websphere Application Server	
Ic: (IBM(webSphere(AppServer	
WebSphere Application Server admin ID	
wasadmin	
WebSphere Application Server admin password	
	OK Cancel

Figure 64

Figure

Save the modified installation parameters in a new response file or click **Skip** to bypass saving a file.

IBM	Support Assistant Lite Tool Input Dialog
To s You resp	save the modifications into a response file, specify a full path and filename and select OK. can use this saved response file in another run of the prerequisite checker. Leave the ponse filename blank and select Skip to bypass saving a response file.
Sav	e response file as (leave blank if not used): Browse
	OK Skip Cancel

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Due to the limited numbers of response file parameters that the Prerequisite Checker uses, a response file that is saved when you run the Prerequisite Checker cannot be used for a full installation of InfoSphere Information Server. The response file can be used only for a Prerequisite Checker task.

However, a response file that was created during an installation of InfoSphere Information Server can be used as input to the Prerequisite Checker.

Figure 66 shows an extract from a sample HTML report:

InfoSphere Information Server Prerequisites Checker

WARNING: If the system already contains an installation of Information Server, some of the failures reported in these results might not be accurate. Consult with IBM Support.

Multi-Tier [New InfoSphere Information Server 8.7 - Fresh install]

Result	Status Code	Description
FAILED	CDIPR2003I	Ensure that the InfoSphere Information Server installation directory C:\IBM\InformationServer is empty or does not exist. Resolution: Clean up this directory and try again.
PASSED	CDIPR2034I	Ensure that the directory path C:/IBM/InformationServer length is not more than 83 characters.
PASSED	CDIPR2016I	Disk space requirement for C:\IBM\InformationServer is 3350 MB. This drive or partition has 41240 MB available.
PASSED	CDIPR2016I	Disk space requirement for C: $DOCUME~1\ADMINI~1\LOCALS~1\Temp\1\ is 260 MB.$ This drive or partition has 41240 MB available.
PASSED	CDIPR2016I	Disk space requirement for C: is 3610 MB. This drive or partition has 41240 MB available.

Metadata Repository Tier [New InfoSphere Information Server 8.7 - Fresh install]

Result	Status Code	Description
PASSED	CDIPR2001I	Ensure that the operating system is at the correct level for DB2 installation.
PASSED	CDIPR2119I	Ensure that the operating system is the correct fix pack level and has required software packages for DB2 installation.

Figure 66

Prerequisite Check of an Upgrade Installation of InfoSphere Information Server

The Prerequisite Checker verifies an upgrade installation of InfoSphere Information Server; therefore, it can be invoked only on a computer where InfoSphere Information Server Version 8.7 (with or without Fix Packs) is installed. The tool prompts for the folder name of the current 8.7 installation. Depending on the InfoSphere Information Server tiers that are installed, the tool might require other information, such as the InfoSphere Information Server and WebSphere Application Server credentials. No additional selection of tiers is required, as an upgrade installation updates the InfoSphere Information Server modules and components that are already installed without installing new ones or modifying folder locations or runtime parameters.

InfoSphere Information Server SAP Packs Prerequisite Checker

For an InfoSphere Information Server SAP Packs installation to work correctly, SAP system libraries must be installed and PATH must be set appropriately. The SAP Packs Prerequisite Checker verifies this configuration and reports missing libraries.

Select the InfoSphere Information Server SAP Packs version to verify as shown in Figure 67, and click OK.

🚰 IBM Support Assistant Lite Tool Input Dialog	×
Select which version of the InfoSphere Information Server SAP Pack to verify with the prerequisite checker.	
Pack for SAP BW - versions 4.3.2 to 4.3.2.1a 💌	
Pack for SAP BW - versions 4.3.2 to 4.3.2.1a	
Pack for SAP R/3 - versions 6.0.1 to 6.5.0.2	
Pack for SAP Applications - version 7.0.0.0	

Figure 67

A SAPPrereqChecker.html file is generated and included in the .zip file, as shown in Figure 68:

raraanicita ('hacka	Tosts	
State	r rests us Code	Description
CDI	PR2204I	NLS is enabled.
CDI	PR2200I	Windows PATH environment contains C:\WINDOWS\System32
CDI	PR2202I	File found: librfc32.dll
CDI	PR2202I	File found: librfc32u.dll
CDI	PR2202I	File found: libsapucum.dll
CDI	PR2202I	File found: icudt30.dll
CDI	PR2202I	File found: icuin30.dll
CDI	PR2202I	File found: icuuc30.dll
CDI	PR2202I	File found: libsapu16vc71.dll
	- State CDI	Status Code CDIPR2204I CDIPR2200I CDIPR2202I CDIPR2202I

If library files are missing, download from SAP the current SAP RFC SDK libraries and install them on the InfoSphere DataStage server and DataStage client. For more information see the InfoSphere Information Server Release Notes.

InfoSphere Information Server Utilities

Detect, view, and fix issues with invalid InfoSphere DataStage projects

This tool provides a simple interface to view issues found with InfoSphere DataStage projects in InfoSphere Information Server 8.5 or later and to attempt to correct them. You can work with all InfoSphere DataStage projects or select a specific project. You can view the issues with the selected project or attempt to fix the issues. Notice that even when reporting the status of a project, if certain repository issues are present, the query may trigger a modification of the project repository. Project data, however, is not affected.

晕 IBM Support Assistant Lite Tool Input Dialog	×
Select a project and choose the action to either report or fix an issue. Select the project select the project	
WARNING: In some cases, if a repository issue prevents the querying of projects' status, even the Report action may trigger a modification and a fix of the project repository. However, projects' data is not affected. If you want to avoid any potential changes to the repository, select any project action, and then use Cancel to exit the task. Select the action	
This process can take a long time, particularly if ALL projects are selected.	OK Cancel
Figure 69	

List project issues

The tool summarizes the issues that were found in the selected project and creates a DSProjReport_<projName>.html file, which is included in the user .zip file. An example of the output from the report is shown in Figure 70:

IS Host = MBBSHH IS Port = 9080 IS User = admin DS Host = MBBSHH DS Port = 3158
DataStage Project: dstage4
ISSUE: Unable to lock project.
DataStage Project: dstage5
0 Issues Found.

DataStage Project = dstage9

2 Issues Found.

ISSUE: DS Engine Job 'testJob' is missing. ISSUE: DS Engine Job 'testJob2' category 'incorrectCategory' should be 'correctCategory'

Overall Summary

2 Issues found.

Figure 70

Fix project issues

The tool attempts to resolve issues that are found in the selected projects, as described in the following list:

- The tool first attempts to lock the project. If the attempt fails, a message is generated and the tool attempts to lock the next project (if <ALL Projects> has been selected). If the tool locks the project, the tool attempts to locate issues that must be resolved. If no issues are found, a message is generated.
- The tool attempts to resolve any issues found that relate to a project. If the tool cannot resolve an issue in a project, the report displays a message that indicates that the issue remains unresolved. The tool then attempts to fix the next issue.
- A report is generated that describes whether the issues were resolved successfully.

The report summary is formatted into an HTML report titled DSProjFix_<projName>.html, which is included in the user .zip file. The following example shows output from a successful fix:

DSEngine Restorer Fix Results Feb 05, 2010 9:39:00 AM IS Host = MBBSHH IS Port = 9080IS User = admin DS Host = MBBSHH DS Port = 3158 DataStage Project: dstage3 _____ RESOLVED: DS Engine Job 'testJob' is missing. RESOLVED: DS Engine Job 'testJob2' folder 'incorrectFolder' should be 'correctFolder'. 2 Issues resolved. 0 Issues remaining. DataStage Project: dstage5 _____ RESOLVED: DS Engine Job 'test2Job' is missing.

1 Issues resolved.

```
0 Issues remaining.
```

Overall Summary

------3 Issues resolved.

0 Issues remaining.

Figure 71

The following example shows output from a fix that was not successful:

DSEngine Restorer Fix Results Feb 05, 2010 9:39:00 AM IS Host = MBBSHH IS Port = 9080 IS User = admin DS Host = MBBSHH DS Port = 3158 DataStage Project: dstage3 ------UNRESOLVED: DS Engine Job 'testJob' is missing. UNRESOLVED: DS Engine Job 'testJob2' folder 'incorrectFolder' should be 'correctFolder'.

Overall Summary

0 Issues resolved.

2 Issues remaining.

Figure 72



The ISALite task "Detect, view, and fix issues with invalid DataStage projects" cannot be recorded into a response file and played back. This limitation is due to the interactive user interface that the ISALite tool uses when it detects, fixes, and reports issues with InfoSphere DataStage projects and also to the nature of the operation, which might modify the InfoSphere Information Server metadata repository.

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