



# IBM® Support Assistant Lite for IBM InfoSphere Information Server

User's Guide

Version 7.4 for zLinux platforms



<b>Note:</b> Before using this information and the product that it supports, read the general information under <a href="Notices and trademarks">Notices and trademarks</a> .
© Copyright International Business Machines Corporation 2009, 2013. All rights reserved. US Government Users Restricted Rights Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

# **Table of Contents**

Introduction	4
Data collection guidelines	
Getting started	5
Tool installation	
Getting the latest version of the tool	
Installing the tool	6
Disk space for the tool and collection artifacts	7
Tool usage	8
Setting the JAVA_HOME environment variable	8
Starting the tool as system administrator	9
Starting the tool	9
Starting multiple concurrent instances of the tool	9
Interacting with the tool	10
Default values	14
The ISALite for InfoSphere Information Server tasks	17
IBM Support recommended tasks	18
Additional collectors	28
Additional Diagnostic Tools	29
System Requirements	32
Notices	42
Trademarks	44

# 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 document 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 DataStage projects (InfoSphere Information Server 8.5 or greater) and the Metadata Repository (XMeta) Diagnostic Test utilities can modify data in the InfoSphere Information Server installation. This operation can be triggered and requested only by the user. The operation is 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**

To install the ISALite for InfoSphere Information Server tool, follow these instructions:

- 1. Download and 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> Variable for details. Once you have done this, you can run the tool.
- 3. Run the tool in a command-line console.
  - > See <u>Tool usage</u> for instructions on how to interact with the tool as it performs a collection.

# **Tool installation**

# Getting the latest version of the tool

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

## Verifying the version of the tool that is currently installed

A newer version of the tool might be available at the download site.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

- Open the ISALite\buildinfo.txt file and review the BUILD\_VERSION property.
- From a command prompt issue the following command: ./runISALite.sh.

```
The version of the tool is displayed in its first screen.

[ISALite] $ ./runISALite.sh

Starting IBM Support Assistant Data Collector in console mode...

Licensed Materials - Property of IBM Corporation Copyright, International Business Machines, 2004, 2011. IBM is a trademark or registered trademark of IBM Corporation in the United States, other countries, or both.

IBM Support Assistant Data Collector: 2.0.1.GA20120316-1743

Common
Inventory Sub Agent: 6.3.0.20120123

IBM ISADC for InfoSphere Information
Server: S9.1.007.4z
```

## Downloading the latest version of the tool

The tool is available as an archive file at the <u>Download the IBM Support Assistant Lite for InfoSphere Information Server tool</u> site:

```
ISALiteInformationServer_zLinux_S9.1.<nnn>.tar.gz [*]
```

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 the engine tier, at minimum.

## Installing the first time

If the tool is not already installed in the %IS\_HOME%/ISALite 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 /opt/IBM/InformationServer folder. The extraction process creates an ISALite 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 installing the upgrade.

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

## **Extracting files**

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_zLinux_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_zLinux_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 tool and documentation requires approximately 42 MB of disk space. Additionally, when the tool is run, log files and .zip files that contain collected data are generated. Given the amount of data and files collected, and the size of log files (which might be as large as several megabytes), these collection .zip files could take a large amount of disk space. We recommend that you take the following actions:

- When prompted by the tool, select a file location for the collection .zip file with plenty of disk space, and not in the same disk location where the Information Server installation is located.
- ♣ After you send the 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.

# Tool usage

# **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 <code>JAVA\_HOME</code> 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 %IS\_HOME%/ISALite 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.

To set the **JAVA\_HOME** environment variable:

#### ♣ If InfoSphere Information Server is installed on your computer:

- 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.
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 1.4.2 or higher is installed. Version 1.5, also known as version 5.0, or later is needed to invoke the prerequisite checker tool of an InfoSphere Information Server Version 8.5 or higher installation.
- 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 <a href="https://www.ibm.com/developerworks/java/jdk/">https://www.ibm.com/developerworks/java/jdk/</a>.
  JRE for machines that are not IBM machines can be found at <a href="https://www.java.com/en/download/manual.jsp">www.java.com/en/download/manual.jsp</a>.

- 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.
  - 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 1.4.2 is installed in /opt/jre142 with the java executable in /opt/jre142/bin, set the JAVA\_HOME variable by using the following command:

export JAVA\_HOME=/opt/jre142

# 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 'root' (or sudo root). 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 task requires administrator access:

o InfoSphere Information Server Prerequisite checker

# Starting the tool

Once you have ensured that the JAVA\_HOME environment variable points to a valid version of the JRE, start the tool by invoking the launch script in the tool's /ISALite directory:

./runISALite.sh

# 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. Avoid concurrent invocations of the tool by multiple users, even though the tool does not prevent you from doing it.

# Interacting with the tool

After the IBM Support Assistant Lite for InfoSphere Information Server tool has been started, the interface shown in Figure 1 displays:

```
[ISALite] $ ./runISALite.sh

Starting IBM Support Assistant Data Collector in console mode...

Licensed Materials - Property of IBM Corporation Copyright, International Business Machines, 2004, 2011. IBM is a trademark or registered trademark of IBM Corporation in the United States, other countries, or both.

IBM Support Assistant Data Collector: 2.0.1.GA20120316-1743

Common Inventory Sub Agent: 6.3.0.20120123

IBM ISADC for InfoSphere Information

Server: S9.1.007.4z

Provide a file name for saving the collected data or press enter to generate a unique file name:
```

Figure 1

1. 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.

If you press enter without providing a file name, one is generated for you, in the .isadc sub-folder of the user's home folder, as shown in Figure 2.

Figure 2

**2.** Before the tool performs data collection and analysis, select the task that you want to run from the menu of choices. The main menu shows different collection tasks, as shown in Figure 3:

```
Enter the number of the IBM Support Assistant Data Collector option you want to execute.

[1] General Diagnostic Health Checker

[2] InfoSphere Information Server Collector Tool

[3] InfoSphere DataStage Job Logs Collector (Information Server 8.5 or greater)

[4] Basic System Summary

[5] Metadata Repository (XMeta) Diagnostic Test

[6] InfoSphere Information Server Prerequisites Checker

[7] Detect, view, and fix issues with invalid DataStage projects

(Information Server 8.5 or greater)

[8] Help

[9] Quit
```

Figure 3

Data Collection option	Description
<ul> <li>General Diagnostic</li> </ul>	These are the most commonly used and preferred tasks that are used
Health Checker	when reporting to IBM Support the initial data and information related to a
<ul> <li>InfoSphere Information</li> </ul>	PMR. It contains links to the Information Server Collector and the General
Server Collector	Diagnostic Health Checker.
○ InfoSphere DataStage	
Job Log Collector	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 or expect specific Information Server components to be
	installed.
	installed.
	An additional option lets you collect logs from DataStage job runs.
Basic System Summary	The Basic System Summary report creation can be invoked from here, but
	it is also automatically included by any of the tasks in the ISALite tool.
Metadata Repository	The Metadata Repository (XMeta) Diagnostic Test verifies and reports
(XMeta) Diagnostic Test	incongruence in the metadata repository.
Prerequisite Checker	The Prerequisite Checker performs configuration and operational checks
	to validate that the computer meets the requirements for an installation of
	Information Server, Version 8.1, 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.
Detect, view, and fix issue	The Detect, view, and fix issues with invalid DataStage projects lets you
with invalid DataStage	view issues and attempts to repair a corrupt project, in an installation of
projects	Information Server, Version 8.5 or higher.
Help	Provides quick information and description about the tool's tasks and a
	summary of runtime variables and tool's version information.



Refer to <u>The ISALite for InfoSphere Information Server tasks</u> for a description of the collection options that the tool supports.

3. Select a task from the available options. The collection script prompts you for any additional information 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 4. Although the input is optional, the information provided is useful to IBM Support when debugging the problem.

```
------
                     Collection Input Request
______
The input of the following parameters is optional. Press [Enter] to
accept the default value displayed.
InfoSphere Information Server components installed and used in this
computer (InfoSphere DataStage services, Metadata Repository, InfoSphere
Information Analyzer client, etc.):
[ ]> DS Server
PMR/APAR number associated with this collection file, if applicable:
[131212]> PMR 99999,888,000
Short description of the problem to be reported, if applicable:
[ ]> DS Server reports startup error #2345
All values for the input request have been obtained. Please select how
you would like to proceed.
[1] Process input and continue collection
[2] Cancel the collection
[3] Go back and change input
[1]>
```

Figure 4: Optional data input

4. Most Information Server collection tasks prompt for the Information Server root directory, as shown in Figure 5. A default value might be provided or the value that was entered by the user in a previous run of the same task might be provided.

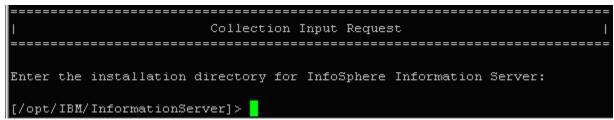


Figure 5

5. Some collection tasks also require additional configuration information or 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 1.

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 = IS Tiers found on the machine

Timestamp = creation time of the file, in format YYYY-MM-DD\_hh.mm

The renaming step is optional, as shown in Figure 6.

```
._____
                    Collection Input Request
.______.
Rename the collection .ZIP file name before you transfer the file to IBM
Software Support:
The recommended file name to ensure that IBM Software Support recognizes
the content of a collection .zip file
is: ISA SysSum svlxips5 EngServ 2013-02-22 11.08.zip
Select OK to rename the file to this recommended file name. Select SKIP
to keep the original file name.
All values for the input request have been obtained. Please select how
you would like to proceed.
[1] Process input and continue collection
[2] Cancel the collection
[3] Skip
[4] Go back and change input
```

Figure 6

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

```
Collection Input Request |

Question Regarding How the Script Should Proceed
Would you like to transfer the data collection archive file?
For other ways to exchange data with IBM, see Exchanging data with IBM (http://www14.software.ibm.com/webapp/set2/sas/f/handbook/policies.
html#exchange)
I would like to:
[1] send using secure transfer to IBM Support (HTTPS)
[2] send using FTP to IBM Support (unencrypted)
[3] send using FTP to another location (unencrypted)
[4] end the collection without sending
```

Figure 7



The collection .zip file 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 may 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.

## **Default values**

When you must supply a value during an input prompt, the tool might already have a value assigned to it. In this case, the tool presents the value to you between square brackets. For example a product's root directory:

```
Collection Input Request |

Enter the installation directory for InfoSphere Information Server:

[/opt/IBM/InformationServer]>
```

Figure 8

If you want to accept the value provided by the tool, press **Enter**. If the tool does not have a value where the collection asks for it, the brackets are omitted.

# 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 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 with the <code>-record</code> option. For example, you can run the following command:

```
./runISALite.sh -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.
- The utility task "Detect, view, and fix issues with invalid DataStage projects", 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.

# Playback of an ISALite session

To invoke the automatic playback of a recorded session, enter the name of the response file that contains the recorded commands as an argument to the shell script that is used to start the tool. For example, suppose that you run the following command:

```
./runISALite.sh CollectionResponse.txt
```

This command starts the tool and reads its command line input from the CollectionResponse.txt file.

Figure 9 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.

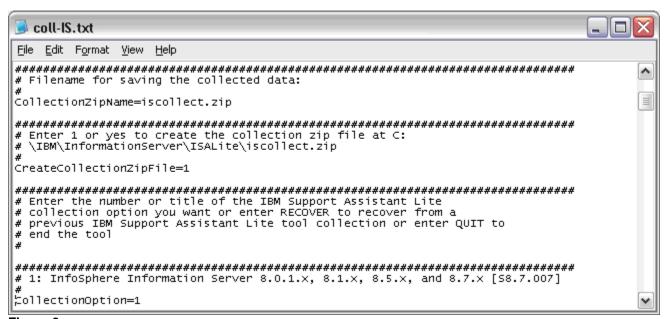


Figure 9

# **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 sent to IBM Support. These files address the following requirements:

- Provide a record of how the tool diagnosed an Information Server problem. The log contains trace information of the steps taken and additional debug information.
- ♣ Provides detailed information for diagnosing problems with the tool itself.
- Records the values of the input data that the user provided during a collection task. Passwords are omitted.

By default, each time you run the ISALite tool, a trace and an error log file are created in the <USER\_HOME>/.ISADC/log folder, as shown in Figure 10. The instance #0 of the logs is the most recent. Once a log reaches the size of 2 MB, or the user starts 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 "isadc-trace<#>" captures the trace messages generated during one execution of a collection script.
- The "isadc -error<#>" log file provides only the error messages originating from the tool itself.

  These messages are also included in the trace log file previously described.

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.

```
# ls -1 /root/.isadc/log/
-rw-r--r-- 1 root root 1153 3 27 08:55 isadc-error0.log
-rw-r--r-- 1 root root 0 3 27 08:48 isadc-error1.log
-rw-r--r-- 1 root root 0 3 27 08:46 isadc-error2.log
-rw-r--r-- 1 root root 27617 3 27 08:55 isadc-trace0.log
-rw-r--r-- 1 root root 0 3 27 08:48 isadc-trace1.log
-rw-r--r-- 1 root root 6757 3 27 08:46 isadc-trace2.log
```

Figure 10

# The ISALite for InfoSphere Information Server tasks

The following sections provide details of each of the ISALite for InfoSphere Information Server tasks and functions provided by the tool. 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.
- Diagnostic 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:

```
Enter the number of the IBM Support Assistant Data Collector option you want to execute.

[1] General Diagnostic Health Checker

[2] InfoSphere Information Server Collector Tool

[3] InfoSphere DataStage Job Logs Collector (Information Server 8.5 or greater)

[4] Basic System Summary

[5] Metadata Repository (XMeta) Diagnostic Test

[6] InfoSphere Information Server Prerequisites Checker

[7] Detect, view, and fix issues with invalid DataStage projects (Information Server 8.5 or greater)

[8] Help

[1] About ISALite for InfoSphere Information Server

[2] Display Help Contents

[9] Quit
```

Figure 11

# **IBM Support recommended tasks**

The collector and diagnostic tasks that are usually required by IBM Support for the documentation of a customer problem are listed at the top of the main menu:

- o General Diagnostic Health Checker
- InfoSphere Information Server Collector
- o InfoSphere DataStage Job Logs Collector

## The General Diagnostic Health Checker tool

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

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

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

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

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

Some of the tests are only available 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 12 and 13 show extracts from a sample output.

Test Group	Group Result	Total Tests Run	Successful	Failed	Warning	Skipped
Health Checker Runtime Environment	■PASSED	1	1	0	0	0
Database Health Check	■PASSED	9	9	0	0	0
Information Server Binding Properties Check	■PASSED	1	1	0	0	0
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 Check	■ FAILED	4	3	1	0	0
Connector Access Service Health Check	■PASSED	2	2	0	0	0
Information Services Director Health Check	*FAILED	4	2	2	0	0
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 12: 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	ISF Core Services:	
Information Server Director	FAILED	Agent Service	PASSEI
Connector Access Service (CAS)	PASSED	Registration Service	PASSEI
Information Analyzer PASSED		ISF Common Services:	
		Session Service	PASSEI
		Logging Service	PASSEI
Repository Services:		Caching Service	PASSEI
Repository Management	PASSED	Reporting Service	PASSEI
Model Management	PASSED	Licensing Service	PASSEI
Metadata Asset Manager	_	Security Service	PASSEI
		Directory Service	PASSEI

*	DACCER
Logging Agent	PASSED
Information Server Agent	FAILED
DataStage Server	PASSED

Metadata Repository	PASSE
Information Analyzer Repository	PASSEI

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"
<b>☑</b> PASSED	CDIHC1013I Verify the current directory provider configuration	Provider name: ASBDirectoryProvider. Provider attributes: COMNECTION.Supports all Attributes: true COMNECTION.Writable: true USER.Enable: false USER.Principal ID: false

Figure 13: Summary of results by component and a sample of test results

As part of the General Health Checker results, Figure 14 shows the topology map with details of communication channels between InfoSphere Information Server components. The example shows a two-engine configuration, however, in this example, only the engine found 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.

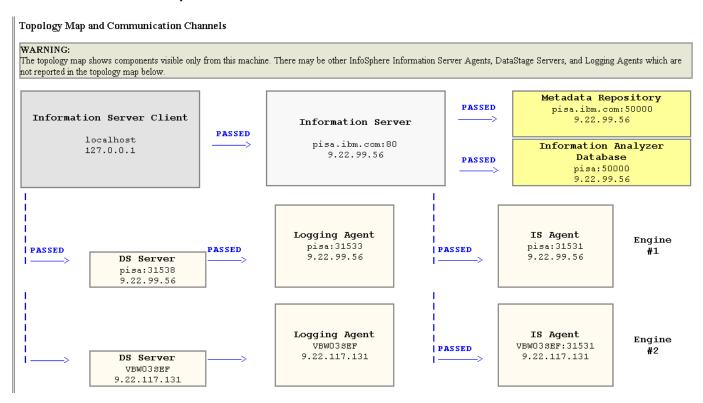


Figure 14

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 15 and 16 show examples of the two maps.

# WebSphere Cluster: Physical Topology Map

ноѕт	pisa.ibm.com (9.	22.99.56)
DEPLOYMENT MANAGER	Bootstrap Port: Server Name:	dmgr C:\IBM\WebSphere\AppServer\profiles\Dmgr01
SERVER	Bootstrap Port: Server Name:	server1 C:\IBM\WebSphere\AppServer\profiles\Custom01

ноѕт	torrino.ibm.com (9.22.99.57)
SERVER	Node Name: torrinoNode01  Bootstrap Port: 9811 Server Name: Profile Location: C:\IBM\WebSphere\AppServer\profiles\Custom02  Server started and connected: true
SERVER	Node Name: torrinoNode01  Bootstrap Port: 9812 Server Name: profile Location: C:\IBM\WebSphere\AppServer\profiles\Custom02  Server started and connected: true

Figure 15

# WebSphere Cluster: Logical Topology Map

TOPOLOGY: CLUSTERED	Cluster Name: Cluster01
# of Nodes: 2	
# of Servers: 3	

DEPLOYMENT 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	
Server started and	true	
connected:	true	

NODE	Node Name: <b>pisaNode01</b> Node Agent started: <b>true</b>		
SERVER		C:\IBM\Web Sphere\App Server\profiles\Custom01 pisa.ibm.com 9.22.99.56 9810	

NODE	Node Name: torrinoNode01 Node Agent started: true		
SERVER		C:\IBM\WebSphere\AppServer\profiles\Custom02	
	IP Address:	9811	
	Server started and connected:	true	
SERVER	Server Name: Profile Location:	server3 C:\IBM\WebSphere\AppServer\profiles\Custom02	
	IP Address:	9812	
	Server started and connected:	true	

Figure 16

## **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 InfoSphere Information Server collection .zip file contains the files that are described in the InfoSphere Information Server Must-Gather document. For more information, see the <a href="MustGather Document for IBM">MustGather Document for IBM</a> InfoSphere Information Server.



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..

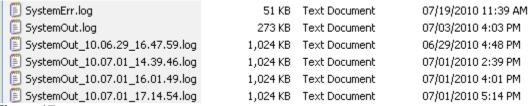


Figure 17

When the InfoSphere Information Server collector is run, you enter the maximum age of the log files to collect:

```
Collection Input Request
______
Select the age of system logs that you want to collect:
The following log files may have dated instances that are old and
therefore would be of limited use in debugging a recent problem. You can
decide to not collect these outdated instances, as they can also take
space in the collection zip file. Specify the maximum age of the
instances of these log files that you want to collect.
WebSphere Application Server SystemErr*.log and SystemOut*.log. orbtrc.*.
txt, orbmsg.*.txt, java core files, heapdump* files.
Maximum age of the log files to collect:
[1] 1 day old
[2] 2 days old
[3] 3 days old
[4] 7 days old
[5] 14 days old
[6] 21 days old
[7] ALL instances of these log files
[1]>
```

Figure 18

Java heap dump files are generally very large and also do not compress adequately in a .zip file. Additionally, old heap dump files are probably not useful for debugging. The InfoSphere Information Server collector filters out and excludes heap dump files that are older than <N> days, as specified in the filter screen in Figure 18.

## 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 tier 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 19.

```
Collection Input Request |

This task allows you to collect job logs and job assets from an
InfoSphere DataStage project.

Select an InfoSphere DataStage project to work with:
[1] ANALYZERPROJECT
[2] dstage1
[2] > 2

Select the information you want to collect:
[1] Job logs and job assets
[2] Job logs only
[2] >
```

Figure 19

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

```
Collection Input Request |

Select a job and the number of job runs to collect.

Select a job to work with:

[1] CopyOfInsPeekTest
[2] func_chk_007
[3] job52359Å

[1]> 3

Each job run produces a log. Select the number of job runs to collect:

[1] Most recent job run

[2] Two most recent job runs
[3] Three most recent job runs
[4] Four most recent job runs
[5] Five most recent job runs
[5] Five most recent job runs
[6] Five most recent job runs
```

Figure 20

If multiple invocations of the job are detected, select a job invocation.

The tool exports the job run log file, FFDC and trace files, if found, 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 21.

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.

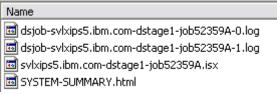


Figure 21

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.

# **Additional collectors**

#### **SYSTEM SUMMARY**

This is a report generated by any of the ISALite for Information Server tasks and is included in any .zip file created by the tool. It provides detailed information about the hardware system, the Operating System, software installed and the InfoSphere Information Server installation. In particular:

- InfoSphere Information Server Version and tiers installed
- o InfoSphere Information Server Products installed
- o InfoSphere Information Server Pack Products installed
- o InfoSphere Information Server Components installed
- o InfoSphere Information Server Installation and Patch History
- o InfoSphere Information Server Installation Variables
- o InfoSphere Information Server Topology Map and tiers
- WebSphere Application Server Cluster Topology Maps
- NLS Configuration Settings
- Computer and System information
- o Computer network configuration
- o Environment variables
- InfoSphere Information Server registry information (on Windows systems)

# **Additional Diagnostic Tools**

Additional diagnostic tools are listed in the following subsections:

## **Metadata Repository (XMeta) Diagnostic Test**

The InfoSphere Information Server Metadata Repository (XMeta) diagnostic utility runs diagnostic probes found in the local services (domain) 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. Some of the diagnostic probes offer the option to fix the repository problems that are encountered. Unless requested, however, the probes only report issues found. Once the test starts, the test can take from several minutes to several hours to complete.

The tool invokes standard InfoSphere Information Server - XMeta diagnostic probes, as follows:

#### 8.1 installations:

- ✓ DanglingReferencesProbe
- ✓ ApplicationServerDataSourceDiagnosticProbe
- ✓ EnvironmentCompatibilityDiagnosticProbe
- ✓ EnvironmentOSDiagnosticProbe✓ ApplicationServerJvmDiagnosticProbe

#### 8.5 or later installations:

- ✓ DanglingReferencesProbe
- ✓ DuplicateReferencesProbe
- ✓ UnbalancedReferencesProbe✓ AbandonedReferencesProbe
- ✓ OjbVerificationProbe
- ✓ EnvironmentCompatibilityDiagnosticProbe
- ✓ ModelRegistryValidationProbe

Figure 22 and Figure 23 show extracts from the XMeta Diagnostics results with a summary of the probe runs.

# XMeta Diagnostic Summary of Results

# Table of Contents Summary for dangling references probe \_\_\_\_\_\_ Total dangling references Found: 0 (0 repaired) Total dangling weak references Found: 0 (0 repaired) Total References Checked: 3748 \_\_\_\_\_ Summary for duplicate references probe \_\_\_\_\_\_ Total duplicate references Found: 0 (0 repaired) Total References Checked: 1180 \_\_\_\_\_ Summary for unbalanced references probe \_\_\_\_\_\_ Total unbalanced references Found: 0 (0 repaired) Total References Checked: 5428 \_\_\_\_\_\_ \_\_\_\_\_\_ Diagnostic Utility Execution Summary \_\_\_\_\_\_ Number of Probes Run: 6 Number of Probes Successful: 6 Number of Probes with Warnings: 0 Number of Probes with Errors : 0 Number of Probes Failing to run : 0 Individual Diagnostic Probe Results: - DanglingReferencesProbe : SUCCESS - DuplicateReferencesProbe : SUCCESS - UnbalancedReferencesProbe : SUCCESS - AbandonedReferencesProbe : SUCCESS - OjbVerificationProbe : SUCCESS - ModelRegistryValidationProbe : SUCCESS

Figure 22

# XMeta Diagnostic Test Steps

## Table of Contents

Diagnostic Report (included in ZIP file): XMetaDiagnosticReport.xml

## XMeta Diagnostic Steps

#### Steps

#### Environment:

- using ASBNode dir of "C:\IBM\InformationServer\ASBNode".
- using ASBServer dir of C:\IBM\InformationServer\ASBServer.
- current working directory is C:\IBM\INFORM~1\ISALite\scripts\SSZJPZ.
- using Version.xml of C:\IBM\InformationServer\Version.xml.
- Information Server version is 8.5.0.0

Figure 23

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.

# **System Requirements**

## **Information Server Prerequisites Checker**

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 a response file with default values.

```
-----
                     Collection Input Request
______
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):
All values for the input request have been obtained. Please select how
you would like to proceed.
[1] Process input and continue collection
[2] Cancel the collection
[3] Skip
[4] Go back and change input
[1]> 3
```

Figure 24

Specify the Information Server installation folder and select the information Server tiers that you want to verify, as shown in Figure 25.

```
Collection Input Request
______
Select the InfoSphere Information Server tiers that need to be verified
Engine
[1] true
[2] false
[1]> 1
Services
[1] true
[2] false
[1] > 1
Repository tests are skipped if a database other than DB2 or Oracle is
used
Repository
[1] true
[2] false
[1]> 1
```

Figure 25

Modify the response file parameters as shown in Figure 26 through Figure 28 to suit the installation to verify.

```
Collection Input Request
The prerequisite checker verifies whether components like the IBM DB2 can
be installed. If you plan to use a pre-installed instance of the
database, or a remote instance, and you want the prerequisite checker to
verify the connection to that pre-installed component, the database needs
to exist and a connection needs to be available. If you select an
existing database, but it has not yet been installed, the prerequisite
checker reports errors, which you can ignore because they are expected.
Select a database installation
[1] Install DB2
[2] Use an existing DB2 installation
[3] Use an existing DB2 XMeta database
[4] Use an existing Oracle XMeta database
[5] Use other existing XMeta database
```

Figure 26

Figure 27

```
Collection Input Request
Modify parameters from the response file
The prerequisite checker verifies whether components like IBM WebSphere
Application Server can be installed. If you plan to use an existing
WebSphere Application Server installation, that installation must already
exist, or the prerequisite checker reports errors. If you plan to use a
pre-installed instance of WebSphere Application Server, but you have not
yet installed it, select the option to Install WebSphere Application
Server. That will provide the most complete set of prerequisite tests for
the installation of the component.
Select a WebSphere Application Server installation
[1] Install WebSphere Application Server
[2] Use an existing WebSphere Application Server installation
[1]>
```

Figure 28

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

```
Collection Input Request |

To save the modifications into a response file, specify a full path and filename and select OK. You can use this saved response file in another run of the prerequisite checker. Leave the response filename blank and select Skip to bypass saving a response file.

Save response file as (leave blank if not used):

All values for the input request have been obtained. Please select how you would like to proceed.

[1] Process input and continue collection
[2] Cancel the collection
[3] Skip
[4] Go back and change input
[1]> 3
```

Figure 29



Due to the limited numbers of response file parameters that the Prerequisite checker uses, a response file saved during 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 created during an installation of InfoSphere Information Server can be used as input to the Prerequisite Checker.

Figure 30 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 30

#### Prerequisite Check of an Upgrade Installation of 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 Utilities**

# Detect, view, and fix issues with invalid DataStage projects (Information Server 8.5 or greater)

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.

```
Collection Input Request
______
Select a project and choose the action to either report or fix an issue.
Select the project
[1] <All projects>
[2] ANALYZERPROJECT
[3] dstage1
[3] > 1
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 projects' 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
[1] Report
[2] Fix
[1]>
```

Figure 31

## List projects 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 32:

```
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 32

#### 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 fix of an issue does make changes to the metadata repository. We recommend to crate a backup of the repository database, before attempting this operation.
- o A report is generated that describes whether the issues were resolved successfully.

The report summary is formatted into an HTML report titled DSProjFix\_cprojName>.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 = 9080 IS User = admin DS Host = MBBSHH DS Port = 3158DataStage 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 33

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 34



The ISALite task "Detect, view, and fix issues with invalid DataStage projects (Information Server 8.5 or greater)" 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.

.

# **Notices**

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing IBM Corporation North Castle Drive Armonk, NY 10504-1785 U.S.A.

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing Legal and Intellectual Property Law IBM Japan, Ltd. 19-21, Nihonbashi-Hakozakicho, Chuo-ku Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation J46A/G4 555 Bailey Avenue San Jose, CA 95141-1003 U.S.A. Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

## **COPYRIGHT LICENSE:**

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:

© (your company name) (year). Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. \_enter the year or years\_. All rights reserved.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

# **Trademarks**

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at www.ibm.com/legal/copytrade.shtml.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Java and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.