IBM Endpoint Manager for Software Use Analysis
Version 9.1 (includes update 9.0.1, 9.0.1.1 and 9.0.1.2)

Troubleshooting Guide

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This edition applies to IBM Endpoint Manager for Software Use Analysis 9.0.1.2 (product number 5725-F57) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Troubleshooting and support

This section explains how to find logs, messages, and trace files that you might need to troubleshoot issues that could arise while using the product.

Troubleshooting a problem

Troubleshooting is a systematic approach to solving a problem. The goal of troubleshooting is to determine why something does not work as expected and explain how to resolve the problem.

The first step in the troubleshooting process is to describe the problem completely. Problem descriptions help you and the IBM Support person know where to start to find the cause of the problem. This step includes asking yourself basic questions:

- What are the symptoms of the problem?
- Where does the problem occur?
- When does the problem occur?
- Under which conditions does the problem occur?
- Can the problem be reproduced?

The answers to these questions typically lead to a good description of the problem, and that is the best way to start down the path of problem resolution.

What are the symptoms of the problem?

When starting to describe a problem, the most obvious question is "What is the problem?" This might seem like a straightforward question; however, you can break it down into several more-focused questions that create a more descriptive picture of the problem. These questions can include:

- Who, or what, is reporting the problem?
- What are the error codes and messages?
- How does the system fail? For example, is it a loop, hang, crash, performance degradation, or incorrect result?
- What is the business impact of the problem?

Where does the problem occur?

Determining where the problem originates is not always easy, but it is one of the most important steps in resolving a problem. Many layers of technology can exist between the reporting and failing components. Networks, disks, and drivers are only a few of the components to consider when you are investigating problems.

The following questions help you to focus on where the problem occurs to isolate the problem layer:

- Is the problem specific to one platform or operating system, or is it common across multiple platforms or operating systems?
- Is the current environment and configuration supported?

Remember that if one layer reports the problem, the problem does not necessarily originate in that layer. Part of identifying where a problem originates is understanding the environment in which it exists. Take some time to completely describe the problem environment, including the operating system and version, all corresponding software and versions, and hardware information. Confirm that you are running within an environment that is a supported configuration; many problems can be traced back to incompatible levels of software that are not intended to run together or have not been fully tested together.

When does the problem occur?

Develop a detailed timeline of events leading up to a failure, especially for those cases that are one-time occurrences. You can most easily do this by working backward: Start at the time an error was reported (as precisely as possible, even down to the millisecond), and work backward through the available logs and information. Typically, you need to look only as far as the first suspicious event that you find in a diagnostic log; however, this is not always easy to do and takes practice. Knowing when to stop looking is especially difficult when multiple layers of technology are involved, and when each has its own diagnostic information.

To develop a detailed timeline of events, answer these questions:
- Does the problem happen only at a certain time of day or night?
- How often does the problem happen?
- What sequence of events leads up to the time that the problem is reported?
- Does the problem happen after an environment change, such as upgrading or installing software or hardware?

Responding to questions like this helps to provide you with a frame of reference in which to investigate the problem.

Under which conditions does the problem occur?

Knowing which systems and applications are running at the time that a problem occurs is an important part of troubleshooting. These questions about your environment can help you to identify the root cause of the problem:
- Does the problem always occur when the same task is being performed?
- Does a certain sequence of events need to occur for the problem to surface?
- Do any other applications fail at the same time?

Answering these types of questions can help you explain the environment in which the problem occurs and correlate any dependencies. Remember that just because multiple problems might have occurred around the same time, the problems are not necessarily related.

Can the problem be reproduced?

From a troubleshooting standpoint, the *ideal* problem is one that can be reproduced. Typically, problems that can be reproduced have a larger set of tools or procedures at your disposal to help you investigate. Consequently, problems that you can reproduce are often easier to debug and solve. However, problems

that you can reproduce can have a disadvantage: If the problem is of significant business impact, you do not want it to recur. If possible, re-create the problem in a test or development environment, which typically offers you more flexibility and control during your investigation.

- Can the problem be re-created on a test system?
- Are multiple users or applications encountering the same type of problem?
- Can the problem be re-created by running a single command, a set of commands, a particular application, or a stand-alone application?

Troubleshooting software inventory problems

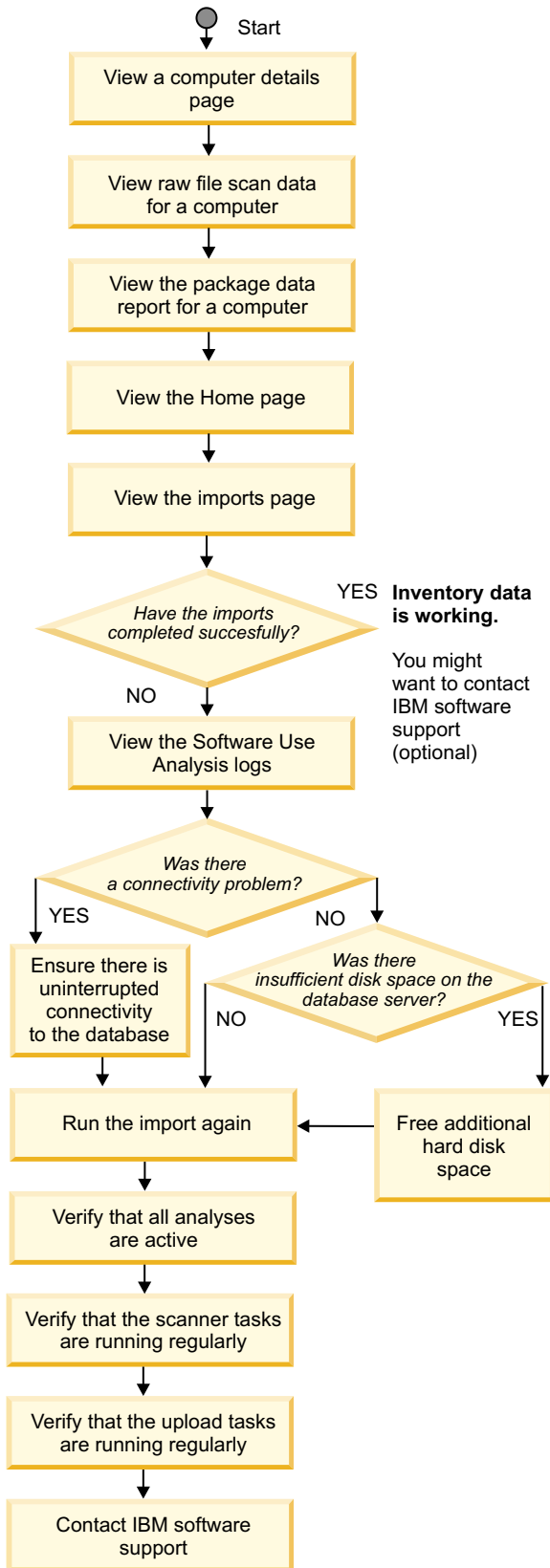Problems with software inventory might be caused by, among others, incomplete imports, connectivity problems, or insufficient disk space.

Before you begin

The Software Use Analysis log files are in `<installation_path>/wlp/usr/servers/server1/logs/`.

About this task

The following steps are the most typical ones that you might want to perform to troubleshoot software inventory problems:

Flowchart

Start

↓

View a computer details page

↓

View raw file scan data for a computer

↓

View the package data report for a computer

↓

View the Home page

↓

View the imports page

↓

Have the imports completed succesfully? — YES → **Inventory data is working.**

You might want to contact IBM software support (optional)

NO ↓

View the Software Use Analysis logs

↓

Was there a connectivity problem?

YES ↓ → Ensure there is uninterrupted connectivity to the database

NO ↓ → **Was there insufficient disk space on the database server?**

NO ↓ (to Run the import again)

YES ↓ → Free additional hard disk space → Run the import again

Run the import again

↓

Verify that all analyses are active

↓

Verify that the scanner tasks are running regularly

↓

Verify that the upload tasks are running regularly

↓

Contact IBM software support

---

1. In the Software Use Analysis web user interface, view the details page for a computer that is missing inventory: click **Reports** > **Computers** > *Computer_name*.
   - If only specific titles are missing, see **Managing the content of a software catalog**.
   - If all data is missing, go to the next step.
   - If the computer has inventory, go to another computer that is missing inventory.

2. Access the raw scan data page to verify whether inventory data is missing: click **Reports** > **Scanned File Data**.

   If there is no data, go to the Endpoint Manager console and perform steps 10, 11, 12 and 13. Otherwise, go to the next step.

3. Verify whether package data is available: Click **Reports** > **Package Data**.

   If the data is still not complete, you might want to perform step 10. Otherwise, go to the next step.

4. View the Software Catalog widget on the Home page to verify whether there are titles and signatures in the catalog. In the top navigation bar, click **Home**.
   - If there are no publishers in the catalog, load a catalog.
   - If there is no inventory for any computers, go to the next step.

   For information about how to update and maintain your software catalog, see **Working with software catalogs**.

5. Verify whether imports are completing successfully: click **Management** > **Data Imports**.
   - If they completed successfully, your inventory data is probably working. You might want to contact IBM® support, so be prepared to provide the logs.
   - If the imports cannot be completed, go to the next step.

6. Access the log file data that is displayed in the Software Use Analysis user interface: click **Management** > **Data Imports**.

   If IBM support has requested the log files, you can find them in the following location: `<installation_path>/wlp/usr/servers/server1/logs/`.

7. Ensure that you have uninterrupted connectivity to the database. Restore the connection between the Software Use Analysis server and the Endpoint Manager database, if it was not established during the data import.

8. Ensure that there is sufficient amount of disk space for the Software Use Analysis database, if this problem was revealed in the logs.

9. **Import the data from IBM Endpoint Manager** to see whether the previous steps remedied the situation.

10. In the Endpoint Manager console, verify that all analyses are active:
    a. Click **Sites** > **External** > **IBM Endpoint Manager for Software Use Analysis** > **Analyses**.
    b. Verify whether the analyses display in the upper right pane.

11. In the console, verify that all the scanners are running regularly:
    a. Click **Sites** > **External Sites** > **IBM Endpoint Manager for Software Use Analysis** > **Fixlets and Tasks**.
    b. In the upper right pane, click **Initiate Software Scan**.
    c. In the lower pane, click the **Action History** tab to check when the scans were run.

12. Verify that upload tasks are running regularly:
    a. Click **Sites** > **External Sites** > **IBM Endpoint Manager for Software Use Analysis** > **Fixlets and Tasks**.
    b. In the upper right pane, click **Upload Software Scan Results**.
    c. In the lower pane, click the **Action History** tab to check when the results were last uploaded.

13. If your imports are still failing, contact IBM software support. IBM support might request that you collect and provide diagnostic data, and change scanner settings on selected endpoints. See Changing and analyzing scanner trace settings and Initiating and uploading diagnostic data.

Changing and analyzing scanner trace settings

You can change the scanner trace settings to collect diagnostic data to help in investigating problems.

Changing scanner trace settings

If requested by IBM support or to limit the amount of traces generated by the scanner tool, you can change the scanner trace settings.

Before you begin

You must be a Master Operator to perform this task.

Procedure

1. Log on to the Endpoint Manager console.
2. In the navigation tree, click **Sites** > **External Sites** > **IBM Endpoint Manager for Software Use Analysis v9** > **Fixlets and Tasks**.
3. Select **Edit Scanner Trace Settings**, specify the following values:
   - Trace level
   - Number of trace files
   - Trace file size

   In the lower pane, click **Take Action**.
4. To select a subset of computers on which you want to create the capacity configuration, open the **Target** tab, and then click the computers.

Analyzing scanner trace settings

You can check scanner trace settings for computers, and see the number of trace files and trace file size.

Procedure

1. Log on to the Endpoint Manager console.
2. In the navigation tree, click **Sites** > **External Sites** > **IBM Endpoint Manager for Software Use Analysis v9** > **Analyses**.
3. In the upper-right pane, select an **Scanner Trace Settings** analysis, and in the lower-right pane, click the **Result** tab.

   For each endpoint, you can view the following information:
   - Computer host name
   - Computer ID
   - Trace level
   - Number of trace files
   - Trace file size

Initiating and uploading diagnostic data

You can collect and upload diagnostic data that is needed for software inventory problem investigation.

Initiating diagnostic data collection

If requested by IBM support, you can collect the diagnostic data that is needed for software inventory problem investigation. To collect diagnostic data collection, you must initiate diagnostic data collection.

Before you begin

Important: If you see any discrepancies between the fixlets in your site and the fixlets described in the documentation, check the version of your fixlet site and update it if necessary.

 You must be a Master Operator to perform this task.

Procedure
1. Log on to the Endpoint Manager console.
2. In the navigation tree, click **Sites** > **External Sites** > **IBM Endpoint Manager for Software Use Analysis v9** > **Fixlets and Tasks**.
3. Select **Initiate Scanner Diagnostic Tool** and in the lower pane, click **Take Action**.
4. Select a subset of computers on which you want to initiate diagnostic data collection, and click **OK**.

   Important: When you initiate collection, the collection process runs in the background. Depending on the number of endpoints and the data to be collected, collection can take a number of hours to complete. When the Upload Scanner Diagnostic Data task is relevant on your endpoints, data collection is finished successfully and collection data is uploaded to the Endpoint Manager server.

What to do next

Upload Scanner Diagnostic Data. You must wait until data collection is finished successfully before you upload the data.

Uploading scanner diagnostic data
If requested by IBM support, you can collect the diagnostic data that is needed for software inventory problem investigation. When diagnostic data collection is completed successfully, you must upload the data.

Before you begin

Important: If you see any discrepancies between the fixlets in your site and the fixlets described in the documentation, check the version of your fixlet site and update it if necessary.

 You must be a Master Operator to perform this task.

About this task

When the Upload Scanner Diagnostic Data task is relevant on your endpoints, data collection is finished successfully and collection data can be uploaded. You can upload data manually from each endpoint or you can use the Upload Scanner Diagnostic Data task to upload data for all endpoints.

Procedure

Use one of the following methods to upload diagnostic data.
- Upload diagnostic data with the Upload Scanner Diagnostic Data task.

1. Log on to the Endpoint Manager console.
2. In the navigation tree, click **Sites** > **External Sites** > **IBM Endpoint Manager for Software Use Analysis v9** > **Fixlets and Tasks**
3. Select **Upload Scanner Diagnostic Data** and in the lower pane, click **Take Action**.
4. Select a subset of computers you want to upload collected diagnostic data from, and click **OK**

When the task is completed, a `ScannerDebugData` diagnostic data compressed file is uploaded to the *BES_Server*`\UploadManagerData\BufferDir\sha1\`*LAST_2_DIGITS_OF_THE_COMPUTER_ID_NUMBER*`\`*COMPUTER_ID* directory. You can find the ID of a computer in the results of the Scanner trace analysis.

- Upload diagnostic data manually.
  1. Log in to an endpoint on which the diagnostic data collection ended successfully.
  2. Copy the compressed `ScannerDebugData` file to the server. The `ScannerDebugData` file is in the *BESClient*`\LMT\CIT` directory.

Results

Data is uploaded to the IBM Endpoint Manager server.

Common problems

Learn how to solve some common problems with the server installation, configuration and administration.

The following list contains descriptions of common installation problems:

Installation and upgrade problems

Solve common problems that are related to installation, configuration, and upgrade of Software Use Analysis.

During the installation of Software Use Analysis for non-English-language locales, some Java exceptions are displayed in English.
> Even for non-English-language locales, some Java exceptions that might occur during the installation are displayed in English. However, the Details view that contains the exceptions also includes more information that can help you to understand and solve the issue. If you want to see the translated description of a problem, you can switch to the Problems view where all the available details are provided.

Installation of the server cannot continue and an error is displayed.
> Installation of the Software Use Analysis server cannot continue and the following message is displayed:

```
./tools/getArch: line 108: print: command not found
./tools/getArch: line 109: print: command not found
./tools/getArch: line 116: print: command not found
setup-server-9.0-linux-x86_64.sh: line 52: print: command not found
```

> The error might be caused by the fact the operating system is not fully configured. You might also need to reboot the operating system.

The list of non-English languages in the installation wizard is reduced.
> To see your language as an option in the installation wizard, change your system locale to a chosen language:

1. On Linux, open the Terminal and run the following command:

   ```
   export LC_ALL=language_code.UTF8
   ```

   For example, **export LC_ALL=en_US.UTF8**.
2. Run the `locale` command to verify changes.
3. Restart the installation and choose the language.

Server operation problems

Server operation problems in Software Use Analysis might include general issues that you might encounter when you use the application and its functions. However, you can easily recover from these problems.

The RPM scanner fixlet fails on AIX® 6.1

The scanner fails and the RPM installation package returns `undefined` during the software scan. To remedy this problem, upgrade your IBM Endpoint Manager server, console, and clients to version 8.2.1175.

Version 8.0 and 8.1 BigFix® Enterprise Server Clients cannot subscribe to the Software Use Analysis server.

The solution is to unsubscribe all computers from the current site or remove the site, and then subscribe the clients back.

The software scans cannot be initiated because the Initiate® Software Scans task is not applicable.

The software scans depend on the scanner catalogs that are used by the scanner to discover software. The scanner catalogs are created when you upload the software catalog to Software Use Analysis. If you cannot run the software scans, it might mean that the catalogs were not created. Before you update the scanner catalogs manually, complete the following steps to check the cause of this problem:

1. Go to the `<BES_Client>\LMT\CIT` directory.
2. Check if the `catalog.bz2` file exists. The file contains the scanner catalogs.
3. Log in to the IBM Endpoint Manager console that is linked to your IBM Endpoint Manager server.
4. In the navigation bar, click **Actions**.
5. In the upper-right pane, locate the **Catalog Download** action and select it.
6. Check the details of the action. You can check on which endpoints the actions failed and investigate the failed steps. Try to determine the cause of the problem and fix it.

If you cannot determine the cause, you can update the catalogs manually. To do that, see "Updating scanner catalogs" on page 32.

A report was created correctly but it could not be sent as a PDF attachment to an email. The PDF report could not be sent because the mail server in your company does not accept large email attachments. To fix the problem:

1. Determine the size of large reports that are generated by Software Use Analysis: generate a sample PDF by clicking the **PDF** icon in the Software Use Analysis web user interface.
2. Contact your mail server administrator and request a higher size limit for email attachments in both the outgoing and incoming mail server configuration.

Data that is gathered by an analysis property is incorrect.
> The same analysis property can exist in multiple external sites. In such a situation, the data that is gathered by the analysis might come from any of the sites, not necessarily the intended one. If some unexpected data is gathered by an analysis property, ensure that the analysis that you defined comes from the correct site. In the top navigation bar of Software Use Analysis, click **Management**, and then one of the properties: **Usage Properties**, **Package Properties**, **UNIX Package Properites**. Click the name of the property, and in the Data Source Property list, check whether the site is correct. The name of the site is displayed below the name of the property. If the site is incorrect, change it.

Software Use Analysis cannot connect to its database and the following error is written in the logs: `Connection refused. ERRORCODE=-4499, SQLSTATE=08001.`
> The problem occurs because the DB2® database is not yet activated after a restart and is thus not accessible to Software Use Analysis. To solve the problem, run the following command after you restart the database:
>
> `db2 activate db database_name`

Software Use Analysis cannot connect to the database. The default port range is modified.
> The default local port range for Linux is 32768-61000. If the default range is modified, it is possible that the DB2 port number is allocated to another local process. If the port number is pre-allocated, Software Use Analysis cannot connect to DB2. Complete the following steps:
>
> - Ensure that IPv4 is being used.
> - Use the `netstat` command to check whether DB2 is listening on the expected port, and no other socket is pre-allocated the DB2 port.
> - If DB2 is not listening on the expected port, restart DB2 and check again.

Software Use Analysis does not start after rebooting the server.

> The problem often occurs in environments where Software Use Analysis and DB2 are installed on the same server. After rebooting the server, the DB2 instance is not started which also blocks Software Use Analysis from starting.
>
> To fix the problem, ensure that your DB2 instance is running and then start Software Use Analysis:
>
> 1. Log in as the DB2 instance owner and start the instance:
>    ```
>    su db2inst1
>    db2start
>    ```
> 2. Start the Software Use Analysis server:
>    ```
>    /etc/init.d/SUAserver start
>    ```

Disambiguation of the term Tivoli® Endpoint Manager Analytics and the acronym TEMA.
> The term Tivoli Endpoint Manager Analytics or the acronym TEMA appears in some error messages, for example:
>
> `We're sorry, but something went wrong. Please contact your Tivoli Endpoint Manager Analytics administrator if the problem persists.`
>
> Tivoli Endpoint Manager Analytics (TEMA) is the platform on which the Software Use Analysis server is built. It is an internal Software Use Analysis component.

The TEMA administrator is the Software Use Analysis administrator. If an error message references the TEMA administrator, contact the Software Use Analysis administrator.

Software that is deployed under a `tmp` directory is not discovered.
> `tmp` directories contain large amounts of irrelevant data and thus are not scanned by default. If an application is installed under a `tmp` directory, it is not detected. To solve the problem, you can change the scanner settings to scan `tmp` directories. On the computer where the software is installed, go to the `BESClient/LMT/CIT/` directory and open the `exclude_path.txt` file. It lists all directories that are excluded from software scans. Remove the `*/tmp` directory from the list and save the file.
>
> **Note:** If you remove the `*/tmp` directory from the list of files that are excluded from software scans, all `*/tmp` directories are included in software scans. It might impact the length of the software scan.

Agent problems

The **Deployment Health** widget provides the status of computers that do not meet one or more of the deployment health conditions. To resolve deployment health issues, perform the steps relevant for your particular problem. The Endpoint Manager console provides fixlets that can be run to resolve some deployment health issues. Issues that cannot be resolved by using fixlets must be resolved manually.

Disconnected: The computer has not connected to the server for the last 72 hours
> These computers did not connect to the server for the last three days. You must check whether each computer listed in the report is up and running or why it is not connected to your network.

Outdated version: The agent that is installed on the computer is not up-to-date
> Update the computers with outdated agent versions to a more recent version. The IBM Endpoint Manager console provides fixlets that can be executed to update the affected computers. To update an agent:
>
> 1. Log in to the Endpoint Manager console.
> 2. Click **Sites** > **External sites** > **BES Support** > **Fixlets and Tasks**. The update fixlets displayed in the upper right pane are specific to the operating system on the client computers.
> 3. In the upper right pane, select the agent version to which you want to update an agent and click **Take Action**.
> 4. In the lower right pane of the window that opens, select the computers whose agent you want to update and click **OK**.

Low disk space: The drive on which the agent is installed has less than 100 MB of free disk space
> Computers with low disk space have less than 100 MB of free space available. To identify the affected computers:
>
> 1. Log in to the Endpoint Manager console.
> 2. Click **Sites** > **External sites** > **BES Support** > **Fixlets and Tasks**.
> 3. In the upper right pane, click **BES Client Computer is Low on Free Disk Space**. The list of computers is displayed.
> 4. Free up disk space on each affected computer.

Out of sync: The time that is set on the computer differs by at least an hour from the time that is set on the server

Out of sync computers have incorrect system clock times. To update the clocks on affected computers:

1. Log in to the Endpoint Manager console.
2. Click **Sites** > **External sites** > **BES Support** > **Fixlets and Tasks**.
3. In the upper right pane, select **BES Clients Have Incorrect Clock Time** and click **Take Action**.
4. In the lower right pane of the window that opens, select the computers whose clocks you want to synchronize and click **OK**.

Missing prerequisites: Scanner prerequisites are not installed on the computer

There are two possible causes of this problem:

- Linux computers with missing prerequisites do not have the correct C++ runtime library versions installed.
- Computers with missing prerequisites do not have the correct version of the bzip2 archiver.

To identify the cause of the error and to identify which computers are affected:

- Linux computers with missing prerequisites do not have the correct C++ runtime library versions installed.
  1. Log in to the Endpoint Manager console.
  2. Click **Sites** > **External sites** > **IBM Endpoint Manager for Software Use Analysis** > **Analyses**.
  3. In the upper right pane, select the **Scanner Information** analysis and then click **Results** to see which computers are missing the correct C++ runtime library.
  4. Install the C++ runtime libraries manually on each computer that is returned by this analysis. The required versions of the `/usr/lib/libstdc++.*` or `/usr/lib64/libstdc++.*` libraries are 5 or 6.
- Computers with missing prerequisites do not have the correct version of the bzip2 archiver.
  1. Log in to the Endpoint Manager console.
  2. Click **Sites** > **External sites** > **IBM Endpoint Manager for Software Use Analysis** > **Analyses**.
  3. In the upper right pane, select the **Software Scan Status** analysis and then click **Results** to see which computers return the Invalid archiver status.
  4. Copy the correct version of the bzip2 archiver manually to each computer that is returned by this analysis, to the `/LMT/CIT/custom` folder. Name the file:
     - Windows `bzip2.exe`
     - UNIX `bzip2`

     The correct version of the bzip2 archiver for your operating system can be obtained from your operating system vendor. It can also be compiled on the endpoint with resources from bzip.

Scan problems

The **Scan Health** widget shows the health of scans that are running in your infrastructure. You can drill down to reports for specific computers with scan problems. By sorting the columns of a report, you can quickly understand which computers are failing which specific software scan types.

Failed Scan: The catalog-based scan did not complete successfully.
>This problem might occur because the computer is out of space, is misconfigured, or the scan was stopped.

Missing Software Scans: The last attempt to initiate the catalog-based scan was more than 30 days ago.
>This problem might occur because the computer is out of space, is misconfigured, or the scan was stopped.

Outdated Catalog: The version of the catalog on the agent is older than the version that is available on the server.
>An outdated catalog can cause inaccurate scan results or scan failures. Upload the latest catalog to the agent. See Downloading the software catalog .

Missing Scan Results: Results of the catalog-based scan were not uploaded to the Endpoint Manager server.
>This problem might occur because the computer or a relay is offline, or there is a network outage. Check whether each computer listed in the report is running or why it is not connected to your network.

Unscanned Shared Disks: A remote shared disk is not scanned by the agent.
>License usage for IBM software that is installed on an unscanned shared disk might be under-reported. To solve the problem, enable scans of remote shared disks. See, Activating the analyses and Initiating software scans.

Data import problems

Data import problems are related to situations in which the data import fails or the data that is displayed in reports is inconsistent as a result of a failed import.

Import of the software scan data fails. After you rerun the import, the software inventory is empty.
>One of the scenarios in which the problem occurs is when you run an import and the Endpoint Manager server is not running. After you restart the server and rerun the import, the software inventory is empty. To solve the problem, manually initiate the scanner. Gather fresh scan data, and run the import.

The import fails because the transaction log is full.
>After a failed import, the import log contains the following error:

>```
>Batch failure. The batch was submitted, but at least one exception
>occurred on an individual member of the batch. Use getNextException()
>to retrieve the exceptions for specific batched elements.
>ERRORCODE=-4229,
>```

>Also, the following error can be found in the `tema.log` file:

>```
>Batch execution error: Error for batch element #903:
>The transaction log for the database is full.
>```

>To solve the problem, complete the following steps:

>1. Increase the size of the transaction log for the database. For more information, see the **Tuning** section.

2. Restart the DB2 and Software Use Analysis servers.

The import fails because the Java heap size is too low.
After a failed import, the import log contains the following error:

```
E SRVE0777E: Exception thrown by application class
'java.lang.StringBuilder.ensureCapacityImpl:342'
java.lang.OutOfMemoryError: Java heap space
```

To solve the problem, increase the Java heap size. For more information, see the **Tuning** section.

The import fails and the following message is written in the logs: `Overflow occurred during numeric data type conversion`.
The problem occurs when you create a contract custom field that requires an integer value, and then enter a value that is greater than 32767. To solve the problem, enter a smaller value.

During the initial import, the following error is written in the logs: `Error was getaddrinfo: name or service not known (SocketError)`.
During the initial import, the following error is written in the logs:

```
ERROR: Datasource file citsearch_0_4580013_cit.xml.bz2 raised an exception
while reading from {:port=>"52311", :path=>"/UploadReplication",
:query=>{:BaseDirectory=>1,
:Name=>"\\13\\4580013\\citsearch_0_4580013_cit.xml.bz2",
:sha1=>"5B0FE15F7E097171566F0AC3B9BE93826FDC0D41", :offset=>0}}.
Error was getaddrinfo: name or service not known (SocketError)
```

The problem might be caused by incorrect DNS name settings. To solve the problem, ensure that Software Use Analysis can ping the IBM Endpoint Manager server by using the DNS name that is specified in the fixlet site. To find the DNS name, on the computer where the IBM Endpoint Manager server is installed, go to the `C:\Program Files (x86)\BigFix Enterprise\BES Installers\Server`, and find the `ActionSite.afxm` file. If Software Use Analysis cannot ping the IBM Endpoint Manager server by using this DNS name, add the name to the `etc\hosts` file on the Software Use Analysis server.

After a failed import of scan data, the data that is displayed in reports is inconsistent
If there are inconsistencies in the data, and the last data import failed, the data inconsistencies might be the result of the import failure. To solve the problem, run the import again.

The import fails and the following message is written in the logs: `INFO: ETL from Data Source` *data_source_name* `- RawDatasourceFixletResult: Failed`
The problem occurs because there is not enough disk space on the computer where the Software Use Analysis database is installed. To solve the problem, free some disk space.

The import fails after you change the host name of the Software Use Analysis server. Changing the host name of the Software Use Analysis server is not supported. When the application cannot recognize the original host name, the ETL step of a data import is failing and you cannot gather and process data from your endpoints. A new host name requires a new installation of Software Use Analysis.

The host name also cannot be changed for the IBM Endpoint Manager server. In this case, the host name of the server is recorded into your license certificate during the installation. To change it, you must create a new license certificate that requires a new installation.

A successful software scan is run but there are no changes to the data after the data import to the Software Use Analysis server.

Check the maximum archive file size to ensure that it is greater than the scan file size.

1. Log on to the IBM Endpoint Manager console.
2. In the left navigation, click **Computers**, right-click the name of a computer and then click **Edit Computer Settings**.
3. Check the **_BESClient_ArchiveManager_MaxArchiveSize** setting is greater than the size of the largest scan file. If needed, edit the value to increase the maximum archive size.

Verify that there are no software scan errors.

1. In the IBM Endpoint Manager console navigation, click **Sites** > **External Sites** > **IBM Endpoint Manager for Software Use Analysis v9** > **Analyses**.
2. Select the **Software Scan Status** analysis.
3. In the lower pane, click the **Results** tab, and verify that the status of the software scan is OK for the computers.

Some of the products are not discovered.

If you optimized the volume of scanned file data, either during the post-upgrade configuration or manually, you must upload the software catalog and run an import for the software inventory to be properly discovered. If a new version of the catalog is available, upload the new version. Otherwise, reupload the catalog that is currently imported to Software Use Analysis.

- If you are using Software Knowledge Base Toolkit for catalog management and upload a new version of the catalog, see: Updating the software catalog in Software Knowledge Base Toolkit.
- If you are using Software Knowledge Base Toolkit but reupload the same software catalog, perform the following steps:
  1. Log in to Software Use Analysis.
  2. In the top navigation bar, click **Management** > **Catalog Servers**.
  3. To automatically import the software catalog from Software Knowledge Base Toolkit, click **Update Catalog**.
- If you are using the built-in catalog management functionality that is available in Software Use Analysis, perform the following steps:
  1. Optional: Download the software catalog by using the **Software Catalog Downlaod** fixlet. Download the compressed file that contains only the software catalog in the XML format.
  2. In the navigation bar, click **Management** > **Catalog Upload**.
  3. Click **Browse** and select the `IBMSoftwareCatalog_canonical_2.0_form_date.zip` file.
  4. To upload the file, click **Upload**.

After you update the catalog, wait for the scheduled import or run it manually.

Files with a particular extension are not reported on the Scanned File Data report.

The problem might occur if you optimized the volume of scanned file data and removed the extension from the list of monitored extensions. To solve the problem, follow the steps that are described in the topic Optimizing the volume of scanned file data. Add the file extension that you want to

monitor to the following three files: `file_names_all.txt`, `file_names_unix.txt`, and `file_names_windows.txt`. They are located in the `<SUA_install_dir>\wlp\usr\servers\server1\apps\tema.war\WEB-INF\domains\sam\config` directory.

Catalog problems

Catalog problems are related to the inability to download a new catalog or upload it to Software Use Analysis or Software Knowledge Base Toolkit.

When you migrate signatures with a specified platform from Software Knowledge Base Toolkit to Software Use Analysis, the platform is changed to any. After you create a signature from registry data with a specified platform in Software Knowledge Base Toolkit and migrate it to Software Use Analysis, the platform is changed to `any`. There is no solution for this problem.

The software catalog cannot be downloaded because the Software Catalog Update task is not applicable.

When you install Software Use Analysis, the target computer sends information about the new software to the IBM Endpoint Manager server. Then, the IBM Endpoint Manager server checks the computers that are linked to it to verify that this particular endpoint is linked to this server. If it is, the server marks it with the custom setting `SUA_Server_Path_[user_ID]`. If the setting is set to the Software Use Analysis installation path, the task is applicable.

The problem might occur because the setting was not specified for a particular endpoint. If you are sure that Software Use Analysis is installed on this endpoint, you can specify the setting manually. To do that, complete the following steps:

1. Log in to the IBM Endpoint Manager console that is linked to your IBM Endpoint Manager server.
2. In the navigation bar, click **Computers**.
3. In the right-upper pane, locate the endpoint on which you installed Software Use Analysis.
4. Right-click on the endpoint and select **Edit Computer Settings**.
5. Click **Add**.
6. In the Setting Name, type `SUA_Server_Path_[user_ID]`.

   Note: For `[user_ID]`, provide the ID of a Linux user who installed Software Use Analysis.
7. In the Setting Value, specify the Software Use Analysis installation path.
8. Click **OK**.

When you upload a software catalog file, the following error is displayed: `Upload failed. The uploaded file does not appear to be a valid catalog. On inspection, file appears truncated.`
If there is a delay when initially downloading the catalog file from the server, then the downloaded file might be truncated. For example, if more than 30 seconds is taken to rename and save the file. This problem depends on how your browser handles the downloading of large files. To solve this problem, accept and save the file within a short time period or use a different browser.

When you upload a charge unit file, the following message is displayed: `Upload failed. The uploaded charge unit data must be a newer version than the`

current one.

Normally, if you use Software Knowledge Base Toolkit for software catalog management, you must manually modify the version number of the file with charge unit data so that it matches the version number of the software catalog. The problem occurs when you upload the software catalog from Software Knowledge Base Toolkit and then upload the charge unit file without modifying its version number. Then, when you try to upload the charge unit file with the modified version number, the error message is displayed. The version of the uploaded file is older than the version that is already imported to Software Use Analysis.

To solve the problem, keep uploading new charge unit files to Software Use Analysis without modifying their version numbers. As a result, version numbers of the software catalog and the charge unit file do not match but the problem with uploading the charge unit file does not occur.

Backups of software directories are reported as separate products.

If you store backups of software directories on your endpoints, they might be reported as separate software instances resulting in false discoveries and incorrect license consumption. To avoid this problem, either exclude the backups from scanning or compress them with a data compressor, such as zip or rar.

User interface problems

User interface problems in Software Use Analysis are mostly related to information that is incorrectly displayed in the application or to errors that arise in the non-English-language versions of the software. However, you can easily recover from these problems.

After restarting the computer, the Software Use Analysis user interface cannot be launched.

When you restart the computer on which you have Software Use Analysis installed, you must start the DB2 database before starting the application. Otherwise, you will not be able to log in to Software Use Analysis.

If you restart your computer, complete the following steps before starting the application:

1. Switch to the DB2 instance owner:

   `su - db2inst1`

2. Start the database:

   `db2start`

3. Restart Software Use Analysis:

   `/etc/init.d/SUAserver restart`

On a low-resolution monitor, the user interface is not displayed correctly.

The minimal supported screen resolution is 1024x768 pixels.

On the Catalog Audit report, the values are displayed in an incorrect time zone.

Values that are related to dates and time are based on the time zone that is set in your operating system. However, the daylight saving time is not taken into consideration. Thus, values are set to an incorrect time zone.

When you leave a page while modifying data, there is no warning that the data will be lost.

When you modify data, for example, in one of the panels from the Catalog Customization menu, the data will be lost if you change the view or close the page. No warning is displayed. Ensure that you save all data before navigating to another view.

Text in reports cannot be selected when using Internet Explorer.
When trying to copy the content of the tables in reports, the text cannot be selected and copied when using the Internet Explorer browser. To solve this issue, use a different browser.

The user interface of Software Use Analysis is not displayed correctly in Internet Explorer
The problem occurs on Internet Explorer version 8. To solve the problem, use Internet Explorer version 9 or higher.

The `Import is now running` message is not refreshed even after the import is complete.
The page with the `Import is now running` message is not refreshed and the message is still displayed even when the import is complete. To solve this issue, you can hover over the Reports menu and check the percentage status of the import on the bottom of the drop-down list. You can also refresh the page manually.

The PDF reports open in the same browser tab as Software Use Analysis.
The generated PDF reports open in the same tab as Software Use Analysis. Because of this issue, you might be forced to stop any activity in the application until the PDF opens. To solve the issue, change the settings in your browser.

The PDF reports that are downloaded by using Firefox are corrupted.
Although the PDF reports are correctly displayed in the browser, the downloaded file is corrupted. The problem occurs in Firefox. To solve the issue, use a different browser.

The Software Installations report cannot be exported to PDF when all columns are selected. The problem occurs in Internet Explorer.
The problem occurs because the maximum length of the URL in Internet Explorer is limited to 2083 characters. The URL of the Software Installations report with all columns selected exceeds the maximum length and the PDF cannot be generated. To solve the problem, use a supported version of Firefox or Chrome.

Autocomplete suggests irrelevant results.
In some cases, autocomplete might suggest irrelevant results. For example, when you type IBM as a publisher and then start typing the software product, autocomplete will list all possible software products instead of only those that belong to IBM.

Paths for Korean and Japanese locales contain incorrect delimiter.
Paths for Korean and Japanese locales use a backslash (\) as a delimiter, instead of won (₩) or yen (¥).

There is a missing space before the colon (:) for French locale.
When a colon is used in text, there is a missing space before it although it is required in French language.

The string on the Browse button on the Catalog Upload panel is not displayed in languages other than English.
This error is caused by the web browser internal configuration and does not depend on Software Use Analysis.

Some Chinese characters are not displayed correctly.
To solve the problem, install the TrueType font for Simplified Chinese:

1. Obtain the `ttfonts-zh_CN` package in version 2.12-6 or higher.

2. Install the package by running the following command:

```
rpm -ivh ttfonts-zh_CN-2.12-6.noarch.rpm --nodeps
```

The new font was installed in the /usr/share/fonts/zh_CN/TrueType
directory. The characters should now be displayed correctly.

**After exporting the catalog in Internet Explorer, the Catalog Upload page
remains busy.**

When you go to **Management** > **Catalog Upload** and click the **Export**
button, the catalog is successfully exported but the cursor remains busy
and the button itself inactive.

To solve this problem and make the button active again, refresh the page
or go to a different section of Software Use Analysis and then return to
Catalog Upload.

**Disambiguation of the term Tivoli Endpoint Manager Analytics and the acronym
TEMA.**

The term Tivoli Endpoint Manager Analytics or the acronym TEMA
appears in some error messages, for example:

```
We're sorry, but something went wrong. Please contact your Tivoli
Endpoint Manager Analytics administrator if the problem persists.
```

Tivoli Endpoint Manager Analytics (TEMA) is the platform on which the
Software Use Analysis server is built. It is an internal Software Use
Analysis component.

The TEMA administrator is the Software Use Analysis administrator. If an
error message references the TEMA administrator, contact the Software Use
Analysis administrator.

Security problems

Security problems in Software Use Analysis might include issues with logging in to
the application or those related to the security of your credentials. However, you
can easily recover from these problems.

**Login credentials and the authenticity token are stored as plain text in the HTTP
packet.**

After logging in, the login form that contains the credentials is sent as
plain text in the HTTP packet. You can solve this issue by configuring SSL.

When creating a new user, autocomplete is enabled for the password field.

When creating a new user, the password field might be filled by
autocomplete based on the password that is stored in the browser.

The server is not working properly after certificates are modified.

If the server is not working properly after certificates are modified and the
server is restarted, then delete the keystore file key_server.jceks and
restart the server. The keystore file is regenerated with a self-signed
certificate. You can investigate the problem in the tema.log file.

Difficulty establishing a connection with HTTPS.

If you have difficulty when establishing a connection with HTTPS and you
are using SSL, check that your browser supports TLS 1.2 and that it is
enabled.

Hardware inventory problems

Find the solution to the issues that you have encountered while working with
virtual machine managers and hardware inventory.

Error message CODVM0005E is displayed when attempting to connect to the VM manager over SSL.

When trying to connect to the VM manager over SSL, an error message is displayed: `CODVM0005E An error occurred when attempting to connect to the VM manager at the following address: hostName`. To solve the problem, complete the following steps:

1. Go to https://www14.software.ibm.com/webapp/iwm/web/preLogin.do?source=jcesdk.

2. Provide your IBM ID and password and click **Sign in**. You might need to register with IBM to download the files.

3. Select **Unrestricted SDK JCE Policy files for Java 5.0 SR16, Java 6 SR13, Java 7 SR4 and later versions** and then click **Continue**.

4. View the license agreement, select **I Agree**, and then click **I confirm**.

5. Click **Download Now**.

6. Extract the files and copy them to the following directory:

   `<BES_Client>/LMT/VMMAN/java/jre/security`

7. Restart the server.

Server is running, but an exception in traces appears. The exception is related to the connection with the specified ESX with the following message: `javax.net.ssl.SSLException: Unrecognized SSL message, plaintext connection?`

1. Add the following lines to file /etc/vmware/hostd/config.xml:

   ```
   ..
      <ssl>
         <doVersionCheck> false </doVersionCheck>
         <handshakeTimeoutMs>30000</handshakeTimeoutMs>
      </ssl>
      <http>
          <readTimeoutMs>45000</readTimeoutMs>
          <writeTimeoutMs>45000</writeTimeoutMs>
          <blacklistPeriodMs>3000</blacklistPeriodMs>
      </http>
      <vmdb>
         ...
   ```

2. Restart the hostd service using `service mgmt-vmare restart`.

3. Verify that the exception does not occur.

Server is running, but an `org.xml.sax.SAXParseException` exception in traces appears. The exception is related to the connection with the specified ESX.

Make sure you have the latest patches to your problematic ESX server installed.

Upgrade of vCenter server from v5.0 to v5.1 causing server connection failure.

The following message is displayed `CODVM0003E The VM manager denied access because of invalid credentials`. To solve this issue, perform the following steps:

1. In vCenter, stop all sessions under a user name that is defined as a user credential in VM manager for specific vCenter.

2. Remove this user name.

3. From vCenter, add the user name back with read-only or propagation authorities.

4. Redefine the VM manager entry for this specific vCenter using the same user name credential.

Specification of the domain for the User Name for VM Managers is inconsistent.

Different definitions of users are used for Microsoft Hyper-V and VMware:

- For Microsoft Hyper-V, the user is defined as *user_name\domain*, for example: `test\cluster.com`

- For VMware, the user is defined as *domain\user_name*, for example: `cluster.com\test`

Changes to the VM managers are not updated on the IBM Endpoint Manager server. Changes to the VM managers are not updated on the IBM Endpoint Manager server and the following error message is displayed in the VM Managers panel: `The last modification of VM managers was not processed correctly on the IBM Endpoint Manager server. The data is not synchronized with the VM Manager Tool.`

To solve the problem, make sure that the VM Manager Tool is installed. You can also check the history of the Configure VM Manager Tool action in the IBM Endpoint Manager console to investigate the failed step. Additional information can also be found in the IBM Endpoint Manager console log files that are in one of the following directories:

- `Windows` `C:\Program Files (x86)\BigFix Enterprise\BES Client\__BESData\__Global\Logs`

- `Linux` `/var/opt/BES Client/__BESData/__Global/Logs`

The connection test does not finish.
Data from VM managers is not updated on the IBM Endpoint Manager server.

If you run a connection test for a VM manager and it does not finish, it might indicate a problem with the IBM Endpoint Manager client that is installed on the IBM Endpoint Manager server. If the client is stopped, actions that you perform in Software Use Analysis are sent to the IBM Endpoint Manager server but the status is marked as Not reported. To determine further actions, investigate the IBM Endpoint Manager client that is installed on the IBM Endpoint Manager server.

For the same reason, data from VM managers might not be uploaded to the IBM Endpoint Manager server. Check the value in the Last Successful Operation column to verify if the data was recently sent to the server.

Actions that are performed in the VM Managers panel, such as testing the connection or adding a new VM manager, fail.

If actions that you perform in the VM Managers panel fail, you can log in to the IBM Endpoint Manager console that is linked to your primary data source and check the history of recent actions, such as Configure VM Manager Tool or VM Manager Tool - connection test. By doing so, you can investigate details of the failed step and determine the solution. If you are not sure which data source to connect to, log in to Software Use Analysis and click **Management** > **Data Sources**.

To check the history of recent actions, complete the following steps:

1. Log in to the IBM Endpoint Manager console that is linked to your primary data source.

2. In the navigation tree, click **Computers**.

3. In the upper-right pane, select the computer that is defined as your primary data source.

4. In the lower-right pane, click the Action History tab.

5. Double-click on one of the recent actions that failed:

- If the connection test was unsuccessful, check the VM Manager Tool - connection test action.
- If modification of VM managers failed, check the Configure VM Manager Tool action.
6. In the new window, click the Computers tab.
7. Double-click on the action.
8. Locate the failed step and check the details.

The VM Managers panel is blocked or contains error messages.
The VM Managers panel is either blocked completely, with no possibility of performing any actions, or it contains one of the error messages that instruct you to install the VM Manager Tool or the IBM Endpoint Manager services.

To solve the problem, complete the following steps:
- Ensure that the IBM Endpoint Manager server and client are installed on the target endpoint.
- Install and start Web Reports on the IBM Endpoint Manager server. For more information, see: Installing the Web Reports.
- Subscribe the IBM Endpoint Manager server to the IBM Endpoint Manager for Software Use Analysis site.
- Make sure that the content of the IBM Endpoint Manager for Software Use Analysis site is up-to-date. If your computer does not have access to the Internet, see: Downloading files in an air-gapped environment.
- Subscribe the target endpoint to the IBM Endpoint Manager for Software Use Analysis site.
- Make sure that the VM Manager Tool is installed. For more information, see: Installing VM Manager Tool.

CPU frequency that is displayed on the Hardware Inventory report equals zero
CPU frequency is an additional parameter. It is retrieved only from computers that are not managed by VM managers or from virtual machines that are not in the *OK* status. CPU frequency values do not influence PVU calculations.

Migration problems

Whenever you encounter a problem with the migration, the migration tool displays a unique error message that identifies it. Search this topic to find the solution for each error or refer to the `migration.log` file for more details.

Log files

Additional information about each problem is saved in the `migration.log` file that is in the main directory of the migration tool.

Problems with migrating Software Knowledge Base Toolkit

The migration tool hangs and no data is exported to a canonical file.
This error might be encountered during one of the subsequent runs of the migration tool. After each run, the tool creates an `openjpa-database` directory, which is overwritten after each next migration. In some cases, most probably when the tool was stopped before finishing the migration, the overwrite does not work resulting in the following symptoms:
- the migration tool hangs,

- the `migration.log` file contains exceptions,
- the `java` process related to the migration tool does not use any processor resources.

Solution:

1. Stop the current migration.
2. Remove the `openjpa-database` directory.
3. Restart the migration.

Problems with migrating License Metric Tool or Tivoli Asset Discovery for Distributed 7.5

Error messages

CTJSM0004E Cannot read the keystore file. The migration tool files might be corrupted.

This error is also displayed in the following error messages: CTJSM0005E, CTJSM0006E, CTJSM0007E, CTJSM0009E, CTJSM00010E, CTJSM00051E.

The keystore file that is required by the migration tool might be corrupted. You must reinstall the migration tool to repair the files.

Solution: To reinstall the migration tool, you must reinstall the whole Software Use Analysis server.

CTJSM0011E The registry service was not initiated. The migration tool cannot work properly.

The registry service that is required to run the migration cannot be initiated because the files are corrupted.

Solution:

1. Restart the migration.
2. If the problem persists, reinstall the Software Use Analysis server to repair the migration tool files.

CTJSM0012E An error occurred while copying the `migration.properties` file. Ensure the migration tool has write permission and restart the migration.

The migration tool cannot perform one of the operations on the `migration.properties` file, probably due to insufficient disk space or missing privileges.

Solution: Ensure that the migration tool has write permission for its main directory and that the disk space available is sufficient. Then, restart the migration.

CTJSM0013E An error occurred while renaming the `migration.properties` file. Ensure the migration tool has write permission and restart the migration.

The migration tool cannot perform one of the operations on the `migration.properties` file, probably due to insufficient disk space or missing privileges.

Solution: Ensure that the migration tool has write permission for its main directory and that the disk space available is sufficient. Then, restart the migration.

CTJSM0014E The LMT/SUA server response took too long. Ensure that the server is running or increase the connection timeout in the `migration.properties` file. The response from the Software Use Analysis server was not received within allowed time. The server might not be running or it needs more time to respond.

Solution:

1. Edit the `migration.properties` and increase the connection timeout by modifying the `LMT_SUA_PROTOCOL_TIMEOUT` property.
2. Ensure that the server is running. For more information about starting the server, see *Starting the server* in *Managing the infrastructure* section..
3. Restart the migration.

CTJSM0015E The requested resource on the LMT/SUA server is not available.
The host name of the IBM Endpoint Manager or Software Use Analysis server is correct, however the address might be appended with the name of a specific resource that does not exist or is unavailable, for example `9.167.10.31/`*resource*.

Solution:

1. Edit the `migration.properties` file.
2. Ensure that the value of the `IEM_HOST` or `LMT_SUA_HOST` property is correct. If the address is appended with additional string, delete it and leave only the host name or IP address.
3. Restart the migration.

CTJSM0016E HTTP request to the LMT/SUA server failed because of invalid credentials.
Authentication token used to access the Software Use Analysis server is incorrect.

Solution: Edit the `migration.properties` file and enter the correct authentication token in the `LMT_SUA_TOKEN` property. To obtain your unique token, complete the following steps:

1. Log in to Software Use Analysis.
2. Hover over your user name in the top-right corner of the application, and click **Profile**.
3. Click **Show Token**.
4. Copy the token to the `migration.properties` file.

CTJSM0018E Cannot access the requested URL: *hostname*. **The IP address of a host could not be determined:** *hostname*
The host name of the Software Use Analysis is incorrect.

Solution:

1. Edit the `migration.properties` file.
2. Ensure that the value of the `LMT_SUA_HOST` property is correct.
3. Restart the migration.

CTJSM0019E Connection to the LMT/SUA server was closed. Ensure that the server is running or increase the connection timeout in the `migration.properties` file. The response from the Software Use Analysis server was not received within allowed time. The server might not be running or it needs more time to respond.

Solution:

1. Edit the `migration.properties` and increase the connection timeout by modifying the `LMT_SUA_PROTOCOL_TIMEOUT` property.
2. Ensure that the server is running. For more information about starting the server, see *Starting the server* in *Managing the infrastructure* section..
3. Restart the migration.

CTJSM0021E The LMT/SUA fixlet site is not specified in the
`migration.properties` **file.**

The name of the Software Use Analysis fixlet site is empty or incorrect.

Solution: Edit the `migration.properties` file and specify the following value for the `LMT_SUA_SITE` property: **IBM Endpoint Manager for Software Use Analysis v9**.

CTJSM0022E The IEM server response took too long. Ensure that the server is running or increase the connection timeout in the `migration.properties` **file.**

The response from the IBM Endpoint Manager server was not received within allowed time. The server might not be running or it needs more time to respond.

Solution:

1. Edit the `migration.properties` file and increase the connection timeout by modifying the `IEM_PROTOCOL_TIMEOUT` property.
2. Ensure that the server is running. For more information about starting the server, see Managing the Endpoint Manager services.
3. Restart the migration.

CTJSM0028E Connection to the IEM server was closed. Ensure that the server is running or increase the connection timeout in the `migration.properties` **file.**

The response from the IBM Endpoint Manager server was not received within allowed time. The server might not be running or it needs more time to respond.

Solution:

1. Edit the `migration.properties` file and increase the connection timeout by modifying the `IEM_PROTOCOL_TIMEOUT` property.
2. Ensure that the server is running. For more information about starting the server, see Managing the Endpoint Manager services.
3. Restart the migration.

CTJSM0023E The requested resource on the IEM server is not available.

The host name of the IBM Endpoint Manager or Software Use Analysis server is correct, however the address might be appended with the name of a specific resource that does not exist or is unavailable, for example `9.167.10.31/resource`.

Solution:

1. Edit the `migration.properties` file.
2. Ensure that the value of the `IEM_HOST` or `LMT_SUA_HOST` property is correct. If the address is appended with additional string, delete it and leave only the host name or IP address.
3. Restart the migration.

CTJSM0025E HTTP request to the IEM server failed because of invalid credentials.

The user name or password of the IBM Endpoint Manager server is incorrect.

Solution:

1. Edit the `migration.properties` properties file.
2. Correct the values of the `IEM_USER` and `IEM_PASSWORD` properties. The properties must point to the same user that can log in to the IBM Endpoint Manager console and that is created during the installation of the server. The default user is `IEMAdmin`.

3. Restart the migration.

CTJSM0027E Cannot access the IEM server at the specified URL: *URL*.
The host name of the IBM Endpoint Manager server is incorrect. The host name might be too short or it might contain invalid characters.

Solution: Edit the `migration.properties` file and correct the host name in the `IEM_HOST` property.

CTJSM0030E The *directory_name* **directory specified for `csv` files does not exist.**
You can use the **-dir** parameter to specify a directory for `csv` files that are created during migration, but this directory must exist before you run the command.

Solution: Create a directory for the `csv` files and then restart the migration.

CTJSM0037E Cannot connect to the LMT/TAD4D database.
This error indicates one of the following problems:
- License Metric Tool or Tivoli Asset Discovery for Distributed 7.5 database is not running.
- Host name specified in the `LMT_TAD4D_DB_HOST` property is not responding.
- Port number specified in the `LMT_TAD4D_DB_PORT` property is valid but not correct for this database.

Solution:
1. Check if the database is running.
2. Edit the `migration.properties` file, and correct the values in the `LMT_TAD4D_DB_HOST` and `LMT_TAD4D_DB_PORT` properties.
3. Restart the migration.

CTJSM0038E Cannot connect to the LMT/TAD4D database because of invalid credentials.
The user name or password of the License Metric Tool or Tivoli Asset Discovery for Distributed 7.5 database is incorrect.

Solution:
1. Edit the `migration.properties` file.
2. Ensure that the values of the `LMT_TAD4D_DB_USER` and `LMT_TAD4D_DB_PASSWORD` properties are correct. The default database user is `tlmsrv`.
3. Restart the migration.

CTJSM0039E The LMT/TAD4D database host name is incorrect.
The host name of the License Metric Tool or Tivoli Asset Discovery for Distributed 7.5 database is incorrect.

Solution: Edit the `migration.properties` file and correct the host name in the `LMT_TAD4D_DB_HOST` property.

CTJSM0040E Length of the specified user name, password, or host name is incorrect.
One of the user names, passwords, or host names is empty or has an invalid format. This error is related to License Metric Tool or Tivoli Asset Discovery for Distributed 7.5.

Solution:
1. Edit the `migration.properties` file.

2. Ensure that the values specified in the file are correct. This error often indicates problems with version 7.5.

3. Restart the migration.

CTJSM0043E Cannot access the IEM server at the specified URL: *URL*.
The host name of the IBM Endpoint Manager server is incorrect. The host name might be too short or it might contain invalid characters.

Solution: Edit the `migration.properties` file and correct the host name in the `IEM_HOST` property.

CTJSM0044E Cannot verify whether your version of LMT/TAD4D supports report groups.
The migration tool cannot verify whether the migrated version of License Metric Tool or Tivoli Asset Discovery for Distributed 7.5 supports report groups. Such a verification is required because only items that belong to the default report group can be migrated. The error occurs because the migration tool cannot establish the connection to the database.

Solution:

1. Edit the `migration.properties` file.

2. Ensure that the values of the `LMT_TAD4D_DB_HOST` and `LMT_TAD4D_DB_PORT` are correct, and that the database is running.

3. Restart the migration.

CTJSM0045E Credentials in the `migration.properties` file cannot be encrypted.
Passwords specified in the `migration.properties` file cannot be encrypted, because the file is corrupted.

Solution:

1. Copy the template `migration.properties` file that is in the main directory of the migration tool.

2. Edit the file and specify values for all properties.

3. Rename the file to `migration.properties` and use it to run the migration.

CTJSM0046E An invalid value was specified for property *property_name*. **The provided value was:** *property_value*.
One of the properties in the `migration.properties` file has an incorrect value. The name of the property is printed in the message.

Solution: Edit the `migration.properties` and correct the mentioned property.

CTJSM0047E The `filename.csv` file cannot be created.
The migration tool cannot create one of the `csv` files, probably due to insufficient disk space or missing privileges.

Solution: Ensure that the migration tool has write permission for the directory where the `csv` files are created. If you did not use the **-dir** parameter, the `csv` files are created in the main directory of the migration tool. Also, ensure that the disk space available is sufficient. Then, restart the migration.

CTJSM0048E Cannot retrieve VM Managers from LMT/TAD4D.
The list of VM Managers cannot be retrieved from License Metric Tool or Tivoli Asset Discovery for Distributed 7.5.

Solution:

1. Check the `migration.log` file for more details.

2. Ensure that License Metric Tool or Tivoli Asset Discovery for Distributed 7.5 database is running.

3. Restart the migration.

CTJSM0049E Cannot retrieve VM Managers from LMT/SUA.
The list of VM Managers cannot be retrieved from Software Use Analysis.

Solution:

1. Check the `migration.log` file for more details.

2. Ensure that Software Use Analysis server is running.

3. Restart the migration.

CTJSM0053E The `csv` files created after previous migration could not be backed up. For more information, see the `migration.log` file.
When you run a subsequent migration, the `csv` files created after the previous run are copied and renamed to be available as a backup. The migration tool could not create a backup of the file either due to insufficient disk space or missing privileges.

Solution: Ensure that the migration tool has write permission for the directory where the `csv` files are created. If you did not use the **-dir** parameter, the `csv` files are created in the main directory of the migration tool. Also, ensure that the disk space available is sufficient. Then, restart the migration.

CTJSM0054E An error occurred while creating a backup of the `filename.csv` file. Ensure the migration tool has write permission and restart the migration.
When you run a subsequent migration, the `csv` files created after the previous run are copied and renamed to be available as a backup. The migration tool could not create a backup of the file either due to insufficient disk space or missing privileges.

Solution: Ensure that the migration tool has write permission for the directory where the `csv` files are created. If you did not use the **-dir** parameter, the `csv` files are created in the main directory of the migration tool. Also, ensure that the disk space available is sufficient. Then, restart the migration.

CTJSM0055E The `csv` files created after previous migration could not be backed up because one of them is open in another application.
When you run a subsequent migration, the `csv` files created after the previous run are copied and renamed to be available as a backup. The migration tool could not close one of the files to create a backup because the file is open in another application.

Solution: Close all open `csv` files and restart the migration.

CTJSM0058E The `migration.properties` file does not exist.
The `migration.properties` file does not exist or cannot be loaded by the migration tool.

Solution:

1. Copy the template `migration.properties` file that is in the main directory of the migration tool.

2. Edit the file and specify values for all properties.

3. Rename the file to `migration.properties` and use it to run the migration.

CTJSM0059E The `migration.properties` file cannot be loaded.
> The `migration.properties` file does not exist or cannot be loaded by the migration tool.
>
> **Solution:**
> 1. Copy the template `migration.properties` file that is in the main directory of the migration tool.
> 2. Edit the file and specify values for all properties.
> 3. Rename the file to `migration.properties` and use it to run the migration.

CTJSM0068E Cannot retrieve the LMT/TAD4D access details from the `migration.properties` file.
> This error indicates problems with the `migration.properties` properties file.
>
> **Solution:**
> 1. Copy the template `migration.properties` file that is in the main directory of the migration tool.
> 2. Edit the file and specify values for all properties.
> 3. Rename the file to `migration.properties` and use it to run the migration.

CTJSM0069E Communications protocol of the IEM server is incorrect.
> The IBM Endpoint Manager server uses a different communications protocol than the one specified in the `migration.properties` file.
>
> **Solution:**
> 1. Edit the `migration.properties` file.
> 2. Change the value of the `IEM_PROTOCOL` property either to `http` or `https`.
> 3. Restart the migration.

CTJSM0070E Cannot access the LMT/SUA server at the specified URL.
> The migration tool cannot access the Software Use Analysis server at the web address that is specified in the `migration.properties` file. The address might be incorrect or the server is not running.
>
> **Solution:**
> 1. Edit the `migration.properties` file.
> 2. Correct the host name in the `LMT_SUA_HOST` property.
> 3. Restart the migration.

CTJSM0071E Communications protocol of the LMT/SUA server is incorrect.
> The Software Use Analysis server uses a different communications protocol than the one specified in the `migration.properties` file.
>
> **Solution:**
> 1. Edit the `migration.properties` file.
> 2. Change the value of the `LMT_SUA_PROTOCOL` property either to `http` or `https`.
> 3. Restart the migration.

CTJSM0073E The *directory* directory specified for the `csv` files does not exist.
> You can use the **-dir** parameter to specify a directory for `csv` files that are created during migration, but this directory must exist before you run the command.
>
> **Solution:** Create a directory for the `csv` files and then restart the migration.

**CTJSM0078E Unsupported file encoding. For more details, see the `migration.log`
file.** This error occurs in case of problems with the `migration.properties` file.

> **Solution:** Copy the template file that is in the main directory of the
> migration tool and use it to run the migration.

CTJSM0080E Cannot retrieve the list of tasks from the IEM server.
> While migrating directories that are excluded from scanning, the migration
> tool initiates the **Add Excluded Directories** task in the IBM Endpoint
> Manager console. This error indicates that the task could not be initiated,
> either because of incorrect name or version of the fixlet site, or incorrect
> access details of the IBM Endpoint Manager server.
>
> **Solution:**
>
> 1. Edit the `migration.properties` file.
> 2. Ensure that the fixlet site specified in the `LMT_SUA_SITE` property is
>   correct. The correct name of the fixlet site is: **IBM Endpoint Manager
>   for Software Use Analysis v9**.
> 3. Ensure that the fixlet site is updated to contain the latest content. The
>   site is updated if it contains the **Add Excluded Directories** task. For
>   more information, see Updating the fixlet site.
> 4. Ensure that the access details of the IBM Endpoint Manager server
>   specified in the `IEM_HOST` and `IEM_PORT` properties are correct.
> 5. Restart the migration.

**CTJSM0082E Cannot send the VM Managers configuration to the IEM server.
Detailed error: The action could not be completed because it could not be sent to
the IBM Endpoint Manager server** *host_name***.**
> Definitions of VM Managers were successfully migrated to Software Use
> Analysis, but they could not be configured on the IBM Endpoint Manager
> server. This error might occur if the IBM Endpoint Manager is not running
> or the credentials are incorrect.
>
> This error message is always appended with one of the following detailed
> messages:
>
> - *Ensure that the Endpoint Manager server is running. For more details, check
>   the Software Use Analysis log.*
>   1. Check the `tema.log` file that might contain more details about the
>   problem. The log file is in the `install_dir`/wlp/usr/servers/
>   server1/logs/ directory.
>   2. Ensure that the IBM Endpoint Manager is running. For more
>   information about starting the server, see Managing the Endpoint
>   Manager services.
> - *Credentials to the Endpoint Manager server are incorrect. To solve the problem,
>   go to Management > Data Sources and specify the correct credentials.*
>   1. Log in to Software Use Analysis.
>   2. In the navigation bar, click **Management** > **Data Sources**.
>   3. Select the server and correct the user name and password. Click
>   **Save**.
>
> **Solution:** After you fix the problem, run the following command to update
> the definitions of VM Managers on the IBM Endpoint Manager server:
>
> `./migration.sh -vmupdate`

CTJSM0084E The site external/*site_name* cannot be found.
> The fixlet site that is specified in the `migration.properties` file is incorrect or is not enabled on the IBM Endpoint Manager server.
>
> **Solution:**
> 1. Edit the `migration.properties` file and ensure that the name specified in the `LMT_SUA_SITE` property is correct. The correct name of the fixlet site is: **IBM Endpoint Manager for Software Use Analysis v9**.
> 2. Ensure that the fixlet site is enabled on the IBM Endpoint Manager server. For more information about enabling the fixlet site, see *Subscribing to fixlet sites* in the *Installing* section.
> 3. Restart the migration.

CTJSM0089E The Add Excluded Directories task cannot be found in the LMT/SUA fixlet site.
> The **Add Excluded Directories** must be present in the fixlet site. Your fixlet site might not be updated to the latest version or the name specified in the `migration.properties` file is incorrect.
>
> **Solution:**
> 1. Edit the `migration.properties` file and ensure that the name specified in the `LMT_SUA_SITE` property is correct. The correct name of the fixlet site is: **IBM Endpoint Manager for Software Use Analysis v9**.
> 2. If the **Add Excluded Directories** is not in the fixlet site, update it to download the latest content. For more information, see *Updating the fixlet* site in *Configuring*.
> 3. Restart the migration.

CTJSM0090E The Add Excluded Directories task in the LMT/SUA fixlet site cannot be initiated.
> The migration tool cannot connect to the IBM Endpoint Manager server to initiate the **Add Excluded Directories** task, which is required to migrate the excluded directories.
>
> **Solution:** See the `migration.log` file that describes details about this problem.

Backing up and restoring the database

Perform regular backups of the data that is stored in the database. It is advisable to back up the database before updating the software catalog or upgrading the server to facilitate recovery in case of failure.

Backing up the database

You can save your database to a backup file.

Procedure

1. Stop the Software Use Analysis server.
2. Check which applications connect to the database and then close all active connections:
   a. List all applications that connect to the database:
   ```
   db2 list applications for database SUADB
   ```
   b. Each connection has a handle number. Copy it and use in the following command to close the connection:
   ```
   db2 force application "( <handle_number> )"
   ```

3. Optional: If you activated the database before, deactivate it:
```
db2 deactivate db SUADB
```
4. Back up the database to a specified directory:
```
db2 backup database SUADB to <PATH>
```

Restoring the database

You can restore a damaged or corrupted database from a backup file.

Procedure

1. Stop the Software Use Analysis server.
2. Check which applications connect to the database and then close all active connections:
   a. List all applications that connect to the database:
      ```
      db2 list applications for database SUADB
      ```
   b. Each connection has a handle number. Copy it and use in the following command to close the connection:
      ```
      db2 force application "( <handle_number> )"
      ```
3. Optional: If you activated the database before, deactivate it:
   ```
   db2 deactivate db SUADB
   ```
4. Restore the database from a backup file:
   ```
   db2 restore db SUADB from <PATH> taken at <TIMESTAMP> REPLACE EXISTING
   ```

   Example:
   ```
   db2 restore db SUADB from /home/db2inst1/
   taken at 20131105055846 REPLACE EXISTING
   ```

Checking the client installation date

You can create a property on your IBM Endpoint Manager server that enables the date when your endpoints first connected to the server.

About this task

This procedure might be useful if you are using an automated tool to silently install many Endpoint Manager clients. To verify that the clients were installed and check their installation dates, you can add a column that shows the dates when your clients first connected to the server.

Procedure

1. Create a property on your IBM Endpoint Manager server that enables the new column:
   a. Log in to the IBM Endpoint Manager console.
   b. Click **Tools** > **Manage Properties**, and then click **Add New**.
   c. In the **Name** field, enter **First Report Time**.
   d. In the **Relevance** field, enter the following relevance expression:
      ```
      (month of it as two digits & "/" & day_of_month of it as two digits & "/" & year of it as string)
      of date (local time zone) of (minimum of subscribe times of sites)
      ```

      Note: The preceding expression changes the date format to DD/MM/YYYY, which makes it suitable for sorting in a CSV format. If you want to keep the default format (Mon, 1 Jan 2014), use the following relevance expression:
      ```
      minimum of subscribe times of sites
      ```

e. In the **Evaluate** field, choose **12 hours**.

f. Click **OK**. The new column can be viewed in the **Computers** page.

2. Optional: Add the created column to Web Reports where your data can be viewed as reports, or exported to a CSV or PDF format:

a. Log in to Web Reports.

Tip: You can access Web Reports under the following web address: `http://IEM_server_hostname/webreports`.

b. Click **Explore Data**.

c. In the Computer section, click **Edit Columns**, and then select the **First Report Time** column.

d. Click **Save Report**.

e. Optional: To export your report, click **Export to CSV** or **Export to PDF**.

Removing the server manually

If you encounter any problems with uninstalling the Software Use Analysis server, you can remove it manually.

Procedure

1. Run the following command to verify that the process associated with the server is running:

```
ps -ef | grep <installation dir>/cli | grep server1
```

Tip: The ID of the process is the number next to the user name.

2. End the process by running the following command:

```
kill -9 <process ID>
```

3. Remove the directory in which you installed Software Use Analysis:

```
rm -rf <installation dir>
```

For example:

```
rm -rf /opt/IBM/SUA
```

4. Edit the `.com.zerog.registry.xml` file that is in the `/var` directory. If you installed the server as a non-root user, the registry file is in `$HOME/`.

5. In the registry file, locate the entries that are related to Software Use Analysis. Remove the entries that represent the product and all the related components. You can recognize them by the product name and a common file path. If the registry file contains entries only for Software Use Analysis, you can delete the whole file.

Updating scanner catalogs

The scanner catalogs are used by the scanner to discover software on the endpoints. The catalogs are automatically updated after each import of the IBM software catalog. Use this procedure only if the automatic update of the scanner catalogs fails.

Before you begin

- Before you update the scanner catalogs manually, try to determine why the automatic update failed. For more information, see .
- Ensure that the Software Use Analysis server is visible to your Endpoint Manager server.

- If Secure Socket Layer (SSL) is enabled in Software Use Analysis, all updates are also downloaded through SSL. The Endpoint Manager server must recognize SSL certificates of Software Use Analysis as valid.

Procedure

1. Log in to Software Use Analysis.
2. **Import** the software catalog.
3. In the top navigation bar, click **Management** > **Catalog Upload**.
4. To download the fixlet file to your computer, click **Catalog Download Fixlet**. Choose the location where you want to save the `catalog_download.bes` file, and click **Save**.
5. Copy the file to the computer where the Endpoint Manager console is installed.
6. Log on to the Endpoint Manager console.
7. To import the fixlet, click **File** > **Import**.
8. Open the directory where you store the `catalog_download.bes` file, select the file, and click **Open**. The file is imported.
9. In the left pane, click **Sites** > **Master Action Site** > **Fixlets and Tasks**. A list of available fixlets opens in the upper right pane.
10. To run the fixlet on the endpoints, select **Catalog Download (SUA)**, and click **Take Action**.
11. Select the computers on which you want to run the fixlet, and click **OK**.
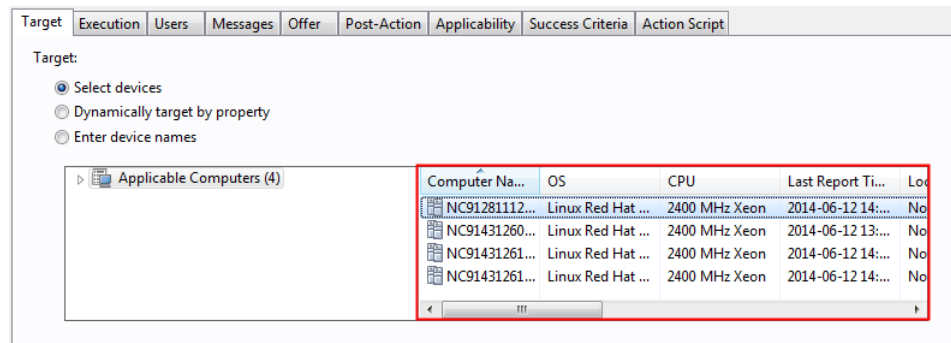
What to do next

You imported the scanner catalogs to the endpoints in your infrastructure. To gather inventory data from the endpoint, you must now **initiate software scans**.

Logs and return codes

Find logs and interpret return codes to troubleshoot issues.

Server installation logs

The installer generates log files with information that can help you check why an installation failed, or if a server installed successfully.

Log files created during installation

If you encounter problems while the installer is running, analyze the log file in the `$HOME/SUA_9.0.0.1` directory, and the `$HOME/ia.log` file.

Log files created after an incomplete installation

If you encounter problems after the installer ran and the installation is not completed, analyze the log files that are contained in the `$HOME/SUA_9.0.0.1_timestamp_logs.tar.gz` archive file.

Log files created after a successful installation

Log files that are generated after a successful installation are contained in `install_path/SUA_9.0.0.1_timestamp_logs.tar.gz` archive file.

Log file contents

To understand the root cause of installation problems, review logs for messages with a severity level of WARN or ERROR. The following example shows a warning messages.

```
<Message Id="CODIN0215W" Severity="WARN">
 <Time Millis="1381929782997"> 2013-10-16 15:23:02.997+02:00</Time>
 <Server Format="IP">NC040226.kraklab.pl.ibm.com</Server>
 <ProductI>dCOD</ProductI>d
 <Component>Install</Component>
 <ProductInstance></ProductInstance>
 <LogText><![CDATA[CODIN0215W The following ports are in use: 9081, .
The installation process can be continued but the server will not be started.
The server has to be started manually after resolving the ports conflict.]]></LogText>
 <Source FileName="com.ibm.license.mgmt.install.ia.common.CommunicationCommon"
Method="okToContinue"/>
 <TranslationInfo Type="JAVA" Catalog="userLocales.InstallMessageEWI" MsgKey="checkPorts">
 <Param><![CDATA[9081, ]]></Param></TranslationInfo>
 <Principal></Principal>
</Message>
```

Server log file

The server log file `tema.log` is in the `install_dir/wlp/usr/servers/server1/logs/` directory.

Settings that you can modify

Logging properties are set in the `server.xml` file. The `server.xml` file is in the `install_dir/wlp/usr/servers/server1` directory.

You can change the following settings:

messageFileName
> The server log file name. The default name is `tema.log`.

logDirectory
> The server log file location. The default location is `install_dir/wlp/usr/servers/server1/logs/`.

maxFileSize
> The maximum size (in MB) that a log file can reach before it is rolled over. To disable this attribute, set the value to 0. By default, the value is 10.

maxFiles
> If an enforced maximum file size exists, this setting is used to determine the maximum number of iterations of the server log file. If the log file reaches the maximum size that is defined in the `maxFileSize` parameter, the remaining messages roll over to another iteration of the file.

Log level

The log level controls which events are recorded in the server log file. The log level is set in the `log4j.properties` file. The `log4j.properties` file is in the *install_dir*`/wlp/usr/servers/server1/config` directory. You can use the `log4j.rootCategory` property to change the logging level. The default level is INFO. The following is a list of the possible log levels:

FATAL
Task cannot continue and component, application, and server cannot function.

ERROR
Error events that might still allow the application to continue running.

WARN
Potential error or impending error. This level can also indicate a progressive failure.

INFO   General information that outlines the overall task progress.

DEBUG
Fine-grained informational events that are most useful to debug an application.

Enabling the logging of memory consumption
You can log information about the memory that is used by Software Use Analysis.

Procedure

Set the **LOG_MEMORY** environment variable to true in the `/etc/init.d/SUAserver` file.

```
SERVER_NAME=server1
WLP_PATH=/opt/IBM/SUA/wlp
export JAVA_HOME=/opt/IBM/SUA/jre/jre
export TEMA_HOME=/opt/IBM/SUA/wlp/usr/servers/server1
export PATH=${PATH}:/opt/IBM/SUA/wlp/usr/servers/server1/bin
export LOG_MEMORY=true
```

Results

Each log returns memory consumption information.

```
INFO: Memory Used,458MB,Memory Diff,0kB,Memory Committed,743MB,
DEBUG: SF = # <SAM::ScanFile @values={:scan_file_id=>1, :file_size=>18681, :computer_id=>4,
 :file_name=>"itsitsearch_0_3205710.xml.bz2"}>
INFO: Memory Used,460MB,Memory Diff,1835kB,Memory Committed,743MB,
DEBUG: Checking cache for /itsitsearch_0_3205710.xml.bz2
```

Import logs

You can access data import log files in the *install_dir*`/wlp/usr/servers/server1/logs/imports` directory.

The latest import log can also be accessed from the navigation bar. Click **Management** > **Data Imports**.

Enabling debug logging for the import process
Change the import log settings to collect debug information. Debug information includes information about broken relationships, for example deleted component relationships.

Procedure

1. Go to the <INSTALL_DIR>/wlp/usr/servers/server1/ directory and edit the jvm.options file.

2. Append the following line to the file:

   -DTEMA_LOG_DEBUG=1

3. Restart the Software Use Analysis server by running the following scripts:

   <INSTALL_DIR>/cli/srvstop.sh
   <INSTALL_DIR>/cli/srvstart.sh

Database creation logs and return codes

The create database script createdb.sh generates a log file with information that can help you check why database creation or validation failed. The createdb.sh log is in the /tmp directory. The file has a time stamp suffix, for example: /tmp/createdb_20131018-131841.

Return codes

Check the return code to find the reasons for database creation problems.

Table 1. Return codes for the create database script

Return code	Description and possible solutions
0	Database successfully created.
1	Help message is displayed, or incorrect syntax.
100	One or more errors occurred during the database creation. Database creation error. Check the database creation log: creation log /tmp/createdb_latest_timestamp.
101	Database already created.
102	One or more errors occurred during the database validation. There is something wrong with the DB2 commands run from the script. The script requires a correctly initialized DB2 environment.
103	The DB2 version could not be correctly read from the **db2level** command. The **db2level** command returned the DB2 version string in an unexpected format. DB2 10.1 FP 2 or later WSE, ESE or AESE editions are supported.
104	Unsupported database version. DB2 10.1 FP 2 or later WSE, ESE or AESE editions are supported. You can check the version by running the **db2level** and **db2licm -l** commands as the SYSADM user.
105	An unsupported edition of the database was found in the system. DB2 10.1 FP 2 or later WSE, ESE or AESE editions are supported. You can check the version by running the **db2level** and **db2licm -l** commands as the SYSADM user.
127	Cannot run the **db2** command. Incorrectly configured DB2 instance. The user that runs the script must have SYSADM authority. Try to run the script as the DB2 instance owner.

Server installation and uninstallation return codes

If the server installation or uninstallation fails, check the return code to find the reason of the problem and possible solutions.

The table lists return codes that are logged during the installation or uninstallation of the Software Use Analysis server.

Table 2. Server installation and uninstallation return codes

Return code	Possible cause and solutions
0	The server was successfully installed.

Table 2. Server installation and uninstallation return codes (continued)

Return code	Possible cause and solutions
5	An unexpected error occurred.
6	An unexpected exception occurred.
7	An internal error occurred. The installer failed to save the file with information that was collected or generated during the preinstallation stage.
8	The installation was canceled.
9	A post-installation step was terminated before it was finished. Problems with resuming the installation might occur.
11	Validation of the communication ports failed. Either the same port is specified for more than one parameter or the specified port is in use. If you want to specify a port that is temporarily used but will be available later, set the **RSP_DISABLE_COMMUNICATION_WARNINGS** parameter to `true`.
13	Validation of the license agreement failed. Either the license agreement was not accepted or the path to the installation response file is not an absolute path. To accept the license agreement, set the **RSP_LICENSE_ACCEPTED** parameter to `true`.
14	There is not enough space for the installation. To check how much free disk space is required to proceed with the installation, see the following installation log: *installation_directory*/ `SUA_9.0.0.2_timestamp_logs.tar.gz`.
18	Validation of the installation path failed. Either the specified path is incorrect or the installation directory is in read-only mode.
20	An unknown response file parameter was specified. Remove the parameter from the installation response file.
21	The response file was not found. It is either empty or contains Windows line endings instead of UNIX ones.
23	The command-line interface or another application from the Software Use Analysis installation path is still running. Either end the process manually or set the **RSP_AUTO_CLOSE_PROCESSES** parameter to `true`.
26	An internal error occurred. Creation of the log directory failed.
27	It was impossible to recognize the environment, for example, installed products.
28	The upgrading scenario is not supported.
29	A part of Software Use Analysis that is already installed, is corrupted.
30	The uninstallation wizard could not find product information in registries. Software Use Analysis was already uninstalled.
31	The host name was not obtained. To verify the host name, in the command-line interface, enter the following command: `nslookup host_name`
32	An exception was detected while reading the `setup.ini` file.
33	An attempt of creating a log directory in the installation path failed because a file called `SUA9.0.1.2` already exists. To proceed with the installation, delete the file.
34	The log directory is in read-only mode.
35	The system `TEMP` environment variable does not point to a valid directory.
36	Installation in console mode is not supported. Use interactive or silent mode.
37	The required resources could not be extracted from the installation image.
38	The required resources could not be found inside the installation image.
41	The post-installation failed.
42	Another instance of the installer is already running.
46	The post-installation was interrupted.

Table 2. Server installation and uninstallation return codes (continued)

Return code	Possible cause and solutions
50	Resuming a failed installation in silent mode is not supported.
55	All elements of the infrastructure are already installed.
59	An internal error occurred. Contact IBM support.
214	The uninstallation process could not connect to the X server. Verify that the `DISPLAY` variable is properly set and points to a working X server.

Contacting IBM Software Support

IBM Software Support provides assistance with product defects.

Before you begin

Before contacting IBM Software Support, your company must have an active IBM software maintenance contract, and you must be authorized to submit problems to IBM. For information about the types of maintenance contracts available, see "Enhanced Technical Support" in the *Software Support Handbook* at: http://www14.software.ibm.com/webapp/set2/sas/f/handbook/home.html

About this task

Complete the following steps to contact IBM Software Support with a problem:

Procedure

1. Define the problem, gather background information, and determine the severity of the problem. For help, see "Contacting Software Support" in the *Software Support Handbook*.
2. Gather diagnostic information.
3. Submit your problem to IBM Support in one of the following ways:
   - Online: Visit the IBM Software Support site: www.ibm.com/software/support/probsub.html
   - By phone: For the phone number to call in your country, go to the "Contact Information" section of the *Software Support Handbook*.

What to do next

If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Software Support creates an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. Whenever possible, IBM Software Support provides a workaround that you can implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the IBM Support website daily, so that other users who experience the same problem can benefit from the same resolution.

Notices

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