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HPE Structured Data Manager

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Troubleshooting Guide

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About this document

HPE Structured Data Manager provides powerful tools to create and use an archive solution that copies or moves data from an online transaction processing database (active database) into less expensive storage (archive data store).

New and revised information

This document includes the following new and revised features in HPE Structured Data Manager:

- Archive Query Server Cache
- Partition-based delete for Oracle
- Enhanced Web Console user interface

See the *HPE Structured Data Manager Installation Guide* for more details about new and revised features for this release.

Prerequisites

Prerequisites for using this product include:

- knowledge of the operating system
- database knowledge
- application knowledge

Related documentation

- *HPE Structured Data Manager API Reference Guide*
Provides information about the Groovy script API files for HPE Structured Data Manager.
- *HPE Structured Data Manager Concepts Guide*
Explains the major concepts of database archiving in general and HPE Structured Data Manager in particular.
- *HPE Structured Data Manager Installation Guide*
Explains how to use the Installer to install the product.
- *HPE Structured Data Manager Tutorial*
Provides step-by-step instructions to build a sample archiving module, deploy it, run it, and troubleshoot errors.
- *HPE Structured Data Manager Developers Guide*
Explains how to use the Designer component to design, build, test, and deploy your archiving projects.

- *HPE Structured Data Manager Runtime Guide*
Explains how to use the Web Console component to run, monitor, and administer business flows that move data to and from the database.
- *HPE Structured Data Manager Troubleshooting Guide*
Explains how to diagnose and resolve errors, and provides a list of common errors and solutions.
- *HPE Structured Data Manager Upgrade Guide*
Explains how to upgrade the product and upgrade the archive schema generated by earlier versions of the product.
- *HPE Structured Data Manager Release Notes*
Lists any items of importance that were not captured in the regular documentation.
- *HPE Structured Data Manager PeopleSoft Modules Installation and Deployment Guide*
Explains how to install the PeopleSoft integration kit.
- *HPE Structured Data Manager Oracle E-Business Suite Modules Installation and Deployment Guide*
Explains how to install the Oracle E-Business Suite integration kit.

Chapter 1: Diagnose problems

This section describes how to diagnose problems in HPE Structured Data Manager.

- [Diagnose problems](#)
- [Diagnose installation and deployment problems](#)
- [Diagnose Web Console problems](#)
- [Diagnose model and cartridge problems](#)
- [Diagnose business flow deployment problems](#)
- [Diagnose business flow runtime problems](#)
- [Diagnose data masking problems](#)
- [Diagnose AQS problems](#)
- [Diagnose redeployment, uninstall, and reinstall problems](#)
- [Start Designer in debug mode](#)
- [Manage the home directory](#)

Diagnose problems

How you diagnose problems with HPE Structured Data Manager varies depending upon the task you are performing. For example, the available diagnostic tools and techniques are different for product installation than they are for running jobs.

The most commonly used tools for diagnosing and fixing problems with HPE Structured Data Manager are log files. The log files provide a great deal of useful information that can usually help you narrow down the problem and resolve it.

See also

- [Log files](#)
- [Common errors and solutions](#)

Diagnose installation and deployment problems

The first tasks you perform with HPE Structured Data Manager are installing the product and deploying the database to database or database to file archiving configuration. If you receive errors while installing, deploying or configuring HPE Structured Data Manager, you can use the error logs to discover the cause and fix the problem.

NOTE: If you are installing on Windows, ensure that the name of the installation directory is less than 38 characters. For example, C:\Program Files\HPSDM, where C:\ counts as three characters.

The Installer and Web Console include the following facilities to help you find and fix problems:

- Error messages in the Install Anywhere and Web Console panels
- Log file entries

Your first steps in diagnosing errors during installation and deployment include:

1. If you receive an error about one of your inputs, ensure that you did not misspell a user name or password.
2. If you receive an error that the installation or deployment failed, see the appropriate log file for more information. See [Log files](#) , on page 24.
3. Look for the error you are receiving among those listed in section, [Common errors and solutions](#) , on page 32.

Diagnose Web Console problems

This section provides solutions to known Web Console problems.

- [Repository install](#)
- [Startup, shutdown, and remote connectivity errors](#)
- [Business flow problems](#)

Repository install

The repository installation occurs once at first run. When you first install the Web Console, you may encounter the following issues:

- **Installation fails**—If the default port number 8080 is in use when installing the Web Console, the installation will fail.
- **Solution**—Change the port number to one that is not currently in use.
- **Delay in launching**—After installing the Web Console, when attempting to refresh, it does not launch properly.
- **Solution**—Go to `<installation_directory>\obt\bin` and run `webconsole.bat --port 8090`.

Startup, shutdown, and remote connectivity errors

- **Connectivity issues**—Repository and embedded repository issues will affect connectivity.
Solution—For the repository, ensure the repository database is running. For the embedded repository; ensure that you started the embedded repository on the server using `../obt/bin/launch_repository.bat|sh`. For more information about the embedded repository, see the Requirements section of the *HPE Structured Data Manager Installation Guide*.
- **Eligibility analytics**—You are not receiving eligibility analytics do to the following:
 - None of your rules have eligibility analytics turned on.
 - The configuration parameter for eligibility analytics is not turned on.
 - You did not put a pause point in the correct spot to see eligibility analytics.

- **Solution**—If you want to use eligibility analytics you have to enable it in Designer or in the Web Console before you deploy.

Business flow problems

- **Character limit**—For Windows only, if you do not limit the length of your installation directory to 38 characters, your maximum business flow name capability will be reduced.
Solution— Ensure that the installation directory is less than 38 characters.
- **Missing business flow**—Business flow does not appear in the Web Console.
Solution—If your business flow does not appear in the Web Console, examine the subdirectory for your environment in `<install dir>/obt/businessflow` and `<install dir>/obt/businessflow/<env name>`, where *<install dir>* is the installation directory on the machine where the Web Console is running; check to see if the `.busflow` files are located there. If not, you need to deploy the business flows to that environment. See the *HPE Structured Data Manager Developer's Guide* and the *HPE Structured Data Manager Runtime Guide* for information about deploying business flows.

Error while running business flow for In-Place Masking Cartridge

Symptom

When running a business flow for In-Place Masking Cartridge, update of few tables might fail due to unexpected reasons. In such a case, following error message are expected along with

WorkflowTaskException:

```
Audit table OBTAUD_IPM_UPDATE_DETAILS failed to update in previous run.  
If table XXXX is masked then please update the audit table accordingly.  
For further instructions please refer SDM Troubleshooting Guide.
```

Cause

This issue might happen after masking a particular table when SDM fails to update the rowcount details in `OBTDROWCOUNT_DETAILS` or audit details in `OBTAUD_IPM_UPDATE_DETAILS` table.

Resolution

Browse to that particular table (here, XXXX) and figure out whether it has been masked.

If masking process is complete for that particular table then browse to `OBTAUD_IPM_UPDATE_DETAILS` in the SDM repository and change the `STATUS` for that particular table from `START` to `COMPLETE`.

After this, **Recover** the failed business flow.

Diagnose model and cartridge problems

The first tasks you perform with Designer are creating models and rules to visualize your archive and implement it. If you receive errors while creating models, cartridges, or business flows, you can use the

diagnostic features of Designer to discover the cause and fix the problem.

See also

- [Log files](#)
- [Common errors and solutions](#)

To learn more about models and cartridges, see the *HPE Structured Data Manager Tutorial*, sections, [Creating an Archive Definition](#) and [Creating a Cartridge](#).

This section includes:

- [Models](#)
- [Common model issues](#)
- [Cartridges](#)
- [Common cartridge issues](#)

Models

To diagnose model errors when using Designer

1. Run preview frequently as you develop your model. You should, at a minimum, run preview when you:
 - complete the data modeling
 - add or remove tables
 - add or remove rules
 - modify rules
2. Click **Validate** wherever it appears to confirm your syntax is correct.
3. Examine the model editor for red lines or red table uses, as these indicate problem conditions in a model.

For more information on possible causes and solutions, see [Common model issues](#), below.

Common model issues

Issues may arise due to the following:

- **Schema mapping**—The mapping has been done but the table, view, or queryable synonym backing a table use is not found.
Solution—Open the Table Use Properties dialog by double-clicking the problematic table use and note the schema name for the backing table. Open the Schema Mapping dialog by clicking **Connections** and select **Map Schema** and ensure that the schema for the table is properly mapped.
- **Working offline**—You are working offline and the table backing the table use is not found.
Solution—Open the Table Use Properties dialog by double-clicking the problematic table use and note the schema name for the backing table. Click **Connections** and select **Local Cache Settings** dialog for the offline connection and ensure that the table has been captured.
- **Database changed**—The database has changed since you created your model and the table backing a table use has been deleted.

Solution—From the Project view, go to the lower navigation pane and ensure that the table is present.

- **Connection changed**—You have a different connection associated with the Project than the one it was set up to work against. To check your current connection, open the Project Connection dialog by clicking **Connection** and selecting Project Connection.

Solution—If you have the wrong connection associated with your Project, open the Project Connection dialog and select the proper connection or create a new one. Or, if you have intentionally specified a different connection, using Schema Mapping might allow you to match entities in your model with those of the database for the new connection.

- **Missing data movement key**—You receive an error message indicating that you must select a data movement key.

Solution—Open the **Table Use Properties** dialog by double-clicking the problematic table use. Select an appropriate unique key as the data movement key. If no appropriate unique key is present, you will need to create a new unique key and designate it in the Table Use Properties dialog as the data movement key.

- **Online connection fails**—You notice that Designer is not working properly and/or some elements in the model are red.

Solution—Ensure that you have an online connection.

- **Missing foreign or unique key**—A foreign key or unique key associated with a link between two table uses is not found. This could mean that the foreign key or its referencing unique key is missing. For example, a database unique/foreign key could have been dropped from the database or you might have deleted a virtual foreign/unique key in Designer. Or the problem could be that the expected columns in a key are missing. For example, the database has changed or you might have deleted some columns from the virtual referenced unique key for a virtual foreign key.

Solution—Fix any problems with missing table uses as explained in the solutions located above. If the tables are present, the issue involves the foreign and/or unique keys associated with the table.

- For a unique key—Create a new virtual unique key to replace the missing unique key. Select the problematic table use and open the Virtual Constraints dialog. Add a virtual unique key with the same name and columns as the missing unique key.
- For a foreign key—Create a new virtual foreign key to replace a missing foreign key. Select the problematic table use and open the Virtual Constraints dialog. Add a virtual foreign key with the same referenced unique key and the same name as the missing foreign key.
- If the referenced unique key does not exist or you want to use a different referencing unique key, do the following: Right-click the red link and select Replace Foreign Key Connection and use the wizard to replace the link with one based on the new information you provide.
- If the virtual key is present, edit and add/remove columns. Select the problematic table use and open the Virtual Constraints dialog. Edit the unique/foreign key.

NOTE: To edit the foreign key associated with the link between two table uses, double-click the foreign key to open the Virtual Foreign Key dialog.

- **Other deployment issues**

If a transactional or chaining table use in the model is backed by a view that is based on more than one table, deployment will fail but no error dialog is displayed. The log file (for Oracle) will contain the following exception:

ORA-01445: cannot select ROWID from, or sample, a join view without a key-preserved table

To verify, open the Connection Object viewer to see whether the objects backing a transactional or chaining table use is a table or an acceptable view. To determine whether or not a particular view is backed by more than one table, you will need to use a native database query tool, or a third-party tool.

Cartridges

Your first steps in diagnosing cartridge errors when using Designer include:

1. Run preview frequently as you develop your cartridge. You should, at a minimum, run preview when you:
 - Complete the data modeling
 - Add or remove tables
 - Add or remove rules
 - Modify rules
2. Click **Validate** wherever it appears to confirm your syntax is correct.

Examine the cartridge editor for red items, as these indicate problem conditions in a cartridge. For more information on possible causes and solutions, see [Common cartridge issues, below](#).

Common cartridge issues

Issues may arise due to the following:

- **Information not updated**—Content in the cartridge editor should respond to changes made in the model editor for the associated model, but did not in this case.

Solution—Close the cartridge editor and reopen it to refresh the content.

Diagnose business flow deployment problems

After a business flow has been created in Designer it can be deployed via Designer, the Web Console, or the command line.

NOTE: You can deploy cartridges outside of a business flow, but by default they are automatically wrapped in a business flow. Therefore you are always running business flows, even if you deployed a cartridge.

See also:

- [Log files](#)
- [Common errors and solutions](#)

1. If you receive an error while in Designer about one of your inputs, ensure that you did not misspell a user name or password.

2. If you receive an error in the Finished screen, see the appropriate log file by clicking Show Log.
3. Check the list of common errors to find the error you are receiving.

Diagnose business flow runtime problems

If you receive errors in the Web Console while running business flows, you can use Monitoring and the logs to discover the error and fix them.

NOTE: You can deploy cartridges outside of a business flow, but by default they are automatically wrapped in a business flow. Therefore you are always running business flows, even if you deployed a cartridge.

See also:

- [Log files](#)
- [Common errors and solutions](#)

To learn more about the Web Console, see the *HPE Structured Data Manager Tutorial* and the *HPE Structured Data Manager Runtime Guide*.

To fix errors using the Web Console, do the following:

1. If you receive an error while in the Web Console about the runtime parameters, ensure the parameter is in the correct column data type format based on the database column, such as a string or a date.
2. If you receive an error in the Web Console that the business flow did not start, was suspended or is otherwise incomplete, see the appropriate log file for more information. See [Log files , on page 24](#) for more information.
3. Check the list of common errors to find the error you are receiving.

Diagnose data masking problems

If you receive errors while attempting to mask or unmask data in the Web Console or Designer, you can use the error logs to discover the cause and fix the problem.

The standard data masking functions provided with HPE Structured Data Manager are applicable to the standard data types, such as int, float, varchar, etc.

IMPORTANT:
Masking primary keys is currently unsupported.

See also: [Log files , on page 24](#)

Your first steps in diagnosing data masking errors when using Designer include:

- **Custom Data Masking**
-If you see error messages, for example, Custom data mask not found during archive job, make sure that your custom mask exists in the source database and interface users (OBT_IF) can access it. To do this, log in to the source database as an interface user and run the custom data mask from sql-prompt on test input.

- If unmasking, ensure that the corresponding unmasking function exists and is accessible for a repository user (OBT_REP) user.
- Ensure you have entered a fully-qualified name for the masking function when you created an archive or reload cartridge.
- **String Map Function**—the string map function is for masking columns of type varchar, with a maximum length of 256 characters. If you encounter a problem while using the string map or number map functions, ensure the following:
 - A map table exists on the source database server. In the case of a database-to-database, distributed instance, you will have to create a map table on a history database server. This requirement is only for undo and reloads jobs.
 - Columns in a map table are of type varchar(n) with n less than or equal to 256.
 - You have specified a fully qualified name for the map table while creating a cartridge.
 - The interface user can be read from the map table. In the case of a database-to-database, distributed instance, the relocation user (OBT_RELOC) has read access to a lookup table on a history database server.
 - In the case of a database-to-database, distributed instance, ensure that the map table also exists in the target database.
- **Masking functions**—For detailed information about the various types of credit cards and their formats that HPE Structured Data Manager currently supports, see the *HPE Structured Data Manager Developer's Guide*.
 - If the credit card number that you are masking belongs to the credit card type that is not supported, or is in a format that is not supported, or is invalid, then this function will write back the same original number in the archive table.
 - For social security numbers, HPE Structured Data Manager supports only two formats: xxxxxxxx and xxx-xx-xxxx, where x is a digit [0-9]. All other formats are not supported.
- **Undo/Reload**
 - If your business flow uses any masks that are not reversible and you tried to undo or reload data back to the source database, it will fail by default. This is by design, otherwise the source database might get corrupted by these masked values. You can override this default behavior by setting the value of the configuration parameter to Allow masked value on undo in the Web Console. For detailed information, see the *HPE Structured Data Manager Developer's Guide*.

Diagnose AQS problems

If you receive errors while extracting data with the Archive Query Server (AQS), see the *HPE Structured Data Manager Runtime Guide*. For errors in viewing with Excel or other programs, see the appropriate product manuals.

See also:

- [Log files](#)
 - [Common errors and solutions](#)
1. If you receive an error while using the AQS about one of your SQL statements, ensure that all statements end with a semicolon (;).

2. If you receive an error, see the appropriate log file for more information.
3. Check the [Common errors and solutions](#) to find the error you are receiving.

Extracting binary zero in Oracle CHAR or VARCHAR

Some Oracle instance may have binary zero (CHR(0)) in the character strings. Columns containing CHR(0) characters can be extracted by SDM but fails refreshing the AQS cache.

1. Create a SDM masking function.

In SDM home directory `${home}\extensions\runtime\masking`

Create a groovy file: `cleanzerobin.groovy` with the following content.

```
Object mask(Object _in) {  
    return _in.replaceAll("[\\x00-\\x00]"," ");  
}  
  
Object revert_mask(Object _in){  
    return _in;  
}
```

2. Add `cleanzerobin` masking function.
3. Apply the `cleanzerobin` masking function to dirty columns.
4. Run the business flow with AQS cache enabled and you should have all the binary zeros replaced with space.
5. After performing the above steps, the data in `AQS_CACHE` appears without binary zeros.

Diagnose redeployment, uninstall, and reinstall problems

If you receive errors while redeploying, or reinstalling HPE Structured Data Manager, you can use the error logs to discover the cause and fix the problem.

See also:

- [Log files](#)
- [Common errors and solutions](#)

For detailed information about redeploying and installing, see the *HPE Structured Data Manager Installation Guide*.

Redeployment

If you receive errors while redeploying, do the following:

1. In Designer, ensure that the user name and/or password are correct.
2. If deployment failed, check the appropriate log file for more information.
3. Check the list of common errors to find the error you are receiving.

Uninstalling HPE Structured Data Manager completely removes the application from your computer.

If you receive errors while uninstalling, do the following:

NOTE: Ensure you have uninstalled the repository and all of your environments prior to performing the uninstall.

1. In Installer, ensure that the user name and/or password are correct.
2. If uninstalling failed, check the appropriate log file for more information.
3. If a failure to delete an environment occurs and the Web Console does not allow you to try again then use the scripted mode to delete the environment.

Uninstallation

NOTE: Ensure you have uninstalled the repository and all of your environments prior to performing the uninstall.

If you receive errors while uninstalling, do the following:

1. In Installer, ensure that the user name and/or password are correct.
2. If uninstalling failed, check the appropriate log file for more information.
3. If a failure to delete an environment occurs and the Web Console does not allow you to try again then use the scripted mode to delete the environment.

Reinstallation

After uninstalling HPE Structured Data Manager you will need to reinstall it.

If you receive errors while reinstalling, do the following:

1. In Installer, ensure that the user name and/or password are correct.
2. If installation failed, check the appropriate log file for more information.
3. Check the list of common errors to find the error you are receiving.

Start Designer in debug mode

To view the SQL statements used in Designer, you need to run it in debug mode:

For Windows:

1. Navigate to the directory where you installed HPE Structured Data Manager.
2. Open the <install_dir>/obt/bin directory and double-click **designer_debug.bat**.
The debug mode of Designer is now running.

For UNIX:

- Launch `./designer_debug.sh`

Manage the home directory

HPE Structured Data Manager stores its program data, such as configuration, log, and archive files, in a location that is separate from its program files. This home directory is determined at installation time:

- By default, HPE Structured Data Manager attempts to configure its home directory in the standard location for application data on the operating system. For example, on Windows, the Installer tries to use `C:\ProgramData`.
- If you prefer not to use the default location as determined by HPE Structured Data Manager, you can explicitly set the `OBT_HOME` environment variable prior to installation to create a custom location.

After installation, you can change the home directory by following the instructions in [Change the home directory, below](#).

Example

Configuration files might be stored in:

```
<app_data_dir>/Hewlett-Packard/HPOBT/config
```

where `<app_data_dir>` is the location where your operating system stores application data, or your own custom location.

TIP: On Windows, the `ProgramData` directory may be hidden by default. You need to show that directory in order to find the log files. For more information, see your Windows documentation.

Change the home directory

To change home directory for HPE Structured Data Manager

1. Stop all HPE Structured Data Manager processes, including Web Console and AQS.
2. Open `<install_dir>\obt\config\obt.env` in a text editor and change existing path to the new path. For example:

```
OBT_HOME=C:/SDM_Home/HPOBT
```

NOTE: Even on Windows, the directory separator is a forward slash (/).

3. In your file system, copy all of the directories and files except `aqsdatasources` from your current home directory to the new one that you just specified in `obt.env`.
4. For `aqsdatasources`, run the following command from `<install_dir>\obt\bin`:

```
oacommandexec -m <data src name> <new location>
```

For example:

```
oacommandexec -m xmlArchive D:\home1\aqsdatasources\xmlArchive
```

5. Restart HPE Structured Data Manager processes, such as Web Console and AQS.

Chapter 2: Log files

HPE Structured Data Manager automatically generates several different log files for diagnostic purposes.

This section includes:

- [Use log files](#)
- [Combined log file \(obt.log\)](#)
- [Groovy log](#)
- [Log files for individual cartridges](#)
- [View job history](#)
- [View the job log](#)

Use log files

Use the procedures in this section to view the installation log files and determine what information you want captured.

View log files

By default, the log files are saved in the home directory under log and the logging level is set to INFO.

For more information about the home directory, see [Manage the home directory, on page 23](#).

To view log files

1. Navigate to the directory containing the log file. For example:

```
cd <app_data_dir>/HPEOBT/log/
```

where **<app_data_dir>** is the location where the operating system stores application data or your custom location.

2. Open one of the following log files using a text editor:

File Name	Description
*_InstallLog.log	The *_InstallLog.log file is generated by the installation software, and includes information on the overall installation.
obt.log	The obt.log file captures all logging information for the Database Archiving software. Multiple log files are numbered in sequence. For example, obt.log1. To change the types of information captured in the log, see Edit the logging properties , on the next page.

3. Check the `outerbay.properties` files for changes that can occur in those files.

Edit the logging properties

After you have installed the product, you can edit the `log4j.properties` file to change the logging properties. For example, you can change:

- where the log files are kept.
- what information is logged.
- the maximum size of the log file.
- how much logging information is kept.

By default, the `obt.log` file is limited to 10 MB. When it exceeds the default limit, the `obt.log` file is renamed to a backup file, and a new `obt.log` file is created. By default, a total of nine backup files are kept, limiting the log files to a 100 MB maximum size.

For more information, see [Installation and upgrade errors](#) and [Combined log file \(obt.log\)](#)

1. Navigate to the directory that contains the `log4j.properties` file.

For example:

```
cd <app_data_dir>/HPOBT/config/
```

where `<app_data_dir>` is the location where the operating system stores application data or your custom location.

2. Open the `log4j.properties` file with a text editor and edit appropriately.
3. Search (Ctrl+F) for “log4j.rootLogger.”
4. Change the value from INFO to DEBUG.

For example

```
Change log4j.rootLogger=INFO to log4j.rootLogger=DEBUG, A1
```

5. Save the `log4j.properties` file.

The changes are applied automatically.

After your installation is complete this log remains in the log directory, but no more information is added to it. Any uninstall information is logged in the `obt.log`.

Combined log file (obt.log)

The `obt.log` is a consolidation of the contents of all the other log files. The `obt.log` file contains information on all Designer and non-Designer aspects of HPE Structured Data Manager, including deployment, Console error messages, applied patches, and uninstallation of business flows.

Review the `obt.log` for all logging information.

View the obt.log

By default, the log files are located in the home directory under `log` and the logging level is set to INFO. For more information about the home directory, see [Manage the home directory, on page 23](#).

To view the `obt.log`

1. Navigate to the directory containing the log files.

Example

```
<app_data_dir>/HPOBT/log
```

where `<app_data_dir>` is the location where the operating system stores application data.

2. Open `obt.log` using a text editor.
3. Search (Ctrl+F) for “error” or “exception.”

Some example errors are listed in “Common errors and solutions.”

TIP: The most recent information is appended to the end of the file. When looking for the most recent log entries, start at the end of the file.

Edit the logging properties

Optionally, after you have installed the product, you can edit the `log4j.properties` file to change the logging properties.

For example, you can change:

- where the log files are kept
- what information is logged
- the maximum size of the log file
- how much logging information is kept

By default, the `obt.log` file is limited to 10 MB. When it exceeds the default limit, the `obt.log` file is renamed to a backup file, and a new `obt.log` file is created. By default, a total of nine backup files are kept, limiting the log files to a 100 MB maximum size.

To edit the logging properties

1. Navigate to the directory containing the configuration files.

Example

```
<app_data_dir>/HPEOBT/config
```

where `<app_data_dir>` is the location where the operating system stores application data or your custom location.

2. Open the `log4j.properties` file with a text editor.
3. Make the desired changes to the file.
4. Save the `log4j.properties` file.

Edit logging properties for a specific issue

You can temporarily edit the logging properties to gather information for a specific process or issue.

To edit the logging properties

1. Navigate to the directory that contains the `log4j.properties` file.

For example:

```
cd <app_data_dir>/HPOBT/config/
```

where `<app_data_dir>` is the location where the operating system stores application data or your custom location.

2. Open the `log4j.properties` file with a text editor and edit appropriately.
3. Search (Ctrl+F) for “log4j.rootLogger.”
4. Change the value from INFO to TRACE.

For example

Change `log4j.rootLogger=INFO` to `log4j.rootLogger=TRACE, A1`

5. Save the file.
6. Stop the Web Console by the following method:
 - a. Change to the `bin` directory where you installed HPE Structured Data Manager.

Windows: `cd c:\Program Files\HPSDM750\obt\bin`

UNIX: `cd /home/HPSDM750/obt/bin`

- b. Enter the stop command:

Windows: `webConsole.bat stop`

UNIX: `./webConsole.sh stop`

7. Rename the existing `obt.log` file in the log location to `obt.log.old1`:
 - a. Navigate to the directory containing the log files.

Example

```
<app_data_dir>/HPOBT/log
```

where `<app_data_dir>` is the location where the operating system stores application data.

- b. Ensure that there are no other `obt.log` files in the directory. If so, rename those to a `*.oldN` filename.

8. Restart the Web Console by the following method:
 - a. Change to the `bin` directory where you installed HPE Structured Data Manager.

Windows: `cd c:\Program Files\HPSDM750\obt\bin`

UNIX: `cd /home/HPSDM750/obt/bin`

- b. Enter the start command:

Windows: `webConsole.bat start`

UNIX: `./webConsole.sh start`

9. Run the process (for example, an API command, a tool or other process) according to the issue you are investigating.

When the program fails, collect the following information:

- a. From the `OBT_Home\log` directory, navigate to the directory named for the job you ran from the Web Console.
- b. Select the last four files based on their modified date.

- c. Send those files, along with the `obt.log` file to your HPE Structured Data Manager support representative.
10. When you are finished collecting information for the specific issue, restore the `log4j.properties` tracing level back to INFO.
For example:
Change `log4j.rootLogger=TRACE, A1` to `log4j.rootLogger=INFO`
11. Stop and restart the Web Console.
The logging level of `obt.log` is returned to its previous trace level.

Groovy log

Review the run log for your Groovy script, `<env_name>/logname.log`, for any errors or issues. This script is useful for verifying the script was used in the business flow. The Groovy script log may provide information about errors in the Groovy scripts.

To view the Groovy script as a diagnostic tool

1. Navigate to the directory containing the log files.

Example

```
<app_data_dir>/HPEOBT/log/BusinessFlow@<NameBusinessFlow>
```

where `<app_data_dir>` is the location where the operating system stores application data or your custom location.

`<NameBusinessFlow>` is the name of your business flow.

2. Open the `GroovyScript.log` file using a text editor.
3. Search (Ctrl+F) for “error” or “exception.”

TIP: The most recent information is appended to the end of the file. When looking for the most recent log entries, start at the end of the file.

Debug with println

You can also debug Groovy scripts with the `println` statement by inserting a `println` statement, deploying and running the business flow, and then checking the run logs for the `println` outputs. By checking the run log for these `println` outputs, you can determine whether the script execution actually reached those statements (for example, whether the script errored out before or after the `println` statements).

NOTE:

To use the `println` function, you must add it to the Groovy script where it validates your script one line at a time.

For example, for a business flow called `OrderData` and a Groovy activity named `split`, any `println` statement within that `split` activity is written to the `<app_data_dir>/HPEOBT/log/BusinessFlow@OrderData/split.log`.

The log is updated at every run and contains the results from previous runs.

You can delete the log to remove the results of previous runs.

By default, the logs are saved to `<app_data_dir>/HPOBT/log/BusinessFlow@<busflow name>/<GroovyScriptName>.log`. If you have conditions within your business flow, you will then have a Groovy script inside a condition; log file `<app_data_dir>/HPOBT/log/BFInternal@<busflow_name>_<#>/<groovy_script_name>.log`.

NOTE: If you have `println` in your Groovy script, the files will go to the log regardless of the logging level.

1. Navigate to the directory containing the log files.

Example

```
<app_data_dir>/HPOBT/log/BusinessFlow@<BusinessFlowName>/<groovy activity name>.log
```

where

- `<app_data_dir>` is the location where the operating system stores application data or your custom location.
 - `<BusinessFlowName>` is the name of your business flow.
 - `<groovy activity name>` is the name of the Groovy activity.
2. Open the log files using a text editor.
 3. Search (Ctrl+F) for “error” or “exception.”;

TIP: The most recent information is appended to the end of the file. When looking for the most recent log entries, start at the end of the file.

Log files for individual cartridges

Each cartridge creates its own log file named after the name of the cartridge. For example, the Flexible AP/PO Archive and Purge creates the `obt_poflex.log` file.

As every cartridge is wrapped in a business flow at deployment, the cartridge logs are found under the business flow directory.

Example

```
<app_data_dir>/HPOBT/log/<env_name>/<bus_flow_name>
```

Because the business flow has a date and version appended to it, a real-world example might appear more like this.

Example

```
<app_data_dir>\HPOBT\log\Oracle_OLTP\Orders_Bus_Flow.2009-08-18_10.11.57\cartridge\oa\Orders_DB_to_File
```

where:

- `<app_data_dir>` is the location where the operating system stores application data.
- `Oracle_OLTP` is the environment name.

- `Orders_Bus_Flow.2009-08-18_10.11.57` is the name of the business flow.
- `Orders_DB_to_File` is the name of the cartridge.

View cartridge logs as a diagnostic tool

By default, the log files are saved in the home directory under `log/<env_name>` and the logging level is set to INFO.

To view cartridge logs as a diagnostic tool

1. Navigate to the directory containing the log files.

Example

```
<app_data_dir>/HPOBT/log/<env_name>/<BusinessFlowName>/cartridge/la/<CartridgeName>
```

- `<pgm_data_dir>` is the location where the operating system stores application data or your custom location.
 - `<BusinessFlowName>` is the name of the business flow.
 - `<CartridgeName>` is the name of the cartridge.
2. Open the cartridge log files with a text editor.
 3. Search (Ctrl+F) for “error” or “exception.”

TIP: The most recent information is appended to the end of the file. When looking for the most recent log entries, start at the end of the file.

NOTE: You can also check the trace files in udump logs for all Oracle-based data movement methods. Udump contains trace files that relate to specific user Oracle processes.

View job history

In the Web Console, the History page displays all business flows and jobs that were run in the environment you are currently viewing.

To view job history

1. Click **Monitoring** from the menu at the top of the page.
2. Click **History**.

You can filter the data by:

- group run id
- run id
- the date the job started
- the date the job finished

- the name of the job
- the batch name of the job

Click the red X to clear individual filters.

3. Click **CSV** or **XML** to export the filtered data to a CSV or XML file.

View the job log

To view the output that the job produced

1. Navigate to the directory containing the log files.

Example

```
<app_data_dir>/HPOBT/log/users/<username>
```

where *<app_data_dir>* is the location where the operating system stores application data and *<username>* is the name of the file.

2. Open the log file with a text editor.
3. Search (Ctrl+F) for “error” or “exception.”

TIP: The most recent information is appended to the end of the file. When looking for the most recent log entries, start at the end of the file.

Chapter 3: Common errors and solutions

This section contains error messages along with solutions.

What to check first

- When having problems using HPE Structured Data Manager that results in errors, check these items first:
- Ensure that you are using the correct case. All user names and encryptions keys are case-sensitive.
- Ensure you are connected to the correct database(s), and it is running.
- Ensure the embedded repository is started before invoking the Web Console or the Designer.
- Check the number of open cursors in Oracle by using the `select count(*) from v$open_cursor` command.

List of errors

- [Designer errors](#)
- [Installation and upgrade errors](#)
- [Web Console configuration errors](#)
- [Uninstalling and redeploying errors](#)
- [Data masking errors](#)
- [Deployment errors](#)
- [Runtime errors](#)
- [Archive Query Server errors](#)
- [Advanced selection and partition-based delete errors](#)
- [Database to file errors](#)
- [Upload errors](#)
- [Database to database errors](#)
- [Other errors](#)

Designer errors

Errors in Designer and preview are typically resolvable in the panel or editor in which they are seen.

For error messages that are displayed at the top of title area dialogs, sometimes the entire message is not visible. To be able to view the entire message, either resize the dialog box horizontally, or click in the error message text and drag vertically to view the entire text.

- [Table not found](#)
- [Eligibility analysis not found](#)
- [Multiple Table Uses-Row Sets Overlap](#)

- [Non-unique data movement key](#)
- [Data movement keys: various warnings and error messages](#)
- [Internal errors](#)
- [Maximum open cursors exceeded](#)
- [Preview fails for integration pack models with dynamic parameters](#)
- [Asian fonts not displaying in PDF](#)
- [Error in Groovy object](#)

Table not found

Symptom

- When adding a table to the model, you receive a table not found error even though you know the table to exist.

Cause

- The table name has double dollar signs in it (\$\$).

Solution

- Remove consecutive dollar signs (\$\$) from table names to fix. If it is not possible to change the table name, you can create a view or synonym of the table without the dollar signs and include that in your model instead.

Eligibility analysis not found

Symptom

- Eligibility analysis is not available on lookup tables when a history snapshot is enabled.

Cause

- Managed tables do not have eligibility analysis.

Multiple Table Uses-Row Sets Overlap

Database to database supports archiving updatable views related to a single table. Updatable views related to more than one table can not be archived. Single tables cannot be used multiple times.

Non-unique data movement key

Symptom

- You received the following error when generating a cartridge in Designer.
- ERROR : Update rowcount summary for the run thread 0 : root : Rowcounts for ARCHIVE_SELECTION@ELIGANANULL (= 200) and Rowcounts for ARCHIVE_TRANSACTIONAL@ELIGANANULL (= 0) do not match. To disable rowcount-check, set VERIFY_ROW_COUNTS configuration to false.

Cause

- The table accidentally has a non-unique key. When the row checks were performed, an apparent mismatch was found.

Resolution

- Check the Data Movement Key specified when you added the table to the model. To view the Data Movement Key, right-click the table in your model and choose Properties to open the Table Use Properties dialog. Verify each unique key is unique.

Data movement keys: various warnings and error messages

On rare occasions, a warning or error message may appear concerning the data movement key.

Depending on circumstances, a table may or may not require a data movement key. If a data movement key is required and none is already selected by you, HPE Structured Data Manager will select one for you if possible. If it cannot choose one for you for some reason, you receive an alert in the model editor or the cartridge editor that a data movement key is required and you must select one yourself.

You can select a data movement key in the following ways:

- In the model editor table properties dialog. In Designer, right-click the table in the model editor and click **Properties**. Select a suitable data movement key in the drop down list.
- For schema-based cartridges, in the cartridge editor data movement key tab. Double-click the schema-based cartridge in the Projects pane of Designer, and click the tab **Data Movement Key**.

Internal errors

Symptom

- When adding a table to your model, you may see an Internal Error.

Cause

- The database connection for your current project is no longer working. For example, you have chosen the wrong connection for your project.

Resolution

- Select the correct connection or fix your connectivity issue.

Maximum open cursors exceeded

Errors in preview are typically resolvable in the panel or editor in which they are seen.

Symptom

- You received the following SQL exception when previewing a cartridge or business flow in Designer.
SQLExceptions of type: ORA-01000 "maximum open cursors exceeded"

Resolution

- To monitor the number of open cursors in Oracle using a database tool, you can use the following select:

```
select count(*) from v$open_cursor
```

If you have two preview editors open, closing one reduces the number of open cursors.

Preview fails for integration pack models with dynamic parameters

Symptom

Preview functionality will not work with E-Business or PeopleSoft integration pack models if they include dynamic parameters.

Resolution

- When you create a parameter in Designer for an integration pack model, use a runtime parameter instead of a dynamic parameter. Give the parameter a list of values populated by a SQL statement.
- If your model already includes a dynamic parameter, convert it to a runtime parameter. In this case, either configure the List of Values as SQL and place the same query there that is in the dynamic parameter, or configure the List of Values as None and assign a default value.

Asian fonts not displaying in PDF

Symptom

- You generate PDF documentation from Designer, but the PDF file does not display all of the content.

Cause

- You have multi-byte characters in your database. HPE Structured Data Manager does not embed the necessary fonts in the PDF by default.

Resolution

- In `<install_dir>\obt\config\outerbay.properties`, use the `pdf.font` property to include the necessary fonts. For example:

```
pdf.font=STSong-Light-H
```

Error in Groovy object

Symptom

- You get an error like the following in Designer or Web Console:
- Error in "<object>": Cannot cast object '647' with class 'com.outerbay.foundation.components.datamovers.lw2.groovy.GroovyDataNodeWrapper' to class 'int'

Cause

- HPE Structured Data Manager 7.20 changed its version of Grails. The `as` Type construction does not work in the newer version.

Solution

Check your Groovy scripts for `as` Type constructions and replace them. For example:

```
List<Integer> prices = priceValues.collect{it as Integer}
```

should change to:

```
List<Integer> prices = priceValues.collect{it.toInteger()}
```

Installation and upgrade errors

This section describes some of the common errors you may encounter during installation and their resolution.

- [Archive Query Server will not install 6.30 in an MBCS directory](#)
- [Error installing AQS- AQS already installed on the server](#)
- [Turkish character set is unsupported](#)
- [Upgrade from 6.2 fails with ORA-01031](#)
- [Installation fails on Windows Server 2012 R2](#)

Archive Query Server will not install 6.30 in an MBCS directory

Symptom

- Archive Query Server will not install 6.30 in an MBCS directory. In version 6.2, it installs but will not run. This is due to DataDirect software issue.

Resolution

- Due to this limitation, you cannot install the product in an MBCS directory. This issue is only in AQS; however, AQS is installed where the main product is installed, so therefore the main product inherits the same limitation.

Error installing AQS- AQS already installed on the server

Symptom

- When you try to install the AQS on the same server more than once, you might see the following error:

```
This product is already installed on your machine. If you wish to uninstall  
please use the silent uninstall command or user the Add/Remove program option.
```

Resolution

- You can find detailed error at <install_directory>/obt/log/oa*.log, but you will not be seeing any errors on the Console.

Turkish character set is unsupported

Symptom

- The Web Console and Designer do not support the Turkish character set.

Cause

- Sun Java bug 6208680.

Resolution

- For the character set to work in the Turkish or Azeri environment you will have to make following changes in the code tree:

Add `-Duser.language=en` in following three files

`obt/ui/designer.ini`

`obt/bin/webconsole.bat`

`obt/bin/obt-launcher.bat`

Upgrade from 6.2 fails with ORA-01031

Symptom

- You are upgrading from 6.2 and upgrade fails for a database to database single instance environment with the error - ORA-01031: insufficient privileges.

Cause

- The target/history database user lacks the necessary privileges to perform the upgrade.

Resolution

- Run the following as a workaround:

```
grant alter any table to <<Value of username for location HISTORY_DB>>
```

To get the value of username for location HISTORY_DB:

1. Access the Web Console.
2. Make the environment with the problem as the active environment.
3. Click **Environment** and then **Locations**.
4. Choose HISTORY_DB. Details of the history DB will appear below.
5. Select the username in the User ID value.

Installation fails on Windows Server 2012 R2

Symptom

- Installer fails when you try to install HPE Structured Data Manager on Windows Server 2012 R2.

Cause

- There is a known issue with the JRE on Windows Server 2012 R2 that causes this problem.

Resolution

1. Install a version of JRE update 51 (1.7.0_51) or earlier.
2. Start the Installer with LAX_VM pointing to the Java executable in the JRE. For example:

```
hp_sdm_7.20.537_windows_x86_64.exe LAX_VM  
"D:\work\java_1_7_17\win64\jre\bin\java.exe"
```

Web Console configuration errors

This section describes some of the common errors you may encounter during Web Console configuration and their resolution.

- [Auto launch does not work](#)
- [Unable to log in to Web Console](#)
- [Error with HPE Structured Data Manager 7.21 and an Oracle 9i repository](#)
- [Redirect loop error](#)
- [Unable to delete environment when source database is no longer available](#)
- [Could not set up database connection](#)
- [ORA-01450 maximum key length \(3218\) exceeded](#)
- [Error launching the embedded repository](#)
- [Cannot install on RDBMS type <rdcms_type>](#)
- [Linux install fails with connection error](#)
- [Unable to retrieve "" database character set](#)
- [Web Console fails to launch](#)

Auto launch does not work

Symptom

When installing on Windows Server 2008, the auto launch option does not work.

Cause

This is caused by a permission issue. The auto launch process is launched with the wrong permissions and is unable to write log files, etc.

Resolution

Start the Web Console from the command line and do not select auto launch. If you have inadvertently selected auto launch, do the following: right-click and manually change the permission from the File Security tab and grant access to all users.

Unable to log in to Web Console

Symptom

The Web Console installation will fail on Oracle if there is an existing table named as one of the Web Console tables (they all start with OBTWC_), owned by a different schema and visible by PUBLIC.

Cause

This is caused by a Hibernate bug.

Resolution

Ensure there are no duplicate names.

Error with HPE Structured Data Manager 7.21 and an Oracle 9i repository

Symptom

After applying the 7.21 patch to an HPE Structured Data Manager instance with an Oracle9i repository database, you receive an error on the Web Console login page:

An error has occurred.

Cause

You need to use a different ojdbc5.jar file.

Resolution

1. Rename `obt/lib/ojdbc7.jar`, for example, to `ojdbc7.jar.original`.
2. Rename `obt/lib/ojdbc5.jar.rename.for.9i` to `ojdbc5.jar`.
3. Rename `obt/ui/plugins/noneclipsedependencies/ojdbc7.jar` to `ojdbc7.jar.original`.
4. Rename `obt/ui/plugins/noneclipsedependencies/ojdbc5.jar.rename.for.9i` to `ojdbc5.jar`.
5. After starting the Web Console, rename `obt/webconsole/apache-tomcat/webapps/WebConsole/WEB-INF/lib/ojdbc7.jar` to `ojdbc7.jar.original`.
6. Copy `obt/lib/ojdbc5.jar` to `obt/webconsole/apache-tomcat/webapps/WebConsole/WEB-INF/lib`.

Redirect loop error

Symptom

When connecting to the Web Console using Firefox, you receive the following error:

Redirect Loop

Firefox has detected that the server is redirecting the request for this address in a way that will never complete.

The browser has stopped trying to retrieve the requested item. The site is redirecting the request in a way that will never complete.

* Have you disabled or blocked cookies required by this site?

NOTE:

If accepting the site's cookies does not resolve the problem, it is likely a server configuration issue and not your computer.

Cause

The Web Console is attempting to connect to an idle database.

Resolution

Stop the Web Console and restart it before reloading the page so it can create a new connection.

Unable to delete environment when source database is no longer available

Symptom

Using the Web Console, you are unable to delete an environment when the source database is no longer available, for instance, in the case of an application retirement.

Cause

The delete operation hangs in an incomplete state because deletion of the source database is a necessary phase in the deletion of an environment when the Web Console is used. You cannot delete an environment using the Web Console if the source database is no longer available, but you can delete this environment using the command line.

Resolution

To delete an environment using the command line:

1. Open a command line window.
2. Invoke the following command:

```
obt/install/deploy_product.[sh|bat] "<product.install_admin>.properties" uninstall "-Dforce.repo.only=true"
```

where <product.install_admin> is the name of the file.

NOTE: HPE Structured Data Manager marks the environment as deleted, but it may not delete all of the objects related to the environment.

Delete the environment using the command line instead of the Web Console:

1. Open a command line window.
2. Invoke the following command:

```
obt/install/deploy_product.[sh|bat] "<product.install_admin>.properties" uninstall "-Dforce.repo.only=true"
```


Could not set up database connection

Symptom

You receive the following error:

```
Cannot connect to database
```

Cause

When setting up the repository database, you entered an administrative user that did not have the correct privileges.

Resolution

Ensure the administrator user that you specify has the capability/privilege to create user and grant permission to non-owned tables.

ORA-01450 maximum key length (3218) exceeded

Symptom

You receive a ORA-01450 maximum key length error.

```
ORA-02049 maximum key length (3218) exceeded
```

```
java.sql.SQLException: ORA-01450: maximum key length (3218) exceeded
```

Cause

This an Oracle limitation.

Resolution

Increase the database block size of the tablespace associated with the Repository Database User, for example obt_rep.

Error launching the embedded repository

Symptom

You receive the following error when launching the embedded repository:

```
Could not listen on port 1527 on host 0.0.0.0: - java.net.BindException: Address  
already in use: JVM_Bind
```

Cause

Port issue. You either already have the repository running or are using the port for some other program (the default port is 1527). If it is the latter, you will need to change the port number.

Resolution

To change the port number: from the command line enter `bin/launch_repository.bat 1528` (or alternate port number). Ensure that this is the port being used; you will receive the message, Ready for transactions. If you entered incorrect information, the port will revert to the default port number.

Cannot install on RDBMS type <rdbms_type>

Symptom

You received the following error when installing the database to database configuration of HPE Structured Data Manager.

Can not install LA base on rdbms type <rdbms_type>

Cause

You attempted to install HPE Structured Data Manager against an invalid database.

Resolution

Find a valid database and reinstall.

NOTE: Review the supported databases in the *HPE Structured Data Manager Certification Matrix*.

Linux install fails with connection error

Symptom

You received the following error when attempting to install:

```
java.sql.SQLException: Listener refused the connection with the following error:
```

```
ORA-12519, TNS:no appropriate service handler found
```

```
The Connection descriptor used by the client was:
```

```
demo-linux-cust-mob-01:1521:LOTUS
```

Cause

An Oracle error occurred.

Resolution

See the *Oracle Database Error Messages* manual for information on how to address this error.

Unable to retrieve "" database character set

Symptom

While in the installer panels, you received the following error while trying to install database to database or database to XML:

```
Unable to retrieve "" database character set
```

Resolution

You can ignore this error. It will not interfere with the operation of the software.

Web Console fails to launch

Symptom

- When you try to start the Web Console, it fails to launch, and, when you try to access it from your browser, it throws a not found error.

Cause

- The Web Console may not have initiated properly. If it did initiate properly, then Tomcat failed to launch it for some other reason.

Resolution

- If you interrupted the Web Console process the first time you launched it, then you may have an incomplete Web Console setup. Delete the webconsole directory from your <install_dir>\obt directory, and try launching the Web Console again.
- Check the Tomcat logs to determine the cause of failure:
<install_dir>\obt\webconsole\apache-tomcat\logs

Invalid key size error

Problem

When you are trying to upload the data to S3, you get an error.

Cause

This means that the JRE is not allowing the encryption of data using keys which are more than 128-bit in length.

Resolution

To resolve this problem, you need to replace the unlimited strength policy jars in jre at this location:
<sdm/install/path>/jre/lib/security/.

Uninstalling and redeploying errors

Error messages when redeploying or uninstalling can appear in the installation log or the log files.

After you reinstall or redeploy a cartridge, you must run the create archive access job again.

- [Error running reinstallBF.groovy script](#)
- [Cannot redeploy business flow](#)
- [Cannot uninstall cartridge while business flows are in incomplete stage](#)
- [Cartridge expects the following for parameters to be passed](#)
- [OBTCO engine failed](#)
- [Error deleting file or folder](#)
- [Windows error 193 occurred while loading the Java VM](#)

- [Upgrade that fails and cannot resume from the Web Console](#)
- [Installation of 64-bit version on a 32-bit system begins without warning, then fails](#)
- [Objects marked invalid by Oracle](#)

Cannot redeploy business flow

Symptom

You received the following error message, Cannot re-deploy business flow: missing artifacts.

Cause

You have attempted to deploy a business flow that has been previously deployed; however, the artifacts of the deployed business flow are missing.

Resolution

Ensure that the business flow folder is present in the path <obt_top>\artifacts\<environment_name>\businessflow\.

Cannot uninstall cartridge while business flows are in incomplete stage

Symptom

You received the following error when attempting to remove a cartridge.

```
C:\Program Files\HPDDBArchiving_ORCL\obt\artifacts\businessflow\Orders_Bus_Flow\cartridge\oa\Orders_DB_to_File\build.xml:591: Can not uninstall cartridge while jobs are in Incomplete stage.('Running','Not Repsponding','Failed') Please check the console and try to Run these jobs with -r(Recovery) option or cancel the jobs.
```

Cause

You have attempted to deploy a new version of a cartridge, but the old version cannot be uninstalled because it has one or more business flows in an incomplete status.

Resolution

Use the Cancel Job or Recover Job functions from the Monitoring tab.

After all business flows using the cartridge are in a non-running state (Completed, Cancelled, Recovered, or Suspended) you can redeploy from Designer or the Web Console.

Cartridge expects the following for parameters to be passed

Symptom

You received the following error attempting to reinstall a modified cartridge or business flow.

```
C:\Program Files\HPDBArchiving\obt\bin\ui_job_launcher.bat" executing: "launch_ea_
job.bat" -e "DefaultEnvironment" -j "ARCHIVE_DB_TO_FS@OrderEntryOLTPtoXML" -r
"sourceLocation=3DOBTINTF_DB" "destLocation=3DLOCAL_ARCHIVE_FS" "XML_Archive_
Date=3D1995.01.01" Job ARCHIVE_DB_TO_FS@OrderEntryOLTPtoXML expects the following 4
parameters to be passed:
```

```
"sourceLocation" "destLocation" "XML_Archive_Date" "DB_Archive_Date"
```

but found the following parameters:

```
"sourceLocation=3DOBTINTF_DB" "destLocation=3DLOCAL_ARCHIVE_FS" "XML_Archive_
Date=3D1995.01.01"
```

```
Usage: launch_ea_job.bat [ -e ] environmentID -j jobName [ -r ] "sourceLocation"
"destLocation" "XML_Archive_Date" "DB_Archive_Date"
```

```
-e,--environmentID The Environment identifier, found in the console (optional)
```

```
-j,--jobName Name of the job in the form batch_name@job_name
```

```
-r,--recoverFailed Recover a failed run of this job, if one exists (optional)
```

Resolution

You must uninstall the cartridge before redeployment of a modified cartridge. The uninstall script is in the directory where the cartridge was deployed. Modifying or adding parameters to a cartridge counts as modifying it.

The Web Console is not able to refresh itself when cartridges are uninstalled and redeployed. You must close and restart the Console after redeployment of a previously deployed cartridge.

Error deleting file or folder

Symptom

After attempting to uninstall HPE Structured Data Manager from the uninstaller, you went to remove the remaining directories under C:\Program Files\HPDBArchiving and received an error that some files are in use.

Cause

The DataDirect directories did not uninstall correctly.

Resolution

1. Completely remove the following folders:
 - <6.1 root>/obt/sqlxml/server
 - <6.1 root>/obt/sqlxml/client
2. Remove all services that start with HPArchiveQueryServer or OpenAccess from the Windows service list. This can be achieved in a command prompt by running either `sc delete <service_name>` or if you install the Windows Resource Toolkit -> `instsrv <service_name> remove`
3. Go to C:\WINDOWS\system32\drivers\etc and open the services file. Delete any entries that have HPArchiveQueryServer or OpenAccess or DataDirect in it.
4. Run the AQS_cleanup.bat script - AQS_cleanup.bat.

5. Open the registry editor. Search for the following keywords below and delete all of the folders, subfolders, and their keys containing them:
 - datadirect
 - openaccess
 - 8653CD1A
 - 8653CD1B
 - F20AF0AE7
 - 78FB64AFBF
 - FA46BF87-7CFB-4176-B5EE-FBA3221938B5
 - EA0FA02F-2D57-4C58-9AF7-2B126795FF75

Error running reinstallBF.groovy script

Symptom

The following error message appears when you run the reinstallBF.groovy script:

```
Missing property key <KEYNAME> in  
<obtpaTop>/foundation/components/config/bfDeployKey.properties
```

Cause

reinstallBF.groovy now validates the list of properties created with the create file option against <OBTPA_TOP>/foundation/components/config/bfDeployKey.properties.

This error message displays if a property key is not available in the list of properties in bfDeployKey.properties.

Resolution

Run the reinstallBF.groovy script after adding the property to the bfDeployKey.properties file:

1. Open <obtpaTop>/foundation/components/config/bfDeployKey.properties.
2. Extract the property name present in <KEYNAME> and add it to the file. If the property name has the environment name, or business flow or cartridge name in the prefix, remove the prefix and just include the property name.

For example, if the <KEYNAME> was Oracle_D2F.property.name, assuming Oracle_D2F is your environment name, you should add property.name to bfDeployKey.properties file as follows:

```
property.name=
```

3. Run the reinstallBF.groovy script.

Installation of 64-bit version on a 32-bit system begins without warning, then fails

Symptom

When you attempt to install the 64-bit version of HPE Structured Data Manager on a 32-bit system, the installation initially appears to proceed normally, but fails midway through the installation process. No warning message appears to the user.

Resolution

Install the correct version of HPE Structured Data Manager: the 32-bit version for 32-bit systems, or the 64-bit version for 64-bit systems.

Objects marked invalid by Oracle

Symptom

After you deploy your business flows on Oracle, some of the objects may be marked as invalid by Oracle.

Cause

The objects are not invalid but are marked as such due to a limitation of Oracle.

Resolution

To remove the invalid designation for the objects, you can run `obt_recompile_invalid_objects.sql` found in `<install_dir>/foundation/util/sql/oracle`.

OBTCO engine failed

Symptom

After using the History Schema Upgrade scripts to update the schemas of your archive data stores, you may see the following error when redeploying a cartridge:

```
OBTCO_ENGINE_FAILED
```

Resolution

Run all three of the following commands:

1. To update `OBTCO_JOB_PARAMS` run the following:
`set param_name = 'Creation Date High'`
2. To update `obtco_detail_params` run the following:
`set short_name = 'Creation Date High'`
`where short_name = 'Creation Date HIgh';`
3. To update `obtco_detail_params` run the following:
`set value = 'Creation Date High'`
`where value = 'Creation Date HIgh';`

The unusual capitalization of `HIgh` is correct for versions of Oracle previous to 11.5.10.2.

Upgrade that fails and cannot resume from the Web Console

Symptom

When an upgrade is run from the Web Console and fails before it is completed, the upgrade cannot be resumed with the Web Console.

Resolution

Perform the upgrade with the upgrade script, as described in the *HPE Structured Data Manager Upgrade Guide*.

Windows error 193 occurred while loading the Java VM

Symptom

While attempting to reinstall HPE Structured Data Manager, a Windows error message is returned (193).

Cause

This occurs when you use the wrong installer for your platform. For example, the software comes with a 32-bit and a 64-bit Windows installer. If you run the 64-bit installer on a 32-bit Windows, you will receive this error.

Resolution

Make sure that you have installed the correct installer for your Windows system.

Data masking errors

This section describes some of the common errors you may encounter and their resolution.

- [Custom mask deployment fails](#)
- [Data is not masked](#)
- [Names containing ? and ' must be aliased](#)
- [Unexpected results from skew by multiplication or percent mask](#)

Custom mask deployment fails

Symptom

Oracle JDBC cannot deploy custom masks if the function name contains the forward slash (/) character.

Cause

If your custom mask function name contains a forward slash (/), deployment will fail.

Resolution

Do not use the forward slash (/) character in your function name.

Data is not masked

Symptom

Some data will not be masked even though column is masked by the cartridge.

Cause

If your column contains any invalid data, such as invalid characters, the pre-built masks will not mask the value at all. For example, if you have a Social Security Number value that contains an invalid special character like the pound sign (#), none of that value will be masked in the archive.

Resolution

If invalid data is an issue in your data, you may wish to create a custom mask that includes logic for handling invalid data as you desire.

Deployment fails

Symptom

Deployment fails with errors such as the following:

```
Failure validating SQL Statement
```

```
NATIVE_MOVE_O2H.Datamaskingcart1.DataMasking.COPY_TRX_RANGE
```

```
with error: 206 -
```

```
Operand type clash: int is incompatible with uniqueidentifier
```

Cause

You chose a data mask for a column that does not match the data type of the column.

Resolution

In the cartridge, choose a mask of the appropriate type for the column and deploy your business flow again. See the *HPE Structured Data Manager Archive Developer's Guide* for more information about applying data masks.

Names containing ? and ' must be aliased

Symptom

Oracle JDBC cannot properly process names that contain question mark (?) or single quotes (').

Resolution

If a table, view, and/or synonym name contains these characters, the table, views, and/or synonym will need to be aliased with an object that does not contain these characters.

Unexpected results from skew by multiplication or percent mask

Symptom

Using SQL Server, the masked values for columns employing the skew by multiplication or percent mask seem to be incorrect.

Resolution

Only whole numbers are supported by SQL Server for the multiply and percent masks.

Deployment errors

You can deploy cartridges and business flows through the Web Console, Designer, or the command line.

- [Blocked UDP ports](#)
- [Cartridge already deployed](#)
- [Cartridge deployment error](#)
- [Cartridge log errors](#)
- [COPY_BY_SEL_DB_TO_FS fails for two table updatable view](#)
- [Deploy time failure](#)
- [Deployment of data access cartridge failing](#)
- [Error establishing connection for connection source](#)
- [Error starting the agent and/or Java service - port is already in use](#)
- [Job appears to hang in Sybase](#)
- [Not available because product has not been fully installed](#)
- [ORA-01450 maximum key length \(3218\) exceeded](#)
- [Port busy when trying to start Deployment Assistant](#)
- [Table or schema not found in source database](#)
- [Table does not exist](#)
- [Unexpected exception](#)
- [User index table creation failed with unique constraint exception](#)

Blocked UDP ports

Symptom

A UDP on port 1434 is blocked by a firewall with a connection to SQL server using an instance name.

Resolution

Reconnect to the database from a database tool with a URL that specifies the port, but not the instance name.

Cartridge already deployed

Symptom

When attempting to deploy a previously deployed advanced selection cartridge, the following error appeared in the Deployment Assistant:

```
This cartridge has already been deployed
```

Cause

The previous version of the cartridge has not been uninstalled.

Resolution

Install the new version of the cartridge.

Cartridge deployment error

Symptom

You received the following error in the obt.log while trying to deploy a cartridge or business flow:

```
ERROR : main : root : Cartridge deployment error  
java.lang.reflect.InvocationTargetException at  
com.hp.ilm.db.installer.ui.cartridge.BaseInstallCartridgeWizard$LongRunningOperatio  
n.run(BaseInstallCartridgeWizard.java:372) at  
org.eclipse.jface.operation.ModalContext$ModalContextThread.run  
(ModalContext.java:113) Caused by: java.lang.Exception: All cartridges and business  
flows failed to deploy
```

For Sybase, you may see the following error:

```
Error writing table mapping seed file
```

Cause

The deployment error can result from multiple causes:

- Names are too long. Check the length of names used in the model.
- Table has been dropped.
- InvocationTargetException is a general error reported by ant for any deployment errors. Examine the log file to find the exact error.
- The Sybase JDBC driver reports the maximum table name length as 30.

Resolution

- Resolve this error by performing one or more of the following procedures:
- If you redeploy a business flow or cartridge, but there is an unfinished job or failed job that corresponds to that business flow or cartridge, redeployment will fail. To resolve this, either recover the job until it succeeds or cancel the job before redeploying.

- Length of table name, column name, index name, constraint name is limited to 200 characters. Reduce the length of names used by your cartridge.
- Return to the model in Designer and look for red outlines indicating a missing table or view. Fix, regenerate, and redeploy.
- For Sybase, edit the following file:
`<install_dir>\obt\config\dbms\Adaptive_Server_Enterprise_15_7\Adaptive_Server_Enterprise_15_7.properties`
This file is created after you create an environment. Set `MAX_TABLE_NAME_LENGTH=200`.

Cartridge log errors

See Log files for individual cartridges for details on the cartridge logs.

COPY_BY_SEL_DB_TO_FS fails for two table updatable view

Database to database supports archiving updatable views related to a single table. Updatable views related to more than one table cannot be archived or reloaded.

Deploy time failure

Symptom

You receive the following error:

```
C:\apps\HPDBArchiving\obt\artifacts\MG1010A\businessflow\Requests_
BF\cartridge\oa\Requests\build.xml:684: The following error occurred while
executing this line:
```

```
C:\apps\HPDBArchiving\obt\artifacts\MG1010A\businessflow\Requests_
BF\cartridge\oa\Requests\build.xml:451: Failure validating SQL Statement OLTP_
SELECTION.Requests.KCRT_REQUESTS.INSERT_SELECTION_ANALYTICS with error:
```

```
942 - ORA-00942: table or view does not exist
```

```
Failure validating SQL Statement OLTP_SELECTION.Requests.KCRT_REQUESTS.INSERT_
SELECTION_NO_ANALYTICS with error: 942 - ORA-00942: table or view does not exist
```

Cause

A rule containing a subquery did not pre-fix table names with the appropriate schema reference.

Resolution

Ensure all database objects are correctly referenced in rules. To avoid hard-coding schema names in rules use symbolic schema names as described in the *HPE Structured Data Manager Developers Guide*.

Deployment of data access cartridge failing

Symptom

The deployment of a data access cartridge against a non-Oracle database fails with error `java.lang.IllegalStateException: Deployment failed:.`

Cause

For standard environments, HPE Structured Data Manager expects an archive cartridge will be run before the data access cartridge. Otherwise, you would not need a standard environment and could use a non-intrusive environment instead. For example, if you are using a data access cartridge only in conjunction with an indexing cartridge, you could use a non-intrusive environment, which would not cause this error.

Resolution

If you are archiving and need a standard environment, ensure that you run the archive cartridge before you run the data access cartridge. If you are not planning to run an archive job, then you should use a non-intrusive environment.

Error establishing connection for connection source

Symptom 1

You received the following error in the `obt.log` when using Deployment Assistant:

```
32: Error establishing connection for Connection Source 'OLTP_ADMIN' :  
java.sql.SQLException: ORA-01017: invalid username/password; logon denied.
```

Symptom 2

From the Deployment Assistant you see the following error in the `obt.log`:

```
Caused by: com.outerbay.foundation.services.dbms.ConnectionSourceNotFoundException:  
There is no connection source for HISTORY_DB  
  
at com.outerbay.foundation.services.dbms.SQLDBException.fillInStackTrace  
(SQLDBException.java:82)
```

Cause

If you have tried to run an install before, you might be running into some erroneous connection data left over from a previous install attempt.

Resolution

To clean up your environment

1. Delete the `connection-sources.xml` file in the `<obtpa_top>\config` directory (if it exists).
2. Drop the repository, interface, and build AA schemas (if any exist).

This should get rid of any lingering connection data and provide a clean slate for the next install.

Error starting the agent and/or Java service - port is already in use

Symptom

You might see is error in `<install_dir>/obt/sqlxml/server/loggin/*.log`. These are hidden logs. Looks for the latest agent and java service log.

Network problem, listener could not be started because port is already in use

Resolution

Although you can install AQS in different directories, you can run only one process at one port. So, start/stop the services at the desired port to resolve this issue. Alternately, you can install different AQS instances on different ports.

Job appears to hang in Sybase

Symptom

Job is taking a long time to conclude or appears stuck in the selection step.

Cause

This behavior sometimes occurs because the transaction log segment of the Sybase instance is full. The server log contains a warning to this effect.

Resolution

To clear the log segment, run the following command:

```
dump transaction <database_name> with no_log
```

The database that is full will be specified in the server log.

TIP: avoid this problem, you should consider adding more space to the log. You can also slow the pace at which the log segment fills up by setting `trunc log on chkpt` using the `s` command.

Not available because product has not been fully installed

Symptom

You receive the error:

Not available because product has not been fully installed.

Cause

The Deploy Locally radio button is only enabled when you are running Designer from the HPE Structured Data Manager instance where the repository has been installed. It does not look to see if there is an additional instance on the server.

Resolution

The way to tell if a repository was installed in an HPE Structured Data Manager instance is to look for the existence of the connection-sources.xml file in the home directory under config.

ORA-01450 maximum key length (3218) exceeded

Symptom

You receive a ORA-01450 maximum key length error.

```
ORA-02049 maximum key length (3218) exceeded
```

```
java.sql.SQLException: ORA-01450: maximum key length (3218) exceeded
```

Cause

This an Oracle limitation.

Resolution

Increase the database block size of the tablespace associated with the Repository Database User, for example obt_rep.

Port busy when trying to start Deployment Assistant

Symptom

You may receive an error that the port is in use when trying to open the Deployment Assistant.

```
ORA-12154: TNS:could not resolve the connect identifier specified
```

Cause

This may be the result of more than one listeners running on your machine. It can also result from another java program using the port you want to use.

Resolution

See the **Oracle Database Error Messages** manual for information on how to address this error.

- If there are multiple java programs running, open and check the Task Manager and carefully stop any java programs that are currently running. This should free up a port for your use.
- If more information is needed, try this command to see if xmlArchive is listed as a java program using a port:

```
lsnrctl services
```

Table or schema not found in source database

Symptom

You receive the error, "Table or schema not found in source database."

Cause

You used one database as the source database when installing the product and then used another database connection in Designer when creating the business flow.

Resolution

Ensure the project connection in Designer is pointing to the source database of the installed product.

Table does not exist

Symptom

You received the following error when deploying a 3-tier configuration cartridge or business flow with the deployment assistant.

Table does not exist.

Cause

A table was selected that does not exist.

Resolution

Resolve this error by performing one of the following procedures:

- Return to the Deployment Assistant and select a table that exists in the archive data store. This table cannot be a lookup table.
- Connect to the correct database.
- Complete the database to database install. The database to database install populates the archive data store with tables. The 3-tier configuration cannot be properly utilized until the database to database install is complete.
- Ensure you have deployed a database to database business flow with a database to database cartridge before trying to deploy a XML related business flow using the 3-tier configuration.

Unexpected exception

Symptom

You received the following error when trying to install a database to database cartridge.

```
Symptom: ERROR : main : root : Unexpected Exception : while executing Deployment  
Descriptor file: <install_  
dir>/obf/appspack/oracle/1a/modules/<NameOfCartridge>/metadata/<NameOfFile>.xml  
com.zerog.ia.api.pub.FatalInstallException
```

Resolution

To resolve the error

1. Uninstall any parts of the cartridge that did install.
2. Reinstall the cartridge.

User index table creation failed with unique constraint exception

Symptom

Cartridge deployment failed with SQLException: ORA-00001: unique constraint (OBT_REP_311.OBTPA_NAME_REGISTER_U1).

Resolution

Increase the page size and decrease the number of columns included in the user defined index.

Deployment fails

Symptom

Deployment fails with errors such as the following:

Failure validating SQL Statement

```
NATIVE_MOVE_O2H.Datamaskingcart1.DataMasking.COPY_TRX_RANGE
```

with error: 206 -

```
Operand type clash: int is incompatible with uniqueidentifier
```

Cause

You chose a data mask for a column that does not match the data type of the column.

Resolution

In the cartridge, choose a mask of the appropriate type for the column and deploy your business flow again.

See *HPE Structured Data Manager Developers Guide* for more information about applying data masks.

Runtime errors

Error messages when running business flows can appear in the Job Monitor or the log files.

For runtime errors involving advanced selection and partition-based delete, see [Advanced selection and partition-based delete errors](#).

- [Cannot fetch data from the repository](#)
- [Connectivity issues](#)
- [Could not find any column information for table](#)
- [Could not recover Group ID 10 because it is a child job](#)
- [Exception in task](#)
- [Failed to get business flow based on Job ID](#)

- Insufficient privileges
- Not responding
- Reload error: failure in XML deserialization
- Rollback segment error
- Job run failed error
- Exception executing Groovy script
- Requested conversion is not supported
- Remote call error from a mainframe database
- Preventing deadlocks while running database to database
- Job not recoverable immediately after failure
- Create Archive Access job fails on AIX
- Cannot create unique index
- Maximum index size of 600 on Sybase
- Snapshot qualifying OLTP-Table rows into archive
- Update rowcount summary
- Remote call error from a mainframe database
- Cannot retrieve driving table records
- No more lock classes available from transaction
- Failed retrieving from ACA (on-premises)
- COPY_BY_SEL_DB_TO_BE step failing
- Oracle table access error
- ORA-02049 timeout errors
- Assorted errors with cursor sharing in Oracle
- Reload error: out of memory
- Out of memory error (general)
- Out of memory error when moving data for SRMS
- Out of memory error when running a database to file upload job
- Cannot close file

Cannot fetch data from the repository

Symptom

After a business flow failed, the log file error is:

```
Cannot fetch data from the Repository.  
com.outerbay.foundation.businessobj.UnexpectedDbException: Failed to get Cycle  
Steps for the Cycle. ""
```

Resolution

Take appropriate steps to reconnect to the database. Database connections are discussed in detail in the *HPE Structured Data Manager Installation Guide*.

Connectivity issues

Symptom

You receive the following error when attempting to connect to the Console:

```
Error connecting to server <Server name> on port <Port> with message Connection refused: connect
```

Cause

The repository is not running due to an authentication failure. This occurs when an invalid userid or password was entered or you have not installed the base product.

Resolution

You need to check your connection properties and verify that you have a user configured. From the Deployment Assistant, setup your database and establish your password.

Could not find any column information for table

Symptom

You received the following error in the log file after a business flow failed.

```
[DataDirect][OpenAccess ODBC]Could not find any column information for table:<#Table Name#>
```

Cause

Associated tables can be seen in a collection, but cannot be queried.

Resolution

Change your query so it does not run against an associated table.

Could not recover Group ID 10 because it is a child job

Symptom

After a business flow failed, the log file error is:

```
Could not recover GroupID 10 because it is a child job. Recover its parent group instead; GroupID 8
```

Resolution

Run the recover job by specifying the correct GroupId at the parent level.

Exception in task

Symptom

You received the following error in the job monitor or obt.log when attempting to run a business flow:

```
WARN : Call archive data from database to filesystem thread 0 : root : Exception in Task
```

Cause

Various causes. For example, the problem may be due to a lack of space available, and you would need to allocate more space.

Resolution

If you are unable to resolve this issue, contact support. After resolving this issue, recover the failed job.

Failed to get business flow based on Job ID

Symptom

The following message may be seen in the Job Monitor when trying to find details on any particular business flow job or step.

```
Exception trying to display JobMonitor WorkBench.... Failed to get Job based on Job ID
```

Cause

An invalid job ID was entered.

Resolution

Check the Job Monitor for the correct Job ID and reenter.

Insufficient privileges

Symptom

You received the following error in the job monitor when attempting to run a business flow:

```
PDM merges new archive rows into history tables thread 0 : root : ORA-20004: ORA-01031: insufficient privileges
```

Resolution

You must add grants and restart the business flow.

To add grants and restart the business flow

1. Verify the error message in the log files
2. Add alter, delete, update, select, and insert grants in the desired table in the target (history) database to the correct user.

In this example:

- the database is demarc60
- the tables are hist.order_line and hist.order_line_dist
- the user is obt_reloc

```
grant alter, delete, update, select, insert on  
demarc60_hist.order_line to obt_reloc;
```

```
grant alter, delete, update, select, insert on  
demarc60_hist.order_line_dist to obt_reloc;
```

3. Restart the failed business flow. In this example the name of the job is PDM_ARCHIVE@OrderEntry_DBarch.

```
cd $OBTPA_TOP/bin
```

```
./launch_la_job.sh -j PDM_ARCHIVE@OrderEntry_DBarch \
```

```
Min_months_to_retain=2000.01.01 -r
```

Not responding

Symptom

In the Job Monitor, you see Not Responding in the status column.

Cause

Typically this happens when the database session (or the database instance itself) failed before the business flow was able to update its own status.

Resolution

Recover the failed job.

Reload error: failure in XML deserialization

Symptom

You received the following error in the job monitor or obt.log when attempting to run a reload business flow:

```
ERROR: Copy from filesystem to database -Failure in XML deserialization
```

Resolution

This error typically occurs when the model contains an error. Double check the model the business flow was based on and redeploy.

Rollback segment error

Symptom

You received the following error in the job monitor or obt.log when attempting to run a business flow:

rollback segment error

Cause

If you receive a rollback segment error when running business flows in Oracle, it could be that the BATCH_SIZE is set too high. When the BATCH_SIZE parameter is set too high, it can cause an internal buffer in Oracle to overflow, and the business flow fails.

Resolution

By default, the database to database deployment sets the BATCH_SIZE to 10000. If you have increased the BATCH_SIZE and receive an error, reduce the BATCH_SIZE.

Job run failed error

Symptom

You received the following error in the obt.log after a business flow failed.

Job run failed, there may be more information available in the Job Monitor

Resolution

Using Job Monitor, you can drill down to the Job Actions screen and the Tasks screen for further status detail.

1. Open the Web Console.
2. Click the Monitoring page.
3. On the Monitoring page, look for the Status column. If any row in the Status column says Failed or Cancelled, double click the row for details.

The **Job Runs > Actions** page appears.

4. Look in the table for numbers in the failed column. Double click any row with a number 1 in the failed column or more details.

The **Job Runs > Actions > Tasks** page appears.

5. Click the Message tab to see the error message.

Exception executing Groovy script

Symptom

After a business flow failed, the error in the log file is something like:

```
java.lang.IllegalStateException: Exception while executing a Groovy script
```

```
Caused by: groovy.lang.MissingMethodException: No signature of method: Script1.p_cutoff() is applicable for argument types: (null) values: {null}
```

Resolution

This specific error was caused by a missing underscore in the Groovy code. The parameter p_cutoff should have been written as p_cutoff_date. It can be prevented by always using the validate function of the Groovy screen. To view the error message, go to the run log.

Requested conversion is not supported

Symptom

For SQL Server, if you query on the ntext datatype through the Archive Query Server, you may receive the following error:

```
OLE DB provider "MSDASQL" for linked server "XML_ARCHIVE" returned message  
"Requested conversion is not supported."
```

```
Msg 7341, Level 16, State 2, Line 1
```

Resolution

Change your query so it does not use the ntext datatype.

Remote call error from a mainframe database

Symptom

Received remote call error when archiving data from a mainframe database:

```
ERROR: Write XSD file for ATT instance group files thread 0 : root : JBC0016E:  
Remote call failed
```

Resolution

Bounce the connectivity server.

Preventing deadlocks while running database to database

Symptom

While running a business flow the system appeared to stop, and no amount of clicking Refresh made any changes except in the timestamp.

Resolution

If you experience issues with deadlock, then use the following steps to resolve the issues:

1. Ensure that the following are complete before running business flows:
 - The system is configured to use only one worker at a time.
 - Only one business flow is running at a time.
 - There is no write activity on the tables when running business flows.
2. Cancel or recover the business flow.
3. Restart the database to database business flow.

Job not recoverable immediately after failure

Symptom

An attempt to recover a failed job is unsuccessful when attempted immediately after the job has failed.

Resolution

Wait at least 60 seconds between running a job and recovering it. After the lapse of 60 seconds, the job state should be “Not responding” and you can recover the job.

Less time may result in an error message saying another instance of the job is still running.

Create Archive Access job fails on AIX

Symptom

You received the following error when running the Create Archive Access job on AIX.

The parameter list is too long.

Resolution

To change the ARG/ENV parameter

1. Change the ARG/ENV list size in 4k byte blocks parameter to 20.
The default value of the parameter is 6.
2. Rerun the Create Archive Access job.

The ARG/ENV parameter can be changed by using the System Management Interface Tool (SMIT). For more information, see your AIX documentation.

Cannot create unique index

Symptom

You received one of the following errors in the log file after a business flow failed:

```
cannot CREATE UNIQUE INDEX; duplicate keys found
```

or,

```
Failure in action: UPD_ROWCOUNT_SUMMARY
```

Cause

An invalid transactional model was created, possibly by multiple usage tables having overlapping rows. This results in duplicates rows in the history and a unique constraint exception.

Resolution

Use advanced selection when you have a chaining table or table that has multiple uses with overlapping rows.

See the *HPE Structured Data Manager Developer's Guide* for details.

Maximum index size of 600 on Sybase

Symptom

You received the following error in the log file after a business flow failed:

```
600 is the maximum allowable size of an index. Composite index specified is xxx bytes
```

Cause

The Sybase table name is longer than 200.

Resolution

Shorten your table name to less than 200.

Snapshot qualifying OLTP-Table rows into archive

Symptom

You received one of the following errors in the obt.log after a business flow failed:

```
Snapshot qualifying OLTP-Table rows into Archive Selection Tables thread 0
```

```
Error executing sql statement:
```

Cause

You have used a column that not exist in the table.

Resolution

Make sure that any conditional relationship in the model refers to valid tables and columns. As an alternative, try replacing the conditional relationship with a rule.

Update rowcount summary

Symptom

After creating and running a cartridge, you received an error that your rowcounts do not match:

```
ERROR : Update rowcount summary for the run thread 0
```

or you may see an error similar to this:

```
ERROR : Update rowcount summary for the run thread 0 : root : Rowcounts for ARCHIVE_SELECTION@ELIGANANULL ( = 200) and Rowcounts for ARCHIVE_TRANSACTIONAL@ELIGANANULL ( = 0) do not match. To disable rowcount-check, set VERIFY_ROW_COUNTS configuration to false.
```

Cause

The table has an accidentally non-unique key. When the row checks were performed, an apparent mismatch is found.

Resolution

You must return to Designer and verify each unique key is unique. Open the model and right click on each table to view or change the Data Movement Key.

You can also open the Web Console administrator and set VERIFY_ROW_COUNTS to false as a short-term solution.

Remote call error from a mainframe database

Symptom

Received remote call error when archiving data from a mainframe database:

```
ERROR: Write XSD file for ATT instance group files thread 0 : root : JBC0016E:  
Remote call failed
```

Resolution

Bounce the connectivity server.

Cannot retrieve driving table records

Symptom

Data movement failed with the following error:

```
Cannot retrieve driving table records  
com.microsoft.sqlserver.jdbc.SQLServerException: Login failed for user 'obt_rep'.
```

Cause

You created a view of a remote table as the user obt_rep, and then created a cartridge using the view of the remote table as the driving table. However, the user obt_rep does not have the permissions needed to access the REMOTE_INV database on the remote server. The error in data movement is caused by this lack of permissions into the remote server.

Resolution

To allow the obt_rep user to have access to the view of the remote table, log in to the history server and the REMOTE_INV database. From here you can add obt_rep as either:

- aliased to dbo
- or
- a user, then grant the obt_rep user select, insert, update, delete privileges on REMOTE_ORD.

No more lock classes available from transaction

Symptom

You received the following error in the obt.log after a Database to XML business flow failed:

```
ERROR: Validate data unchanged since archival thread 0 : root : Cannot execute main  
query com.microsoft.sqlserver.jdbc.SQLServerException: No more lock classes  
available from transaction.
```

Cause

The configuration parameter Combined Statement Count is set to permit too many database statements to be combined in a single query.

Resolution

1. Open the Administrator.
2. Go to the **Performance** tab.
3. Reduce the number for Combined Statement Count.**
4. Change the default value of 50 to 20.
5. Save and close.
6. Rerun the business flow.

Failed retrieving from ACA (on-premises)

Symptom

A job that uses ACA's distributed connector to retrieve data from an ACA (on-premises) location—for instance, a relocation or copy-archive job—fails and is aborted. An error message similar to the following appears on the Web Console monitoring page and in the log file:

```
Failed to download file from ACA...
```

In addition, this error response may appear in the received XML file:

```
<?xml version='1.0' encoding='UTF-8' ?>  
<autnresponse xmlns:autn='http://schemas.autonomy.com/aci/'><action>VIEW</action>  
<response>ERROR</response><responsedata>  
<error>  
<errorid>DISTRIBUTED_CONNECTORVIEW-2147483377</errorid>  
<rawerrorid>0x8000010F</rawerrorid>  
<errorstring>Invalid response from connector</errorstring>  
<errorcode>ERROR</errorcode>  
<errortime>14 May 12 14:59:36</errortime>  
</error>  
</responsedata></autnresponse>
```

Cause

Due to a limitation on ACA's distributed connector service, HTTP communications between HPE Structured Data Manager and ACA may fail with files greater than 500 MB.

Resolution

Although HPE normally recommends using ACA's distributed connector service for the ACA (on-premises) location, when a job fails with the above error response, HPE recommends configuring ACA to communicate through an individual connector.

In such situations, you must provide the ACA connector hostname and select an available port when you configure the location in the Web Console before running the job.

The default value of the ACI port for an individual connector is 18000. For more information, see the Web Console help system.

NOTE: Another way to address this problem is to allocate more memory on the machine where ACA's distributed connector service is running. Contact your ACA administrator to get more details on the ACA server-side configuration.

COPY_BY_SEL_DB_TO_BE step failing

Symptom

The COPY_BY_SEL_DB_TO_BE step fails during a data movement job.

Cause

HPE Structured Data Manager checks for SQL warnings when fetching data and fails if the database raises a warning that it cannot deliver the data. This condition occurs in very few databases.

Resolution

The default setting of HPE Structured Data Manager is to fail when the database raises warnings during fetch, but you can change the setting to ignore such warnings in `<install_dir>\obt\config\outerbay.properties`:

```
datamovememnt.failOnFetchWarnings=false
```

Oracle table access error

Symptom

Running a cartridge, you get an Oracle error that the table is not accessible.

Cause

A cartridge with multiple table uses and an append parallel hint is run with parallel DML enabled.

Resolution

None, because it is a limitation of the database. Contact HPE Support for the most recent information on this issue.

ORA-02049 timeout errors

Symptom

You received a ORA-02049 timeout error while running business flows.

ORA-02049 timeout error

Resolution

Reduce the Number of Parallel Workers parameter. Options are from 4 to 32.

Using too many workers can cause ORA-02049 timeout errors.

Assorted errors with cursor sharing in Oracle

Symptom

When cursor sharing is configured as `cursor_sharing=FORCE`, and there are bind variables with indicators and literals to be replaced, assorted errors may occur. These can include unexpected results, unexplainable errors, or wrong results due to values in binds being swapped. The problem is usually seen in RMAN or the OCI/Precompiler application.

Resolution

Configure cursor sharing as `cursor_sharing=EXACT` with Oracle databases.

Reload error: out of memory

Symptom

Reload to database fails when the dataset is larger than 250GB.

Resolution

When reloading a large amount of data to the database, configure the data movement batch size parameter in the web console to be 10K or less, and use a machine with at least 8GB of RAM. If more RAM is available, a larger data movement batch size can be used. If tables contain a large number of columns or a large amount of data, more RAM may be required.

Out of memory error (general)

Symptom

You received one of the following error messages in the log file after a failed business flow.

One of the following error messages are displayed:

```
WARN : Call archive data from database to filesystem thread 0 : root : Exception in  
Task java.lang.OutOfMemoryError: Java heap space
```

```
java.lang.OutOfMemoryError: Java heap space js: exception from uncaught JavaScript  
throw: java.lang.OutOfMemoryError: Java heap space
```

Resolution

If any business flow stops with an out of memory error, set the `OBT_JAVA_VM_OPTIONS` environment variable to increase the JVM heap size. The increased heap size setting is also useful when archiving CLOBs over 5 megabytes in size.

To set the environment variable for business flows run from the command line

1. Set the OBT_JAVA_VM_OPTIONS environment variable for the UNIX session.

For example:

```
setenv OBT_JAVA_VM_OPTIONS "-Xms64M -Xmx512M"
```

Or, you can increase the memory available to java up to 1Gb.

```
setenv OBT_JAVA_VM_OPTIONS -Xmx1024m
```

Out of memory error when moving data for SRMS

Symptom

Business flow fails when moving more than 200GB of data for SRMS, with an error in the log file like the following:

```
java.lang.OutOfMemoryError: Java heap space at java.util.HashMap.
```

Resolution

When a job involves moving (and deleting from the source database) a large amount of data for SRMS, configure the data movement batch size parameter in the Web Console to be 10K or less, and use a machine with at least 8GB of RAM.

Out of memory error when running a database to file upload job

Symptom

If the data from a database to file archive job is subsequently uploaded to another database, that is, a database to file upload job is run, the following error can appear in the obt.log if the business flow fails:

```
java.lang.OutOfMemoryError: Java heap space
```

This change applies to upload jobs (from CSV and XML) and reload jobs from CSV. The change is not applicable to reload jobs from XML.

Cause

Heap space required to hold the java objects for the number of rows to be uploaded has exceeded the available heap.

Resolution

Reduce the number of rows of data to be held in memory before batch inserting them into the database. The default setting is 1,000 rows.

1. Open the following configuration file in a text editor:
`<installation>\obt\config\outerbay.properties`
2. Find the following line:
`upload.batch.size=1000`
3. Reduce the batch size value as needed.

Cannot close file

Symptom

You receive an error message during the archive process indicating that a specific file cannot be closed:

```
Cannot close file <filename>.
```

Cause

The archive process attempted to replicate the file on a remote server, such as ACA, and, during this process, encountered an error.

Resolution

Review the job's log file to determine the remote server error condition and correct it according to that remote server's procedures. After correcting the problem on the remote server, recover the failed job.

Archive Query Server errors

Error messages when running the Archive Query Server appear in the AQS logs and the log files.

- [Installer fails to install AQS](#)
- [Command line installation fails](#)
- [Query image disk cache error](#)
- [Rounding issue](#)
- [Multibyte character set issue](#)
- [Core dumps after running same query](#)
- [Unquoted question mark in create collection causes error](#)
- [Unable to find table](#)
- [The Cast\(\) function truncates timestamp](#)
- [Column \[Corrupted Tablename\] not found](#)
- [Column: <first char> not found](#)
- [Unable to access collection with 32-bit Microsoft Excel](#)
- [Data parameters not working](#)
- [Column reports embedded Null](#)
- [Login slowing down](#)
- [Joins running slowly](#)
- [Trailing spaces should be ignored](#)
- [AQS process not running](#)
- [System cannot find batch label](#)
- [oaserver -help does not display server name](#)

- [Unable to retrieve message](#)
- [AQS: FileNotFoundException](#)

Installer fails to install AQS

Symptom

AQS installation from the Installer fails.

Cause

Review the `oaserver.log` to determine the cause of the failure.

Resolution

Based on what you found in the log file, try to reinstall AQS. You may need to install from the command line instead.

Command line installation fails

Symptom

AQS installation from the command line fails on a Windows 64-bit system.

Cause

- This issue could be caused by any one of the following:
- The PATH variable contains parentheses.
- You did not have administrative privileges on the directories where you attempted to install AQS.
- User Access Control (UAC) was on and you did not run the installation with administrator privileges.

Resolution

1. Review the `oainstall.log` to see what went wrong.
2. Temporarily modify your PATH variable to remove the parentheses-containing path. After AQS installation completes, you can restore the PATH variable to its original state.
3. Ensure that you have administrative privileges on the directories where you are trying to install AQS, for example, Program Files.
4. Turn off UAC, or run the installation from a command shell with the Run as administrator option (**Start > All Programs > Accessories**, right-click on **Command Prompt**, and select Run as administrator).

Query image disk cache error

Symptom

The following queries resulted in the error

```
"Disk cache error. Field length:6506110 exceeds maximum limit of 65535:"
```

```
Query 1: select image_type from CASES
```


Query 2: select varcharmax_type, varbinarymax_type, image_type, text_type, ntext_type, xml_type
from PARAMS_TABLE

Resolution

You need to include the image column in the selection.

Rounding issue

Symptom

Occasionally, you may encounter rounding issues, for example, archive data with a float value having 16 significant digits will get rounded, or if you use too many decimal points or date ranges.

Resolution

You will need to use a different connection: oaisql-odbc to view the data.

Multibyte character set issue

Symptom

When multibyte Unicode data is stored in a single byte data type, you will receive an error when selecting the data.

Cause

For example, a Japanese platform generates an archive with multibyte Japanese characters stored in a varchar2 type field.

Resolution

You will need to set the following:

```
!set option type varchar2=WVARCHAR;
```

```
!set option type CHAR=WCHAR;
```

```
!set option type VARCHAR=WVARCHAR;
```

Core dumps after running same query

Symptom

Archive Query Server will core dump if you run queries using the same information multiple times in a row.

Cause

This occurs on HPE Itanium if you run the same query multiple times.

Resolution

To work around this issue:

1. Start the HPArchiveQueyServer (<installed-location>/obt/bin/oaserver.sh -start).
2. Start the oacla (<installed-location>/obt/bin/oacla.sh).
3. In the oacla program type the following commands.
 - oacla>aoc
Configuration file:<installed-location>/obt/sqlxml/server/cfg/oadm.ini
 - oacla>saa
Service Name:HPArchiveQueyServer
Attribute name:ServiceJVMOptions
Newvalue:-XX:+PreferInterpreterNativeStubs
 - oacla>exit
4. Stop HPArchiveQueyServer(<installed-location>/obt/bin/oaserver.sh -stop).
5. Restart the HPArchiveQueyServer and connect to this server using any client (oaisql) and run the queries.

Unquoted question mark in create collection causes error

Symptom

If you do not use single quotes for syntax that contain question marks, you will receive an error. The example below represents incorrect syntax:

```
create collection <collection_name> using pattern C:\downloads\abc\*group_?.xm*;
```

Cause

You will receive this error if the syntax contains a question mark (?) AND either uses no quotes OR uses double quotes (").

Solution

Use single quotes in the syntax, for example:

```
!create collection <collection_name> using pattern 'C:\downloads\abc\*group_?.xm*';
```

Unable to find table

Symptom

The following error appears when using the create range index query.

```
Error Message = [DataDirect][ODBC OpenAccess SDK driver][OpenAccess SDK SQL Engine]Unable to find table <table_name> in table list.
```

Resolution

Use the following syntax for creating a range index:

```
create range index <idx_name> on <table_name>(<column_list>);
```

The Cast() function truncates timestamp

Symptom

When you query a timestamp column in AQS using the cast function, the timestamp is truncated. In Oracle, the timestamp is not truncated when using cast.

Cause

The cast function truncates timestamp values less than 1 millisecond.

Resolution

Replace the cast function with the oracleTS function.

Column [Corrupted Tablename] not found

Symptom

A dialog box with the following error appeared when attempting to use the Query Wizard.

```
"Column[corrupted tablename] not found.[0]"
```

Cause

With object names that contain punctuation character(s), Excel is not putting the object name within quotes. This is causing the SQL statement to be misinterpreted and query fails.

Resolution

When writing the query:

- Place the object name containing the punctuation character in quotes.
- Ensure a semicolon (;) is the last character in the query.

Column: <first char> not found

Symptom

A dialog box with the following error appeared when attempting to query with Excel.

```
Column: <first char> not found.
```

Cause

Excel errors with special characters in the xmlArchive if an object name contains special characters or punctuation marks.

Resolution

When writing the query:

- Place the object name containing the punctuation character in quotes.
- Ensure a semicolon (;) is the last character in the query.

Example

The following example query illustrates how you must quote table and column names:

```
SELECT "ORDER_HEADER"."ORDER&ID", "ORDER_HEADER"."DEPTNO+1"  
FROM "XMLARCHIVE"."ORDER_OA"."ORDER_HEADER" "ORDER_HEADER";
```

Unable to access collection with 32-bit Microsoft Excel

Symptom

You attempt to view the data in an AQS collection with a 32-bit version of Microsoft Excel is unable to see the AQS data source. Versions of Microsoft Excel prior to Excel 2010 are 32-bit; Excel 2010 exists in both 32-bit and 64-bit versions.

Example

The problem occurs when the following steps are performed:

1. Open a 32-bit version of Microsoft Excel 2010.
2. **Select Data > From Other Sources > From Microsoft Query** in order to choose your data source.
3. AQS does not appear in the list of available data sources.

Cause

The AQS client installed with HPE Structured Data Manager includes a 64-bit driver but not a 32-bit driver. But 32-bit versions of Microsoft Excel can only make connections to data sources through 32-bit drivers.

Resolution

Obtain the 32-bit AQS client from HPE technical support, or install a 64-bit version of Microsoft Excel 2010.

Data parameters not working

Symptom

You run a data access cartridge against your source database with a date parameter and it works fine. You run the same cartridge against the archived data in AQS and it returns nothing.

Cause

Data access cartridges with date parameters do not work with schema mapping.

Resolution

Force the compare to be a date compare by using the cast function, for example, `select * from demarc.order_header where cast(orderdate as date) between '2008-04-01' and '2008-04-30'`.

Column reports embedded Null

Symptom

You receive an error indicating that a column has embedded null characters.

Cause

Column contains embedded nulls.

Resolution

Tell AQS to ignore the nulls or convert them to some other character. See the *HPE Structured Data Manager Runtime Guide* for more information on the ignorenull option.

Login slowing down

Symptom

Login takes progressively longer.

Cause

AQS reads the entire database hierarchy for each login to ensure it has the latest information. As the complexity of the database structure grows, logging in can take more time.

Resolution

To decrease login time, you can consider breaking up projects into separate databases. Since a user logs into a specific database, breaking the project into smaller databases keeps complexity and login time to a minimum.

Joins running slowly

Symptom

Joins are running more slowly than expected.

Cause

When running AQS queries, tables are scanned in the same order in which they appear in the FROM clause. In some cases, it may not be the optimal order for query performance.

Resolution

Reorder the tables in your FROM clause such that tables with indexed filter conditions are listed earlier in the clause.

Trailing spaces should be ignored

Symptom

You expect AQS to ignore trailing spaces.

Cause

By default, AQS does not ignore trailing spaces.

Resolution

Run set option ignoreTrailingSpaces true as an administrator.

AQS process not running

Symptom

AQS says it started, but the process is not running or will not start.

Cause

Usually indicates a problem in the way AQS was started.

Resolution

- On Windows, make sure you started the service as a user in the administrator group. Consider turning off UAC.
- Check the logs in <install_dir>\obt\log for error messages. If you find those logs empty, check <install_dir>\sqlxml\server\logging for more details.

System cannot find batch label

Symptom

When running the oaserver database command, you receive the following error:

```
The system cannot find the batch label specified - listdb
```

Cause

The command is missing the - in front of database.

Resolution

Run oaserver -database.

oaserver -help does not display server name

Symptom

You run oaserver -help, but the first line is not the server name.

Resolution

Run oaserver -status to see the server name. The default server name is HPArchiveQueryServer, but you can change the server name using the <install_dir>\obt\sqlxml\config\server_name file.

Unable to retrieve message

Symptom

When connecting to AQS, you receive the following error message:

```
WARNING HY000: [Hewlett-Packard, Co.][AQS JDBC Driver][OpenAccess]Unable to retrieve warning message from OpenAccess SDK IP layer.
```

Cause

This problem is a known issue with the JDBC driver.

Resolution

You can safely ignore this error message. It does not affect AQS functionality.

AQS: FileNotFoundException

Symptom

AQS generates a FileNotFoundException for obt.log:

```
java.io.FileNotFoundException: C:\720\HPOBT\log\obt.log (Access is denied)
```

Cause

HPOBT directory does not have write permission for SYSTEM, administrators, and users.

Resolution

Ensure that SYSTEM, administrators, and users have write permission on the HPOBT directory.

Advanced selection and partition-based delete errors

Error messages involving advanced selection and partition-based delete can appear in obt.log.

NOTE:

You can also check the trace files in udump logs for all Oracle-based data movement methods. Udump contains trace files that relate to specific user Oracle processes and Combined log file (obt.log) as necessary.

- [Business flow using Advanced Selection cannot be recovered](#)
- [Database to file job fails during delete process](#)
- [Deadlock during delete](#)
- [Integrity constraint \(<FK Name>\)](#)
- [Missing expression when rule parameter is left Null](#)

Business flow using Advanced Selection cannot be recovered

Symptom

The following error is received upon attempting to resume processing of a business flow that uses advanced selection and either fails or is killed during the “PDM propagates selection from driving table” action or a later action:

```
ORA-00001: unique constraint error
```

Cause

A business flow that fails at this point cannot be recovered. The error will reference a unique index beginning with NODE. The failed or killed job must be cancelled and resubmitted. If you attempt to recover the job instead of cancelling, it will result in a `ORA-00001: unique constraint error`. The error will reference a unique index beginning with NODE. The job must be cancelled and resubmitted, even after recovery is attempted.

NOTE: If the business flow fails or is killed in a step on or before the “PDM makes selections in driving table” action, then it can be recovered after the cause of the failure has been corrected.

Resolution

Cancel the job and resubmit it.

Database to file job fails during delete process

Symptom

A database to file job involving advanced selection fails during delete and cannot be resolved by recovering the job.

Cause

An unexpected error during the delete stage of an archive job that uses advanced selection which results in a job failure and also causes the recovery job to fail also.

Resolution

Advanced selection needs the original set of data in order to guarantee all related data is successfully archived. If a database to file job involves advanced selection and if that job fails during delete there is a high risk upon re-running the same job that advanced selection will not be able to identify the complete set of data that should be archived because certain data has been deleted which may be required by advanced selection to identify all related data.

Deadlock during delete

Symptom

When performing a batch delete based on non-indexed columns, the job hangs due to deadlock, possibly generating the following error:

```
ORA-00060: deadlock detected while waiting for resource
```

Cause

The distributed update operation failed; rollback required.

Resolution

Identify missing indexes and then create them on all foreign keys for tables in the model and disable foreign keys that do not have indexes.

TIP:
You can use the following script to identify missing indexes.

```
column columns format a20 word_wrapped
column table_name format a30 word_wrapped
select decode( b.table_name, NULL, '****', 'ok' ) Status,
a.table_name, a.columns, b.columns
from
( select substr(a.table_name,1,30) table_name,
substr(a.constraint_name,1,30) constraint_name,
max(decode(position, 1, substr(column_name,1,30),NULL)) ||
max(decode(position, 2, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position, 3, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position, 4, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position, 5, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position, 6, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position, 7, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position, 8, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position, 9, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position,10, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position,11, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position,12, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position,13, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position,14, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position,15, ' ' || substr(column_name,1,30),NULL)) ||
max(decode(position,16, ' ' || substr(column_name,1,30),NULL)) columns
from user_cons_columns a, user_constraints b
where a.constraint_name = b.constraint_name
and b.constraint_type = 'R'
group by substr(a.table_name,1,30), substr(a.constraint_name,1,30) ) a,
( select substr(table_name,1,30) table_name, substr(index_name,1,30) index_name,
max(decode(column_position, 1, substr(column_name,1,30),NULL)) ||
max(decode(column_position, 2, ' ' || substr(column_name,1,30),NULL)) ||
```

```
max(decode(column_position, 3, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position, 4, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position, 5, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position, 6, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position, 7, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position, 8, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position, 9, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position,10, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position,11, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position,12, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position,13, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position,14, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position,15, ' ' || substr(column_name,1,30),NULL)) ||  
max(decode(column_position,16, ' ' || substr(column_name,1,30),NULL)) columns  
from user_ind_columns  
group by substr(table_name,1,30), substr(index_name,1,30) ) b  
where a.table_name = b.table_name (+)  
and b.columns (+) like a.columns || '%'  
/
```

Integrity constraint (<FK Name<)

Symptom

When trying to archive data using a model with multiple instances of the same chaining table, the delete failed and you saw the following error:

```
ORA-02292: integrity constraint (<ForeignKeyName>) violated - child record found
```

Cause

This error may be the result of using two instances of the same chaining table or using a view of the same table as a chaining table. For example, you might have a model that contains a table CUSTOMER as a chaining table to the table ORDER_LINE and a view of that same table, CUSTOMER_V, as a chaining table to another table, ORDER_HEADER. This error is more common with models using advanced selection or database to XML.

Resolution

If possible remove all duplicate chaining tables. If this is not possible, you must change the second chaining table to a view and add the view as a lookup table in the model.

Missing expression when rule parameter is left Null

Symptom

You received the following error when trying to run an advanced selection and partition-based delete business flow.

Symptom: ORA-00936: missing expression when policy parameter is left NULL

Cause

The parameter was left empty when using PDM_DTAB_SELECTION.

Resolution

Rerun the business flow with values for all three parameters.

Database to file errors

Error messages encountered with database to file (D2F).

- [Cannot recover XAM-Centera job](#)
- [Copy to Amazon S3 fails](#)
- [ORA 01031: Insufficient privileges](#)
- [Runtime errors for database to file](#)
- [Database to file fails when remapping key column names](#)
- [Arithmetic overflow error occurs when converting numeric to data type numeric](#)
- [Mapping and timestamp issue when uploading from Oracle to SQL Server](#)
- [MBCS unsupported environment names, on page 86](#)
- [Centera XAM cannot open a PEA file](#)
- [Orphaned rows](#)
- [Deadlock during delete from Oracle](#)
- [Business flow fails in file format conversion](#)

Cannot recover XAM-Centera job

Symptom

Cannot recover a database to file copy from File System to XAM-Centera job and a D2F copy from XAM-Centera to File System job

Resolution

Cancel the failed job, then launch new job run.

Copy to Amazon S3 fails

Symptom

When copying to an Amazon S3 location, the job fails.

Cause

Amazon S3 was not accessible.

Resolution

In the Web Console, go to **Business Flow Management > Parameters > Database to File > Amazon S3**. Increase the Maximum number of read attempts from 3 to 10.

ORA 01031: Insufficient privileges

Symptom

You deploy a two-tier database to file advanced archive cartridge with the database to file archadmin user and it fails with `java.sql.SQLException, ORA-01031: insufficeient privileges`.

Resolution

Deploy a database to file two-tier business flow with database to database `obt_source_admin_user_pdm_bf.sql`. Since the `obt_source_admin_user_d2f_bf.sql` is missing, you have to alter any procedure grant.

Runtime errors for database to file

Symptom

Runtime errors.

Cause

You will receive runtime errors if you:

- Validate a column that is excluded
- Index a column that is excluded
- Index a LOB column

Resolution

Do not validate a column that is excluded, index a column that is excluded, and index a LOB column.

Database to file fails when remapping key column names

Symptom

The database to file upload mapping file can map column names that differ from source to target table. This works for all columns except the unique index columns names.

Resolution

The schema for Oracle is just the user name, for example: DEMARC, INV, GL.

The schema for SQL Server is just the DB.schema name, for example: DEMARC.dbo, AdvWorks.Sales.

Mapping files:

- extract_schema=upload_schema
- extract_schema.object_name=upload_schema.object_name
- extract_schema.object_name.col_name=upload_schema.object_name.col_name
- extract_schema.object_name.col_name.col_type=upload_schema.object_name.col_name.col_type

Arithmetic overflow error occurs when converting numeric to data type numeric

Symptom

You receive the overflow error converting numeric to data type numeric.

Cause

This error occurs when uploading from Oracle to SQL Server if the data from Oracle has a higher precision than what the SQL Server can support.

Resolution

Do the following:

1. Cancel the upload.
2. Run the Copy ARCHIVE to new temporary location.
3. Edit the data files to reduce the precision.
4. Perform upload on edited files.

Mapping and timestamp issue when uploading from Oracle to SQL Server

Symptom

When uploading from Oracle to SQL Server, incorrect mapping and timestamp occurs in Oracle and effects binary in SQL Server.

Cause

The create table process uses the wrong mapping/timestamp in Oracle to binary in SQL Server or other datatypes.

Solution

To resolve this issue, cut and paste the create table statement from the log file and fix the datatype, then recover the upload.

MBCS unsupported environment names

Symptom

Version 6.2 does not support MBCS environment names.

Centera XAM cannot open a PEA file

Symptom

Centera XAM does not support spaces in path to PEA file.

Cause

A space in the path location.

Resolution

Change the path so that it does not have space or set the environment variable CENTERA_PEA_LOCATION to your path, for example:

```
set CENTERA_PEA_LOCATION="C:\PEA Files\xamconnect.pea"
```

You can add this line in `webConsole.bat` and then restart the Web Console.

Orphaned rows

Symptom

Orphaned rows or a failure to delete detail rows in D2F.

Cause

The validation steps miss the additional detail records.

Resolution

You must manually clean-up these files.

Deadlock during delete from Oracle

Symptom

While running database to file jobs, you may run into a deadlock issue when deleting records from the source database. This issue is usually specific to Oracle but may apply to other databases as well. You may receive the following or a similar error:

```
ORA-00060: deadlock detected while waiting for resource
```

Cause

- The initrans parameter for the table is too small.
- The delete operation is based on unindexed columns.

Resolution

- Increase the value of the initrans parameter for the table. Alter the table:
`table_name INITRANS N;`
where N should be more than 1. Value of 4 or 5 would normally suffice.
- Index the key columns of the table.

Business flow fails in file format conversion

Symptom

When running a database to file business flow, it fails with an error similar to the following:

```
ERROR: File format conversion thread 0:
```

```
root: Failed to execute depth first traversal adapter
```

Cause

Eligibility analytics are enabled and the batch size is too small.

Resolution

- Run eligibility analytics separately from the archiving job. Do not run archive when eligibility analytics are enabled.
- Increase the batch size such that all ranges have at least one eligible row.

Upload errors

The following are some common challenges you may encounter while uploading.

- [ORA-1460 error unimplemented or unreasonable conversion requested](#)
- [XML reload or upload may run out of memory](#)
- [Cannot upload all datatypes from Sybase to SQL Server](#)
- [Upload from SQL Server to Oracle \(table with special characters\) does not upload any data](#)
- [Upload to Vertica fails](#)
- [Not able to set length for CLOB and BLOB columns on DB2 during upload](#)
- [Upload from mainframe to DB2 fails for real column type , on page 89](#)
- [Upload from SQL to MYSQL fails](#)
- [Upload fails with drop indexes in destination tables](#)
- [Upload hangs with an out of memory error](#)
- [Truncation of data upon upload](#)
- [Upload fails](#)

- [Error with database to file upload or reload](#)
- [Upload cannot get type from mapping file](#)

ORA-1460 error unimplemented or unreasonable conversion requested

Symptom

You receive the following error:

```
ORA-1460 error "unimplemented or unreasonable conversion requested"
```

Cause

When running with Oracle Database 9.2.x under AL32UF8 character set on Linux, Database to XML upload jobs may fail if a target column is CHAR and there is a large amount of data (more than 1000 characters) to load. Oracle bug 4619165 refers to this issue.

Resolution

It is fixed in Oracle version 10.1.0.4 or later.

XML reload or upload may run out of memory

Symptom

XML reload or upload has the potential of running out of memory.

Resolution

First convert the XML files into CSV and then reload or upload the CSV file.

Cannot upload all datatypes from Sybase to SQL Server

Symptom

When uploading a table from Sybase to SQL Server with no mapping file, all datatypes will not upload from Sybase to SQL server.

Resolution

Create a table and use a mapping file.

Upload from SQL Server to Oracle (table with special characters) does not upload any data

Symptom

When creating a simple model and cartridge and upload to Oracle, the job completes but does not upload any data.

Resolution

Mapping file for upload now allows . (dot) in the mapped name. The following rules apply:

- If the mapped name contains . (dot) then it should be enclosed in the double quotes.
For example, if the mapped name is new.Customer, use "new.Customer"
- If the mapped name contains ", then double quotes should be doubled.
For example, if mapped name is new."Customer use "new.""Customer" in the mapping file.

Upload to Vertica fails

Symptom

You receive the following error message when running a job that uploads archived data to Vertica:

```
<table_name>: Cannot update a table without a unique key.
```

Cause

When running the same job to Vertica multiple times and inserting or modifying rows in existing tables, you need a data movement key for each table. Otherwise, only the first run will succeed and all of the subsequent runs will fail.

Resolution

In most cases, HPE Structured Data Manager can automatically select a unique key to use as the data movement key. In cases where it cannot, you may have to manually select one.

For more information about data movement keys, see the *HPE Structured Data Manager Developers Guide*.

Not able to set length for CLOB and BLOB columns on DB2 during upload

Symptom

DB2 allocates 1MB as the default size for CLOB and BLOB columns when the table is created. If you try to upload an image column for example, of a size more than 1MB to DB2, it will fail.

Resolution

The CLOB, BLOB, and DBCLOB lengths are now exposed through the DBMSDataTypes.

Upload from mainframe to DB2 fails for real column type

Symptom

The upload fails when using FLOAT column from mainframes and also when the mainframe environment is created as DB2 type.

Resolution

To resolve this, the mainframe environment should be created as Generic JDBC (ANSI) type. This makes the upload heterogeneous.

Upload from SQL to MYSQL fails

Symptom

When uploading from SQL Server to MYSQL, the upload fails during the running of the action “convert XML data to CSV format.”

Resolution

If you receive this error, you need to use lower case table names in the mapping file and the job.

Upload fails with drop indexes in destination tables

Symptom

You receive a MySQLSyntaxErrorException when uploading; run any database to file archive business flow from a MySQL database, then upload it to a different MySQL database than the MySQL source database currently being used.

Resolution

If you receive this error, you need to manually run the drop query.

Upload hangs with an out of memory error

Symptom

Database to file for a non-intrusive environment fails at upload job.

Resolution

Fix this by setting:

```
VARIABLE_LOB=true
```

in file obt\config\dbms\MySQL_5_5\MySQL_5_5.properties.

Truncation of data upon upload

Symptom

Upload may truncate data for some of the RDMS if the datatype max size is set smaller than source data.

Resolution

Use a mapping file to create the upload tables.

Upload fails

Symptom

When uploading to a SQL Server database from an Oracle-based archive file (XML or CSV), the upload fails.

Cause

When a numeric column has default precision and scale settings, then there is the risk that during upload into a heterogeneous database, the default settings for precision and scale will be more restrictive and this will cause upload to fail.

Solution

To avoid potential problems with upload with precision errors with numeric data, the recommended solution is to explicitly set precision and scale settings where appropriate.

Error with database to file upload or reload

Symptom

When running upload or reload on Oracle 9i getting error; ORA-01461: can bind a LONG value only for insert into a LONG column.

Cause

You have a column with a very large varchar field defined and you are uploading data to that column close to its capacity. This is a known bug in the Oracle JDBC driver.

Resolution

Turn on the Oracle connection property `oracle.jdbc.RetainV9LongBindBehavior` by following the instructions in the `outerbay.properties` file.

Upload cannot get type from mapping file

Symptom

When trying to upload, you receive a message that a type, such as `dest-DataType`, could not be gotten from the mapping file.

Cause

You may be trying to upload to a database type (Oracle or SQL Server) to which you have not previously connected. When you connect to a database, HPE Structured Data Manager sets up database mapping files in `<install_dir>\obt\config\dbms` for the type of database to which you are connecting. If you have not previously connected and attempted to perform an upload, the mapping file is not present for that database and you receive errors about mappings not found.

Resolution

Copy the files from another instance of HPE Structured Data Manager, or connect to the database and it will generate the mapping files in `<install_dir>\obt\config\dbms`.

Database to database errors

Error messages encountered with database to database archiving.

- [Functions and procedures not cloned for DB2](#)
- [Reload to SQL Server fails in distributed](#)
- [Delete tasks running slowly](#)

Functions and procedures not cloned for DB2

Symptom

When running the CreateAA job for an environment with DB2, not all procedures and functions are cloned in the target database schema.

Cause

CreateAA will not clone routines unless they are written in DB2 SQL/PL. If the schema has a routine not written in DB2 SQL/PL, it is not cloned into the archive access schema.

Resolution

Avoid using anything other than DB2 SQL/PL for your functions and procedures.

Reload to SQL Server fails in distributed

During reload, you receive a SQL Server error similar to the following:

```
SQLNCLI11 for linked server 16.103.11.115\sdmsql2k8
```

Cause

Network DTC access was not enabled and the inbound and outbound settings for DTC were not checked.

Resolution

To enable Network DTC Access for MS DTC for both inbound and outbound transactions:

1. Open MS Windows Component Services (dcomcnfg).
2. Expand the console tree to locate the DTC (for example, Local DTC) for which you want to enable **Network MS DTC Access**.
3. On the Action menu, click **Properties**.
4. Click the **Security** tab and make the following changes:
 - In Security Settings, ensure that Network DTC Access is checked.
 - In Transaction Manager Communication, ensure that **Allow Inbound** and **Allow Outbound** are both checked.

Delete tasks running slowly

Symptom

For database to database archiving, your delete task is taking a long time to run.

Cause

The delete task minimum size setting may not be optimal for your system.

Resolution

In your home directory, under config, update the `la.minimum.delete.task.size` setting in `outerbay.properties`. Either specify a number or leave it blank to indicate that the system should choose the value for you. For more information about the home directory, see [Manage the home directory, on page 23](#).

Other errors

This section contains descriptions of miscellaneous errors.

- [Connection to Oracle8i failing with ORA-01017](#)
- [XAM Errors](#)
- [IJ ERROR: Unable to establish prepared statement PRIVILEGE](#)
- [Remote view fails for archive job](#)
- [Error when running security scripts](#)
- [Asian fonts not displaying in PDF](#)
- [Monitoring page takes a long time to load](#)

Unable to Delete Environment When Source Data is No Longer Available

Symptom

Using the Web Console, you are unable to delete an environment when the source database is no longer available, for instance, in the case of an [application retirement](#)¹.

Cause

The delete operation hangs in an incomplete state because deletion of the source database is a necessary phase in the deletion of an environment when the Web Console is used. You cannot delete an environment using the Web Console if the source database is no longer available, but you can delete this environment using the command line.

¹At the end of an application's lifecycle, identifying and copying application data from a production, relational database to CSV or XML files in a target location for long term retention.

Resolution

To delete an environment using the command line

1. Open a command line window.
2. Invoke the following command:

```
obt/install/deploy_product.[sh|bat] "<product.install_admin>.properties" uninstall "-Dforce.repo.only=true"
```

where *<product.install_admin>* is the name of the file.

NOTE: HPE Structured Data Manager marks the environment as deleted, but it may not delete all of the objects related to the environment.

Delete the environment using the command line instead of the Web Console:

1. Open a command line window.
2. Invoke the following command:

```
obt/install/deploy_product.[sh|bat] "<product.install_admin>.properties" uninstall "-Dforce.repo.only=true"
```

Connection to Oracle8i failing with ORA-01017

Symptom

Connecting from HPE Structured Data Manager to Oracle8i fails.

Cause

The newer JDBC driver may cause failures in Oracle8i connectivity.

Resolution

1. Rename `ojdbc14.jar` to `ojdbc14.jar.rename.for.8i` and copy it to the following locations:

```
obt/lib  
obt/webconsole/work/jetty<host-string>/webapp/WEB-INF/lib  
obt/ui/plugins/noneclipsedependencies
```
2. Rename the `ojdbc5.jar` to `ojdbc5.11i` in the same locations listed in the previous step.

XAM Errors

XAM (eXtensible Access Method) support is deprecated in HPE Structured Data Manager.

Symptom

You encounter problems while loading or linking Centera libraries or their dependencies, such as:
`org.snia.xam.XAMException: Error loading XAM Library or its dependencies.`

Cause

XAM backend is unable to load all the libraries that are required to connect to Centera using XAM.

Resolution

Use the correct installer; on a 32-bit machine use a 32-bit installer, on a 64-bit use a 64-bit installer.

On Linux, you will need to have gcc-4. Note that centera XAM libraries are dynamic C-libraries and are dependent on standard GCC libraries in Linux platform.

Symptom

Failed to connect due to authentication error:

```
org.snia.xam.AuthenticationException: The authentication process encountered an error.
```

Cause

XAM server failed to authenticate your identity.

Resolution

Make sure the user name and password that you have supplied is correct and not expired. If you are using PEA file to authenticate with the server, the path is correctly specified in the XAM-XRI and the user's credentials as specified are valid. Note that Centera XAM library does not support spaces in the path to pea file. For example, the following XRI is incorrect, since it has a space in the path to pea file.

```
snia-xam://centera_vim!128.221.200.60:3218?pea=C:\PEA FILEFOLDER\xamconnect.pea
```

Symptom

XAM server does not honor the retention policy that you have specified.

Cause

Either the retention policy is not valid or you are setting both retention period as well as retention policy in the Web Console.

Resolution

Retention of documents on XAM server can be controlled by two parameters Retention Period and Retention Policy in that order, for example, if you set both, only Retention Period is used and Retention Policy is ignored. Thus to apply the retention policy, you need to set Retention period to its default value (= -1).

IJ ERROR: Unable to establish prepared statement PRIVILEGE

Symptom

While attempting to use the remove privilege command, for example, remove privilege READ_SYSTEM from TEST_ROLE; the following error appeared:

```
IJ ERROR: Unable to establish prepared statement PRIVILEGE
```

Cause

The REMOVE Identifier command is not being parsed correctly.

Resolution

Rerun the query enclosing the main body of the query in single quotes. For example,

```
'remove privilege READ_SYSTEM from TEST_ROLE';
```

By including the query inside quotes, you are telling ij not to parse the query.

NOTE: This only applies to the IJ client.

Remote view fails for archive job

Symptom

While attempting to perform a job movement using a cartridge model that contains an update-able remote view, you receive the following error:

```
com.microsoft.sqlserver.jdbc.SQLServerException:  
SCHEMA LOCK permission denied on object 'S1', database 'DEMARC60', schema 'dbo'
```

Cause

You do not have enough permissions on the remote table.

Resolution

Add obt_rep as a user for the remote table (S1 in this example) and grant select on remote table permissions to obt_rep.

Error when running security scripts

Symptom

When working with Oracle 11g client on Windows, running the security scripts returns an error of:

```
SP2-1506: START, @ or @@ command has no arguments.
```

Cause

This problem is a known issue with Oracle 11g.

Resolution

Close and ignore the error.

Asian fonts not displaying in PDF

Symptom

- You generate PDF documentation from Designer, but the PDF file does not display all of the content.

Cause

- You have multi-byte characters in your database. HPE Structured Data Manager does not embed the necessary fonts in the PDF by default.

Resolution

- In <install_dir>\obt\config\outerbay.properties, use the pdf.font property to include the necessary fonts. For example:
pdf.font=STSong-Light-H

Monitoring page takes a long time to load

Symptom

When you go to the monitoring page, it takes a long time to load.

Cause

You have no filter set and the history table is very large. Therefore, it takes a long time to load the history table.

Resolution

In the home directory, under config, edit the `webconsole.properties` file and set `jobmonitor.hideHistoryTableIfNoFilter` to **True**.

For more information about the home directory, see [Manage the home directory, on page 23](#).

Chapter 4: Gather information for Support

If you are a customer with a current maintenance contract for HPE Structured Data Manager, you can reach technical support by opening an issue using the Support site at <https://softwaresupport.hpe.com>.

Include the following information in your email or fax to speed up the process:

Name	
Company Name	
Phone Number	
HPE Structured Data Manager version	
Operating system and version	
Database version	
A description of the problem	
Any relevant attachments: <ul style="list-style-type: none">• Logs, see Chapter 2, Log files for the locations of the log files.• Error messages received	
Generated files: <ul style="list-style-type: none">• On deployment—obt/generate• Post-deployment—obt/artifacts	

Glossary

active database

The database from which you plan to move or copy data. Typically, this database is your online transaction processing (OLTP) or production database. In a two- or three-tiered configuration, the active database resides on tier one and is the source for data movement operations.

active environment

The Web Console views and acts upon only one environment at a time, the active environment. To switch the active environment, you use the Change Active option in the Web Console.

activity

In Designer, a component of a business flow, which is added by using the toolbar. For example, you can add archive and reload activities to your business flow. Note, activities in a business flow are different from what you see at runtime and therefore do not necessarily map directly to what you see in the Web Console.

advanced selection

A method of data selection that discovers all of the interrelated rows from multiple tables and conceptually places them in the same application partition for archiving.

annotation

In Designer, a comment associated with the project, or one of its objects or components. These comments are collected and published in a PDF file when you right click a project or business flow and select Generate Documentation.

application partitioning

The concept of partitioning related rows together during data selection, regardless of whether they are in one or more tables. Application partitioning is unique to HPE Structured Data Manager and contrasts with the more common table partitioning offered by the database management

software, which only groups related rows from one table.

archive data store

The location where the data is to be archived. Can be a separate database, separate space on the same database, or an XML file. In a two-tiered configuration, the archive data store resides on tier two and can be a database or XML. In a three-tiered configuration, the archive data store is a database on tier two and XML on tier three, and is the target for data movement operations.

archive query server

The component that provides SQL access to XML database archives.

Autonomy Consolidated Archive (ACA)

A managed, scalable repository that consolidates electronic communications, attachments, and files, and provides complete control over corporate information assets, facilitating compliance with internal corporate governance policies and procedures as well as externally mandated laws and regulations.

business flow

A series of activities, such as archive operations and scripts, that run in sequence. You build business flows in Designer.

business flow status

The Web Console shows the last run of each business flow. The states are Complete/Error/Running.

cartridge

An instance of model- or schema-based eligibility criteria used to move or copy data from one location to another. Cartridges capture the application and business rules to ensure referential integrity of the data. For any one model in your project, you may have many cartridges that use it.

chaining table

The lower level table in a many-to-one or a many-to-many relationship between higher level and lower level tables in the model hierarchy.

classification

The HPE Content Manager (formerly HP Records Manager) classification to be applied to the data moved by HPE Structured Data Manager. This classification specifies where to place the data when it is ingested by HPE Content Manager. For more information, see the HPE Content Manager documentation.

collection

The configuration of a directory location and file pattern to match a set of archived XML files, thus allowing SQL access to the archived data.

comma separated values (CSV)

A database-to-file output format that stores the data as values separated by commas and a metadata file. Each line in the CSV file corresponds to a row in a table. Within a line, fields are separated by commas, each field belonging to one table column. CSV files provide a simple format that many applications can import.

command

Command files or JavaScript files launched by the Web Console on your behalf with status displays.

condition

In Designer, the way you branch your business flow to run or skip an activity based on some criteria.

configuration parameter

A type of parameter that has its values set by an administrator (someone who has repository privileges from the Web Console) through the administrator interface. Typically, this type of parameter represents values that should be changed very infrequently, perhaps only at deployment time.

console user

The Web Console identifies individual users, who are distinct from database users. The properties for a user are User Name, Full Name, Password, Enabled, Description, Email, Phone, and Privileges.

console user name

The login name associated with a Web Console user.

constraint

A column or a list of columns that enables you to identify rows in the database and relate them to one another.

custom properties

User-created name/value pairs in cartridges and business flows. These values are exposed at runtime as parameters.

customization

A change that an administrator or DBA makes to a project provided by a third party, typically for a packaged application like Oracle PeopleSoft or Oracle E-Business Suite. As long as the customization is allowable by the project, the user can merge the customization into newer revisions of the third party project.

customization mode

A Designer mode that provides visual cues to indicate customizations in the model. In a project with locked files, customization mode is on by default, but you can toggle it on and off from the toolbar in the model editor.

data access cartridge

A cartridge that provides lightweight query access to retired or archived data. Data access cartridges are designed by the archive developer but can be run by business users with no technical expertise.

data masking

The process of replacing private or confidential data during movement with a specified mask. You can choose from pre-defined masks that are part of HPE or create your own mask. A mask may or may not be reversible upon reload from the archive data store.

data movement

The method used by HPE Structured Data Manager to actually move data (transactional, bulk or partitioned for database to database, and copy or archive for database to file).

data transparency

The ability to access archived data through your standard application interfaces for data access. Data transparency enables users to access archived data as though it were still in the active database.

database constraint

A constraint that exists in the database and can be discovered and referenced from Designer.

database to database

A movement in which data goes from an active database to an archive database, or separate tablespaces inside the active database. Typically, the archive database is located on cheaper storage devices.

database to file

A movement in which data goes from an active database to a file (XML or CSV format), which is offline but still accessible through SQL using the archive query server and a client tool of your choice.

deployment assistant

The user interface component within Designer used to deploy or generate business flows.

description

A technical description created by the developer for her own reference. These descriptions do not appear in the generated PDF file for the cartridge or business flow.

Designer

The user interface component used to develop, test, and deploy your archiving solution. Designer is a powerful graphical development environment for archive solutions.

distributed instance

A configuration option for database-to-database archiving where the data you archive is stored on a separate database from the source or active database.

DRE

See [Dynamic Reasoning Engine \(DRE\)](#).

driving table

A driving object is a root of a model hierarchy. Its relationship to the child tables drives the

selection of transactions.

dynamic list of values

A list of values for a parameter that obtains its members from a SELECT statement that returns identifiers and labels.

dynamic parameter

A type of parameter that has its value set by a Groovy script that runs at deployment time to obtain a value. For example, this type of parameter can supply the type or version of a database or application, which can be obtained programmatically at deployment time.

Dynamic Reasoning Engine (DRE)

A platform technology that uses high performance pattern-matching algorithms to search for content stored in Autonomy repositories. Performs core information operations for contextual analysis and concept extraction, enabling solutions for the categorization, summarization, personalization, hyperlinking, and retrieval of all forms of information.

environment

The source and (optional) target credentials against which you plan to run commands. You can define multiple environments within your installation to identify various source and target databases.

error

One of the ways in which you can interrupt a business flow. Error indicates that the business flow failed for some reason.

exclusive rules

One of the ways in which HPE Structured Data Manager determines whether to include or exclude rows from the archive operation. Exclusive rules require all rows in the constraint table to match for inclusion. Exclusive rules exclude the instance if the condition on any child is false, like STATUS='CLOSED'.

exit

One of the ways in which you can interrupt a business flow. You can exit successfully or with a warning.

export

The way that you save an HPE Structured Data Manager project to an exchange format (.hdp) from the File menu. See also *import*.

export data

The way that a user can send data to CSV format from Preview using the toolbar item.

generate documentation

The process of collecting and grouping all annotations into a PDF file that also describes the business flow or cartridge structure.

history schema

For database-to-database archiving, the schema in the target database where the archived data is stored.

IDOL

See [Intelligent Data Operating Layer \(IDOL\)](#).

import

The way that you transfer projects from exchange format (.hdp) into the Project Navigator. You can also use import to migrate cartridges created in 5.1 to 6.x. See also *export*.

inclusive rules

One of the ways in which HPE Structured Data Manager determines whether to include or exclude rows from the archive operation. Inclusive rules require only one row in the constraint table to match the rule and be included. Inclusive rules include the instance if the condition on any child is true, like `PRODUCT_RECALLED='Y'`.

indexing cartridge

A cartridge that indexes your data for better searching. For example, you might associate an indexing cartridge with a database-to-file archiving cartridge to improve performance when querying the archive data files.

Intelligent Data Operating Layer (IDOL)

An information processing layer that collects indexed data from connectors and stores it in a structure optimized for fast processing and retrieval, integrating unstructured, semi-structured, and structured information from multiple repositories.

interrupt

The way to stop or pause a business flow (pause, error, exit with warning, exit successfully).

local deployment

The generation and deployment of your cartridge or business flow to an environment on your local, Designer client. Deployment files are generated locally and then deployed to the designated, local environment.

lookup table

A table that contains helpful non-transactional information. For example, non-transactional information could be status definitions, or the name of the sales representative.

managed table

A table in the model that is copied and then purged from the active database by a cartridge. Transactional, chaining, and driving tables in a model are all typically managed tables.

model

A model identifies the tables and table relationships representing a business entity or related business entities. A project can have multiple models. Each model contains a driving table and all of its child and descendent tables.

model compatibility

Each model in your project can have one or more dynamic parameters associated with it to verify the compatibility with the target environment. If the compatibility parameter returns false, then the cartridge referencing the model will not deploy or run and throw an error. For example, the script could return false for Oracle 10.2 and true for Oracle 11.1 to indicate that a cartridge referencing the model can only deploy and run against Oracle 11.1.

model-based cartridge

A cartridge that moves data based upon a defined data model with relationships. This type of cartridge is typically used for ongoing archive operations.

non-intrusive environment

In a non-intrusive environment, data is archived without an interface schema and a generic

JDBC driver is used. A non-intrusive environment enables you to copy or archive data from read-only sources, which is especially helpful in cases where the data is associated with older technologies that might not support basic SQL statements or when the database administrator or company policy prohibits write access to the production environment.

OLTP database

The online transaction processing database that typically is your active or source database.

pause

One of the ways in which you can interrupt a business flow. Pausing suspends the business flow while awaiting operator intervention.

Records Manager

Enterprise document and records management software designed to simplify the capture, management, security, and access to information. Records Manager enables organizations to more easily comply with regulations and corporate policies, and it helps secure information from inappropriate access and misuse.

reload

The act of taking data from an archive data store and loading it into the active database.

remote deployment

The generation and deployment of your cartridge or business flow to an environment on a system that is remote from your Designer client. Deployment files are generated locally and then deployed to the designated, remote environment.

repository

The location that holds business flow metadata, product configuration data, and data collected during runtime. The repository can be located on your active database or another logical database.

rule

Qualifications added to the model in order to include or exclude data based on certain criteria. For example, you might add a rule to exclude from archiving any orders that are not yet closed.

runtime parameter

A type of parameter that has its values set by the operator executing the job in Console or on the command line. Typically, this type of parameter represents operational values that tend to change frequently and therefore need to be set each time the job is run.

schema-based cartridge

A cartridge that moves data based upon the database schema rather than a defined data model with relationships. This type of cartridge is typically used for database retirement or the cleanup of orphan tables.

selection

The form of data selection to use (standard or advanced) for choosing data. When deploying a cartridge or adding it to a business flow, you must specify the selection method.

single instance

A configuration option for database-to-database archiving where the data you archive is stored on the same database (Oracle) or the same server (SQL Server) as the source or active database.

source

The location (database) from which you are copying or moving data.

SQL access server

See *archive query server*.

standard selection

A method of data selection that restricts itself to the rows identified by the model. Unlike advanced selection, it does not attempt to traverse related rows across multiple tables.

structured records management

A type of solution that extracts structured data from a source application and moves it into XML format. The XML is then ingested into the corporate records management system for long term management and eventual disposal according to corporate policy.

table use

A database table, view, or synonym that is referenced in Designer, for example, in the model. The same table can be used multiple times in a model. For example, a table could be

appear as a transactional table and a lookup table in the same model.

target

The location (database or XML) to which you are copying or moving data.

tier

A level in your database archiving configuration. You can have two- or three-tiered configurations. In a two-tiered configuration, tier one contains your active database and tier two your archive data store, which can be a database or XML. In a three-tiered configuration, tier one contains your active database, tier two an archive database, and tier three XML.

transactional data movement

Transactional movement uses set-based data movement and is the default method of movement.

transactional table

A table that contains information about the business transaction. For example, a transactional table might contain detailed tax or payment information related to each business transaction.

unique identifiers (UIDs)

A 16 hexadecimal identifier calculated based on the content of a Designer file. This value is used to determine if the user has customized key pieces of a project.

unmanaged table

A table in a model that is copied but not purged from the active database by a cartridge. Lookup tables in a model are typically unmanaged tables.

Vertica

Column-oriented SQL database management software for storing and analyzing structured data. Used to manage large, fast-growing volumes of data and provide fast query performance for data warehouses and other query-intensive applications.

virtual constraint

A constraint that you define in Designer that only exists within HPE Structured Data Manager.

Web Console

A browser-based interface where you can create and manage your deployment environments, and deploy, run, administer, and monitor your business flows.

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