

# Structured Data Manager

Software Version 7.64

## Upgrade Guide



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# About this document

Structured Data Manager provides powerful tools to build an archive solution that copies or moves data out of your online transaction processing database and into less expensive storage.

This guide provides information on the following areas:

- Upgrading Structured Data Manager platform installations from 6.2, 6.3, 6.4, 7.0, or 7.x to 7.64.

**NOTE:** To upgrade from earlier versions, or to upgrade your Oracle E-Business or PeopleSoft applications and implement new integration packs, contact Micro Focus Enterprise Services for assistance.

## New and revised information

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

- Upgrade to 7.64.

## Prerequisites

Prerequisites for using this product include:

- Knowledge of the operating system
- Database knowledge
- Application knowledge

## Related documentation

- *Structured Data Manager API Reference Guide*  
Provides information about the Groovy script API files for Structured Data Manager.
- *Structured Data Manager Concepts Guide*  
Explains the major concepts of database archiving in general and Structured Data Manager in particular.
- *Structured Data Manager Installation Guide*  
Explains how to use the Installer to install the product.

- *Structured Data Manager Tutorial*  
Provides step-by-step instructions to build a sample archiving module, deploy it, run it, and troubleshoot errors.
- *Structured Data Manager Developers Guide*  
Explains how to use the Designer component to design, build, test, and deploy your archiving projects.
- *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.
- *Structured Data Manager Troubleshooting Guide*  
Explains how to diagnose and resolve errors, and provides a list of common errors and solutions.
- *Structured Data Manager Upgrade Guide*  
Explains how to upgrade the product and upgrade the archive schema generated by earlier versions of the product.
- *Structured Data Manager Release Notes*  
Lists any items of importance that were not captured in the regular documentation.
- *Structured Data Manager PeopleSoft Modules Installation and Deployment Guide*  
Explains how to install the PeopleSoft integration kit.
- *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: Upgrade Overview

In order to upgrade your Structured Data Manager installation, you must:

- Upgrade the software itself by installing Structured Data Manager release 7.64 with the latest patches.

See the *Structured Data Manager Installation Guide*.

- Upgrade your repository, see [Upgrade Structured Data Manager , on page 8](#).
- Upgrade environments that require it, see [Upgrade Structured Data Manager , on page 8](#).

To upgrade from an earlier version of Structured Data Manager, complete the following tasks:

1. Prepare your installation for the upgrade according to the instructions in [Before you begin, on page 8](#).
2. Install the new version of Structured Data Manager according to the instructions in the *Structured Data Manager Installation Guide*.

**NOTE:** If you plan to use the scripted upgrade process, do not start the Web Console nor launch it in your browser at the end of the installation.

3. Upgrade the Structured Data Manager repository and environments in one of the following ways:
  - [Upgrade from the Web Console, on page 12](#)
  - [Upgrade with an upgrade script, on page 14](#)

# Chapter 2: Upgrade Structured Data Manager

To upgrade Structured Data Manager, you need to perform the tasks in the following sections:

- [Before you begin](#)
- [Install Structured Data Manager 7.64](#)
- [Supported upgrade path to 7.64, on page 11](#)
- [Upgrade your previous installation](#)
- [After an upgrade](#)

## Before you begin

Before you perform the upgrade procedures, you must complete the following steps:

1. Ensure that you have applied the latest cumulative patches to your previous installation of Micro Focus SDM before upgrading it.
2. Synchronize your history schema according to the instructions in the *Structured Data Manager Runtime Guide*.
3. Ensure that all jobs using the previous version of Structured Data Manager have been successfully completed or canceled.
  - Jobs that failed prior to copy, delete, or mask actions can be cancelled.
  - Jobs that failed after copy, delete, or mask actions have begun must be resolved and completed. You can cancel the jobs from the Web Console.

For more information about cancelling jobs, see the *Structured Data Manager Runtime Guide*.

4. Uninstall any business flows that use partitioned or bulk data movement.

**NOTE:** These data movements are not supported in Micro Focus SDM 7.3 and later, therefore any attempt to upgrade them will fail.

5. Ensure you have collected the following information:

- The encryption key of the previous installation.

When you upgrade, the encryption key used for your previous installation is used by default for the release 7.64 installation.

To change the encryption key, use the password manager utility. See the *Structured Data Manager Runtime Guide* for more information.

- All user names, schema names, database names, and passwords used for the previous software installation.
  - The installation directory used for the previous software installation.
  - The installation directory to be used for the 7.64 Structured Data Manager.
6. If you are upgrading from Micro Focus SDM version 6.2 and using Oracle, perform the following additional steps:
- a. Ensure that your history database user has ALTER privileges on any table.

For example:

```
grant alter any table to <username_of_HISTORY_DB>
```

**NOTE:** To find the user name of your history database, see **Web Console > Environment Management > Environment > Active Environment > Locations**. Click **HISTORY\_DB** to find the user name.

7. If you are upgrading from Micro Focus SDM version 6.33 or below, perform the following additional steps:
- a. Navigate to the directory <PREVIOUS\_OBTHOME>/config, where <PREVIOUS\_OBTHOME> is the <OBTHOME> directory of the previous version of Structured Data Manager.
  - b. Open the webConsole.properties file using a text editor.
  - c. Add security.user.authMaxFailedAttempts=5 property.
8. If you are using Oracle as your source database, perform the following steps:
- a. Stop the Web Console of your previous installation of Structured Data Manager.
  - b. Connect to the Oracle repository database instance with your favorite tool (for example DBVisualizer or SQL Developer), using the repository connection credentials to connect to Oracle.
  - c. Run the following query to drop the foreign key constraints on tables:

```
-- Drop all table constraints:
BEGIN
  FOR c IN
    (SELECT c.owner, c.table_name, c.constraint_name
     FROM user_constraints c, user_tables t
     WHERE c.table_name = t.table_name
          AND c.constraint_name NOT LIKE 'SYS%'
          AND c.table_name LIKE 'OBT%'
          AND c.constraint_name LIKE '%FK%')
  LOOP
    dbms_utility.exec_ddl_statement('ALTER TABLE "' || c.owner || '"."' ||
c.table_name || '" DROP CONSTRAINT ' || c.constraint_name);
  END LOOP;
END;
```

9. If you are using SQL Server as your source database, perform the following steps:

- a. Go to the directory `<previous_installdir>/obt/config`, where `<previous_installdir>` is the directory where you installed the previous version of Structured Data Manager.
- b. Open the `outerbay.properties` file, using a text editor.
- c. Set `DASL.SQLSERVER.CONNECTION.USE_INSTANCE_NAME=false`.

**IMPORTANT:** This step is mandatory if you are upgrading from version 6.2.

10. If you are using `TrimClient.jar` file for any of your integrations, then ensure to copy the `TrimClient.jar` file from `<previous_installation_path>/obt/lib` to `<new_installation_path>/obt/lib`.
11. For any business flows that contain upload activities, regenerate them from the 7.2 or 7.3 Designer.

Business flows from older versions with an upload activity require a new parameter for schema mapping, therefore you must regenerate them in Designer before the upgrade.

12. (*Optional*). For better upgrade performance, delete all unused environments.

For more information on deleting environments, see the *Structured Data Manager Runtime Guide*.

If the database for an environment you want to delete is inaccessible, see the *Structured Data Manager Troubleshooting Guide* for information on how to delete it.

**CAUTION:** Ensure that you delete only the environments that are not being used.

**NOTE:** Do not manually drop objects in the schemas created by Structured Data Manager.

**NOTE:** When the upgrade process begins, it checks for environments in an installation pending state. Those environments will not appear in the upgraded repository.

13. Ensure that all Web Console users have an email address defined.
14. (*Optional*). Assess your environments to decide if you want to skip upgrading any of them during the upgrade.
15. Stop the Web Console of your existing Structured Data Manager.

## Home directory

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:

**CAUTION:** Ensure not to delete the contents under `OBTHOME\archive` folder if you want to perform any operations (upload, reload and so on) on those archived files.

- By default, 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:\.

- If you prefer not to use the default location as determined by 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.

See *Structured Data Manager Runtime Guide* for instructions.

### Example

Configuration files might be stored in:

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

or

```
<app_data_dir>\OBTHOME\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 must show that directory in order to find the log files. For more information, see your Windows documentation.

## Install Structured Data Manager 7.64

Obtain and install Structured Data Manager 7.64 according to the instructions in the *Structured Data Manager Installation Guide*.

You must install 7.64 in a different location than the earlier version. That is, do not overwrite the earlier version.

**NOTE:** The instructions in this guide assume that you are installing 7.64 on the same server as the earlier version.

**NOTE:** If you plan to use the scripted upgrade process, do not start the Web Console or launch it in your browser at the end of the installation.

## Supported upgrade path to 7.64

If the repository is on versions prior to 7.21 through 7.53, then it is mandatory to upgrade the repository in the following sequence to upgrade to 7.64:

```
7.21 -> 7.35 -> 7.492 ->7.53 -> 7.64
```

For example, if the repository is on 7.31 version, then you must upgrade to 7.35 (consider the highest version of 7.3x) first, next 7.492, next 7.53, and then to 7.64.

Similarly, if the repository is on 7.42 version, then you must upgrade to 7.492(consider the highest version of 7.4x) first, next 7.53, and then to 7.64.

## Upgrade your previous installation

You can upgrade your previous installation from the Web Console or the command line:

- [Upgrade from the Web Console](#)
- [Upgrade with an upgrade script](#)

The upgrade process includes the following major steps:

1. Prepare your installation for the upgrade according to the instructions in [Before you begin, on page 8](#).
2. Import the repository from your previously installed release (7.53 or 7.63). This step copies all of the required files from the existing installation path to the new (7.64) installation path.

**NOTE:** If the repository is installed on versions prior to 7.53, then you must first upgrade the repository to 7.53 before upgrading to 7.64.

3. Upgrade the repository to 7.64.
4. Upgrade the environments associated with the repository, which includes redeploying the business flows where necessary.

## Upgrade from the Web Console

**NOTE:** If you are upgrading an embedded repository, ensure the embedded repository has been started before you start this procedure.

### To upgrade the repository from the Web Console

1. If you cannot run your Web Console on the default port, 8080, then you need to change it prior to starting the Web Console.

For more information about changing the port, see the *Structured Data Manager Runtime Guide*.

2. Start the Web Console for your release 7.64 of Structured Data Manager.

**TIP:** On Windows, you can start the Web Console from the Start menu program group for Structured Data Manager.  
For more information on starting the Web Console, see the *Structured Data Manager Runtime Guide*.

3. Launch your browser, and connect to the Web Console using its URL:

`http://<hostname>:<port>/WebConsole`

where *<hostname>* is the name of the machine on which you installed Structured Data Manager, and *<port>* is the port for the Web Console.

When starting Web Console for the first time after installing Structured Data Manager, you are prompted to either install a new repository or import an existing one.

4. Click **Import Repository from a Previous Release**.

**NOTE:** If you do not have an existing repository from a previous release, no upgrade is necessary. See *Structured Data Manager Runtime Guide* for information on installing a new repository.

5. Enter the path of the previous release.

For example:

C:\SDM753

6. Click **Import Repository**.

As the import proceeds, you receive a message that the Console is restarting and eventually the Web Console login page appears.

7. Log in as a user from the instance you are upgrading with administrative privileges.

### Example

Suppose you had a Web Console administrative user called **admin** in your Micro Focus Database Archiving release 6.3 installation. You could now log in to your 7.64 Web Console as **admin**.

After you log in, the Web Console opens a page prompting you to upgrade the repository.

8. Enter the repository database credentials for the installation from which you are upgrading.

For example, if you stored your Micro Focus Database Archiving release 6.3 repository in an Oracle database called **oradb1**, you would enter the credentials of a user with system administration privileges on that database.

9. Click **Upgrade Repository**.

The repository upgrade proceeds.

10. Click **Continue**.

- If environments require upgrade, the Manage Environments page opens.
- If not, the normal landing page displays and you can begin operations.

What you see next, depends on whether you have environments that need upgrading:

- If no environments need upgrade, you can resume normal operations.
- If some environments need upgrade, the Manage Environments page opens, where environments are flagged for upgrade and you can selectively upgrade them.

Until you upgrade those environments, their use is restricted. For example, menu items such as **Launch** are disabled when an environment in need of upgrade is the active environment. Environments not in need of upgrade operate without these restrictions.

11. For those environments you wish to upgrade:

**NOTE:** Upgrading the environment includes an automatic attempt at redeployment of any business flows that require it.

- a. Click **Upgrade** to start the upgrade process. You may initiate the upgrade of other environments at this point if you wish.
- b. If the environment upgrade fails, you can recover by rerunning it.

12. Perform the steps in [After an upgrade, on page 16](#).

## Upgrade with an upgrade script

The upgrade script enables you to upgrade in a batch process rather than an interactive one. This process may be more convenient in cases where you have a large number of environments.

You can run the upgrade phases individually or all at once.

### To run the upgrade script

1. Navigate to the following directory:

```
<76_installerdir>/obt/install
```

where *<76\_installerdir>* is the location where you installed the 7.64 software.

2. Run the upgrade script according to the following syntax:

Operating System	Syntax
UNIX	<pre>./upgrade.sh -f &lt;upgrade.properties&gt; -I &lt;old_installation_path&gt; -P -p -a -i &lt;list_of_environments&gt; -x &lt;list_of_environments&gt;</pre>
Windows	<pre>upgrade.bat -f &lt;upgrade_prop_file&gt; -I &lt;old_install_path&gt; -P -p -a -i &lt;list_of_environments&gt; -x &lt;list_of_environments&gt;</pre>

where

-f *<upgrade\_prop\_file>* runs with the specified upgrade properties file. [Upgrade properties file, on the next page](#).

-I *<old\_install\_path>* imports the product configuration files from the specified existing installation.

-P performs a repository upgrade.

-p reads the encryption key from stdin. If not specified, you will be prompted for the encryption key.

-a updates all environments at once.

-i <list of environments> upgrades the specified environments. If you use this option, it overrides include.env in your properties file.

**NOTE:** You cannot use -i and -x together in the same command.

-x <list\_of\_environments> upgrades all of the environments except the specified ones. If you use this option, it overrides skip.env in your properties file.

**NOTE:** You cannot use -i and -x together in the same command.

**NOTE:** Upgrading the environment includes an attempt at automatic redeployment of any business flows that require it.

### Example

The following example runs import, repository upgrade, and environment upgrade for env1 and env2 on Windows.

```
upgrade.bat -f ..\config\upgrade.properties -I C:/DBArchiveing630/obt -P -i env1,env2
```

This command line performs just the environment upgrade for env1.

```
upgrade.bat -i env1
```

This command line runs import, repository upgrade, and environment upgrade for env1 and env2 on UNIX.

```
./upgrade.sh -f ../config/upgrade.properties -I /home/obt/DBArchiveing630/obt -P -i env1,env2
```

3. Restart the Web Console.
4. If any of the environment upgrades fail, you can recover them by running the following command:  

```
upgrade.bat -f <upgrade.properties> -i <environments>
```
5. Perform the steps in [After an upgrade, on the next page](#).

## Upgrade properties file

If you use the -f argument on the command line, you must create an upgrade properties file. You can include the following in the properties file:

- Repository, source or history database credentials.  
If these properties are not provided in the properties file, then you will be prompted in the console.
- List of environments to be included or excluded.

Property	Description
repository.dbadmin.username	The database administrator user name for the repository. For example, <code>system</code> .
repository.dbadmin.password	The database administrator password for the repository.
<env_name>.source.dbadmin.username	The database administrator user name of the source database for the environment. For example, <code>sa</code> for SQL Server or <code>system</code> for Oracle.
<env_name>.source.dbadmin.password	The database administrator password of the source database for the environment.
<env_name>.hist.dbadmin.username	The database administrator user name of the history database for the environment. For example, <code>sa</code> for SQL Server or <code>system</code> for Oracle.
<env_name>.hist.dbadmin.password	The database administrator password of the history database for the environment.
include.env=<env1,env2...>	A list of environments to include in the upgrade. This option is overridden by <code>-i</code> on the command line.
skip.env=<env1,env2,...>	A list of environments to exclude from the upgrade. See <code>Skipping or including environments</code> . This option is overridden by <code>-x</code> on the command line.

**CAUTION:** If you choose to include any passwords in the properties file, they are stored in plain text in the file. For security purposes, omit the entire password property line from the properties file. You will then be prompted for the passwords, and they will not be stored in the properties file.

See the sample in:

```
<installdir>\obt\config\upgrade.properties.sample
```

## After an upgrade

After the upgrade completes you should perform the following tasks:

1. Review historical data in the Web Console to confirm that the upgrade preserved your previous metadata.
2. Confirm the location of your business flow artifacts. If you do not find them in the location you expected, check the paths in `<app_data>/Hewlett-Packard/HP0BT/config/directories.properties`.
3. Check the logs of the upgraded environments for any business flows that failed redeployment. If any business flows did not redeploy properly, you can redeploy them manually.

See the *Structured Data Manager Runtime Guide*.

4. During upgrade, Structured Data Manager merges settings from your previous `webConsole.properties` and `outerbay.properties` into the files of the same name in your new installation. The files are located in `<installdir>/OBTHOME/config`.

See [Home directory](#), on page 10.

Obsolete properties and obsolete values of properties are not brought forward from your previous installation.

5. If `OBT_JAVA_VM_OPTIONS` were changed in the `<previous_installdir>/obt/bin/obt-launcher.bat | sh` file, then you must incorporate those changes in the `<new_install_dir>/obt/bin/obt-launcher.bat | sh` file.

You must restart the Web Console for the changes to take effect.

**NOTE:** JDBC properties and SQL tuning properties are brought over from the earlier installation you are upgrading.

6. If you were using SSL for Digital Safe, you must re-import the certificate. See the *Structured Data Manager Runtime Guide* for information on how to import a certificate.

7. If you installed an Asian font pack to view the PDF generated by Designer's Generate Documentation feature in your earlier version, you must update the following property in `outerbay.properties` in config under the home directory. See [Home directory](#), on page 10.

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

See the comments inside of `outerbay.properties` for more information.

8. Check your Groovy scripts for `as Type` constructions and replace them.

For example:

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

would change to:

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

9. Follow the instructions in [Set password security](#), below.
10. Change the paths referenced in the `log4j.properties` file, which is located in the home directory under config. See [Home directory](#), on page 10.

## Set password security

Starting with the 6.4 release, Structured Data Manager's security has been increased with a new password encryption algorithm for Web Console users. When you upgrade from a previous version, it is turned off by default.

**NOTE:** The password encryption algorithm does not apply if you are using LDAP.

To activate the password encryption algorithm, you must set the `security.passwd.advanced_encryption` property to `true`.

You will lose the earlier passwords when you set the `security.passwd.advanced_encryption` property to true. You must use the Lost password feature to reset the password. See [Reset lost password, below](#).

### To set the password property

1. Stop the Web Console.
2. From `<installerdir>/OBTHOME/config`, open the `webConsole.properties` file in a text editor.
3. Set the `security.passwd.advanced_encryption` property to true.
4. Save the file.
5. Start the Web Console.

## Reset lost password

To reset your password, you should have specified an email address in your user account before changing the Web Console property. If you did not specify an email address before changing the Web Console property, do one of the following actions:

- Specify an email for each user.
- Specify an email for the administrator so that the administrator can restore his password and then reset passwords for all other users.

## User groups

Structured Data Manager 7.2 introduced Web Console user groups. After you upgrade to Micro Focus SDM 7.2 or later, your existing users will each be placed in their own group and you can reorganize the groups as you wish from that point.

## Chapter 3: Upgrade Discovery

If you had installed Discovery in previous versions of SDM, then it is mandatory to perform the following steps while upgrading to SDM 7.64.

Post upgrade, perform the following steps:

1. Take a backup of Webconsole folder from [OBTHOME]/extension path.
2. Shutdown the Web Console.
3. Run the following commands in the command prompt:
  - **On Windows:**

```
...> cd <SDM Install Dir>\obt\bin
...> DiscoveryInstaller.bat
```
  - **On Linux:**

```
...> cd <SDM Install Dir>/obt/bin
...> DiscoveryInstaller.sh
```
4. Start the Web Console.

### Upgrade Discovery Service

**NOTE:** Make sure to run Discovery Service with administrator privileges.

For 7.64, to upgrade the Discovery service, follow the below steps:

1. You have to uninstall the Discovery service while you are in the previous SDM version, i.e., SDM 7.63.
2. Post upgrade of SDM and Discovery to 7.64, run the below command in cmd to install the Discovery service:

```
...> cd <SDM Install Dir>\obt\bin
...> Discovery.bat -a
```
3. Enter the encryption key that you had provided during the repository creation.
4. In the command prompt, type **q** and press Enter.
5. Run the following command in command prompt to install and start the SDM Discovery Service.

```
...> cd <SDM Install Dir>\obt\bin
...> DiscoveryService.bat install
```

**NOTE:**

- SDM Discovery Service is supported on Windows platform only.
- Once the service is installed, you can use following options to check the status of, delete (uninstall), start, or stop the service:
  - ...> cd <SDM Install Dir>\obt\bin  
...> DiscoveryService.bat status
  - ...> cd <SDM Install Dir>\obt\bin  
...> DiscoveryService.bat delete
  - ...> cd <SDM Install Dir>\obt\bin  
...> DiscoveryService.bat start
  - ...> cd <SDM Install Dir>\obt\bin  
...> DiscoveryService.bat stop

# Send documentation feedback

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## **Feedback on Upgrade Guide (Micro Focus Structured Data Manager 7.64)**

Add your feedback to the email and click **Send**.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to [swpdl.sdm.docfeedback@microfocus.com](mailto:swpdl.sdm.docfeedback@microfocus.com).

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