Upgrading Oracle Knowledge

A Guide to Upgrading Oracle Knowledge Components

Release 8.6

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About This Guide

This guide is intended for technical staff who are responsible for upgrading existing Oracle Knowledge Environments to Release 8.6.

This preface contains the following information:

- **In This Guide**
- **Examples of Product Screens and Text**
- **Operating System Variations in Examples and Procedures**
- **References to Web Content**

In This Guide

The *Oracle Knowledge Upgrade Guide* is divided into the following sections:

Chapter 1, "The Oracle Knowledge Upgrade Process"	This chapter contains general information about performing the upgrade.
Chapter 2, "Preparing to Upgrade Oracle Knowledge"	This chapter describes the how to prepare for the upgrade process.
Chapter 3, "Upgrading Oracle Knowledge Intelligent Search"	This chapter describes how to upgrade Intelligent Search.
Chapter 4, "Upgrading Information Manager"	This chapter describes how to upgrade Information Manager.
Chapter 5, "Upgrading InfoCenter and Web Applications"	This chapter describes how to upgrade InfoCenter and Oracle Knowledge web applications.
Chapter 6, "Upgrading AnswerFlow"	This chapter describes how to upgrade AnswerFlow.
Chapter 7, "Upgrading Analytics"	This chapter describes how to upgrade Analytics.

Examples of Product Screens and Text

The product screens, screen text, and file contents depicted in the documentation are examples. We attempt to convey the product's appearance and functionality as accurately as possible; however, the actual product contents and displays may differ from the published examples.

Operating System Variations in Examples and Procedures

We generally use Linux screen displays and naming conventions in our examples and procedures. We include other operating system-specific procedures or steps as noted in section headings, or within topics, as appropriate.

We present command syntax, program output, and screen displays:

- in Linux format first
- in other Unix-specific variants only when necessary for proper operation or to clarify functional differences
- in Windows format only when necessary for clarity

References to Web Content

For your convenience, this guide refers to Uniform Resource Locators (URLs) for resources published on the World Wide Web, when appropriate. We attempt to provide accurate information; however, these resources are controlled by their respective owners and are therefore subject to change at any time.

CHAPTER 1

The Oracle Knowledge Upgrade Process

This section provides the following upgrade information:

- **Supported Upgrade Paths**
- **The Parallel Upgrade Process**

Supported Upgrade Paths

This guide provides instructions for upgrading to Release 8.6 from Release 8.1.2.1 through Release 8.5.x for Intelligent Search, Information Manager, and Oracle Knowledge web applications, and from Release 8.5.x only for AnswerFlow and Analytics components.

The Parallel Upgrade Process

Oracle Knowledge provides a parallel process, which provides these benefits:

- **Less downtime.** You can operate the base environment while you prepare, upgrade, and test the target environment.
- **Lower risk.** You can discover and resolve issues in the development environment before you put the new release into production.

Performing a Parallel Upgrade

To perform a parallel upgrade of an Oracle Knowledge environment:

1. Prepare to upgrade your environment as described in “Preparing to Upgrade Oracle Knowledge” on page 6.
2. Back up your organization’s data and any custom code.
3. Install and configure the target (new) release in a new development environment using the installers available from Oracle.
4. Upgrade and migrate configuration and data components from the base environment into the target environment.
5. Test the target installation without any customizations to ensure that it operates as expected.
6. Re-implement any desired customizations from the base environment.

7 Repeat this process for staging and production environments.

The following sections provide an overview of the upgrade process for individual products. The upgrade process for any product may involve a number of manual steps as well as some initial setup, which is covered in “Preparing to Upgrade Oracle Knowledge” on page 6.

Moving an Upgraded Production Environment Online

When you have completed testing in the target production environment, perform the following steps to move the new environment into ‘live’ mode:

1. If you have not done so already, stop authoring in the current Information Manager production environment.
2. Copy the current Information Manager database into the target production environment.
3. Run the Information Manager Upgrade utility to upgrade the database.

   Note: Transactional information, such as document ratings and user visits, will not be visible while the Information Manager database upgrade utility runs.
4. Perform a full content processing with synchronization.
5. Stop the current production environment.
6. Configure the production web applications to use the target (new) production environment.

   Note: If a critical problem occurs after routing to the target environment, you can revert to the previous production environment by re-configuring the production web applications.
7. Test the live production application.

CHAPTER 2

Preparing to Upgrade Oracle Knowledge

This section describes the recommended and required tasks to prepare for upgrading Oracle Knowledge:

- Reviewing Oracle Knowledge hardware and configuration requirements as described in the *Supported Environments Matrix* document
- Upgrading operating systems and databases as planned by your organization or required for the Oracle Knowledge upgrade. We recommend that you first upgrade operating systems, then databases, before upgrading Oracle Knowledge.
- Installing required supporting software for the current release as described in *Installing and Configuring Oracle Knowledge*

The *Supported Environments Matrix* and *Installing and Configuring Oracle Knowledge* are included in the *Oracle Knowledge Documentation Library*.

Important! You should back up all data in your environment prior to beginning any upgrade processes. You should apply and test all changes in a development environment prior to implementing or promoting any upgraded components to a production environment.

Download and Extract the Installation and Upgrade Packages

Download and extract the target release installation and upgrade packages:

Extract the `upgrade-<release_level>.zip` upgrade archive into a temporary directory, referred to in this document `<TMP-DIR>`.

> **Important!** The name of the temporary directory in which you extract the upgrade files must contain only alpha-numeric characters, and cannot contain spaces, for example, `86_IMDBUpgrader`.

The upgrade package contains one utility in the Media Pack for Oracle Knowledge Intelligent Search:

Search Configuration Migration utility – `searchConfigUpgradeUtility-<release_level>.zip`

Upgrade Operating Systems and Database Servers

Perform any planned or required operating system and database upgrades, in the following order:

- Upgrade operating systems.
- Upgrade databases.

Back Up Oracle Knowledge Data

Make backup copies of the following Oracle Knowledge data:

- Information Manager database
- Analytics database
- Information Manager content resource files stored at the content resource mount point

Note: The files stored at this location include content.xml files and any file attachments for each translation and version of a document.

CHAPTER 3

Upgrading Oracle Knowledge Intelligent Search

This chapter describes how to upgrade Intelligent Search to the target release. You upgrade Intelligent Search by:

- **Installing and Configuring the Target Instance**
- **Migrating the Dictionary**
- **Migrating Custom Code**
- **Migrating the Search Configuration**
- **Migrating the Application Settings**
- **Completing the Upgrade**

Installing and Configuring the Target Instance

You upgrade Intelligent Search by installing the target release into a new development environment by using the process described in the installation documentation specific to the release you are upgrading to.

Complete the following procedures:

- **Installing the Target Release**
- **Creating and Configuring New Application Data Stores**
- **Configuring Application Data Sources**

Installing the Target Release

The Intelligent Search installer prompts you to choose various options. When you install the target release into a new development environment, choose the following options:

1. When the installer prompts you, choose:
   - To install the Dictionary, select **Yes**.
   - To create the Application Instance, select **No**.
2. Create a Content Processing instance in the new development environment, as described in *Installing and Configuring Oracle Knowledge*.
3. Create and deploy the web application, and set the Administrator account password, as described in *Installing and Configuring Oracle Knowledge*.

Recreate Personalized Navigation

Recreate the Personalized Navigation as it appears in the current Production environment. Reconcile differences between the current `#.xml` with the new `#.xml` file.

Recompile and Rebuild Custom Code

Recompile all customizations with the new JRE and rebuild into war files. Then you can complete full content processing and system testing.

Creating and Configuring New Application Data Stores

For Intelligent Search, you must create and configure the following new database schemas:

- Content Store schema
- Quality Monitor schema

To create and configure new application data stores:

1. Create a new schema to be used as the new Content Store using a Database Management System tool.
2. Configure the Application Data Stores using the process described in the installation documentation for the target release:
   a. Configure the Content Store Data Source to point to the newly created database schema.
   b. Configure the Quality Monitor Data Source as described in “Adding a Quality Monitor Datasource”or “Creating a New Quality Monitor Schema”.

Adding a Quality Monitor Datasource

Add a <datasource> to the target installation configuration to refer to the base quality monitor schema. Set the <workbench> <datasource> to point to it, as in the following example:

```
<contentStore>
<class>com.inquira.content.ContentStoreImpl</class>
<defaultEncoding keyref="content.encoding[ISO-8859-1]" />
<defaultLanguage keyref="choices.language[en-US]" />
<datasource keyref="choices.datasource[inquira_Oracle]" />
</contentStore>                          <workbench>
<unix-browser-path>firefox</unix-browser-path>
<unix-browser-flag>-remote openURL</unix-browser-flag>
<datasource keyref="choices.datasource[inquira_Oracle_Quality_Monitor]"/>
</workbench>
```

Refer to *Installing and Configuring Oracle Knowledge* to configure in advanced config.

To Configure a Quality Monitor Data Source:

1. Select **System Manager**, **Tools**, **Advanced Configuration**, **Tools**, **System**, and then **Workbench**. The Workbench page appears.

2. Select **Edit** on the Workbench page.
   The Workbench page displays a list of data sources.
3. Click **Edit List** for DataSource.
4. Click the copy icon for the corresponding database and enter all valid database details of the previous installation, such as 8.2.3.
5. Click **OK** and then select **DataSource** from the drop-down list.
6. Click **OK** and then the **Save** button.

Creating a New Quality Monitor Schema

To create new quality monitor database tables:

1. From the Common Environment command line prompt, enter the following command:
   - Linux:

     ```
     createQualityMonitorStore.bat.sh
     ```
   - Windows:

     ```
     createQualityMonitorStore.bat.bat
     ```

   Note: Restart your browser when switching between viewing the prior installation's web application and the new installation, as all browser cookies must be deleted. If you still encounter errors, manually delete the browser cookies.
2. After you reconfigure the data stores, use the Common Environment to create the Content Store. To create the content store database tables, from the Common Environment command line prompt enter the following command:
   - Linux:

     ```
     createContentStore.sh
     ```
   - Windows:

     ```
     createContentStore.bat
     ```

Configuring Application Data Sources

An Intelligent Search environment can also include various data sources, which you can configure for Information Manager settings, database crawlers, or custom crawlers. You configure the application data sources by copying their configurations from the base environment to the target environment.

Important! Configure these data sources before migrating Intelligent Search configuration data, as the configuration may depend on the data sources.

To configure data sources in the target environment:

1. Launch the System Manager applications for both your base and target environments in separate browser windows or tabs (to avoid overlapping cookie issues) and sign in to each of them.
2. Open the **Advanced Config** window in each System Manager.
3. Navigate to the **Data Sources List** in each System Manager, for example:
   a. Select **Crawler Settings**.

b Select **Edit** under Database Crawlers.

c Select **Add New Item**.

d Select **Edit List** for the Data Source.

4 In the base environment Advanced Config window, select each non-sample data source in the list to view the data source properties.

5 In the target environment Advanced Config window, select **Add New Item** and add a new data source that corresponds to each of the base environment data sources.

6 Enter the exact Item Name, connection information, and any additional properties.

Important! The Item Name must match exactly. The Search Configuration Migration Utility may migrate crawlers that depend on the data source Item Name.

Migrating the Dictionary

This section consists of the following:

- **Export Dictionary Objects**
- **Export Custom Dictionary Content**
- **Adding or Enabling User-Added Languages or Locales**
- **Importing Custom Dictionary Content**

Export Dictionary Objects

To re-implement any customizations from your current installation, you must export dictionary objects from the current dictionary.

Perform the following prerequisites before exporting dictionary content:

- **Validate the Dictionary**
- **Commit All Dictionary Changes**
- **Record Domain Lists and Subject Maps in Use**

Validate the Dictionary

For each domain list in use, validate the dictionary on all objects. Click **Tools**, and then click **Validate Dictionary**. Fix all issues, such as concept loops and null references, within custom rules and intents.

Commit All Dictionary Changes

Commit all custom dictionary changes. Click **Tools**, and then click **Commit work to central repository**.

Record Domain Lists and Subject Maps in Use

Record the domain lists and subject maps in use, and make sure to keep the orders. You cannot export these objects. You must add the objects manually in the 8.6 dictionary.

Export Custom Dictionary Content

Determine which dictionary objects should be transferred to the new dictionary. The following sections provide instructions to:

- **Exporting Concepts**
- **Export Process Wizards**
- **Export All Other Dictionary Objects**

Exporting Concepts

Find the concepts that have been either created or modified for the installation by searching on author or last edit date. This search assures that any installed concepts which were later modified are migrated to the new installation. Do not attempt to export all of the concepts in the dictionary.

Note: Some concepts may not have an edit date. To make sure that you get all desired concepts, search on (1) last edit date, (2) custom author, and (3) custom concept domain name.

After you have identified the concepts that you want:

1. Select **All** in the Find results.
2. Right click and select **Export**.

   Note: If there are objects other than concepts in your find results, the **Export** option does not appear in the context menu.
3. Save the files to a folder.

   Tip: If you have multiple exports, you can export to the same folder, and choose to merge rather than overwrite the existing contents. You can also choose to save the log by appending it to a previous log. This makes it easier to track multiple exports.

Export Process Wizards

To export Process Wizards:

1. Open the **Process Wizard Editor**.
2. Select **Export Wizard** or **Export All Wizards** under **Tools**.
3. Save the files to a folder.

Export All Other Dictionary Objects

For all other objects, search for each of the eight types of non-concept objects one at a time, each time searching only for those edited after the date of the original installation. This assures that any installed objects which were later modified are migrated to the new installation. For each result set, determine which ones

have been created or modified for the installation, and of that set, determine which are still actively needed for the new installation.

If installed intents or rules are in use, do not export them, but instead use the 8.6 versions of them. Most of these rules have been improved by changing the IML to be language-neutral and by retesting their accuracy. Also, be aware that many installed search component rules have been removed because they do not improve search results consistently. Some of those may have been modified in your installation, but you may find that you no longer need them.

After you determine which of the objects in the result set that you want to export, select them, right-click, and choose **Export**. Export each of the result sets to the same directory. The following table lists objects stored in subdirectories:

- `ALIAS_LIST`: Alias Lists
- `ANSWER`: Intent Responses
- `EXCEPTION_LIST`: Stemmer Exception Lists
- `HIERARCHY`: Intent Hierarchies
- `INTENT`: Intents
- `PROFILE`: User Profiles
- `RULE`: Rules
- `SPELLCHECK_LIST`: Spellcheck List

Note: If the same object is exported twice, it overwrites the previous version of that object.

Adding or Enabling User-Added Languages or Locales

If your current installation has user–added languages or locales, you must add these languages or locales by using System Manager.

Note: This section is applicable only to installations with user-added languages or locales.

To add or enable languages and locales:

1. Sign in to System Manager as Administrator/Administrator.
   The login prompts you to change your password through Language Workbench.
2. In **System Manager**, click the **Languages** tab.
3. Select either the language that you want to enable or add a language that is not preconfigured in the Languages tab.
   a. Click **New**.
   b. Provide the **Language Display Name** and the **Language Code**.
4. Click **Save**.

Important! When you enable languages or locales, you cannot disable them.

Importing Custom Dictionary Content

Important! If your base installation has user-added languages or locales named differently from those in the target release, you must edit the exported files before importing. You should back up all exported files before editing.

The current release defines the naming convention by language name followed by region name. For example, `es-AR` is named `Spanish Argentina`. If your base installation named `es-AR` as `Argentinian Spanish`, you must edit the exported files to change them to `Spanish Argentina`.

Note: It is not necessary to edit the names of `British English`, `Simplified Chinese`, or `Taiwanese Chinese`, they are imported to the target Dictionary as `English Great Britain`, `Chinese Simplified`, and `Chinese Traditional` respectively, as this is an Oracle Knowledge installed name change.

Importing Users

To import users from the existing installation:

1. Copy `<BASE_INSTALL_HOME>\instances\<SCHEDULER_INSTANCE>\development\content\applications\default\userdata\users\_META_USER\user` directory to a location accessible by the 8.6 installation and rename `user` to `USER`.
2. Delete the files named **Administrator** and **im_synch** if they exist in the user directory.
3. Rename the rest of the files in the user directory by adding **`.xml`** to the file names.
4. Sign in to Language Workbench as Administrator/Administrator.

   If this is your first time accessing Language Workbench, the login prompts you to change your password.
5. Click **Tools**, and then **Import Dictionary Objects**.
6. Browse to the parent directory of the `USER` directory copied in step 1.
7. Click **Import**.

Note: If you wish to search on these objects by author in the target dictionary, you must add those users. For this reason, keep users who have edited objects, even if they are no longer using the Language Workbench.

Importing US City Concepts (Optional)

If your installation requires the set of approximately 23,000 US city concepts, import them to the target release.

To import the US city concepts:

1. Click **Tools**, and then **Import Ontology Objects**.
2. Browse to the following directory:

   ```
   <8.6_INSTALL_HOME>\resources\Dictionary_Import_Files\English_<BASE_RELEASE>_Supplementary-US_Cities
   ```
3. Click **Import**.

Recreate Custom Domains, Domain Lists, And Subject Maps

Review the domain lists and subject maps you recorded in the **Record Domain Lists and Subject Maps in Use** step. If they exist in the target Dictionary, verify that the domains included in these domain lists are identical with your base Dictionary. Make changes if necessary. If they do not exist in the target Dictionary, you must recreate them manually.

Recreating the Dictionary Domains and Domain Lists

Recreate the Domains and Domain Lists in the current Production environment. Using the dictionary objects exported in preparation, import these objects into the newly installed dictionary, resolving conflicts when completed.

Importing Concepts

Exporting the concepts generates three files: concepts.csv, synsets.csv, and clusters.csv. If you have multiple sets of concept files to import, you may import them one at a time, or you may combine the files before import.

When you first import your concept files, you might find that some adjustments need to be made. Therefore the first iterations of the concept import are test runs.

To import the concept files:

1. From the **Tools** menu of the Dictionary Manager, click **Import Ontology Objects**.
2. Browse to the directory containing the files.

   The first dialog screen asks if you only want to check for errors, rather than doing a complete import.
3. Select **Yes**.

The test run generates log messages which may help you decide whether you need to make adjustments to your import files. For example, if your import file contains a concept that exists in the 8.6 Dictionary, you will see the following message:

```
Concept 'test' exists; the imported concept may replace the existing concept,
be merged with it, be ignored, or be renamed
```

After you have finalized your import files, you may conduct the actual import. You must choose how to handle any concepts which were found to already exist in the 8.6 Dictionary. You are asked to either (1) ignore the concept in the import file, (2) replace the concept in the dictionary with the one in the import file, (3) add a suffix to the name of the concept being imported to differentiate it from the one in the dictionary, or (4) merge the two concepts.

The best choice is usually to merge the existing concepts. After the import is done, you have a chance to compare the installed 8.6 version with your imported concepts.

Before committing changes:

1. Identify the concepts which have been changed.
2. Right-click on the find results.
3. Select **Diff** from the menu.

   This gives you a side by side comparison with the differences highlighted. You can then choose to revert to the installed 8.6 version or make any other changes.

Note: If your import files contain synonyms in British English, Simplified Chinese, or Taiwanese Chinese, they are imported to the 8.6 Dictionary as synonyms in English Great Britain, Chinese Simplified, and Chinese Traditional, respectively.

Cancelling a Concept Import

If, at any point during the concept import, you decide that you need to start over, do the following:

1. Find all of the concepts last edited on today's date.
2. Select all concepts in the find results.
3. Right click and choose **Revert**.
   The dictionary resets to its original state. You can start the concept import over from the beginning.

First Dictionary Validation

Run dictionary validation from the Tools menu. For each of the domain lists you intend to use, check the Concepts, Clusters, and Synsets boxes. Make sure that no issues have been introduced. You may need to fix issues in the import files, revert your changes, and reimport, as described in **Cancelling a Concept Import**.

Commit Concepts Import

Commit imported concept changes, using the **Commit work to central repository** option from the *Tools* menu.

Import Process Wizards

To import Process Wizards:

1. Choose **Import Process Wizards** from the *Tools* menu.
2. Browse to the directory where you saved the Process Wizard export files.
3. Select **Import**.

Import All Other Dictionary Objects

To import all other dictionary objects, from the **Tools** menu select **Import Dictionary Objects**.

As with the concept import, the first import of the non-ontology objects should be done in test-only mode. This gives you a chance to fix any errors and add any further concepts to the dictionary should they be needed.

After you are able to validate the non-ontology import files without any errors, you may go ahead with the actual import.

Second Dictionary Validation

Choose the domain lists that contain the imported objects and run dictionary validation. Fix any issues.

Commit Dictionary Import

Commit imported dictionary changes, using the **Commit work to central repository** option from the **Tools** menu.

Importing Taxonomy

To import taxonomy:

1. Select **Tools**, and then **Import Taxonomies**.
2. Depending upon your prior release, do one of the following.
   - For Pre-8.5 installations:

     Browse to the following file:

     ```
     <Pre_8.5.1_INSTALL_HOME>\instances\<SCHEDULER_INSTANCE>\<ENVIRONMENT_
     ROLE>\content\applications\default\navigation\runtime\Default\revision\
     <LATEST_REVISION_NUMBER>\taxonomy.xml
     ```

     Select **Import** to import from your pre-8.5 installation.
   - For 8.5 installations and later:

     In the Personalized Navigation tool of your prior application, select **Export Taxonomies** and export `Default.xml`, which contains top level facet definitions, to a temporary folder.

     Browse to the temporary folder where you saved `Default.xml` and select **Import**.
3. Run `initNavigation` from the Common Environment command line prompt to restore the top level facets of the 8.6 installation.

Important! If you applied the 8.5.1.2.2.1 hot patch to create category facets in a backward compatible format for use with 8.1.2, you must change the `FacetDotCompatibleWith812` property to **true** after applying the patch.
For changes to take effect, after you set the property to **true**, restart the scheduler instance and run a Content Processing job.

Migrating Custom Code

This section describes how to migrate any custom Java classes implemented in your previous installed release of Intelligent Search to the newly installed release 8.6 Intelligent Search.

1. You must recompile the source code of your custom implementations of Crawlers, Document Preprocessors, Tasks, Authenticators, and Handlers with the newly installed release 8.6 interface jar files in the class path and the previously installed release jar files removed from the class path.

   All jar files containing the interfaces are located in the following directory:

   ```
   <8.6 INSTALL DIR>/inquira/lib/
   ```
2. After your custom code has been compiled against the newly installed release 8.6 Intelligent Search APIs, rebuild the jar files that contain your custom class files.
3. To configure the newly installed Intelligent Search to use your custom code, copy the newly rebuilt jar files to the following directories:

   ```
   <8.6 INSTALL DIR>/lib
   ```
4. For the Content Processing instance that you created in your newly installed release 8.6 Intelligent Search environment, shut down the instance if it was running and exit any open Common Environment command line prompts.

5 Open a new Common Environment command line prompt and follow the instructions to build the web application (`buildWebApp`) with your newly rebuilt .jar file(s) and deploy the modified web application (`deployApp`).

The newly installed release 8.6 Intelligent Search is configured to use your custom code following the steps outlined in “Migrating the Search Configuration” and “Migrating the Application Settings”.

Migrating the Search Configuration

This section provides an overview of the Search Configuration Migration utility and the execution steps.

Overview of the Utility Process

The utility must be executed within the Common Environment of the 8.6 installation. This is so that utility can have access to the environment’s configuration.

Before you can run the utility, you must save the in-memory configuration to the *n*`.xml` file (where *n* is {`1, 2, 3`...}) in the pre-8.6 environment so that you can provide the *n*`.xml` as the source of truth of the latest configuration settings. Afterwards, you must provide the latest *n*`.xml` from the pre-8.6 environment to the utility.

The utility analyzes certain configuration elements within the Pre-8.6 *n*`.xml`, determines if the elements are user added or customized, and exports them for migration. These elements include reject patterns, URL builders, filters, collections, crawlers, email notifications, tasks, jobs, and handlers. The utility does not export the elements if they are discontinued in 8.6. The utility generates an `autoimport.xml` file that synchronizes the exported configuration elements with the latest *n*`.xml` file in the 8.6 installation.

Running the Search Configuration Migration Utility

Before you begin the Search Configuration migration steps, make sure the 8.6 environment Content Processing instance is shut down. Extract the `searchConfigUpgradeUtility-8.6.zip` file into a temporary directory on the machine hosting the 8.6 environment. This temporary directory is referred to as `<TMP>` in the following instructions.

To run the migration utility:

1 Sign in to the System Manager of the Pre-8.6 environment and open the **Advanced Config** window.

2 Select **Custom Config**.

3 Select **Edit**.

4 Select **Add New Item**, provide `8.6_Upgrade` as the **Item Name** and click **OK**.

5 Delete the newly-added Configuration Item and click **OK**.

6 Click **Save** and then **Exit Configuration** to close the Advanced Config window.

7 Now that memory configuration has been pushed to the file system, locate the *n*.xml in your pre-8.6 environment, where *n* is the highest number available. It is in the following location:

```
<Pre-8.6 INSTALL DIR>/INSTANCES/<CONTENT_PROCESSING_INSTANCE>/development/
<INSTANCE_ROLE>/data/config/default
```

where `CONTENT_PROCESSING_INSTANCE` refers to the Content Processing instance name and `INSTANCE_ROLE` refers to the instance role in your Pre-8.6 development environment. The default instance role for Content Processing instances is `content`.

8. Copy the located `n.xml` into the `<TMP>` directory where the utility was extracted in your 8.6 environment.
9. Open the Common Environment command line prompt from the 8.6 installation's Content Processing instance.
10. Change the directory to the `<TMP>` directory.
11. On Linux or Solaris, change the file permission of the `search_config_upgrade.sh` script to make it executable:

    ```
    chmod 750 *.sh
    ```

12. Execute the Search Configuration Migration script:
    - On Linux and Solaris: `search_config_upgrade.sh`
    - On Windows: `search_config_upgrade.bat`
13. The utility prompts you to specify the full path to the *n*`.xml` that you copied to the `<TMP>` directory from your pre-8.6 environment.

    If the utility determines the *n*.xml file is a valid Search Configuration file, the utility proceeds with the analysis and export of the configuration elements. The utility generates the following file:

    `<8.6 INSTALL DIR>/instances/<INSTANCE>/autoimport.xml;`
    where `INSTANCE` is the Content Processing instance name.

    The Search Configuration Migration utility informs you of the actions being taken along the way on the command line prompt. This information can also be found in a detailed log file in the following location:

    `<8.6 INSTALL DIR>/logs/UPGRADE/<INSTANCE>/search_config_upgrade_MM-dd-yyyy-HHmmss.log;` where `INSTANCE` is the Content Processing instance name.

    After the utility has finished executing, perform the following steps to complete the migration process.
14. Exit the Common Environment command line prompt.
15. Open a new Common Environment command line prompt to initiate the importing of the exported configuration elements from the generated `autoimport.xml` file.
16. Validate the migrated configuration by executing the following command:
    - On Linux: `validateConfig.sh`
    - On Windows: `validateConfig`

    Important! If the validation yields any errors, contact Oracle Customer Support.
17. Review the log file to assess which elements were exported for migration and why other elements were ignored.

Migrating the Application Settings

Because the Search Configuration Migration utility only merges certain configuration settings, you must use the System Manager's Advanced Config functionality to migrate the remaining configuration settings.

Use the following instructions to migrate only the settings not migrated by the Search Configuration Migration utility. The covered configuration settings were listed in “Migrating the Search Configuration”.

1. In two separate browser windows or tabs (to avoid overlapping cookie issues), launch the pre-8.6 and 8.6 System Manager and sign in to both.
2. In both browsers, open the Advanced Config window.
3. Review each setting that was changed in the pre-8.6 release, while ignoring the settings affected by the migration utility, and make the same change in the 8.6 release.
4. Save any configuration changes.

After migrating the settings available through Advanced Config, you must manually verify that all remaining settings not available for configuration through the UI are migrated:

1. Create a backup of the latest `n.xml` in your Content Processing instance in your 8.6 environment (where n is in {`1, 2, 3`…}). Perform a manual file comparison of the latest `n.xml` in your 8.6 environment and the *n*.xml that was used as the source of the pre-8.6 environment’s configuration in “Migrating the Search Configuration”.
2. Determine if any remaining settings should be configured on the 8.6 release and add them manually.
3. After all the settings have migrated, exit any open Common Environment command line prompts and open a new Common Environment command line prompt.
4. Validate the configuration by executing the following command:
   - Linux: `validateConfig.sh`
   - Windows: `validateConfig`
5. Resolve any errors that the validation yields or revert to your backup *n*.xml file.

Completing the Upgrade

After you complete the migration, finish the upgrade with the following steps:

1. Create the desired instances within the 8.6 environment using the `createApp` utility. Follow the instructions in *Installing and Configuring Oracle Knowledge*, Installing Oracle Knowledge Intelligent Search, “Configuring Application Remote Clients and Data Stores”. This information includes building and deploying the web app (`buildWebapp.{sh|bat}` and `deployApp.{sh|bat}`). Be sure to specify the existing Content Processing instance, but specify not to install it.
2. Propagate the configuration into your staging and production environments after they are created as opposed to repeating the entire upgrade process in your staging and production environments. Make certain that when you propagate the configuration that all custom `.jar` files are copied from your existing environment to the `<8.6 INSTALL DIR>/lib` directory of the newly created staging and production environments.
3. Start Content Processing using Full Document Conversion and Full Index.

   Important! The first time you conduct Content Processing after the upgrade, you must run Full Document Conversion and Full Index.

CHAPTER 3

Upgrading Information Manager

This chapter provides instructions for upgrading Information Manager. You upgrade Information Manager using a parallel upgrade process. The process includes steps to:

- Upgrade the Information Manager database
- Migrate your application-specific information and settings

Important! You should always make a backup copy of the Content Resource Mount point before you upgrade Information Manager.

Upgrading the Information Manager Database

You upgrade the Information Manager database using the following process.

1. Create a copy of the database, as described in “Back Up the Information Manager Database” on page 22.
2. Install the new release of Information Manager, and configure it to use the copied database as described in “Install the Target Information Manager Release” on page 23.
3. Analyze the database to identify users having the same or missing login information and/or email addresses using the Duplicate User Information Utility and resolve any duplicates, as described in “ResolvDuplicate and Missing User Information” on page 23. You must run the utility from within the ICE prompt of the newly installed 8.6 instance.
4. Execute the pre-data migration SQL scripts, the data migration classes, and the post-data migration SQL scripts for each release until the database schema and data matches the 8.6 database model.

The Oracle Knowledge 8.6.0.0 Media Pack includes the following Information Manager upgrade utilities:

Utility	File Name
Database Upgrade utility	`im_database_upgrade-8.6.0.0.zip`
Duplicate User Information utility	`dup_login_email_utility.zip`

Back Up the Information Manager Database

First, make a copy of the current IM database schema.

Create the Database Copy for a Parallel Upgrade

Create a new copy of the existing Information Manager database. Do not use a backup copy that you created earlier. Place this copy into the directory that you will use for the upgraded Information Manager application. When you install the new Information Manager, you configure it to use this copied database.

Install the Target Information Manager Release

Install the new release of Information Manager across all required machines using the Information Manager installer.

Specify Database Installation Options

When the IM installer prompts **If the Information Manager Database doesn't exist, do you want the installer to create it?** select **No** and provide the database parameters to access the new copy of the current IM database.

Install the New Information Manager Software for a Parallel Upgrade

Install Information Manager 8.6.0.0 by following the instructions in Installing Oracle Knowledge, Release 8.6.0.0.

Important! Specify the following values during the installation process:

- When the installation process prompts you for the Information Manager Database connection information, enter the information corresponding to the database copy that you created for the upgrade.
- When the installation process prompts you to specify database table creation, choose **No** so that the installation process will preserve the existing tables and data.
- When the installation process prompts you for the Content Resource Mount Point, enter the actual location of the Content Resource Mount Point. Do not enter an empty directory, since the installation process may make modifications to the files stored in this location.

Note: If you use FTP to access content, you should point to the actual directory, since the installer must be able to access the files during the installation process.

When the installation process completes, the newly installed instance may start automatically, depending on your application server. See Installing Oracle Knowledge for more information.

- If the instance is running, stop the instance *immediately*.

Important! Do not attempt to start or use the newly installed instance. The pre-8.6.0.0 database schema and data do not match the 8.6.0.0 database model.

The next steps in the upgrade process updates the tables and data in the database copy to match the 8.6.0.0 database model.

ResolvDuplicate and Missing User Information

From Release 8.5.1 forward, Information Manager no longer permits certain conditions within the database that could exist in previous releases, including:

- users that are missing a user ID (login)
- multiple users that have the same user ID (login)
- users that are missing an email address
- multiple users that have the same email address

If users have null or duplicate login information, the application cannot reliably identify users and record their activity when using the application. If users have null or duplicate email addresses, the new password reset function cannot reliably send the password reset email only to the requesting user; it may send the reset password email to users who did not request it

Releases 8.5.1 and later enforces unique user login information and email addresses, to ensure that:

- every user has a unique login
- every user has a unique email address

When you upgrade to Release 8.6.0.0 or later, you must resolve any null or duplicate login or email information prior to upgrading the database.

Using the Duplicate User Information Utility

You can use the Duplicate User Information utility to resolve null or duplicate login or email information. The Duplicate User Information utility analyzes all of the Information Manager database user information to identify users having null or duplicate login or email information. The utility also applies database level non-null and unique constraints on login information and email addresses to ensure that null and duplicate data are not created in the future.

Important! You must run the utility from within the ICE prompt of the newly installed 8.6.0.0 instance.

You use the utility by:

- running the utility on your copy of the database, prior to performing upgrade, to determine whether duplicate user information exists
- using the reports that the utility generates in Read Only mode to determine whether to resolve null and duplicate user information automatically or manually

Note: See “Using the Duplicate User Information Utility” on page 24 for information on how Read Only mode and Update mode operate before using the utility.

Important! You must run the utility from within the ICE prompt of the newly installed 8.6.0.0 instance.

Duplicate User Information Utility Operation

You can use the Duplicate User Information utility in Read Only mode or Update mode.

In...	The utility...
Read Only mode...	• analyzes all of the user information in the database • generates reports of null and duplicate login information and email addresses • does not modify the database The utility operates in Read Only mode by default.
Update mode...	• automatically updates the database to resolve null and duplicate login information and email addresses • generates reports listing the affected users and the missing or duplicate information for each See “Automatically Resolving Null and Duplicate User Information” on page 27

Setting the Duplicate User Information Utility Operating Mode

You set the mode of the Duplicate User Information utility using the `-dryrun` command line argument in the format:

```
dup_login_email_utility.sh -im_home=<full path to IM configuration files> -dry-
run=<true | false>
```

`true`	sets the utility to execute in Read Only mode
`false`	sets the utility to execute in Update mode

The default value of the `dryrun` argument is `true`; if you do not specify the `dryrun` argument, the Duplicate User Information utility operates in Read Only mode.

Running the Duplicate User Information Utility in Read Only Mode

You can run the Duplicate User Information utility in Read Only mode to determine whether null and duplicate logins and email addresses exist in the database.

1. Extract the `dup_login_email_utility.zip` file into a temporary directory `<TEMP>`
2. Open an ICE command window in the 8.6.0.0 parallel upgrade instance:

   `setenv.sh / .bat`
3. Change to the `<TEMP>` directory.
4. On Linux or Solaris, change the file permission of the `dup_login_email_utility.sh` script to make it executable:

   `chmod 750 *.sh`
5. Execute the script and supply the `im_home` argument:
   - (Linux and Solaris) `dup_login_email_utility.sh -im_home=<full path to IM configuration files>`
   - (Windows) `dup_login_email_utility.bat "-im_home=<full path to IM configuration files>"`

Note: The full path to the IM configuration files in these instructions refers to `$INQUIRA_ROOT/InfoManager` after an initial installation.

DUPLICATE USER INFORMATION UTILITY READ ONLY MODE OUTPUT

The Duplicate User Information utility informs you of whether it has identified null or duplicate logins or email addresses, and lists the location of each report that it produces. The following is a sample message:

```
[23 Oct 2014 13:23:40,876] - [INFO]: Supplied value of dryrun=true, Null login/email and
duplicates login/email will NOT be fixed!
[23 Oct 2014 13:23:40,877] - [INFO]: About to perform analysis: DetectAndCleanDupLoginAndE-
mail
[23 Oct 2014 13:23:41,544] - [INFO]: There are 8 null logins and 9 null emails. A report has
been generated and saved to /home/username/Oracle/Knowledge/IM/InfoManager/logs/UPGRADE/Re-
ports/NullLoginsEmails_1390501421394.xls
[23 Oct 2014 13:23:41,615] - [INFO]: DetectAndCleanDupLoginAndEmail: Null Logins Count:8,
Null Emails Count:9, Null logins and Null Emails will NOT be fixed as per request!
[23 Oct 2014 13:23:41,689] - [INFO]: There are duplicate login/email. A report has been
generated and saved to /home/username/Oracle/Knowledge/IM/InfoManager/logs/UPGRADE/Reports/
DuplicateLoginAndEmails_1390501421675.xls
[23 Oct 2014 13:23:41,756] - [INFO]: DetectAndCleanDupLoginAndEmail: Duplicates Count:38,
```

```
Duplicate logins and emails will NOT be fixed as per request!
[23 Oct 2014 13:23:41,774] - [INFO]: Summary:Duplicate login/emails found. Count:38
```

You can use the reports to review null and duplicate user information and evaluate the changes that the utility will make when run Update mode, as described in “Using the Duplicate User Information Reports” on page 26.

Using the Duplicate User Information Reports

The Duplicate User Information utility generates reports on users having null or duplicate logins or email addresses. It generates the reports in either `.xls` or `.csv` spreadsheet format, and places the reports in the following location:

`<INSTALL DIR>/InfoManager/logs/UPGRADE/Reports/`

Report Type	File Name
Null User Information	`NullLoginsEmails_<datetime>.<file_extension>`
Duplicate User Information	`DuplicateLoginAndEmails_<datetime>.<file_extension>`

The reports list the following information for each user:

- Unique Record ID
- Date Added
- Date Modified
- Repository
- First Name
- Last Name
- User ID (login)
- Will User ID Be Modified?
- Email
- Will Email Be Modified?
- Active Flag
- Is Active (Active, Inactive, Locked, Imported)
- User Type Flag
- User Type (Console, Web, or Super User)

The Duplicate User Information Report also includes the following fields:

- User ID Order#
- Email Order#

The report columns Will User ID Be Modified? and Will Email Be Modified? indicate the action that the utility will take when operating in Update mode:

Yes	indicates that the utility will change the login and/or email address for this user
No	indicates that the utility will preserve the login and/or email address for this user

The Is Active column indicates whether the user can log into the account (Active) or not (Inactive), is locked out pending an administrator reset (Locked) or has been Imported using the User Import feature.

The User ID Order# and Email Order# fields indicate the order of priority of each user's login and/or email address within a set of duplicates.

Resolving Null and Duplicate User Information

You must resolve any null or duplicate user information before continuing with the database upgrade. Each user must have a unique login and email address.

Important! The Database Upgrade utility checks for null and duplicate user information and will not complete the upgrade if any exist.

You can use either of the following methods to resolve duplicate user information:

Automatic Resolution	You can run the utility in Update mode to automatically update duplicate user information and email addresses, then later manually correct the modified information to conform to your organization's requirements, as described in "Automatically Resolving Null and Duplicate User Information" on page 27
Manual Resolution	You can log into the IM Console to manually update the users and email addresses that are identified as requiring resolution in the generated report, as described in "Manually Resolving Duplicate and Missing User Information" on page 29.

Automatically Resolving Null and Duplicate User Information

You can run the Duplicate User Information utility in Update mode to automatically resolve null and duplicate user information from the database.

Important! You must stop the Information Manager application to run the duplicate email address utility in Update mode; the utility modifies user information in the database.

In Update mode, the utility analyzes the database and automatically updates duplicate user information:

If the utility identifies...	Then it...
users sharing the same login information or email addresses	• automatically determines which instance among each set of duplicates to preserve, and changes all but that instance using a pre-set patter to rename the user logins and/or email addresses as described in "Automatically Resolving Null and Duplicate User Information" on page 27. • generates a report of all the updated user information, including the corresponding new values generates a report and notifies you of the location of the report on the screen
users that have no login or email address information	• automatically populates the null user logins and null user email addresses using a pre-set pattern as described in "Automatically Resolving Null and Duplicate User Information" on page 27. • generates a report of all the updated user information, including the corresponding new values generates a report and notifies you of the location of the report on the screen

You can manually correct the modified information to conform to your organization's requirements using the IM Console as an Administrator.

Running the Duplicate User Information Utility in Update Mode

To run the Duplicate User Information Utility in Update mode:

1. Extract the `dup_login_email_utility.zip` file into a temporary directory `<TEMP>`
2. Open an ICE command window in the 8.6.0.0 parallel upgrade installation:

   `setenv.sh / .bat`
3. Change the directory into the `<TMP>` directory.
4. On Linux or Solaris, change the file permission of the `dup_login_email_utility.sh` script to make it executable:

   `chmod 750 *.sh`
5. Execute the script and supply the `im_home` and `dryrun` arguments:
   a. (Linux and Solaris) `dup_login_email_utility.sh -im_home=<full path to IM configuration files> -dryrun=false`
   b. (Windows) `dup_login_email_utility.bat "-im_home=<full path to IM configuration files>" "-dryrun=false"`

Note: The full path to the IM configuration files in these instructions refers to `$INQUIRA_ROOT/InfoManager` after an initial installation.

DUPLICATE USER INFORMATION UTILITY UPGRADE MODE OUTPUT

The Duplicate User Information utility informs you of whether it has updated null or duplicate logins or email addresses, and lists the location of each report that it produces. The following is a sample message:

```
[23 Oct 2014 20:59:31,494] - [INFO]: Supplied value of dryrun=false, Duplicates login/email
will be fixed!
[23 Oct 2014 20:59:31,495] - [INFO]: About to perform analysis: DetectAndCleanDupLoginAndE-
mail
[23 Oct 2014 20:59:32,048] - [INFO]: There are duplicate login/email. A report has been
generated and saved to /home/username/IM_HOME/InQuira_8.6.0.0/InfoManager/logs/UPGRADE/Re-
ports/DuplicateLoginAndEmails_1386640771940.xls
[23 Oct 2014 20:59:32,111] - [INFO]: DetectAndCleanDupLoginAndEmail: Duplicates Count:31,
Duplicate logins and emails will be fixed as per request!
[23 Oct 2014 20:59:32,112] - [INFO]: Cleaning up any previous execution's artifacts.
[23 Oct 2014 20:59:32,347] - [INFO]: Successfully removed duplicate logins/emails from USE-
RINFORMATION table: Both login and email fixed:10, Only Login Fixed: 4, Only Email Fixed: 10
[23 Oct 2014 20:59:32,371] - [INFO]: Number of Errored duplicates:0
[23 Oct 2014 20:59:32,425] - [INFO]: Number of fixedDuplicates found for the Fixed Report:31
[23 Oct 2014 20:59:32,466] - [INFO]: For the fixed duplicate login/email, a fixed report has
been generated and saved to /home/username/IM_HOME/InQuira_8.1.2.5/InfoManager/logs/UP-
GRADE/Reports/FixedDuplicateLoginAndEmails_1386640772438.xls
```

You can use the reports to review null and duplicate user information and evaluate the changes that the utility will make when run Update mode, as described in “Using the Fixed Null and Duplicate User Information Reports” on page 28.

Using the Fixed Null and Duplicate User Information Reports

The Duplicate User Information utility generates reports on users having null or duplicate logins or email addresses. It generates the reports in either `.xls` or `.csv` spreadsheet format, and places the reports in the following location:

`<INSTALL DIR>/InfoManager/logs/UPGRADE/Reports/`

Report Type	File Name
Null User Information	`NullLoginsEmails_<datetime>.<file_extension>`
Duplicate User Information	`DuplicateLoginAndEmails_<datetime>.<file_extension>`

If the utility detects users having null or duplicate logins or email addresses, it generates the following reports:

Report Type	Report	Description
Fixed Null User Information	FixedNullLoginsEmails_ <datetime>.<file_extension>	lists only the user logins and emails that were updated and their new values when the utility was run in Update mode.
Fixed Duplicate User Information	FixedDuplicateLoginAndEmails_<datetime>.<file_extension>	lists only the user logins and emails that were updated and their new values when the utility was run in Update mode.

You can review the "Was User ID Modified?" and "Was Email Modified?" columns of the Fixed Duplicate User Information and Fixed Null User Information reports to identify the modified logins and email addresses. The utility modifies login information and email addresses as follows:

Information Type	Modified Format
duplicate login	ok_dup_<original_login>_<random_guid>
null login	<random_guid>
duplicate email address	ok_dup_<random_guid>_<original_email>
null email address	<random_guid>

You can manually correct the modified information to conform to your organization's requirements using the IM Console as an Administrator.

Manually Resolving Duplicate and Missing User Information

You can manually resolve duplicate and missing user information as an alternative to running the Duplicate User Information script in Update mode. To manually resolve duplicate user information:

- log into the management console of the pre-8.6.0.0 instance as an Administrator having one of the following Security Roles:

Security Role	Description
Default Administrator	can perform any action within the repository in which the user was created, and can log into only that repository
Super Admin	can perform any action on any repository
Super Support	can perform any action on any repository

You can assign new login information and email addresses or de-activate affected users by changing their status to **Inactive**.

Important! Do not delete users as part of this process. Deleting a user may jeopardize the integrity of the data associated with the user (i.e. documents, recommendations, discussion posts, etc).

Every user, including Inactive users, must have unique login information and a unique email address. You can assign fake email addresses (such as `john.doe@junkmail.com`) to users; however, you must use the standard email address format.

When you have resolved all duplicate and missing login information and email addresses, validate the process by running the Duplicate User Information utility again on copy of pre-8.6.0.0 database in 8.6.0.0 ICE prompt. The database upgrade utility checks for missing and duplicate logins and email addresses, and will

terminate the upgrade process if it encounters any. Run the utility as many times as necessary to ensure that the database contains no missing or duplicate user information or email addresses.

The utility also applies database level non-null and unique constraints on login information and email addresses to ensure that null and duplicate data are not created in the future.

We recommend that you run the utility to identify and resolve any null or duplicate logins and email addresses as soon as possible, so that the constraints are applied and your application is protected from issues that may arise from duplicate data.

Upgrading the Information Manager Database

Once the installation has been completed successfully, run the database upgrade utility to update the database schema to the schema supported by the new release.

Preparing the Database for Upgrading

The Information Manager database's `DBVIEWCOUNT` table includes the `DATEOFCOUNT` column. If the version of the database that you are using does not include this column, you must add the column prior to running the database upgrade utility.

You can check that the `DBVIEWCOUNT` table has the `DATEOFCOUNT` column by executing the following statement on the database schema:

Oracle
```
SELECT COUNT(*) FROM USER_TAB_COLS WHERE TABLE_NAME='DBVIEWCOUNT' AND
COLUMN_NAME='DATEOFCOUNT';
```

SQL Server
```
SELECT COUNT(*) FROM INFORMATION_SCHEMA.COLUMNS WHERE
TABLE_NAME='DBVIEWCOUNT' AND COLUMN_NAME='DATEOFCOUNT';
```

If the above statement yields a count of 1, proceed with the upgrade. If the statement yields a count of 0, execute the following SQL statement to add the column to the DBVIEWCOUNT table:

Oracle
```
ALTER TABLE DBVIEWCOUNT ADD (DATEOFCOUNT NUMBER(7, 0) DEFAULT 0 NOT NULL);
```

SQL Server
```
ALTER TABLE DBVIEWCOUNT ADD DATEOFCOUNT NUMERIC(7, 0) DEFAULT 0 NOT NULL;
```

Running the Information Manager Database Upgrade Utility

You run the database upgrade utility within an ICE command window in the newly installed 8.6.0 environment. This enables the utility to access the keystore, database information, and the content resource mount point that you specified during the installation process.

Important! You must run the utility from within the ICE prompt of the newly installed 8.6.0 instance.

Database Upgrade Process Overview

The database upgrade utility performs the following process:

- checks for multiple users having the same login information and/or email addresses

If there are multiple users having the same address, the utility issues a message and stops:

Important! You should have resolved any duplicate email addresses using the process described in “ResolvDuplicate and Missing User Information” on page 23 prior to running the upgrade utility. You must resolve any duplicate email addresses before continuing the upgrade process.

If there are no duplicate logins or email addresses, the utility continues the upgrade process by:

- determining whether there are duplicate content text records, as described in “Identifying and Resolving Duplicate Content Text Records” on page 32

Previous releases may have created duplicate content text records in error. You must resolve any duplicate content text records before continuing the upgrade process. When you have resolved any duplicate content text records, you can continue the upgrade process by executing the required upgrade scripts to incrementally update the database to the current model as described in “Executing the Upgrade Scripts” on page 34.

Running the IM Database Upgrade Utility

Extract the `im_database_upgrade-8.6.0.0.zip` file into a temporary directory. This temporary directory is referred to as `<TMP>` in the following instructions.

To run the upgrade process:

1. Start the ICE command window from the 8.6.0.0 installation.
2. Change the directory into the `<TMP>` directory.
3. On Linux or Solaris, change the file permission of the `im_database_upgrade.sh` script to make it executable:

   ```
   chmod 750 *.sh
   ```

4. Execute the IM Database Upgrade script with no arguments:
   - (Linux and Solaris) `im_database_upgrade.sh`
   - (Windows) `im_database_upgrade.bat`

   The utility prompts you to specify the in Megabytes. This allocates the amount of memory the upgrade utility uses while executing. The minimum value that you can specify is 1024; the default value is 2800.
5. Specify the Memory Allocation Pool Maximum Size, or accept the default value.

   The utility begins the upgrade process by checking for duplicate content text records, and duplicate user information and email addresses.
6. Review the utility’s output for duplicate content records notification.

   The utility checks for duplicate content text records. If the utility finds duplicate content text records, it generates a report and issues a message to notify you of the location of the report, for example:

```
[23 Oct 2014 13:45:38,966]-[INFO]: ================================================
[23 Oct 2014 13:45:38,967]-[INFO]: INFORMATION MANAGER DATABASE UPGRADE UTILITY
[23 Oct 2014 13:45:38,968]-[INFO]: ================================================
[23 Oct 2014 13:45:38,968]-[INFO]: IM_HOME folder found-/home/username/Oracle/Knowledge/
IM/InfoManager
[23 Oct 2014 13:45:38,995]-[INFO]: Database type is Oracle
[23 Oct 2014 13:45:40,597]-[INFO]: The target upgrade version is 8.6.0.0
[23 Oct 2014 13:45:42,691]-[INFO]: The last installed version is 8.1.2.4
[23 Oct 2014 13:45:42,703]-[INFO]: The last installation date is 23 Oct, 2014 12:58 PM
[23 Oct 2014 13:45:42,724]-[INFO]: Verifying that pre-upgrade requirements have been met.
[23 Oct 2014 13:45:43,686]-[INFO]: Checking to see if duplicate Content Text records
```

```
exist in the db.
[23 Oct 2014 13:45:43,700]-[INFO]: About to perform analysis:
DetectDuplicateContentTexts [23 Oct 2014  13:45:46,220]-[INFO]: Successfully generated
report for duplicates in content text in /home/username/Oracle/Knowledge/IM/InfoManager/
logs/UPGRADE/Reports/DuplicateCTRowReport_1360849057.xls
[23 Oct 2014 13:45:46,226]-[ERROR]: FAILED: The Information Manager Database Upgrade
cannot continue until all duplicate content text records have been resolved!
```

If the utility does not detect any duplicate content text records, it notifies you that there are no duplicate content text records and continues the upgrade process.

7 Review the utility's output for duplicate login information and duplicate email addresses.

The utility checks for users having duplicate login information and/or email addresses. If the utility detects duplicates, it generates a report and notifies you of the report location.

Important! You should have resolved any duplicate user information and email addresses using the process described in "ResolvDuplicate and Missing User Information" on page 23 prior to running the upgrade utility. You must resolve any duplicate user information and email addresses before continuing the upgrade process.

If the utility does not detect any duplicate email addresses, it continues the upgrade process.

8 Execute the appropriate pre-data Migration scripts, Data Migration classes, and Post-data Migration scripts, depending on your current release level, as described in "Executing the Upgrade Scripts" on page 34.

Identifying and Resolving Duplicate Content Text Records

The upgrade utility checks for duplicate content text records. Duplicate content text records are records having the same CONTENTID, DOCUMENTID, LOCALEID, MAJORVERSION, and MINORVERSION values. If duplicate records exist, the utility generates a Duplicate Content Text Records report in spreadsheet format with either .xls or .csv extension.

You use the Duplicate Content Text Records report to resolve duplicate records as described in "Using the Duplicate Content Text Records Report" on page 32.

Using the Duplicate Content Text Records Report

You can use the Duplicate Context Record report to identify each document and its duplicate content text records. You use the report by:

- reviewing the Comments field for each duplicate record; the Comments field recommends which records to retain and which to delete
- comparing the content_*.xml files stored on the staging resource mount point to determine which Content Text record(s) should be deleted (the * in content_*.xml represents the Content Text record ID)
- manually updating the report to indicate which records to remove
- reviewing and manually annotating the report
- running the Upgrade utility to remove the designated duplicate records

DETERMINING WHICH CONTENT TEXT RECORDS TO RETAIN

You can determine which content text records to retain in the database by comparing the content_*.xml files.

1 Open the report to review the suggested records to retain and the full path to each content_*.xml file.

If you choose to adopt the suggested deletions and retentions:

2 Annotate and save the report as described in “Annotating the Duplicate Content Record Report” on page 33.

If you need to review the duplicate content records in more detail:

1 Navigate to the Content Resource Mount Point on the file system

2 Open each content_*.xml file, where * is the document’s CONTENTTEXTID from the report, using an XML editor

3 Format and indent the XML for readability, and save the file

4 Use a file comparison tool to compare the content_*.xml files

5 Determine which candidate is best to retain in the system

6 Annotate the report as described in “Annotating the Duplicate Content Record Report” on page 33

7 Save the annotated report

Important! You must save the annotated report in either .xls or .csv format.

ANNOTATING THE DUPLICATE CONTENT RECORD REPORT

You annotate the Duplicate Content Record report to designate which duplicate content records to remove, and use the annotated report as input to the Upgrade utility. The Upgrade utility uses the report to delete the content records that you have marked for removal.

For a given set of duplicate records:

- specify to preserve one record (false)
- specify to remove all duplicates of the record (true)

Important! Do not mark all of the duplicate records to be deleted. If the utility determines that a record and all of its duplicates are selected for deletion, the utility will stop.

To annotate the report:

1 specify a value in the **RemoveRecord** column for every content record in the report

a specify a **T** (true) to remove the content text record

b specify an **F** (false) to preserve the record

RUNNING THE UPGRADE UTILITY TO REMOVE DUPLICATE CONTENT RECORDS

You remove the designated duplicate content records by running the Upgrade utility again, specifying the annotated report as input to the utility. The utility removes the designated records from the database.

To specify the report as input to the content deletion process:

- execute the IM Database Upgrade script, specifying the `delete.from.report` argument and the full path to the modified report file:

- (Linux and Solaris) `im_database_upgrade.sh -delete.from.report=<full path to the modified report file>`
- (Windows) `im_database_upgrade.bat "-delete.from.report=<full path to the modified report file>"`

For example, a command in a Windows environment would be similar to:

```
im_database_upgrade.bat "-delete.from.report=C:\Oracle\Knowledge\IM\InfoManager\logs\UPGRADE\Reports\DuplicateCTRowReport_run1.xls"
```

The utility:

- removes the content text records that are marked for deletion
- performs another analysis to identify any remaining duplicate content text records

You can use the utility to perform identify and eliminate duplicate content text records over multiple iterations, which may be helpful if there are many duplicates.

When the utility completes an analysis and does not identify any duplicate content text records, it issues a message to that no duplicates were found, and continues the upgrade process without generating a report.

Executing the Upgrade Scripts

The Database Upgrade utility executes various scripts, depending upon the current release installed. The IM Database Upgrade utility updates the database schema and data for each release after the starting point until the 8.6.0 database model is matched.

For example, if you are currently at Release 8.4.2.2, the upgrade process:

- runs all the pre-data migration SQL scripts up to release 8.6.0.0
- runs all the data migration classes up to release 8.6.0.0
- runs all the post-data migration SQL scripts up to release 8.6.0.0

When these processes complete, the database is upgraded to Release 8.6.0.0, and the upgrade process:

- runs all the pre-data migration SQL scripts, data migration classes and post-data migration scrips from current version to 8.6.0.0

See “Information Manager Database Upgrade Scripts and Classes” on page 35 for detailed lists of the pre-data migration scripts, data migration classes, and post-data migration scripts that the utility executes as part of the upgrade process.

Upgrade Utility Script Notification

The IM Database Upgrade utility informs you of the actions being taken along the way on the command line prompt. This information can also be found in detailed log files. Detailed information for each class and script can be found in a specific log file and you are informed of the log file location for every execution.

If any part of the upgrade fails, you are notified immediately and the upgrade process halts. You are then directed to review the detailed log file containing more information about the process that failed. You must address the failure, if possible, and restart the execution providing no arguments. If the failure cannot be addressed, contact customer support.

Here is an example excerpt from the utility’s execution:

```
[[31 Oct 2014 01:21:29,876] - [INFO]: ================ VERSION 8.6.0.0 STARTING ========================
[31 Oct 2014 01:21:29,881] - [INFO]:
```

```
[31 Oct 2014 01:21:29,882] - [INFO]: Pre-migration SQL scripts starting...
[31 Oct 2014 01:21:29,896] - [INFO]: Executing 8.6.0.0: SQL Script BUILD_LASTCHANGEDPASSWORD.sql.
[31 Oct 2014 01:21:29,916] - [INFO]: SUCCESS: 8.6.0.0 SQL Script BUILD_LASTCHANGEDPASSWORD.sql completed
successfully with no errors. Please see C:\Oracle\Knowledge\IM860\\InfoManager\logs\UPGRADE\10-31-
2014_011946\8.6.0.0\1_pre-migration-SQL\BUILD_LASTCHANGEDPASSWORD.log for more details.
[31 Oct 2014 01:21:29,932] - [INFO]: Executing 8.6.0.0: SQL Script BUILD_reviewdate.sql.
[31 Oct 2014 01:21:29,978] - [INFO]: SUCCESS: 8.6.0.0 SQL Script BUILD_reviewdate.sql completed suc-
cessfully with no errors. Please see C:\Oracle\Knowledge\IM860\\InfoManager\logs\UPGRADE\10-31-
2014_011946\8.6.0.0\1_pre-migration-SQL\BUILD_reviewdate.log for more details.
[31 Oct 2014 01:21:29,991] - [INFO]: Executing 8.6.0.0: SQL Script BUILD_QUARTZ_2.2.1_UPGRADE.sql.
[31 Oct 2014 01:21:30,280] - [INFO]: SUCCESS: 8.6.0.0 SQL Script BUILD_QUARTZ_2.2.1_UPGRADE.sql com-
pleted successfully with no errors. Please see C:\Oracle\Knowledge\IM860\\InfoManager\logs\UPGRADE\10-
31-2014_011946\8.6.0.0\1_pre-migration-SQL\BUILD_QUARTZ_2.2.1_UPGRADE.log for more details.
[31 Oct 2014 01:21:30,292] - [INFO]: Executing 8.6.0.0: SQL Script BUILD_UPGRADE_TOKENTYPE.sql.
[31 Oct 2014 01:21:30,358] - [INFO]: SUCCESS: 8.6.0.0 SQL Script BUILD_UPGRADE_TOKENTYPE.sql completed
successfully with no errors. Please see C:\Oracle\Knowledge\IM860\\InfoManager\logs\UPGRADE\10-31-
2014_011946\8.6.0.0\1_pre-migration-SQL\BUILD_UPGRADE_TOKENTYPE.log for more details.
[31 Oct 2014 01:21:30,371] - [INFO]: Executing 8.6.0.0: SQL Script BUILD_basedLocaleId.sql.
[31 Oct 2014 01:21:30,408] - [INFO]: SUCCESS: 8.6.0.0 SQL Script BUILD_basedLocaleId.sql completed suc-
cessfully with no errors. Please see C:\Oracle\Knowledge\IM860\\InfoManager\logs\UPGRADE\10-31-
2014_011946\8.6.0.0\1_pre-migration-SQL\BUILD_basedLocaleId.log for more details.
[31 Oct 2014 01:21:30,424] - [INFO]: Executing 8.6.0.0: SQL Script
BUILD_channelSchemaSecurrityRegex.sql.
[31 Oct 2014 01:21:31,239] - [INFO]: SUCCESS: 8.6.0.0 SQL Script BUILD_channelSchemaSecurrityRegex.sql
completed successfully with no errors. Please see C:\Oracle\Knowledge\IM860\\InfoManager\logs\UP-
GRADE\10-31-2014_011946\8.6.0.0\1_pre-migration-SQL\BUILD_channelSchemaSecurrityRegex.log for more de-
tails.
[31 Oct 2014 01:21:31,241] - [INFO]:
[31 Oct 2014 01:21:31,241] - [INFO]: Pre-migration SQL scripts completed.
[31 Oct 2014 01:21:31,243] - [INFO]:
[31 Oct 2014 01:21:31,244] - [INFO]: Data migration classes starting...
[31 Oct 2014 01:21:31,253] - [INFO]: Executing 8.6.0.0 Data Migration Class IMBiDirectionalRelatedCon-
tent
[31 Oct 2014 01:21:32,588] - [INFO]: IM_HOME folder found  - C:\Oracle\Knowledge\IM860\InfoManager
[31 Oct 2014 01:21:32,592] - [INFO]: Database type is Microsoft SQL Server
[31 Oct 2014 01:21:32,736] - [INFO]: The target upgrade version is 8.6.0.0
[31 Oct 2014 01:21:32,747] - [INFO]: Initializing EOFactory!
[31 Oct 2014 01:21:32,748] - [INFO]: MultiOSC: EOFactory initialized: Not using  IQECManager.ObjectStore
pooling!
[31 Oct 2014 01:21:33,769] - [INFO]: ObjectStore Added Notification
[31 Oct 2014 01:21:33,774] - [INFO]: ObjectStore Delegate Set to all stores
[31 Oct 2014 01:21:34,182] - [INFO]: SUCCESS: 8.6.0.0 Data Migration Class IMBiDirectionalRelatedContent
completed successfully with no errors. Please see C:\Oracle\Knowledge\IM860\\InfoManager\logs\UP-
GRADE\10-31-2014_011946\8.6.0.0\2_data-migration-classes\IMBiDirectionalRelatedContent.log for more
details.
[31 Oct 2014 01:21:34,183] - [INFO]:
[31 Oct 2014 01:21:34,184] - [INFO]: Data migration classes completed.
[31 Oct 2014 01:21:34,197] - [INFO]:
[31 Oct 2014 01:21:34,198] - [INFO]: ================== VERSION 8.6.0.0 COMPLETE ======================
[31 Oct 2014 01:21:34,227] - [INFO]: The database's current version is now 8.6.0.0
[31 Oct 2014 01:21:34,229] - [INFO]: The latest installation date is now Oct 31, 2014 1:21 AM
[31 Oct 2014 01:21:34,230] - [INFO]:
[31 Oct 2014 01:21:34,231] - [INFO]: ============================================================
[31 Oct 2014 01:21:34,232] - [INFO]: INFORMATION MANAGER DATABASE UPGRADE UTILITY COMPLETE
[31 Oct 2014 01:21:34,233] - [INFO]: ============================================================
[31 Oct 2014 01:21:35,475] - [INFO]: Initializing EOFactory!
[31 Oct 2014 01:21:35,476] - [INFO]: MultiOSC: EOFactory initialized: Not using  IQECManager.ObjectStore
pooling!
```

Note: The console output can also be found in this log file: `<8.6.0.0 INSTALL DIR>/InfoManager/logs/UPGRADE/<date time>/im_database_upgrade.log`.

Information Manager Database Upgrade Scripts and Classes

The following tables list all of the Pre-data Migration SQL Scripts (Table 1), Data Migration Classes (Table 2), and Post-data Migration SQL Scripts (Table 3) that are executed for most InQuira/Oracle Knowledge releases from 8.1.2.3.4 to 8.6.0.0.

TABLE 1. Pre-data Migration SQL Scripts

Release	Script	Description
8.1.2.3.4	BUILD_81234.sql	Adds the LASTMODIFIEDDATE column to the DBTOPICMETRICS table.
8.1.2.4	BUILD_8124.sql	Creates indexes on the CONTENT and CONTENTTEXT tables.
8.1.2.5	BUILD_8125.sql	Updates the WFSTEPID column in the CONTENTTEXT table to have an empty string where the value is NULL.
8.1.2.7	BUILD_8127.sql	1. Adds the LASTMODIFIEDDATE column to the CONTENTTEXT table. 2. Adds the SPELLCHECKINGSUPPORT column to the LOCALE table and set it to 'N' for all entries. 3. Adds newly supported locales: de_DE, fr_FR, es_ES, zh_CN, zh_TW, pt_BR, ko_KR, nl_NL, pl_PL, and sk_SK. 4. Turns on spell-checking support for all locales that support it: en_US, de_DE, fr_FR, es_ES, it_IT, pt_BR, en_GB, ru_RU, uk_UK, and nl_NL.
8.1.3.0	BUILD_8130.sql	Creates the DBTOPICDATA and DBMESSAGEDATA tables.
	BUILD_8130_populateDBTopicData.sql	Populates the DBTOPICDATA table with data from the BODY column in the DBTOPIC table.
	BUILD_8130_populateDBMessageData.sql	Populates the DBMESSAGEDATA table with the data from the BODY column in the DBMESSAGE table.
8.1.3.3	BUILD_8133.sql	Creates indexes on the CASELINK and CASELINKCONTENT tables.
8.2.0.0	BUILD_8200.sql	1. Adds the REPLACEMENTTEXT_NON_FORMATTED column to the LOCALIZEDTOKENS table. 2. Creates an index on the CONTENTTEXTPUB table. 3. Updates the locale table to set the LOCALEDESC value to Português Brasileiro where RECORDID is pt_BR. 4. Sets the NUMBEROFVERSIONS column to NULL for all rows in the CONTENTCHANNEL table.
8.2.0.1	BUILD_8201.sql	Updates the database to support the **Move Topic** functionality.
8.4.0.0	BUILD_8400.sql	Creates indexes on the CONTENT, CONTENTTEXT, CONTENTTEXTPUB, and SURVEYRESULTSDETAILS tables.

TABLE 1. Pre-data Migration SQL Scripts (Continued)

Release	Script	Description
8.4.2.0	BUILD_8420.sql	Updates the PUBLISHEDDATE column in all rows of the CONTENTTEXTPUB table where the PUBLISHEDDATE column is NULL to have the same value as DATEADDED.
	BUILD_8420_unifyPublishDate.sql	Updates the PUBLISHDATE column in all rows of the CONTENTTEXT table where PUBLISHDATE column is NULL and PUBLISHED column is Y to have the same value as the PUBLISHEDDATE column in the CONTENTTEXTPUB table.
8.5.0.0	BUILD_8500.sql	1. Removes anything related to the Geocode functionality. 2. Increases the capacity of the COUNT column of the CONTENTMETRICS table. 3. Updates the priority look-up codes in order for them to display in order in the UI. 4. Adds the data needed for the Publish channel privilege. 5. Adds the data needed for the Manage Analytics secured activity and give all Site Administrators the activity. 6. Adds the REPORTINGUSERGROUPID column to the USERINFORMATION table. 7. Adds the REFERENCEKEY column to the WORKFLOWSTEP table. 8. Adds the data needed for the following secured activities: Import Repository Data for Translation, Export Repository Data for Translation, Manage Content Batches, Configure Batch Jobs, and Configure Tasks and Notifications. Also, give the Default Administrator role those secured activities. 9. Updates Quartz-related tables in order to support the Quartz upgrade. 10. Adds the RETENTION column to the BATCHJOBS table. 11. Adds the URLTOKEN and URLTOKENEXPIRATION columns to the USERINFORMATION table. 12. Creates DBMESSAGEFILE and DBTOPICFILE tables. 13. Performs miscellaneous localization updates.
	BUILD_8500_startEndDatesNotNull.sql	Updates database to ensure that the DISPLAYSTARTDATE and DISPLAYENDDATE columns in the CONTENT, CONTENTTEXT, CONTENTTEXTPUB, and SURVEY tables are not NULL and will never be NULL.

TABLE 1. Pre-data Migration SQL Scripts (Continued)

Release	Script	Description
8.5.0.0 continued	BUILD_8500_tasksUpdate.sql	1. Updates all content expiration tasks with the correct ContentTexts. 2. Updates all translation tasks with correct ContentTexts using the CONTENTLOCALEREQUEST version. 3. Updates the TASKLOG table so that records are per-ContentText instead of per-Content for content expiration tasks. 4. Updates all content changed tasks with the correct ContentText.
	BUILD_8500_GFR.sql	Adds the data needed to support Global Find and Replace.
	BUILD_8500_SDP.sql	Adds the data needed to support Start Date Publishing.
	BUILD_8500_newLocales.sql	Adds the following supported locales and their localized resources: cs_CZ, da_DK, fi_FI, no_NO, pt_PT, sv_SE, th_TH, and tr_TR.
	BUILD_newBulkUpdate.sql	Adds the data needed to support Bulk Updates to Content.
	BUILD_8500_contentHistoryUpdates.sql	Inserts data into the CONTENTHISTORY table related to content locale requests.
	BUILD_8500_constraintsAndIndexes.sql	Adds constraints and indexes to various tables.
8.5.1.0	BUILD_8510.sql	Adds the following supported locales and their localized resources: ar_SA and he_IL. Updated translations for existing resources as needed.
	BUILD_8510_CONTENTATTRIBUTESUMMARY.sql	Creates the CONTENTATTRIBUTESUMMARY table and populates it with the CASELINK count for each CONTENT row that has case links assigned to it
	BUILD_post_8510_CONTENTATTRIBUTESUMMARY.sq	Only for Oracle DB. Resizes of VALUE column.
	BUILD_8510.sql	Adds the following supported locales and their localized resources: `ar_SA` and `he_IL`. Updated translations for existing resources as needed.
	BUILD_unique_contenttext_constraints.sql	Adds a unique constraint on the CONTENTTEXT to prevent duplicate content text records. Adds a unique constraint on CONTENTTEXT so that only one version of a content can be published at a time.
	BUILD_unique_contenttextpub_constraints.sql	This script is for Oracle DB only. Adds a unique constraint on CONTENTTEXTPUB so that only one version of a content can be published at a time.

TABLE 1. Pre-data Migration SQL Scripts (Continued)

Release	Script	Description
8.5.1.4	BUILD_unique_contenttext_constraints.sql	Adds a unique constraint on the CONTENTTEXT to prevent duplicate content text records. Adds a unique constraint on CONTENTTEXT so that only one version of a content can be published at a time.
	BUILD_unique_contenttextpub_constraints.sql	This script is for Oracle DB only. Adds a unique constraint on CONTENTTEXTPUB so that only one version of a content can be published at a time.
	BUILD_unique_userinformation_constraints.sql	Adds 2 different unique constraints on the USERINFORMATION table so that user logins and emails are unique per repository
8.6.0.0	BUILD_LASTCHANGEDPASSWORD.sql	Added column in USERINFORMATION to store last changed date time
	BUILD_unique_contenttext_published_flag_constraint.sql	This script is for Oracle DB only. Adding virtual column UNIQUEPUBLISHED and adding the unique constraint on CONTENTTEXT
	BUILD_reviewdate.sq	Dropped review date from content table and added to content text table so that each translated content has its own review date.
	BUILD_QUARTZ_2.2.1_UPGRADE.sql	Updating quartz tables according to quartz 2.2.1 version.
	BUILD_UPGRADE_TOKENTYPE.sql	Added column in LOCALIZEDTOKENS to identify rich text or plain text.
	BUILD_basedLocaleId.sql	Added column in CONTENTTEXT table to link locale using which translation was performed.
	BUILD_channelSchemaSecurrityRegex.sql	Added column in SCHEMAATTRIBUTE to capture channel schema attribute reg-ex pattern.

TABLE 2. Data Migration Classes

Release	Class	Description
8.2.0.0	com.inquira.infomanager.migration.IM8200	For each localized token in system, saves a version of the replacement text without formatting.
8.5.0.0	com.inquira.infomanager.migration.IM8500_CheckinContentTexts	For each ContentText that is checked out and is not the latest version, check it back in and check out its latest version.
	com.inquira.infomanager.migration.IM8500_PublishPrivilege	For each content channel, add the Publish privilege to the `CONTENTCHANNELPRIVILEGE` table.
	com.inquira.infomanager.migration.IM8500_WFStepRefKeys	For each Workflow Step, creating a reference key based on the name in the base locale for the repository.
	com.inquira.infomanager.migration.IM8500_TasksNamesUpdate	For each ContentTask-related task, update the task name by prepending the document ID to the current task's name.
	com.inquira.infomanager.migration.IM8500_BatchJobRetention	For each current batch job, update the job with the correct default for its retention time.
	com.inquira.infomanager.migration.IM8500_NewBatchJobs	For each existing repository, add the new StartDatePublisher, BulkUpdateJob, TrimBatchHistory batch jobs.
	com.inquira.infomanager.migration.IM8500_RoleNameTranslations	For both the Default Administration and Default User Roles, update their display names for all available locales in each repository.
	com.inquira.infomanager.migration.IM8500_DBAttachFilePrivilege	For each discussion board and discussion board forum in all repositories, add the **Attach File** privilege and configure accordingly.
8.5.0.0	com.inquira.infomanager.migration.IMMetricsMerger	This is an Update Class to create Topic and Content Metrics Merger batch jobs for existing repositories.
	com.inquira.infomanager.migration.IMUpdateUsers	Replaces encrypted user password values with an equivalent but secure one-way hashed value for all users.
8.5.0.0	BUILD_newBulkUpdate.sql	Adds the data needed to support Bulk Updates to Content.
8.5.1.0	com.inquira.infomanager.data.migration.IMCaseLinkCleanup	The purpose of this class is to resolve duplicate and orphaned CaseLinks within each repository. For each repository, two CaseLinks with the same case number (CASEVALUE column) should not co-exist. CaseLinks that are not assigned to any document should not exist.
8.5.1.5	com.inquira.infomanager.data.migration.IMViewsObjectIDCleanup	Cleans up the corrupted View Object ID's.
8.5.1.5	com.inquira.infomanager.data.migration.IMDuplicateViewsDelete	If two views or mote with same reference key exists in a repository then this utility will automatically will delete latest views and its corresponding children views will be assigned to original/oldest view.

TABLE 2. Data Migration Classes (Continued)

Release	Class	Description
8.6.0.0	com.inquira.infomanager.data.migration.IMBiDirectionalRelatedContent	Creates bidirectional relation between two related contents.

TABLE 3. Post-data Migration SQL Scripts

Release	Script	Description
8.1.2.4	BUILD_8124-post.sql	Updates the locale table to set the LOCALEDESC value to Українська where RECORDID is uk_UA
8.1.2.7	BUILD_8127-post.sql	1. Updates all references to old ko locale to use the new ko_KR locale and delete old ko locale. 2. Updates all references to old sk locale to use the new sk_SK locale and delete old sk locale.
8.1.3.0	BUILD_8130-post.sql	1. Drops the BODY column in the DBTOPIC table. 2. Drops the BODY column in the DBMESSAGE table.
8.5.0.0	BUILD_8500-post.sql	1. Removes Editor Groups-related tables and data from the database. 2. Removes Shopping Cart-related tables and data from the database. 3. Performs miscellaneous database updates.
	BUILD_8500_SDP-post.sql	1. Deletes pending documents from the CONTENTTEXTPUB table. 2. Drops CONTENTTAG, CONTENTSECURITYTAG, and SITECONTENT tables.
	BUILD_8500_SDP_createContentSecurityTag-post.sql	Creates the CONTENTSECURITYTAG view.
	BUILD_8500_SDP_createContentTag-post.sql	Creates the CONTENTTAG view.
	BUILD_8500_SDP_createSiteContent-post.sql	Creates the SITECONTENT view.
8.5.1.4	BUILD_8510_CaseLinkCleanup-post.sql	Adds a unique constraint on CASELINK to prevent case links with duplicate case numbers (CASEVALUE). Adds a unique constraint on CASELINKCONTENT to prevent the same case link from being assigned to the same document more than once.

Post-upgrade Requirements

When the upgrade process completes, remove the IM Database Upgrade utility from the system; a command line utility that can update the database and file system presents a security risk.

To delete the utility:

1. Navigate with a file browser to `<TMP>`.
2. Delete all the contents of the extracted `im_database_upgrade-8.6.0.0 zip` as well as the `im_database_upgrade-8.6.0.0 zip` itself.

Note: You should restart your browser before preceding as all browser cookies should be deleted. If you still encounter errors, manually delete the browser cookies.

If you encounter any issues with the database upgrade utility, see “Troubleshooting the Information Manager Database Upgrade Utility” on page 83 for possible causes and related solutions.

Upgrading Information Manager Configuration

You upgrade Information Manager configuration, custom information, and application settings using the processes described in the following sections.

- **Migrate Custom Settings in application.properties**
- **Migrate Custom Settings in config.propertiesMigrate Custom E-mail Templates**
- **Migrate Custom Additions to the Information Manager Spell-Check Dictionaries**
- **Migrate Custom Settings in the IM Management Console Web Application Deployment Descriptor**
- **Migrate Custom Settings in the IMWS Web Application Deployment Descriptor**
- **Migrate a Custom iAuthenticator**
- **Migrate Custom Rich Text Area Settings**
- **Migrate Custom JGroups Settings**
- **Migrate Custom Profanity Lists**
- **Migrate Custom Delegate Classes**
- **Migrate Custom Allowed HTML Tags**

Migrate Custom Information and Settings

The instructions given in the following sections describe what you must do to migrate custom information and settings from the previously installed release of Information Manager to the freshly installed release 8.6.0 of Information Manager in order to fully complete the upgrade process.

Note: The following instructions must be performed after the database upgrade to 8.6.0 and the parallel installation of Information Manager 8.6.0 have been completed and verified.

Migrating Custom Configuration and Code

Migrate the custom settings made in the `applications.properties`, `config.properties`, and `web.xml` files.

Migrate any custom e-mail templates and any additions to the spell-check dictionary.

Migrate any other customizations that you wish to deploy with the new release. See “Upgrading Information Manager” on page 22.

Migrate Custom Settings in application.properties

This section describes how to migrate custom settings from the `applications.properties` files, located in either `<IM_HOME>/config/IMADMIN` or `<IM_HOME>/config/IMWEBSERVICES`, from the previously installed release of Information Manager to the freshly installed release 8.6.0 of Information Manager.

As part of the installation process of release 8.6.0, a configured copy of `application.properties` is put into both the `IMADMIN` and `IMWEBSERVICES` configuration (`config`) folders. As such, the following properties are already properly configured and should not be migrated:

- `JDBCUserid`
- `JDBCPassword`
- `DATABASE_TYPE`
- `JDBCURL`
- `JDBCDriver`
- `webservices.app.url`
- `temp.dir`

The new `application.properties` files in release 8.6.0 in the `IMADMIN` and `IMWEBSERVICES` `config` folders contain all available settings with descriptions and default values, but most of them are commented out. Also, the following settings may have been available in the previously installed release but are no longer available in 8.6.0:

- `jgroups.configsynchronizer.enabled`
- `jgroups.configsynchronizer.group.identifier`

In order to migrate custom settings in `application.properties` for either `IMADMIN` or `IMWEBSERVICES`, the following steps must be performed while the 8.6.0 instance is *not* running (the previously installed release's instance can still be running when performing these steps):

1. In a text editor, open `application.properties`, located in `<IM_HOME>/config/<DOMAIN>`, for the previously installed release of Information Manager.
   a. <DOMAIN> can either be `IMADMIN` or `IMWEBSERVICES`.
2. In a text editor, open the corresponding `application.properties` for release 8.6.0.
3. For each setting name in `application.properties` for the previously installed release, do a search for that setting name in the `application.properties` for release 8.6.0.

   Important! Disregard the settings listed in the above bullet lists when performing this step.
4. If the setting name is found in 8.6.0:
   a. Uncomment the line, if it is commented out.
   b. Change the value to the same value in the previously installed release.
5. If the setting name is not found in 8.6.0, copy both the setting name and value from the previously installed release to 8.6.0, using the same placement.

6 Repeat step 3 through step 5 until all settings in the previously installed release have been migrated.

Migrate Custom Settings in config.properties

This section describes how to migrate custom values for settings in the `config.properties` file from the previously installed release of Information Manager to the freshly installed 8.6.0 release of Information Manager. This section covers migrating custom values from the System repository and other created repositories and requires that the previously installed release of Information Manager and the freshly installed release both be up and running.

If logged into Information Manager as a user with System Administration privileges in the System repository or any other created repository, it is possible to change the settings contained in the `config.properties` file for that repository through the Oracle Knowledge Settings page. Some important settings can be changed through the configuration pages, and all settings can be changed through Expert Mode.

Accessing the Oracle Knowledge Settings Page

To navigate to the Oracle Knowledge Settings page:

1 Log into Information Manager.

2 Select **Tools**.

3 Select **Configure** under *System* on the side bar.

Information Manager displays the Oracle Knowledge Settings page, containing a list of links to configuration pages.

Using Configuration Pages to Migrate Custom Settings

For some settings in the `config.properties`, it best to use the configuration pages to change the settings.

You must use the specific configuration pages to modify the following configurations:

- **Resource Configuration**
- **LDAP Configuration**
- **Email Configuration**
- **InQuira Search Configuration**
- **Delegate Classes Configuration**
- **Delegate Translation**

The Oracle Knowledge Settings page also displays a link to go to Expert Mode. Use Expert Mode to modify *only* those settings which do not appear in the above configurations.

RESOURCE CONFIGURATION

The Resource Configuration page affects the following settings from the `config.properties` file:

- `CONTENT_RESOURCE_MOUNT_POINT`
- `FILE_TRANSFER_TYPE`
- `FTP_SERVER_HOSTNAME`
- `MANAGEMENT_CONSOLE_URL`
- `RESOURCE_HOST_URL`
- `SECURE_RESOURCE_HOST_URL`

- FTP_SERVER_PASSWORD
- FTP_SERVER_USERNAME
- FTP_STAGING_SERVER_HOSTNAME
- FTP_STAGING_SERVER_PASSWORD
- FTP_STAGING_SERVER_USERNAME
- STAGING_RESOURCE_HOST_URL
- STATIC_RESOURCE_PATH
- USE_SSL
- WYSIWYG_LIBRARY_PATH
- WYSIWYG_THUMBNAIL_PATH

The values on this configuration page, for the System repository and other created repositories, do not need to be migrated from the pre-8.6.0 release to 8.6.0 since you configured these settings during the installation.

LDAP CONFIGURATION

The LDAP Configuration page affects the following settings from the config.properties file:

- LDAP_ENABLED
- LDAP_SETTINGS
- LDAP_SINGLE_SIGN_ON
- LDAP_SINGLE_SIGN_ON_KEY
- LDAP_RECURSION_DEPTH_LEVEL

If you have custom changes to the LDAP configuration in the System repository in the pre-8.6.0 release, do the following:

1. Launch the pre-8.6.0 and 8.6.0 Information Manager in two separate browser windows or tabs and log into the System repository on both.
2. In both browser windows/tabs, follow the steps outlined above in “Accessing the Oracle Knowledge Settings Page” to navigate to the Oracle Knowledge Settings page.
3. Select **LDAP Configuration**.
4. Make the same changes in the 8.6.0 LDAP Configuration page that exist in the pre-8.6.0 LDAP Configuration page.
5. Select **Save LDAP Configuration**.

If you have custom changes to the LDAP configuration in any of the created repositories in the pre-8.6.0 release, do the following for each repository with changes:

1. Launch the pre-8.6.0 and 8.6.0 Information Manager in two separate browser windows or tabs and log into the System repository on both.
2. In the pre-8.6.0 browser/tab, change the repository to the repository with changes.
3. In the 8.6.0 browser/tab, change the repository to the 8.6.0 equivalent of the repository from step 2.
4. In both browser windows/tabs, follow the steps outlined above in “Accessing the Oracle Knowledge Settings Page” to navigate to the Oracle Knowledge Settings page.
5. Select **LDAP Configuration**.
6. Select **Override Default Configuration** if it displays at the bottom of the LDAP Configuration page while in the 8.6.0 browser/tab, If not displayed, proceed to step 7.
7. Make the same changes in the 8.6.0 LDAP Configuration page that exist in the pre-8.6.0 LDAP Configuration page.

If the text boxes and/or radio buttons in the 8.6.0 browser/tab are not editable, do the following in the 8.6.0 browser/tab:

a Select **Cancel**.

b Select **Go to Expert Mode** on the Oracle Knowledge Settings page.

c Select **LDAP_ENABLED**.

d Make sure the **Allow administrators to edit value** check box is checked.

e Select **Save**.

f Navigate back to the LDAP Configuration page.

g Return to step 5.

8 Select **Save LDAP Configuration**.

EMAIL CONFIGURATION

The Email Configuration page affects the following settings from the `config.properties` file:

- `SMTP_HOST`
- `ADMIN_EMAIL`
- `SMTP_USE_AUTHENTICATION`
- `SMTP_USER_NAME`
- `SMTP_PASSWORD`

The values on this configuration page, for the System repository and other created repositories, do not need to be migrated from the pre-8.6.0 release to 8.6.0 since you configured these settings during the installation.

INQUIRA SEARCH CONFIGURATION

The InQuira Search Configuration page affects the following settings from the `config.properties` file:

- `INQUIRA_URL_FOR_SEARCH`
- `INQUIRA_HIGHLIGHT_FOR_SEARCH`
- `INQUIRA_SHOW_SIMILAR_FOR_SEARCH`
- `INQUIRA_DEFAULT_IM`
- `INQUIRA_MIN_SCORE_FOR_SEARCH`
- `INQUIRA_MIN_DIFF_FOR_SEARCH`
- `INQUIRA_MAX_DISPLAY_FOR_SEARCH`

If you have custom changes to the InQuira Search configuration in the System repository in the pre-8.6.0 release, do the following:

1 Launch the pre-8.6.0 and 8.6.0 Information Manager in two separate browser windows or tabs and log into the System repository on both.

2 In both browser windows/tabs, follow the steps outlined above in “Accessing the Oracle Knowledge Settings Page” to navigate to the Oracle Knowledge Settings page.

3 Select **InQuira Search Configuration**.

4. Make the same changes in the 8.6.0 InQuira Search Configuration page that exist in the pre-8.6.0 InQuira Search Configuration page.
5. Select **Save**.

If you have custom changes to the InQuira Search configuration in any of the created repositories in the pre-8.6.0 release, do the following for each repository with changes:

1. Launch the pre-8.6.0 and 8.6.0 Information Manager in two separate browser windows or tabs and log into the System repository on both.
2. In the pre-8.6.0 browser/tab, change the repository to the repository with changes.
3. In the 8.6.0 browser/tab, change the repository to the 8.6.0 equivalent of the repository from step 2.
4. In both browser windows/tabs, follow the steps outlined above in "Accessing the Oracle Knowledge Settings Page" to navigate to the Oracle Knowledge Settings page.
5. Select **InQuira Search Configuration**.
6. Select **Override Default Configuration** if it displays at the bottom of the InQuira Search Configuration page while in the 8.6.0 browser/tab, If not, proceed to step 7.
7. Make the same changes in the 8.6.0 InQuira Search Configuration page that exist in the pre-8.6.0 InQuira Search Configuration page.

   If the text boxes and/or radio buttons in the 8.6.0 browser/tab are not editable, do the following while in the 8.6.0 browser/tab:

   a. Select **Cancel**.
   b. Select **Go to Expert Mode** on the Oracle Knowledge Settings page.
   c. Select **INQUIRA_URL_FOR_SEARCH**.
   d. Make sure the **Allow administrators to edit value** check box is checked.
   e. Select **Save**.
   f. Navigate back to the InQuira Search Configuration page.
   g. Return to step 5.
8. Select **Save**.

DELEGATE CLASSES CONFIGURATION

The Delegate Classes Configuration page affects the following settings from the `config.properties` file:

- `ChangeLocalAction`
- `ChannelSearchAction`
- `ContributeAction`
- `CreateFaqAction`
- `EditProfileAction`
- `FullTextSearchAction`
- `GenericFormAction`
- `LoginAction`
- `LostPasswordAction`
- `NewsLetterFindEmailAction`
- `NewsLetterSubscribeAction`
- `PageEmailAction`
- `RecommendAction`
- `TakeSurveyAction`
- `TalkbackAction`

If you have custom changes to the Delegate Classes configuration in the System repository in the pre-8.6.0 release, do the following:

1. Launch the pre-8.6.0 and 8.6.0 Information Manager in two separate browser windows or tabs and log into the System repository on both.
2. In both browser windows/tabs, follow the steps outlined above in “Accessing the Oracle Knowledge Settings Page” to navigate to the Oracle Knowledge Settings page.
3. Select **Delegate Classes Configuration**.
4. Make the same changes in the 8.6.0 Delegate Classes Configuration page that exist in the Pre-8.6.0 Delegate Classes Configuration page.
5. Select **Save Delegate Classes**.

If you have custom changes to the Delegate Classes configuration in any of the created repositories in the Pre-8.6.0 release, do the following for each repository with changes:

1. Launch the pre-8.6.0 and 8.6.0 Information Manager in two separate browser windows or tabs and log into the System repository on both.
2. In the pre-8.6.0 browser/tab, change the repository to the repository with changes.
3. In the 8.6.0 browser/tab, change the repository to the 8.6.0 equivalent of the repository from step 2.
4. In both browser windows/tabs, follow the steps outlined above in “Accessing the Oracle Knowledge Settings Page” to navigate to the Oracle Knowledge Settings page.
5. Select **Delegate Classes Configuration**.
6. Select **Override Default Configuration** if it displays at the bottom of the Delegate Classes Configuration page while in the 8.6.0 browser/tab. If not, proceed to step 7.
7. Make the same changes in the 8.6.0 Delegate Classes Configuration page that exist in the pre-8.6.0 Delegate Classes Configuration page.

   If the text boxes and/or radio buttons in the 8.6.0 browser/tab are not editable, do the following while in the 8.6.0 browser/tab:

   a. Select **Cancel**.
   b. Select **Go to Expert Mode** on the Oracle Knowledge Settings page.
   c. Select **ChangeLocalAction**.
   d. Make sure the **Allow administrators to edit value** check box is checked.
   e. Select **Save**.
   f. Navigate back to the Delegate Classes Configuration page.
   g. Return to step 5.
8. Select **Save Delegate Classes**.

DELEGATE TRANSLATION

The Translation Delegate Class Configuration page affects the following setting from the `config.properties` file:

- TranslationDelegate

If you have a custom change to the Delegate Classes configuration in the System repository in the pre-8.6.0 release, do the following:

1. Launch the pre-8.6.0 and 8.6.0 Information Manager in two separate browser windows or tabs and log into the System repository on both.
2. In both browser windows/tabs, follow the steps outlined above in “Accessing the Oracle Knowledge Settings Page” to navigate to the Oracle Knowledge Settings page.
3. Select **Delegate Translation**.
4. Make the same change in the 8.6.0 Translation Delegate Class Configuration page that exists in the pre-8.6.0 Translation Delegate Class Configuration page.
5. Select **Save Delegate Class**.

If a custom change was made to the Translation Delegate Class configuration in any of the created repositories in the pre-8.6.0 release, do the following for each repository with changes:

1. Launch the pre-8.6.0 and 8.6.0 Information Manager in two separate browser windows or tabs and log into the System repository on both.
2. In the pre-8.6.0 browser/tab, change the repository to the repository with changes.
3. In the 8.6.0 browser/tab, change the repository to the 8.6.0 equivalent of the repository from step 2.
4. In both browser windows/tabs, follow the steps outlined above in “Accessing the Oracle Knowledge Settings Page” to navigate to the Oracle Knowledge Settings page.
5. Select **Delegate Translation**.
6. Select **Override Default Configuration** if it displays at the bottom of the Translation Delegate Class Configuration page while in the 8.6.0 browser/tab. If not, proceed to step 7.
7. Make the same change in the 8.6.0 Translation Delegate Class Configuration page that exists in the pre-8.6.0 Translation Delegate Class Configuration page.

   If the text boxes and/or radio buttons in the 8.6.0 browser/tab are not editable, do the following while in the 8.6.0 browser/tab:

   a. Select **Cancel**.
   b. Select **Go to Expert Mode** on the Oracle Knowledge Settings page.
   c. Select **TranslationDelegate**.
   d. Make sure the **Allow administrators to edit value** check box is checked.
   e. Select **Save**.
   f. Navigate back to the Translation Delegate Class Configuration page.
   g. Return to step 5.
8. Select **Save Delegate Class**.

Using Expert Mode to Migrate Custom Settings

Since the configuration pages only affect certain settings in the `config.properties` file, the way to migrate those settings that are not affected by the configuration pages is to use Expert Mode in Information Manager.

The Expert Mode page lists all the available settings in the `config.properties` files with descriptions for each. To edit a setting, select the setting.

To navigate to the Expert Mode page:

1. Select **Tools**.
2. Select **Configure** under *System* on the side bar.
3. Select **Go to Expert Mode**.

Use the following instructions to migrate *only* the settings not affected by the configuration pages which were listed in their respective sections. Ignore those settings which have been modified through their respective configuration pages when following these instructions. The following instructions are for migrating custom settings for both the System repository and/or each of the created repositories.

1. Launch the pre-8.6.0 and 8.6.0 Information Manager in two separate browser windows or tabs and log into the System repository on both.

   If migrating settings for the System repository, skip to step 4.

   If migrating settings for a created repository, go on to step 2.
2. In the pre-8.6.0 browser/tab, change the repository to the repository with changes.
3. In the 8.6.0 browser/tab, change the repository to the 8.6.0 equivalent of the repository from step 2.
4. In both browser windows/tabs, follow the steps above to navigate to the Expert Mode page.
5. For each setting that was changed in pre-8.6.0 release (while ignoring the settings affected by configuration pages), make the same change in the 8.6.0 release.

Migrate Custom E-mail Templates

This section describes how to migrate custom, modified e-mail templates from the previously installed release of Information Manager.

The e-mail template files can be found in the following locations:

- `<IM_HOME>/config/SYSTEM/taskconfig`
- `<IM_HOME>/config/<REPO_REFKEY>/taskconfig`
  - `<REPO_REFKEY>` is a repository reference key and does not include `IMADMIN` or `IMWEBSERVICES`.
  - A copy of the template would be stored here only if the e-mail template was modified for the specific repository.

The e-mail template file names are in the following format:

`<template_name>_<language>.xml`

- `<language>` is the two-letter language code (e.g. `en`).
- Example file name: `contentexpiration_fr.xml`

Steps to Migrate Custom E-mail Templates

When migrating the custom e-mail templates from the previously installed release of Information Manager, the following changes need to be taken into account:

- **Passwords in Templates**: The use of the password token, `<P1>`, in e-mail templates is not supported in 8.6.0. If any modified e-mail templates contain the password token, they must be edited to remove the password token.
- **Lost Password Template**: The Lost Password template (`forgotPassword_<language>.xml`) is not used in 8.6.0 and should *not* be migrated from the previously installed release to 8.6.0.
- **Inactive Account Template**: The Inactive Account notification is sent to a user who has unsuccessfully tried to log in more than the maximum allowed attempts. Due to the change in the process of unlocking a locked user account, the Inactive Account template (`inactiveAccount_<language>.xml`) has been changed considerably to work with the new process. The template now contains instructions, a link to reset the user password in order to unlock the account, and a valid link expiration period. Since the process for which this template is used has changed, Oracle strongly recommends that you modify the template in 8.6.0 if needed. You should not migrate any custom changes to the Inactive Account template from the previously installed release, as this could introduce inconsistencies.
- **Content Recommendation Template**: The Content Recommendation notification is sent to a user who has been assigned a Content Recommendation task. The Content Recommendation template (`contentrecommendation_<language>.xml`) has been changed to reflect more accurately the call to action to the user. Since the template is more accurate, Oracle strongly recommends that you modify the template in 8.6.0 if needed.

Note: If necessary, the email Template migration can be performed while both the previously installed release of Information Manager and release 8.6.0 of Information Manager are running.

MIGRATE CUSTOM REPOSITORY-SPECIFIC E-MAIL TEMPLATES

The following steps describe how to migrate the repository-specific e-mail templates from the previously installed release to release 8.6.0. These steps only apply if e-mail template files are contained in the `taskconfig` folder in a repository's configuration folder located in `<IM_HOME>/config/<REPO_REFKEY>`. If not, then skip these steps. If multiple repositories that have custom repository-specific e-mail templates exist, these steps must be repeated for each repository.

1. Navigate to `<PRE_8.6.0_IM_HOME>/config/<REPO_REFKEY>/taskconfig`, and copy ALL of the e-mail template files while excluding the following e-mail template files if they exist:
   - `forgotPassword_<language>.xml` - no longer used
   - `inactiveAccount_<language>.xml` - must be manually modified in 8.6.0
2. Navigate to the matching `<8.6.0_IM_HOME>/config/<REPO_REFKEY>/taskconfig`, and paste the copied e-mail template files into the directory.

   If `<8.6.0_IM_HOME>/config/<REPO_REFKEY>` does not exist, log into that repository using the 8.6.0 release of Information Manager, and the system creates the folder. The new folder contains a `taskconfig` folder.
3. If any of the customized e-mail templates that were just migrated make use of the password token `<P1>`, log into the repository through Information Manager as any user with the Default Administration role and remove the token by editing the template. To navigate to the proper template to edit:
   a. Select the **Tools** tab.
   b. Select **Configure** under *Tasks & Notifications* in the side bar.
   c. Select the desired task name to edit the e-mail template.

   If the edit boxes on the edit page are not disabled, the e-mail template was not customized.

MIGRATE CUSTOM SYSTEM DEFAULT E-MAIL TEMPLATES

The following steps describe how to migrate the system default e-mail templates, which are contained in `<IM_HOME>/config/SYSTEM/taskconfig`, from the previously installed release to release 8.6.0. These steps only apply if customizations were made to the e-mail templates in the SYSTEM repository. If customizations were not made, then skip these steps.

1. Since the steps to migrate the system default e-mail templates include the replacement of files in release 8.6.0, create the following folder structure for backups if it does not already exist:

   `<8.6.0.0_INSTALL_DIR>/backups/8.6.0.0/IM_HOME/config/SYSTEM`

2. Determine and make note of which e-mail templates are customized in the SYSTEM repository in the previously installed release of Information Manager.

3. Backup the `taskconfig` folder located in `<8.6.0_IM_HOME>/config/SYSTEM/` to the following path: `<8.6.0_INSTALL_DIR>/backups/8.6.0/IM_HOME/config/SYSTEM` created in step 1.

4. Navigate to `<PRE_8.6.0_IM_HOME>/config/SYSTEM/taskconfig`, and copy ONLY the customized e-mail template files (include localized releases) while excluding the following e-mail template files if they were customized:
   - `forgotPassword_<language>.xml` - no longer used
   - `inactiveAccount_<language>.xml` - must be manually modified in 8.6.0

5. Navigate to the matching `<8.6.0_IM_HOME>/config/SYSTEM/taskconfig` directory and paste the copied e-mail template files into the directory.

   If prompted to replace a file, confirm to replace.

6. If any of the customized e-mail templates that were just migrated made use of the password token `<P1>`, log into the SYSTEM repository through Information Manager as any user with the Default Administration role and remove the token by editing the template. To navigate to the proper template to edit:

   a. Select the **Tools** tab.

   b. Select **Configure** under *Tasks & Notifications* in the side bar.

   c. Select the desired task name to edit the e-mail template.

Migrate Custom Additions to the Information Manager Spell-Check Dictionaries

This section describes how to migrate any custom additions to the Information Manager spell-check dictionaries from the previously installed release of Information Manager to the freshly installed release 8.6.0. If no additions have been made to the spell-check dictionaries in the previously installed version of Information Manager, skip this section.

The spell-check dictionary files can be found in the following locations:

- For English:

  `<IM_HOME>/ssce`

- For Other Locales:

  `<IM_HOME/ssce/<locale_CODE>`
  `<locale_CODE>` is the locale code (e.g. `de_DE`)

Also, within the <IM_HOME>/ssce folder, the imspellcheck.properties file is kept. This is a properties file that contains settings that affect how the spell checker works along with the settings that determine where the default dictionaries are located (English by default).

Backing up Spell-Check Dictionaries in Version 8.6.0

Since the steps to migrate custom additions to the spell-check dictionaries include the replacement of files in version 8.6.0, perform the following steps to back up the spell-check dictionaries in version 8.6.0.

1. Create the following folder structure for backups if it does not already exist:

   <8.6.0_INSTALL_DIR>/backups/8.6.0/IM_HOME

2. Copy <8.6.0_IM_HOME>/ssce into <8.6.0_INSTALL_DIR>/backups/8.6.0/IM_HOME, which you created in step 1. This should result in <8.6.0_INSTALL_DIR>/backups/8.6.0/IM_HOME containing an ssce folder.

Steps to Migrate Custom Additions to Spell-Check Dictionaries

When migrating customizations to the spell-check dictionaries, the following cases need to be taken into consideration:

- Customizations done to the imspellcheck.properties file
- Customizations done to the default (English) dictionary files
- Customizations done to other locales dictionary files

The following steps must be performed while the release 8.6.0 installation is not running. The previously installed release can still be running if needed.

CUSTOMIZATIONS TO THE IMSPELLCHECK.PROPERTIES FILE

If no customizations where done to the imspellcheck.properties file in the previously installed release, skip the following steps.

1. In a text editor, open up the imspellcheck.properties file in <PRE_8.6.0_IM_HOME>/ssce.
2. In a text editor, open up the imspellcheck.properties file in <8.6.0_IM_HOME>/ssce.
3. For each setting, compare the value from the previously installed release to 8.6.0, and change the value in 8.6.0 if they do not match.

   If a setting was added in the previously installed release and does not exist in the 8.6.0, add it to the end of the file in 8.6.0.

   Note: The default value for the setting, SPLIT_HYPHENATED_WORDS_OPT, is now **false** in 8.6.0.

CUSTOMIZATIONS DONE TO THE DEFAULT (ENGLISH) DICTIONARY FILES

If no customizations were done to the default (English) dictionary files in the previously installed version, skip the following steps.

1. Navigate to `<PRE_8.6.0_IM_HOME>/ssce`, and copy the following files:
   - `ssceam.tlx`
   - `ssceam2.clx`
   - `userdic.tlx`
2. Navigate to `<8.6.0_IM_HOME>/ssce`, and paste the copied files.
   If prompted to replace the file, confirm to replace.

CUSTOMIZATIONS DONE TO OTHER LOCALES' DICTIONARY FILES

If no customizations were done to other locales dictionary files in the previously installed version, skip the following steps.

1. Navigate to `<PRE_8.6.0_IM_HOME>/ssce`, and copy the locale folders that had customizations done to their dictionary files.
   This includes custom locales that were added.
2. Navigate to `<8.6.0_IM_HOME>/ssce`, and paste the copied folders.
   If prompted to replace the file, confirm to replace.

Migrate Custom Settings in the IM Management Console Web Application Deployment Descriptor

This section describes how to migrate custom settings in the deployment descriptor of the previously installed release of the IM Management Console web application to the freshly installed release 8.6.0 IM Management Console web application.

For WebLogic and Apache Tomcat Servers

The web application's deployment descriptor for the previously installed and deployed release of the IM Management Console web application can be found in:

```
<Pre-8.6.0.0 profile_root>/installedApps/cell_Name/InfoManager.ear/InfoMan-
ager.war/WEB-INF/web.xml
```

In release 8.6.0.0, the IM Management Console web application's deployment descriptor location depends upon which application server you use:

WebLogic	`<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/ WEB-INF/web.xml`
Apache Tomcat	`<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/ InfoManager/WEB-INF/web.xml`

The freshly installed 8.6.0 deployment descriptor uses the following descriptor elements:

- Context Parameters
- Filters and Filter Mappings
- Listeners
- Servlets and Servlet Mappings
- Welcome File List

Review the deployment descriptor for the previously installed release of the IM Management Console web application. If the `web.xml` contained any descriptor elements not mentioned above, add them to `<TMP>/web.xml`.

For every descriptor element used in the freshly installed release 8.6.0 IM Management Console web application deployment descriptor, we outline the installed settings and how to maintain your customizations from the previously installed release of the IM Management Console web application's deployment descriptor.

For WebSphere Servers

The web application's deployment descriptor for the previously installed and deployed release of the IM Management Console web application can be found in:

```
<Pre-8.6.0.0 profile_root>/installedApps/cell_Name/InfoManager.ear/InfoMan-
ager.war/WEB-INF/web.xml
```

The web application's deployment descriptor for the freshly installed release 8.6.0.0 IM Management Console web application can be found in:

```
<8.6.0.0 profile_root>/installedApps/cell_Name/InfoManager.ear/InfoManager.war/
WEB-INF/web.xml
```

Copy this web.xml to temporary directory, refer it as `<TMP>/web.xml`.

The freshly installed 8.6.0.0 deployment descriptor uses the following descriptor elements:

- Context Parameters
- Filters and Filter Mappings
- Servlets and Servlet Mappings
- Welcome File List

Review the deployment descriptor for the previously installed release of the IM Management Console web application. If the web.xml contained any descriptor elements not mentioned above add them `web.xml`.located at `<TMP>/web.xml`.

If `<TMP>/web.xml` is modified perform below steps to update InfoManager ear:

1. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`
   The port number is the HTTPS Administrative console port assigned when the profile was created.
2. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
3. Select **InfoManager** from the list of Enterprise applications and click **Stop**.
4. Select **InfoManager** and click **Update**.
5. Under *Application Update Options* select **Replace or add a single file**, enter relative path in `InfoManager.ear` to `web.xml` as `InfoManager.war/WEB-INF/web.xml`. Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/web.xml`.
6. Click **Next** and click **OK** in the Updating application screen. After `web.xml` is updated in `InfoManager.ear` click **Save**.
7. Select **InfoManager** in Enterprise applications screen and click **Start**.

For every descriptor element used in the freshly installed release 8.6.0.0 IM Management Console application's deployment descriptor, we outline the installed settings and how to maintain your customizations from the previously installed release of the IM Management Console web application's deployment descriptor.

Context Parameters

WOAPPMODE PARAMETER

```
<context-param>
   <param-name>WOAppMode</param-name>
   <param-value>Deployment</param-value>
</context-param>
```

This parameter setting has not changed for 8.6.0.0.

WOCLASSPATH PARAMETER

```
<context-param>
   <param-name>WOClasspath</param-name>
   <param-value>WOROOT/InfoManager.woa/Contents/Resources/Java/infomanager-
   8.6.0.jar</param-value>
</context-param>
```

This parameter has been updated in 8.6.0. In 8.5.1 release, the parameter's value was:

```
<param-value>
   WEBINFROOT/InfoManager.woa/Contents/Resources/Java/infomanager-8.5.1.jar
```

```
</param-value>
```

In releases prior to 8.5.1, the parameter's value was:

```
<param-value>
   WEBINFROOT/Library/Frameworks/JavaJDBCAdaptor.framework/Resources/Java/
   javajdbcadaptor.jar
   WEBINFROOT/Library/Frameworks/JavaEOControl.framework/Resources/Java/
   javaeocontrol.jar
   WEBINFROOT/Library/Frameworks/IMModel.framework/Resources/Java/immodel.jar
   WEBINFROOT/Library/Frameworks/JavaWOJSPServlet.framework/Resources/Java/
   javawojspservlet.jar
   WEBINFROOT/Library/Frameworks/IMServices.framework/Resources/Java/
   imservices.jar
   WEBINFROOT/Library/Frameworks/JavaWOExtensions.framework/Resources/Java/
   JavaWOExtensions.jar
   WEBINFROOT/Library/Frameworks/IMFoundation.framework/Resources/Java/
   imfoundation.jar
   WEBINFROOT/Library/Frameworks/JavaWebObjects.framework/Resources/Java/
   javawebobjects.jar
   WEBINFROOT/Library/Frameworks/JavaEOProject.framework/Resources/Java/
   javaeoproject.jar
   WEBINFROOT/Library/Frameworks/JavaEOAccess.framework/Resources/Java/
   javaeoaccess.jar
   WEBINFROOT/Library/Frameworks/JavaFoundation.framework/Resources/Java/
   javafoundation.jar
   WEBINFROOT/Library/Frameworks/JavaWebServicesSupport.framework/Resources/Java/
   javawebservicessupport.jar
   WEBINFROOT/Library/Frameworks/JavaWebServicesClient.framework/Resources/Java/
   javawebservicesclient.jar
   WEBINFROOT/Library/Frameworks/ERJars.framework/Resources/Java/ERJars.jar
   WEBINFROOT/Library/Frameworks/ERJars.framework/Resources/Java/
   erxservletadaptor.jar
   WEBINFROOT/Library/Frameworks/ERExtensions.framework/Resources/Java/
   ERExtensions.jar
   WEBINFROOT/Library/Frameworks/ERJGroupsSynchronizer.framework/Resources/Java/
   ERJGroupsSynchronizer.jar
   WEBINFROOT/InfoManager.woa/Contents/Resources/Java/infomanager.jar
</param-value>
```

If the `web.xml` for the previously installed release of the IM Management Console web application specified any other class files, jar files or directories not listed above in the value of the `WOClasspath` parameter, add them to the `WOClasspath` parameter value of the freshly installed release 8.6.0.0 `web.xml`.

WOAPPLICATIONCLASS PARAMETER

```
<context-param>
   <param-name>WOApplicationClass</param-name>
   <param-value>com.inquira.admin.Application</param-value>
</context-param>
```

This parameter setting has not changed for 8.6.0.0.

CUSTOM CONTEXT PARAMETERS

If the web.xml for the previously installed release of the IM Management Console web application specified any other context parameters, add them to the freshly installed release 8.6.0.0 web.xml.

Filters and Filter Mappings

INFOMANAGER SERVLET FILTER

```
<filter>
   <filter-name>InfoManager Servlet Filter</filter-name>
   <filter-class>com.inquira.servletfilter.IMServletFilter</filter-class>
   <!--
   <init-param>
      <param-name>redirectURL</param-name>
      <param-value>/loginpage/login.jsp</param-value>
   </init-param>
   -->
   <!--
   <init-param>
      <param-name>allowIPs</param-name>
      <param-value>10.0.20.28,localhost</param-value>
   </init-param>
   -->
   <init-param>
      <param-name>cookieExpireMinutes</param-name>
      <param-value>10</param-value>
   </init-param>
   <init-param>
      <description>This is a regex expression that matches allowed URL patterns,
      all non matched patterns will be rejected</description>
      <param-name>allowedURLPatterns</param-name>
      <param-value>.*/InfoManager.woa.*</param-value>
   </init-param>
</filter>
```

The filter class specification, `com.inquira.servletfilter.IMServletFilter`, has not changed for 8.6.0.0.

The `cookieExpireMinutes` initialization parameter has not changed for 8.6.0.0. If the `web.xml` for the previously installed release of the IM Management Console web application configured the `cookieExpireMinutes` initialization parameter of the InfoManager Servlet filter to a custom value, configure the parameter with the custom value for the filter in the freshly installed release 8.6.0 `web.xml`.

The `allowedURLPatterns` initialization parameter has been updated in 8.5.1. In releases prior to 8.5.1, the initialization parameter's value was:

```
   <param-value>.*/WebObjects.*\.woa/wo.*\.[0-9]+</param-value>
```

If the `web.xml` for the previously installed release of the IM Management Console web application configured the `allowedURLPatterns` initialization parameter of the InfoManager Servlet filter to a custom value not equal to the previous installed value, configure the parameter with the custom value for the filter in the freshly installed release 8.6.0 `web.xml`.

The InfoManager Servlet filter contains two initialization parameters that are disabled upon installation, `redirectURL` and `allowIPs`.

The `redirectURL` initialization parameter can be used to specify a custom path to present when authentication fails. It can be set to a full URL or a relative path. The `allowIPs` initialization parameter can be used to specify a comma-separated list of IP addresses that the InfoManager Servlet filter allows access to the web application without checking security.

If the `web.xml` for the previously installed release of the IM Management Console web application enabled the `redirectURL` or the `allowIPs` initialization parameter for the InfoManager Servlet filter, enable and configure the parameter for the filter in the freshly installed release 8.6.0 `web.xml`

INFOMANAGER SERVLET FILTER MAPPING

```
<filter-mapping>
   <filter-name>InfoManager Servlet Filter</filter-name>
   <url-pattern>/*</url-pattern>
</filter-mapping>
```

The InfoManager Servlet filter mapping has not changed in 8.6.0.

IQOBJECTSTOREASSIGNINGFILTER FILTER

This filter will be called after IMServletFilter. This filter need not handle requests that will be rejected by IMServletFilter.

```
<filter>
   <filter-name>IQObjectStoreAssigningFilter</filter-name>
   <filter-class>com.inquira.foundation.utilities.IQObjectStoreAssigningFilter</
   filter-class>
   <init-param>
      <description>Set this flag to true in IM Console and InfoCenter so that User
      specific ObjectStore is stored in HttpSession.</description>
      <param-name>attachObjectStoreToHttpSession</param-name>
      <param-value>true</param-value>
   </init-param>
</filter>
```

The IQObjectStoreAssigningFilter filter was added in 8.5.1.

IQOBJECTSTOREASSIGNINGFILTER FILTER MAPPING

```
<filter-mapping>
   <filter-name>IQObjectStoreAssigningFilter</filter-name>
   <url-pattern>/*</url-pattern>
</filter-mapping>
```

The IQObjectStoreAssigningFilter filter mapping was added in 8.5.1.

SECURITY FILTER

```
<filter>
   <filter-name>Security Filter</filter-name>
   <filter-class>com.inquira.admin.servletfilter.SecurityFilter</filter-class>

   <init-param>
   <param-name>filter-uri-prefix</param-name>
   <param-value>/WebObjects/InfoManager.woa</param-value>
   </init-param>
</filter>
```

The Security Filter is new in 8.6.0.0. This filter handles ESAPI security checks.

SECURITY FILTER MAPPING

```
<filter-mapping>
   <filter-name>Security Filter</filter-name>
   <url-pattern>/WebObjects/InfoManager.woa/*</url-pattern>
</filter-mapping>
```

The Security Filter mapping is new in 8.6.0.0.

IQSESSIONFILTER FILTER

```
<filter>
   <filter-name>IQSessionFilter</filter-name>
   <filter-class>com.inquira.foundation.utilities.IQSessionFilter</filter-class>
   <init-param>
   <description>Set this flag to true only in IM Console - so that this filter only
   detaches IQSessionID.
   But in InfoCenter, ignore this flag - so that the filter can attach and detach
   IQSessionID.</description>
   <param-name>onlyDetatchIQSessionID</param-name>
   <param-value>true</param-value>
   </init-param>
</filter>
```

Just as a fail safe mechanism to clear out the IQSession id being set (and cleared) by IQSessionWONotificationHandler.

IQSESSIONFILTER FILTER MAPPING

```
<filter-mapping>
   <filter-name>IQSessionFilter</filter-name>
   <url-pattern>/*</url-pattern>
</filter-mapping>
```

XFSFILTER FILTER

```
<filter>
   <filter-name>XFSFilter</filter-name>
   <filter-class>com.inquira.servletfilter.XFSFilter</filter-class>
   <init-param>
   <param-name>mode</param-name>
   <param-value>SAMEORIGIN</param-value>
   </init-param>
```

```
</filter>
```

This filter prevents from embedding web pages from Frame. Two mode parameters allowed are DENY and SAMEORIGIN. Use mode as Deny to prevent anyone, including yourself, from framing the page. Use mode as SameOrigin to allow your application to frame, but no other application.

XFSFILTER FILTER MAPPING

```
<filter-mapping>
   <filter-name>XFSFilter</filter-name>
   <url-pattern>/*</url-pattern>
</filter-mapping>
```

CUSTOM FILTERS AND FILTER MAPPINGS

If the `web.xml` for the previously installed release of the IM Management Console web application specified any other filters and filter mappings, add them to the freshly installed release 8.6.0 `web.xml`.

Listeners

CONFIGURATION CONTEXT LISTENER

```
<listener>
   <listener-class>com.inquira.admin.configuration.ContextListener</listener-
   class>
</listener>
```

The configuration context listener has not changed in 8.6.0.

CUSTOM LISTENERS

If the `web.xml` for the previously installed release of the IM Management Console web application specified any other listeners, add them to the freshly installed release 8.6.0 `web.xml`.

Servlets and Servlet Mappings

WOSERVLETADAPTOR SERVLET

```
<servlet>
   <servlet-name>WOServletAdaptor</servlet-name>
   <servlet-class>er.extensions.jspservlet.ERXServletAdaptor</servlet-class>
   <load-on-startup>1</load-on-startup>
</servlet>
```

The WOServletAdaptor servlet has not changed in 8.6.0.

WOSERVLETADAPTOR SERVLET MAPPING

```
<servlet-mapping>
   <servlet-name>WOServletAdaptor</servlet-name>
   <url-pattern>/WebObjects/*</url-pattern>
</servlet-mapping>
```

The WOServletAdaptor servlet mapping has not changed in 8.6.0.

CKFINDERCONNECTORSERVLET SERVLET

```
<servlet>
   <servlet-name>CKFinderConnectorServlet</servlet-name>
   <servlet-class>com.inquira.services.components.CKFinderConnectorServlet</
   servlet-class>
   <init-param>
      <param-name>configuration</param-name>
      <param-value>com.inquira.services.components.CKFinderConfiguration</param-
      value>
   </init-param>
   <init-param>
      <param-name>XMLConfig</param-name>
      <param-value>/WEB-INF/ckfinder_config.xml</param-value>
   </init-param>
   <init-param>
      <param-name>debug</param-name>
      <param-value>false</param-value>
   </init-param>
   <load-on-startup>2</load-on-startup>
</servlet>
```

The CKFinderConnectorServlet servlet was added in 8.5.1 and is unchanged in 8.6.0.0.

CKFINDERCONNECTORSERVLET SERVLET MAPPINGS

```
<servlet-mapping>
   <servlet-name>CKFinderConnectorServlet</servlet-name>
   <url-pattern>/resources/application/components/ckfinder/core/connector/java/
   connector.java</url-pattern>
</servlet-mapping>
```

The CKFinderConnectorServlet servlet mapping was added in 8.5.1 and is unchanged in 8.6.0.0.

CUSTOM SERVLETS AND SERVLET MAPPINGS

If the `web.xml` for the previously installed release of the IM Management Console web application specified any other servlets and servlet mappings, add them to the freshly installed release 8.6.0 `web.xml`. Be sure to start the load on startup value for the custom servlets at **3** in order to maintain the instantiation order of the installed servlets with the custom servlets.

Session Configurations

```
<session-config>
   <session-timeout>90</session-timeout>
</session-config>
```

The session timeout defines the default session timeout interval for all sessions created in this web application. The default value is 90 minutes. This default value has not changed in 8.6.0. The specified timeout must be expressed in a whole number of minutes. If the timeout is 0 or less, the container ensures the default behavior of sessions is never to time out.

If the `web.xml` for the previously installed release of the IM Management Console web application configured the session timeout to a custom value, configure the session timeout with the custom value in the freshly installed release 8.6.0 `web.xml`.

Migrate Custom Settings in the IMWS Web Application Deployment Descriptor

This section describes how to migrate custom settings in the deployment descriptor of the previously installed release of the IMWS web application to the freshly installed release 8.6.0 IMWS web application.

For WebLogic and Apache Tomcat Servers

The web application's deployment descriptor for the previously installed and deployed release of the IMWS web application can be found in:

```
<Pre-8.6.0.0 profile_root>/installedApps/cell_Name/imws.ear/imwas.war/WEB-INF/
web.xml
```

The web application's deployment descriptor for the freshly installed release 8.6.0.0 IMWS web application can be found in:

WebLogic	`<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/webapps/imws/app/WEB-INF/`
Apache Tomcat	`<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/ imws/WEB-INF/web.xml`

The freshly installed 8.6.0 deployment descriptor uses the following descriptor elements:

- Context Parameters
- Filters and Filter Mappings
- Servlets and Servlet Mappings
- Welcome File List

Review the deployment descriptor for the previously installed release of the IMWS web application. If the `web.xml` contained any descriptor elements not mentioned above, add them to `<TMP>/web.xml`.

For every descriptor element used in the freshly installed release 8.6.0 IMWS web application's deployment descriptor, we outline the installed settings and how to maintain your customizations from the previously installed release of the IMWS web application's deployment descriptor.

For WebSphere Servers

The web application's deployment descriptor for the previously installed and deployed release of the IMWS web application can be found in:

```
<Pre-8.6.0.0 profile_root>/installedApps/cell_Name/imws.ear/imwas.war/WEB-INF/
web.xml
```

The web application's deployment descriptor for the freshly installed release 8.6.0.0 IMWS web application can be found in:

```
<8.6.0.0 profile_root>/installedApps/cell_Name/imws.ear/imwas.war/WEB-INF/
web.xml
```

Copy this web.xml to temporary directory, refer it as `<TMP>/web.xml`.

The freshly installed 8.6.0.0 deployment descriptor uses the following descriptor elements:

- Context Parameters
- Filters and Filter Mappings
- Servlets and Servlet Mappings

- Welcome File List

Review the deployment descriptor for the previously installed release of the IMWS web application. If the `web.xml` contained any descriptor elements not mentioned above add them web.xml.located at `<TMP>/web.xml`.

If `<TMP>/web.xml` is modified perform below steps to update `imws ear`:

1. Using a web browser, navigate to the Admin Console URL.
   https://<server_Name_or_IP_address>:<port#>/ibm/console
   The port number is the HTTPS Administrative console port assigned when the profile was created.
2. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
3. Select **imws** from the list of Enterprise applications and click **Stop**.
4. Select **imws** and click **Update**.
5. Under *Application Update Options* select **Replace or add a single file**, enter relative path in `imws.ear` to `web.xml` as `imws.war/WEB-INF/web.xml`. Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/web.xml`.
6. Click **Next** and click **OK** in the Updating application screen. After `web.xml` is updated in `imws ear`, click **Save**.
7. Select **imws** in Enterprise applications screen and click **Start**.

For every descriptor element used in the freshly installed release 8.6.0.0 IMWS web application's deployment descriptor, we outline the installed settings and how to maintain your customizations from the previously installed release of the IMWS web application's deployment descriptor.

Context Parameters

WOAPPMODE PARAMETER

```
<context-param>
   <param-name>WOAppMode</param-name>
   <param-value>Deployment</param-value>
</context-param>
```

This parameter setting has not changed for 8.6.0.

WOCLASSPATH PARAMETER

```
<context-param>
   <param-name>WOClasspath</param-name>
   <param-value> WEBINFROOT/IMWebServices.woa/Contents/Resources/Java/
   imwebservices-8.6.0.jar</param-value>
</context-param>
```

This parameter was updated in release 8.5.1. The parameter's value in 8.5.1 was:

```
<param-value>
   WEBINFROOT/IMWebServices.woa/Contents/Resources/Java/imwebservices-8.5.1.jar
</param-value>
```

In releases prior to 8.5.1, the parameter's value was:

```
<param-value>
```

```
   WEBINFROOT/Library/Frameworks/JavaJDBCAdaptor.framework/Resources/Java/
   javajdbcadaptor.jar
   WEBINFROOT/Library/Frameworks/JavaEOControl.framework/Resources/Java/
   javaeocontrol.jar
   WEBINFROOT/Library/Frameworks/IMModel.framework/Resources/Java/immodel.jar
   WEBINFROOT/Library/Frameworks/JavaWOJSPServlet.framework/Resources/Java/
   javawojspservlet.jar
   WEBINFROOT/Library/Frameworks/IMServices.framework/Resources/Java/
   imservices.jar
   WEBINFROOT/Library/Frameworks/JavaWOExtensions.framework/Resources/Java/
   JavaWOExtensions.jar
   WEBINFROOT/Library/Frameworks/IMFoundation.framework/Resources/Java/
   imfoundation.jar
   WEBINFROOT/Library/Frameworks/JavaWebObjects.framework/Resources/Java/
   javawebobjects.jar
   WEBINFROOT/Library/Frameworks/JavaEOProject.framework/Resources/Java/
   javaeoproject.jar
   WEBINFROOT/Library/Frameworks/JavaEOAccess.framework/Resources/Java/
   javaeoaccess.jar
   WEBINFROOT/Library/Frameworks/JavaFoundation.framework/Resources/Java/
   javafoundation.jar
   WEBINFROOT/Library/Frameworks/JavaWebServicesSupport.framework/Resources/Java/
   javawebservicessupport.jar
   WEBINFROOT/Library/Frameworks/JavaWebServicesClient.framework/Resources/Java/
   javawebservicesclient.jar
   WEBINFROOT/Library/Frameworks/ERJars.framework/Resources/Java/ERJars.jar
   WEBINFROOT/Library/Frameworks/ERExtensions.framework/Resources/Java/
   ERExtensions.jar
   WEBINFROOT/Library/Frameworks/ERJars.framework/Resources/Java/
   erxservletadaptor.jar
   WEBINFROOT/Library/Frameworks/ERJGroupsSynchronizer.framework/Resources/Java/
   ERJGroupsSynchronizer.jar
   WEBINFROOT/IMWebServices.woa/Contents/Resources/Java/imwebservices.jar
</param-value>
```

If the `web.xml` for the previously installed release of the IMWS web application specified any other class files, jar files or directories not listed above in the value of the `WOClasspath` parameter, add them to the `WOClasspath` parameter value of the freshly installed release 8.6.0 `web.xml`.

WOAPPLICATIONCLASS PARAMETER

```
<context-param>
   <param-name>WOApplicationClass</param-name>
   <param-value>com.inquira.imwows.application.Application</param-value>
</context-param>
```

This parameter setting has not changed for 8.6.0.

CUSTOM CONTEXT PARAMETERS

If the `web.xml` for the previously installed release of the IMWS web application specified any other context parameters, add them to the freshly installed release 8.6.0 `web.xml`.

Filters and Filter Mappings

UTF8FILTER FILTER

```
<filter>
   <filter-name>UTF8Filter</filter-name>
   <filter-class>com.inquira.imwows.filters.ForceUTF8RequestEncodingFilter</
   filter-class>
</filter>
```

The filter class specification, `com.inquira.imwows.filters.ForceUTF8RequestEncodingFilter`, has not changed for 8.6.0.

UTF8FILTER FILTER MAPPING

```
<filter-mapping>
   <filter-name>UTF8Filter</filter-name>
   <url-pattern>/*</url-pattern>
</filter-mapping>
```

The UTF8Filter filter mapping has not changed in 8.6.0.

IQOBJECTSTOREASSIGNINGFILTER FILTER

```
<filter>
   <filter-name>IQObjectStoreAssigningFilter</filter-name>
   <filter-class>com.inquira.foundation.utilities.IQObjectStoreAssigningFilter</
   filter-class>
   <init-param>
      <description>Set this flag to true in IM Console, InfoCenter so that User
      specific ObjectStore is stored in HttpSession. But in IMWS, set this to
      false.</description>
      <param-name>attachObjectStoreToHttpSession</param-name>
      <param-value>false</param-value>
   </init-param>
</filter>
```

The IQObjectStoreAssigningFilter filter was added in 8.5.1.

IQOBJECTSTOREASSIGNINGFILTER FILTER MAPPING

```
<filter-mapping>
   <filter-name>IQObjectStoreAssigningFilter</filter-name>
   <url-pattern>/*</url-pattern>
</filter-mapping>
```

The IQObjectStoreAssigningFilter filter mapping was added in 8.5.1.

CUSTOM FILTERS AND FILTER MAPPINGS

If the `web.xml` for the previously installed release of the IMWS web application specified any other filters and filter mappings, add them to the freshly installed release 8.6.0 `web.xml`.

Servlets and Servlet Mappings

WOSERVLETADAPTOR SERVLET

```
<servlet>
   <servlet-name>WOServletAdaptor</servlet-name>
   <servlet-class>er.extensions.jspservlet.ERXServletAdaptor</servlet-class>
   <load-on-startup>1</load-on-startup>
</servlet>
```

The WOServletAdaptor servlet has not changed in 8.6.0.

WOSERVLETADAPTOR SERVLET MAPPING

```
<servlet-mapping>
   <servlet-name>WOServletAdaptor</servlet-name>
   <url-pattern>/WebObjects/*</url-pattern>
</servlet-mapping>
```

The WOServletAdaptor servlet mapping has not changed in 8.6.0.

GATEWAYAUTODEPLOYER SERVLET

```
<servlet>
   <servlet-name>gatewayautodeployer</servlet-name>
   <!—
   <display-name>Gateway Autodeployer Servlet</display-name>
   <description>no description</description>
   -->
   <servlet-class>com.inquira.infra.trnsp.AutoDeployServlet</servlet-class>
   <init-param>
      <param-name>sleepTime</param-name>
      <param-value>5000</param-value>
   </init-param>
   <load-on-startup>1</load-on-startup>
</servlet>
```

The GatewayAutoDeployer servlet was removed in 8.6.0.

CUSTOM SERVLETS AND SERVLET MAPPINGS

If the `web.xml` for the previously installed release of the IMWS web application specified any other servlets and servlet mappings that were not removed in 8.6.0, add them to the freshly installed release 8.6.0 `web.xml`. Be sure to start the load on startup value for the custom servlets at 2 in order to maintain the instantiation order of the out of the box servlet with the custom servlets.

Welcome File List

```
<welcome-file-list>
   <welcome-file>index.html</welcome-file>
```

```
    <welcome-file>index.htm</welcome-file>
    <welcome-file>index.jsp</welcome-file>
    <welcome-file>default.html</welcome-file>
    <welcome-file>default.htm</welcome-file>
    <welcome-file>default.jsp</welcome-file>
</welcome-file-list>
```

The welcome file list has not changed in 8.6.0.

If the `web.xml` for the previously installed release of the IMWS web application specified a different welcome file list or list order, configure the welcome file list to the customized value in the freshly installed release 8.6.0 `web.xml`.

Migrate a Custom iAuthenticator

This section describes how to migrate a custom iAuthenticator used to authenticate users in the previously installed release of Information Manager to the freshly installed release 8.6.0 Information Manager.

The freshly installed version 8.6.0 iAuthenticator API Java documentation can be found under:

```
<8.6.0 INSTALL DIR>/InfoManager/docs/iAuthentication/index.html
```

Review the 8.6.0 iAuthenticator API Java documentation for updates to the API.

The freshly installed release 8.6.0 iAuthenticator API can be found in the following .jar file:

```
<8.6.0 INSTALL DIR>/InfoManager/clientLibrary/Java/infra.jar
```

The pre-8.5.1 release of the iAuthenticator API may have been contained in one of the following jar files:

- `infra-1.0.jar` together with `shared.jar`
- `inquira-infra-1.1.jar`
- `inquira-infra-1.1.1.jar`

Though none of the existing iAuthenticator interface signatures have changed in 8.6.0, you must recompile the source code of your custom iAuthenticator with the freshly installed release 8.6.0 `infra.jar` in the class path and the previously installed release infra jar file(s) removed from the class path.

Note: The `com.inquira.infra.InquiraException` class has changed in 8.6.0. If your custom iAuthenticator has any classes that extend this class, review the changes below to resolve potential compilation issues.

REMOVED COM.INQUIRA.INFRA.INQUIRAEXCEPTION FIELDS IN 8.5.1

- `public static final int UNKOWN = 0;`
- `public static final int TRANSACTION_RETRY = 2;`
- `public static final int APPLICATION_FATAL = 3;`
- `protected static ResourceBundle resources;`
- `protected static ResourceBundle logResources;`
- `protected static HashMap resourceFormats = new HashMap();`

REMOVED COM.INQUIRA.INFRA.INQUIRAEXCEPTION CONSTRUCTORS IN 8.5.1

- `public InquiraException(String id, Object[] args, int disposition);`

- `public InquiraException(String id, Object[] args, Throwable cause, int disposition);`

REMOVED COM.INQUIRA.INFRA.INQUIRAEXCEPTION METHODS IN 8.5.1

- `public String printLogString();`
- `public static String printLogString(Throwable t);`
- `public String getID();`
- `public int getDisposition();`
- `public void setArguments(Object[] args);`
- `public boolean instanceOf(Class c);`
- `public boolean instanceOf(Throwable t, Class c);`
- `public String getFullMessage();`
- `public static String getFullMessage(Throwable theT);`
- `public String toFullString();`
- `public static String toFullString(Throwable theT);`
- `public String getFirstAndLastMessage();`
- `public static String getFirstAndLastMessage(Throwable theT);`
- `public String getFirstAndLastStackTrace();`
- `public static String getFirstAndLastStrackTrace(Throwabel theT);`
- `public String toFirstAndLastString();`
- `public static String toFirstAndLastString(Throwable theT);`

MISCELLANEOUS UPDATES TO COM.INQUIRA.INFRA.INQUIRAEXCEPTION

The following inner class was removed in 8.5.1:

```
public static class Test;
```

The following method now executes a no-operation (i.e. the method does not append the mode to the StringBuilder):

```
protected static void appendExecutionMode(StringBuilder sb);
```

After your custom iAuthenticator has been compiled against the freshly installed release 8.6.0 iAuthenticator API, rebuild the jar file(s) that contain your custom iAuthenticator class files.

For WebLogic and Apache Tomcat Servers

To configure the freshly installed 8.6.0 Information Manager to use your custom iAuthenticator, copy the newly rebuilt jar file(s) to the following directories:

WebLogic	`<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/lib`
	`<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/webapps/imws/app/WEB-INF/lib`

Tomcat	`<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/WEB-INF/lib`
	`<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/imws/WEB-INF/lib`

For Websphere Server

To configure the freshly installed 8.6.0.0 Information Manager to use your custom iAuthenticator in WebSphere perform following steps:

1. Copy newly rebuild jar to `<temp>/<customAuthenticator>.jar`.
2. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`
   The port number is the HTTPS Administrative console port assigned when the profile was created.
3. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
4. Select InfoManager from the list of Enterprise applications and click **Stop**.
5. Select InfoManager and click **Update**.
6. Under Application Update Options select **Replace or add a single file**, enter the relative path in `InfoManager.ear` to rebuild custom authenticator jar as `InfoManager.war/WEB-INF/lib/<customAuthenticator>.jar`. Under Specify the path to the file, select either **Local file path** or **Remote file path** and provide the path of `<temp>/<customAuthenticator>.jar`.
7. Click Next and then click on **OK** on the Updating application screen. After the custom authenticator jar is added to `InfoManager.ear` you see the message “Update of InfoManager has ended. The application or its web modules may require a restart when a save is performed”.
8. Click **Save**.
9. Select InfoManager in Enterprise applications screen and click **Start**.
10. Next perform these same actions for the imws application. Select **imws** from the list of Enterprise applications and click **Stop**.
11. Select **imws** and click **Update**.
12. Under Application Update Options, select **Replace or add a single file**, enter the relative path in `imws.ear` to rebuild the custom authenticator jar as `imws.war/WEB-INF/lib/<customAuthenticator>.jar`. Under Specify the path to the file, select either **Local file path** or **Remote file path** and provide the path of `<temp>/<customAuthenticator>.jar`.
13. Click **Next** and then click **OK** on the Updating application screen. After custom authenticator jar is added to InfoManager ear you see the message “Update of imws has ended. The application or its web modules may require a restart when a save is performed.” Click **Save**.
14. Select **imws** in Enterprise applications screen and click **Start**.

The freshly installed release 8.6.0 IM Management Console should already be configured to use your custom iAuthenticator by the steps outlined in the “Migrate Custom Settings in config.properties” section, above. After starting up the instance, review the configuration following the instructions below:

1. Log in to your repository in the IM Management Console with an admin user with either of the following IM Security Roles:
   - Default Administration Role - A user with this role can perform any action on the repository he was created for and can only log in to that repository.
   - Super Admin - A user with this role can perform any action on any repository.
   - Super Support - A user with this role can perform any action on any repository.
2. Navigate to **Tools > System Configure**.
3. Select **Go to Expert Mode**.
4. Set the `REMOTE_AUTHENTICATION_ENABLED` configuration parameter to **true**.
5. Set the `REMOTE_AUTHENTICATION_CLASS` configuration parameter to your fully qualified custom authenticator class (e.g. com.company.package.CustomAuthenticator).
6. The `IFieldBuilder` interface was added in version 8.2.3.0. If a custom `IFieldBuilder` is used, set the `REMOTE_FIELD_BUILDER_CLASS` configuration parameter to your fully qualified custom `IFieldBuilder` subclass.

Migrate Custom Rich Text Area Settings

In previous releases of Information Manager, the Rich Text Area component used in the IM Management Console was FCKEditor version 2.6.3. In 8.6.0, this component is updated to CKEditor version 3.6.1 and CKFinder version 2.0.2.1. CKEditor 3.6.1 is a new version of the previous FCKEditor and is a complete rewrite of the product, including major changes in its architecture. In 8.6.0.0, CKEditor has been upgraded to version 4.3.4 and CKFinder to version 2.4.2.

If you configured the FCKEditor in the previously installed release of Information Manager with custom settings, consult the documentation from http://ckeditor.com for guidelines on how to map the configuration settings from the FCKEditor to the CKEditor.

The freshly installed release 8.6.0 IM Management Console should already be configured to use the custom rich text editor image upload store paths by the steps outlined in the “Migrate Custom Settings in config.properties” section above. After starting up the instance, review the configuration following the instructions below:

1. Log in to the repository in which the resource configuration settings are configured in the IM Management Console with an admin user with either of the following IM Security Roles:
   - Default Administration Role - A user with this role can perform any action on the repository he was created for and can only log in to that repository.
   - Super Admin - A user with this role can perform any action on any repository.
   - Super Support - A user with this role can perform any action on any repository.
2. Select **Tools**.
3. Select **System Configure**.
4. Select **Resource Configuration**.
5. Review the Rich Text Editor Image Upload Store Paths.

6 If the WYSIWYG Library Path has been configured to a location other than `$IM_HOME/library`, set the WYSIWYG Thumbnail Path to a different directory in a relatively similar location so the images and their thumbnails can be accessed through the shared storage area (e.g. `/Server_Name/Shared_Folder/library` and `/Server_Name/Shared_Folder/thumbnail`)

If you configured the WYSIWYG Library and WYSIWYG Thumbnail paths to locations other than `$IM_HOME/library` and `$IM_HOME/thumbnail`, you must manually configure the resource web application to access the images and thumbnails from the new locations.

FOR WEBLOGIC USERS

During the installation process, the administrator specified the resource web application context name. The default name is `OKResources`. This resource web application also hosts the images and thumbnails uploaded through the rich text area. The following steps must be performed on the resource web application specified during the installation process.

1 Start the Administration Server (if it is not running).

2 Using a web browser, navigate to the WebLogic Administration Console URL. (This can be found at `http://<Administration Server's Listen Address>:<Administration Server's Listen Port>/console`).

3 Provide the administration server's credentials to log in.

4 From the *Domain Structure* section, select **Deployments** to manage and control the Information Manager Web Applications.

5 Select the name that corresponds to the name of the resource web application.

6 Note the `Path` to the web application; you must navigate there to make changes.

7 Navigate to the `Path` and edit the `weblogic.xml` file of the resource web application. (This can be found at `<8.6.0 INSTALL DIR>/instances/<INSTANCE>/webapps/<Context Name>/app/WEB-INF/weblogic.xml`)

8 If the WYSIWYG Library Path has been changed, edit the virtual-directory-mapping node that corresponds to the library path.

a Set the **local-path node** to the parent directory of the new library path.

b Set the **url-pattern node** to the directory name of the new library path using the following format:

```
/<new_library_directory>/
```

For example, if the WYSIWYG Library Path is `/home/username/Oracle/Knowledge/IM/InfoManager/library`, the virtual mapping should read:

```
<virtual-directory-mapping>
   <local-path>/home/username/Oracle/Knowledge/IM/InfoManager</local-
   path>
   <url-pattern>/library/*</url-pattern>
</virtual-directory-mapping>
```

c Save the file.

9 If the WYSIWYG Thumbnail Path has been changed, edit the virtual-directory-mapping node that corresponds to the thumbnail path.

a Set the **local-path node** to the parent directory of the new thumbnail path.

b Set the **url-pattern node** to the directory name of the new thumbnail. Use the following format: `/<new_thumbnail_directory>/`

For example, if the WYSIWYG Thumbnail Path was `/home/username/Oracle/Knowledge/IM/InfoManager/thumbnail`, the virtual mapping should read:

```
<virtual-directory-mapping>
   <local-path>/home/username/Oracle/Knowledge/IM/InfoManager</local-
   path>
   <url-pattern>/thumbnail/*</url-pattern>
</virtual-directory-mapping>
```

c Save the file.

10 From the WebLogic Administration Console, click the Lock & Edit button in the Change Center to put the domain in edit mode.

11 Check the check box that corresponds to the name of the resource web application that was modified.

12 Select Update.

13 Select to **Redeploy this application using the following deployment files:**

14 Select **Finish**.

15 Select **Activate Changes** in the Change Center to activate the modifications to the resource web application.

16 The changes are reflected immediately on new web application sessions. For the changes to be reflected on existing sessions, the managed server hosting those web applications must be restarted.

FOR TOMCAT USERS

The installation process provided individual context files that represented the web applications used to access the images and thumbnails uploaded through the rich text area from the default locations. These context files must be manually modified by the administrator to account for the change. The following steps must be performed on every instance of Oracle Knowledge.

WARNING! The following steps include a restart of the application server.

1 Open the ICE Environment from the Information Manager instance.

2 Execute `inquiraim.sh stop` on Linux, `inquiraim stop` on Windows to shutdown the instance.

3 On the file system, navigate to `<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/conf/Catalina/<InfoManager Host>`.

4 If the WYSIWYG Library Path has been changed:

a Rename the `library.xml` context file to `<DIRECTORY>.xml`, where `DIRECTORY` is the directory name of the new library path.

b Edit the file and set the `docBase` attribute of the `Context` element to the fully qualified path to the new library path.

c Set the `path` attribute of the `Context` element to the directory name of the new library path using the following format:

```
/<directory_of_new_library_path>
```

For example, if the WYSIWYG Library Path is `/home/username/Oracle/Knowledge/IM/InfoManager/library`, the context file should be named `library.xml` and its contents should contain the following:

```
<?xml version='1.0' encoding='utf-8'?>
<Context docBase="/home/username/Oracle/Knowledge/IM/InfoManager/
library" path="/library">
   <Resources className="org.apache.naming.resources.FileDirContext"
                allowLinking="true"/>
</Context>
```

d Save the file.

5 If the WYSIWYG Thumbnail Path has been changed:

a Rename the `thumbnail.xml` context file to `<DIRECTORY>.xml`, where `DIRECTORY` is the directory name of the new thumbnail path.

b Edit the file and set the `docBase` attribute of the `Context` element to the fully qualified path to the new thumbnail path.

c Set the `path` attribute of the `Context` element to the directory name of the new thumbnail path using the following format:

```
/<directory_of_new_thumbnail_path>
```

For example, if the WYSIWYG Thumbnail Path is `/home/username/Oracle/Knowledge/IM/InfoManager/thumbnail`, the context file should be named `thumbnail.xml` and its contents should contain the following:

```
<?xml version='1.0' encoding='utf-8'?>
<Context docBase="/home/username/Oracle/Knowledge/IM/InfoManager/
thumbnail" path="/thumbnail">
   <Resources className="org.apache.naming.resources.FileDirContext"
                allowLinking="true"/>
</Context>
```

d Save the file.

6 Delete the Tomcat work directory at `<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/work`.

7 From the ICE Environment, start the application by executing `inquiraim.sh start` on Linux, `inquiraim start` on Windows.

FOR WEBSPHERE USERS

During the installation process, the administrator specified the resource web application context name. The default name is OKResources. This resource web application also hosts the images and thumbnails uploaded through the rich text area. The following steps must be performed on the resource web application specified during the installation process.

1 Copy the file `ibm-web-ext.xml` from `profile_root/installedApps/cell_Name/OKResources.ear/ResourceWebApp.war/WEB-INF`
to a temporary directory `<TEMP>`

2 Edit `ibm-web-ext.xml` in the `<TEMP>` directory.

3. In this file, values for `extendedDocumentRoot` attribute are a comma delimited list of resource locations and values for `file.serving.patterns.allow` attribute are space separated url patterns. Values of `extendedDocumentRoot` and `file.serving.patterns.allow` are mapped one-to-one. First value is content resource mount point location and second is WYSIWYG Library Path and third is WYSIWYG Thumbnail Path.
4. If the WYSIWYG Library Path and/or Thumbnail Path has been changed, edit the second and third values of `extendedDocumentRoot` attribute that corresponds to the library path and thumbnail path.

   Set the url patterns to the directory name of the new library path and thumbnail path at second and third values of file.serving.patterns.allow attribute using the following format:

   `<new__directory>/`

   For example, if the WYSIWYG Library Path is `/home/username/Oracle/Knowledge/IM/InfoManager/library` and WYSIWYG Thumbnail Path was `/home/username/Oracle/Knowledge/IM/ InfoManager/thumbnail` then values of `extendedDocumentRoot` and `file.serving.patterns.allow` will be:

   ```
   <fileServingAttributes name="extendedDocumentRoot" value="/home/
   username/Oracle/Knowledge/IM/ InfoManager, /home/username/Oracle/
   Knowledge/IM/ InfoManager/,/home/username/Oracle/Knowledge/IM/
   InfoManager/"/><fileServingAttributes name="file.serving.patterns.allow"
   value="resources/* library/* thumbnail/*"/>
   ```
5. Save the file.
6. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`

   The port number is the HTTPS Administrative console port assigned when the profile was created.
7. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
8. Select the check box that corresponds to the name of the resource web application and click **Stop**.
9. Select again and click **Update**.
10. Under Application Update Options select **Replace or add a single file**, enter the relative path of `ibm-web-ext.xml` in the resources web application ear as `ResourceWebApp.war/WEB-INF/ibm-web-ext.xml`. Under Specify the path to the file, select **Local file path** and provide the path of `<temp>/ibm-web-ext.xml`.
11. Click **Next** and then click **OK** on the Updating application screen. After ear is updated you see message Update of ressoure_webapp_name has ended. The application or its web modules may require a restart when a save is performed'. Click **Save**.
12. Select the resources web application on the Enterprise applications screen and click **Start**.

Migrate Custom JGroups Settings

This section describes how to migrate custom JGroups configurations from previous releases into the 8.6.0 installation.

In previous releases, customizations could have been made to the JGroups configuration file, jgroups-default.xml. This file could have been located in the following location (where `WEB_APP` refers to InfoManager, imws, or any IM Tag Library based web application):

```
<PRE-8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<WEB APP>/
```

```
WEB-INF/Library/Frameworks/ERJGroupsSynchronizer.framework/Resources/jgroups-default.xml
```

If you've modified this file, follow the instructions below to properly migrate the customizations to the 8.6.0 installation.

Because the JGroups version was updated to 2.11 in this release, start with the latest jgroups-default.xml file from the 8.6.0 installation.

For WebLogic Users

1. Navigate to `<8.6.0 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/lib`.
2. Locate the `erjgroupssynchronizer-5.0.jar` file and unzip it to a directory we'll refer to as `<TMP>`.
3. Copy the `<TMP>/Resources/jgroups-default.xml` to the following location:

   ```
   <8.6.0 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/InfoManager.woa/Contents/WebServerResources
   ```

   Important! Rename the file to any other name so that there is no conflict with the default configuration file (e.g. `jgroups-custom.xml`).
4. Delete the `<TMP>` directory.
5. Apply your customizations from the previously customized `jgroups-default.xml` to the newly copied file.
6. Distribute the newly customized file to the following locations and register your customized file with the application:

For InfoManager

a. Copy the newly customized file to following directory:

```
<8.6.0 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/InfoManager.woa/Contents/WebServerResources
```

b. Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

```
<8.6.0 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/InfoManager.woa/Contents/Resources/Properties
```

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For IMWS

a. Copy the newly customized file to following directory:

```
<8.6.0 INSTALL DIR>/instances/<INSTANCE>/webapps/imws/app/WEB-INF/IMWebServices.woa/Contents/WebServerResources
```

b. Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

`<8.6.0 INSTALL DIR>/instances/<INSTANCE>/webapps/imws/app/WEB-INF/IMWebServices.woa/Contents/Resources/Properties`

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For InfoCenter

a Copy the newly customized file to the following directory:

`<8.6.0 INSTALL DIR>/instances/<INSTANCE>/webapps/infocenter/app/WEB-INF/IMTagLibrary.woa/Contents/WebServerResources`

b Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

`<8.6.0 INSTALL DIR>/instances/<INSTANCE>/webapps/infocenter/app/WEB-INF/IMTagLibrary.woa/Contents/Resources/Properties`

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For any other IM Tag Library based web application

a Copy the newly customized file to the following directory:

`<8.6.0 INSTALL DIR>/instances/<INSTANCE>/webapps/<WEB_APP>/app/WEB-INF/IMTagLibrary.woa/Contents/WebServerResources`

b Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

`<8.6.0 INSTALL DIR>/instances/<INSTANCE>/webapps/<WEB_APP>/app/WEB-INF/IMTagLibrary.woa/Contents/Resources/Properties`

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

7 Restart the instance for the changes to take effect.

For Tomcat Users

1 Navigate to `<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/WEB-INF/lib`

2 Locate the `erjgroupssynchronizer-5.0.jar` file and unzip it to a directory we'll refer to as `<TMP>`

3 Copy the `<TMP>/Resources/jgroups-default.xml` to the following location.

`<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/WEB-INF/InfoManager.woa/Contents/WebServerResources`

Important! Rename the file to any other name so that there is no conflict with the default configuration file (e.g. `jgroups-custom.xml`).

4 Delete the `<TMP>` directory

5 Apply your customizations from the previously customized `jgroups-default.xml` to the newly copied file.

6 Distribute the newly customized file to the following locations and register your customized file with the application:

For InfoManager

a Copy the newly customized file to following directory:

```
<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/
WEB-INF/InfoManager.woa/Contents/WebServerResources
```

b Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

```
<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/
WEB-INF/InfoManager.woa/Contents/Resources/Properties
```

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For IMWS

a Copy the newly customized file to following directory:

```
<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/imws/WEB-INF/
IMWebServices.woa/Contents/WebServerResources
```

b Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

```
<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/imws/WEB-INF/
IMWebServices.woa/Contents/Resources/Properties
```

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For InfoCenter

a Copy the newly customized file to the following directory:

```
<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/infocenter/
WEB-INF/IMTagLibrary.woa/Contents/WebServerResources
```

b Set the `er.extensions.jgroupsSynchronizer.properties property` to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

```
<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/infocenter/
WEB-INF/IMTagLibrary.woa/Contents/Resources/Properties
```

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For any other IM Tag Library based web application

a Copy the newly customized file to the following directory:

<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<WEB_APP>/WEB-INF/IMTagLibrary.woa/Contents/WebServerResources

b Set the er.extensions.jgroupsSynchronizer.properties property to the file name of the newly customized file (e.g. er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml) in the following file:

<8.6.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<WEB_APP>/WEB-INF/IMTagLibrary.woa/Contents/Resources/Properties

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

7 Restart the instance for the changes to take effect.

FOR WEBSPHERE USERS

1 Navigate to <profile_root>/installedApps/cell_Name/InfoManager.ear/InfoManager.war/WEB-INF/lib

2 Locate the erjgroupssynchronizer-5.0.jar file and unzip it to a temporary directory, <JAR_TMP>.

3 Copy the <JAR_TMP>/Resources/jgroups-default.xml and <JAR_TMP>/Resources/Properties files to the temporary location, <TEMP>.

Important! Rename the jgroups-default.xml file to any other name so that there is no conflict with the default configuration file (jgroups-custom.xml).

4 Apply your customizations from the previously customized jgroups-default.xml to the newly copied file jgroups-custom.xml.

5 Set the er.extensions.jgroupsSynchronizer.properties property to the file name of the newly customized file (er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml) in the <TMP>/Properties file:

Note: You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

6 Distribute the above two files customized file to the following web applications .

7 Using a web browser, navigate to the Admin Console URL.
https://<server_Name_or_IP_address>:<port#>/ibm/console
The port number is the HTTPS Administrative console port assigned when the profile was created.

8 Navigate to Applications -> Application Types -> WebSphere enterprise applications.

For InfoManager

1 Select InfoManager from the list of Enterprise applications and click on ‘Stop’ button.

2 Select again InfoManager and click on ‘Update’ button.

3 Under Application Update Options select ‘Replace or add a single file’, enter relative path in InfoManager.ear to custom jgroup file as InfoManager.war/WEB-INF/InfoManager.woa/Contents/WebServerResources/jgroups-custom.xml. Under *Specify the path to the file* select **Local file path** and provide the path of <TMP>/jgroups-custom.xml.

4 Click **Next** and click **OK** in Updating application screen. After ear is updated click **Save**.

5 Select again InfoManager and click **Update**.

6 Under Application Update Options select 'Replace or add a single file', enter relative path in InfoManager.ear to Properties file as `InfoManager.war/WEB-INF/InfoManager.woa/Contents/Resources/Properties`.

7 Under 'Specify the path to the file' select 'Local file path' and provide the path of <TMP>/Properties.

8 Click on Next and click on 'OK' in Updating application screen. After ear is updated click on 'Save' link.

9 Select again InfoManager in Enterprise applications screen and click on 'Start' button.

For IMWS

1 Select imws from the list of Enterprise applications and click on 'Stop' button.

2 Select again imws and click on 'Update' button.

3 Under Application Update Options select 'Replace or add a single file', enter relative path in imws.ear to custom jgroup file as "`imws.war/WEB-INF/InfoManager.woa/Contents/WebServerResources/jgroups-custom.xml`". Under 'Specify the path to the file' select 'Local file path' and provide the path of <TMP>/jgroups-custom.xml.

4 Click on Next and click on 'OK' in Updating application screen. After ear is updated click on 'Save' link.

5 Select again imws and click on 'Update' button.

6 Under Application Update Options select 'Replace or add a single file', enter relative path in InfoManager.ear to Properties file as `imws.war/WEB-INF/InfoManager.woa/Contents/Resources/Properties`.

7 Under 'Specify the path to the file' select 'Local file path' and provide the path of `<TMP>/Properties`.

8 Click on Next and click on 'OK' in Updating application screen. After ear is updated click on 'Save' link.

9 Select again imws in Enterprise applications screen and click on 'Start' button.

For InfoCenter

1 Select infocenter from the list of Enterprise applications and click on 'Stop' button.

2 Select again infocenter and click on 'Update' button.

3 Under Application Update Options select 'Replace or add a single file', enter relative path in infocenter.ear to custom jgroup file as "infocenter.war/WEB-INF/InfoManager.woa/Contents/WebServerResources/jgroups-custom.xml". Under 'Specify the path to the file' select 'Local file path' and provide the path of <TMP>/jgroups-custom.xml.

4 Click on Next and click on 'OK' in Updating application screen. After ear is updated click on 'Save' link.

5 Select again infocenter and click on 'Update' button.

6 Under Application Update Options select 'Replace or add a single file', enter relative path in infocenter.ear to Properties file as infocenter.war/WEB-INF/InfoManager.woa/Contents/Resources/Properties.

7 Under 'Specify the path to the file' select 'Local file path' and provide the path of <TMP>/Properties.

8 Click on Next and click on 'OK' in Updating application screen. After ear is updated click on 'Save' link.

9 Select again infocenter in Enterprise applications screen and click on 'Start' button.

For any other IM Tag Library based web application (WEB_APP)

1. Select WEB_APP from the list of Enterprise applications and click on 'Stop' button.
2. Select again WEB_APP and click on 'Update' button.
3. Under Application Update Options select 'Replace or add a single file', enter relative path in WEB_APP.ear to custom jgroup file as `WEB_APP.war/WEB-INF/InfoManager.woa/Contents/WebServerResources/jgroups-custom.xml`. Under 'Specify the path to the file' select 'Local file path' and provide the path of <TMP>/jgroups-custom.xml.
4. Click on Next and click on 'OK' in Updating application screen. After ear is updated click on 'Save' link.
5. Select again WEB_APP and click on 'Update' button.
6. Under Application Update Options select 'Replace or add a single file', enter relative path in WEB_APP.ear to Properties file as `WEB_APP.war/WEB-INF/InfoManager.woa/Contents/Resources/Properties`.
7. Under 'Specify the path to the file' select 'Local file path' and provide the path of <TMP>/Properties.
8. Click on Next and click on 'OK' in Updating application screen. After ear is updated click on 'Save' link.
9. Select again WEB_APP in Enterprise applications screen and click on 'Start' button.

Migrate Custom Profanity Lists

This section describes how to migrate a customized profanity list that is used with the IM Profanity Filter for Discussion Boards from a previously installed release to the freshly installed release 8.6.0 Information Manager.

The text used to flag inappropriate messages containing profanity can be found in the previous release under:

```
<Pre-8.6.0 INSTALL DIR>/InfoManager/config/SYSTEM/profanitylist.txt
```

If this file has been customized to add or remove profane words, copy the customized file to the 8.6.0 installation and replace the existing file, here:

```
<8.6.0 INSTALL DIR>/InfoManager/config/SYSTEM/profanitylist.txt
```

Migrate Custom Delegate Classes

This section describes how to migrate custom delegate classes from the previously installed release to the freshly installed release 8.6.0.0.

Though none of the existing delegate class interface signatures have changed in 8.6.0, you must recompile the source code of your custom delegate classes with the freshly installed release 8.6.0 `imservices-8.6.0.jar` in the class path and the previously released `imservices.jar` file removed from the class path.

After your custom delegate class source code has been compiled against the freshly installed release 8.6.0 installation, rebuild the jar file(s) that contain your custom class files.

For WebLogic and Tomcat:

To configure the freshly installed 8.6.0.0 Information Manager to use your custom delegate classes, copy the newly rebuilt jar file(s) to the following directories (where TAGLIB_APP refers to InfoCenter, iConnect, SSP) and restart the instance:

WebLogic

```
<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/lib
<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/webapps/imws/app/WEB-INF/lib
<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/WEB-INF/lib
```

Tomcat

```
<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/WEB-INF/lib
<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/imws/WEB-INF/lib
<8.6.0.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/WEB-INF/lib
```

For WebSphere:

To configure the freshly installed 8.6.0.0 Information Manager to use your custom delegate classes, copy the newly rebuilt jar file(s) to the temp directories refer it as `<TMP>/CUSTOM_DELEGATE.jar` (where `WEB_APP` refers to InfoManager, InfoCenter, iConnect, SSP). Perform below steps for each `WEB_APP`:

1. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`
   The port number is the HTTPS Administrative console port assigned when the profile was created.
2. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
3. Select `WEB_APP` from the list of Enterprise applications and click **Stop**.
4. Select `WEB_APP` and click **Update**.
5. Under Application Update Options select **Replace or add a single file**, enter the relative path in `WEB_APP.ear` to the custom delegate jar as `WEB_APP.war/WEB-INF/lib/CUSTOM_DELEGATE.jar`. Under Specify the path to the file, select either **Local file path** or **Remote file path** and provide the path of `<TMP>/CUSTOM_DELEGATE.jar`.
6. Click **Next** and then click **OK** on the Updating application screen. After `CUSTOM_DELEGATE.jar` is added to `WEB_APP ear` click **Save**.
7. Select again `WEB_APP` in Enterprise applications screen and click on ‘Start’ button.

The freshly installed release 8.6.0.0 IM Management Console has already been configured to use your custom delegate classes by the steps outlined in the “Migrate Custom Settings in config.properties” on page 44.

Migrate Custom Allowed HTML Tags

This section describes how to migrate a customized allowed HTML tag list that is used with the IM HTML Filter for Discussion Boards from a previously installed release to the freshly installed release 8.6.0 Information Manager.

The HTML tags allowed within discussion messages can be found in the previous release under:

```
<Pre-8.6.0 INSTALL DIR>/InfoManager/config/SYSTEM/allowedHTMLTags.txt
```

If this file has been customized to add or remove allowed HTML tags, copy the customized file to the 8.6.0 installation and replace the existing file:

```
<8.6.0 INSTALL DIR>/InfoManager/config/SYSTEM/allowedHTMLTags.txt
```

Troubleshooting the Information Manager Database Upgrade Utility

TABLE 4. Common Error Messages and Solutions

Error Message	Use Case	Suggested Solution
No keystore location specified. Please execute this script from an ICE window.	When the utility is verifying access to the Keystore during initialization.	Ensure you are running the utility from the ICE environment of the 8.6.0 parallel installation environment.
Keystore is not valid.	When the utility is verifying access to the Keystore during initialization.	Ensure the user who is executing has the necessary file permissions on the Keystore and its files. For more information on Keystore file permissions, review the 8.6.0 Installation Guide.
No `IM_HOME` location specified. Please execute this script from an ICE window.	When the utility is verifying access to the Information Manager configuration files during initialization.	Ensure you are running the utility from the ICE environment of the 8.6.0 parallel installation environment.
`IM_HOME` path `<8.6.0 INSTALL DIR>/InfoManager` does not exist or is not a valid Information Manager home folder, please verify the path.	When the utility is verifying access to the Information Manager configuration files during initialization.	Because the Upgrade Guide instructed the users to perform a fresh install of 8.6.0, the default location for the `IM_HOME` path after installation is `<8.6.0 INSTALL DIR>/InfoManager`. No customizations to move this location should have been performed at this point. If customizations have been made, modify the `im_database_upgrade.{sh|bat}` file and set the `-DIM_HOME` argument to the customized location of the Information Manager configuration files.
IO Exception on `<8.6.0 INSTALL DIR>/InfoManager/config/IMADMIN/application.properties`	When the utility is accessing the database configuration during initialization.	Make sure the file exists and is readable by the user executing the utility.

TABLE 4. Common Error Messages and Solutions (Continued)

Error Message	Use Case	Suggested Solution
SQL Exception or Class Not Found Exception on the Database Driver	When the utility is verifying access to the database.	Make sure the database is accessible and review the connection information in `<8.6.0 INSTALL DIR>/InfoManager/config/IMADMIN/application.properties`. If the password is not valid, use the encrypt.{bat|sh} command from the ICE environment to encrypt the correct password and save it to the file; this change will also need to be made to `<8.6.0 INSTALL DIR>/InfoManager/config/IMWEBSERVICES/application.properties` if IMWS was installed; as well as `<8.6.0 INSTALL DIR>/InfoManager/config/<REPOSITORY>/application.properties` if a web application was installed.
FAILED: The Information Manager Database Upgrade cannot continue until all duplicate e-mail addresses have been resolved!	When the utility is verifying that the pre-upgrade requirement to resolve any shared email addresses across users has been fulfilled.	Follow the instructions in the Upgrade Guide to fulfill the pre-upgrade requirements.
FAILED: The Information Manager Database Upgrade cannot continue until all duplicate content text records have been resolved!	When the utility is verifying that the system is clear of any duplicate content text records. (This is expected)	Follow the instructions in the Upgrade Guide to resolve the duplicate content text records.
Failed to removed duplicate content texts indicated in <Report File>	When running with the `-delete.from.report` argument, the utility failed to remove the duplicate content text records identified to be removed from the system.	Review your modified report file to ensure no columns were removed and that only the values in **RemoveRecord** column have been modified. After the report has been reviewed and/or modified, rerun the utility supplying the `-delete.from.report=<full path to the modified report file>`. If the utility fails again with this error, contact Oracle Customer Support.
No current installations exist to upgrade.	When the utility is verifying the starting point is valid to upgrade.	Most likely the release you are on is pre-8.1.2.1. The utility does not support pre-8.1.2.1 releases. Contact Oracle Customer Support. You will also get this message if you are already on release 8.6.0.
ORA-01653: unable to extend table <TABLE> by <SIZE> in tablespace <TABLESPACE>.	At any point the utility is executing on an Oracle DB and a failure occurs with this message in the error stack trace.	Add 30GB to the UNDO table space and 100GB to the schema's table space in addition to the resources already allocated to those table spaces in order to complete the upgrade. The table spaces can be reduced back to the normal size once the upgrade has completed successfully.
SQL Exceptions on DML (Insert, Update and Delete) statements that caused the script to fail with errors	When the utility is executing a pre-data migration or post-data migration SQL script.	If the error is a table or column does not exist exception, verify that the database schema has not been manually manipulated and contact Oracle Customer Support.
SQL Exceptions on Alter Table Add Column statements	When the utility is executing a pre-data migration or post-data migration SQL script.	If the error is a table does not exist exception, verify that the database schema has not been manually manipulated and contact Oracle Customer Support.

TABLE 4. Common Error Messages and Solutions (Continued)

Error Message	Use Case	Suggested Solution
SQL Exceptions on Alter Table Drop Column statements	When the utility is executing a pre-data migration or post-data migration SQL script.	If the error is a column does not exist exception, the column should have existed, but in this case, modify the offending script to remove the corresponding ALTER TABLE DROP statement and restart the utility with no arguments. Pre-data migration and post-data migration SQL scripts can be found under <TMP>/sql/oracle for Oracle database users and <TMP>/sql/mssql for SQL Server database users. If the error is a table does not exist exception, verify that the database schema has not been manually manipulated and contact Oracle Customer Support.
SQL Exceptions on Alter Table Add Constraint statements	When the utility is executing a pre-data migration or post-data migration SQL script.	If the error is a table or column does not exist exception, verify that the database schema has not been manually manipulated and contact Oracle Customer Support.
SQL Exceptions on Create View statements	When the utility is executing a pre-data migration or post-data migration SQL script.	If the error is a table or column does not exist exception, verify that the database schema has not been manually manipulated and contact Oracle Customer Support.
SQL Exceptions on Create Index statements	When the utility is executing a pre-data migration or post-data migration SQL script.	If the error is a table or column does not exist exception, verify that the database schema has not been manually manipulated and contact Oracle Customer Support.
SQL Exceptions on Drop Table statements	When the utility is executing a pre-data migration or post-data migration SQL script.	If the error is a table does not exist exception, the table should have existed, but in this case, modify the offending script to remove the corresponding DROP TABLE statement and restart the utility with no arguments. Pre-data migration and post-data migration SQL scripts can be found under <TMP>/sql/oracle for Oracle database users and <TMP>/sql/mssql for SQL Server database users.
SQL Exceptions related to database connectivity during a data migration class execution that caused the class to fail with errors	When a data migration class is executing SQL through JDBC.	If the error is related to database connectivity, make sure the database is accessible and review the connection information in `<8.6.0 INSTALL DIR>/InfoManager/config/IMADMIN/application.properties`. If the password is not valid, use the encrypt.{bat|sh} command from the ICE environment to encrypt the correct password and save it to the file; this change will also need to be made to `<8.6.0 INSTALL DIR>/InfoManager/config/IMWEBSERVICES/application.properties` if IMWS was installed as well as `<8.6.0 INSTALL DIR>/InfoManager/config/<REPOSITORY>/application.properties` if a web application was installed.

TABLE 4. Common Error Messages and Solutions (Continued)

Error Message	Use Case	Suggested Solution
SQL Exceptions not related to database connectivity during a data migration class execution, not including com.inquira.infomanager.data.migration.IMMetricsMerger, that caused the class to fail with errors	When a data migration class is executing SQL through JDBC.	If the error is a table or column does not exist exception, verify that the database schema has not been manually manipulated and contact Oracle Customer Support.
SQL Exception during the com.inquira.infomanager.data.migration.IMMetricsMerger data migration class that caused the class to fail with errors	When the com.inquira.infomanager.data.migration.IMMetricsMerger data migration class is executing the corresponding BUILD_immetricsmerger.sql SQL script or executing SQL through JDBC.	If the exception message is **ERROR: While trying to run SQL File: sql/<oracle|mssql>/BUILD_immetricsmerger.sql**, use the suggestions from the sections above that apply when the utility is executing a pre-data migration or post-data migration SQL script. Otherwise, if the error is a table or column does not exist exception, verify that the database schema has not been manually manipulated and contact Oracle Customer Support.
CVDatabase Exceptions during a migration class execution that caused the class to fail with errors	When a data migration class is modifying the data through WebObjects.	Verify that the database is not being modified concurrently by another process and contact Oracle Customer Support.
Scheduler Exception during a migration class execution that caused the class to fail with errors	When the com.inquira.infomanager.data.migration.IM8500_NewBatchJobs or the com.inquira.infomanager.data.migration.IMMetricsMerger data migration classes are registering new batch jobs with the Quartz Scheduler.	There is an underlying problem with the Quartz Scheduler; contact Oracle Customer Support.
Exception with message **The Publish privilege does not exist. Please run database update scripts.**	When the com.inquira.infomanager.data.migration.IM8500_PublishPrivilege data migration class is attempting to add the new publish privilege to the content channel privileges.	This signifies that the BUILD_8500.sql pre-migration SQL script did not complete successfully with no errors. Review the `<8.6.0 INSTALL DIR>/InfoManager/logs/UPGRADE/<Install Date>/8.5.0.0/1_pre-migration-SQL/BUILD_8500.log` for more information.
All other errors that caused the utility to fail	During any part of the utility's execution.	Contact Oracle Customer Support.

CHAPTER 4

Upgrading InfoCenter and Web Applications

This chapter provides instructions on upgrading and migrating custom settings for InfoCenter and other web applications.

Important! Complete the Information Manager upgrade successfully before continuing with the InfoCenter upgrade.

Preparing to Upgrade Web Applications

Install InfoCenter and migrate InfoCenter configuration and data from the current environment to 8.6:

- Verify that InfoCenter is working.
- Repeat this for other web applications (iConnect).
- Merge the installed customer UI components with the existing customer UI components and recompile using the new JRE and build into .war files.
- Then merge the taskconfig files and load the IM Resources and IM Library.
- Finally, merge in RTE/FCK customizations into the Customer UI and Information Manager and provide appropriate clientlibrary.jar to consuming CL applications.

See “Upgrading InfoCenter and Web Applications” on page 87.

Upgrading InfoCenter and Web Application Components

The InfoCenter and web application components upgrade is described in the following sections:

- **Migrate Custom Settings In the InfoCenter Web Application Deployment Descriptor**
- **Migrating a Custom iAuthenticator**
- **Migrating Custom Rich Text Area Settings**
- **Migrate Custom JGroups Settings**
- **Migrate Custom Tag Library Descriptors**
- **Migrate Custom CSS**
- **Migrate Custom Java Server Pages**
- **Migrate Custom InfoCenter Properties**

- **Migrate Custom ESAPI Properties**
- **Migrate Custom InfoCenter Resources**

Migrate Custom Settings In the InfoCenter Web Application Deployment Descriptor

This section will describe how to migrate custom settings in the deployment descriptor of the previously installed version of the InfoCenter web application to the newly installed version 8.6 InfoCenter web application.

WebLogic and Apache Tomcat Servers

The web application's deployment descriptor for the previously installed and deployed version of the InfoCenter web application is located in (where CONTEXT_NAME refers to the deployment context name of the InfoCenter web application):

```
<Pre-8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT_NAME>/
WEB-INF/web.xml
```

The web application's deployment descriptor for the newly installed version 8.6 InfoCenter web application is located in:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/infocenter/app/WEB-INF/web.xml`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/infocenter/WEB-INF/web.xml`

The newly installed 8.6 deployment descriptor uses the following descriptor elements:

- Context Parameters
- Filters and Filter Mappings
- Listeners
- Servlets and Servlet Mappings
- Session Configurations
- JSP Configurations

Review the deployment descriptor for the previously installed version of the InfoCenter web application. If the `web.xml` file contained any descriptor elements not mentioned above, add them to the newly installed version 8.6 web.xml.

For every descriptor element used in the newly installed version 8.6 InfoCenter web application's deployment descriptor, the following instructions outline the ready-to-use settings and how to maintain your customizations form the previously installed version of the InfoCenter web application's deployment descriptor.

WebSphere Servers

The web application's deployment descriptor for the previously installed and deployed release of the InfoCenter web application can be found in:

```
<Pre-8.6.0.0 profile_root>/installedApps/cell_Name/infocenter.ear/
infocenter.war/WEB-INF/web.xml
```

The web application's deployment descriptor for the newly installed release 8.6.0.0 InfoCenter web application can be found in:

```
<8.6.0.0 profile_root>/installedApps/cell_Name/infocenter.ear/infocenter.war/
WEB-INF/web.xml
```

Copy this web.xml file to a temporary directory, refer it as `<TMP>/web.xml`

The newly installed 8.6.0.0 deployment descriptor uses the following descriptor elements:

- Context Parameters
- Filters and Filter Mappings
- Servlets and Servlet Mappings
- Welcome File List

Review the deployment descriptor for the previously installed release of the InfoCenter web application. If the web.xml contained any descriptor elements not mentioned above, add them to web.xml.located at `<TMP>/web.xml`.

If `<TMP>/web.xml` is modified, use the following steps to update the InfoCenter ear file:

1. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`
   The port number is the HTTPS Administrative console port assigned when the profile was created.
2. Navigate to **Applications**, **Application Types**, **WebSphere enterprise applications**.
3. Select **infocenter** from the list of Enterprise applications and click **Stop**.
4. Select **infocenter** and click **Update**.
5. Under **Application Update Options** select **Replace or add a single file**, enter relative path in `infocenter.ear` to `web.xml` as `infocenter.war/WEB-INF/web.xml`. Under **Specify the path to the file** select **Local file path** and provide the path of `<TMP>/web.xml`.
6. Click **Next** and then click **OK** in the Updating application screen.
7. After the file `web.xml` is updated in the infocenter ear file, click **Save**.
8. Select **infocenter** in the Enterprise applications screen.
9. Click **Start**.

For every descriptor element used in the newly installed release 8.6.0.0 InfoCenter web application's deployment descriptor, we outline the installed settings and how to maintain your customizations from the previously installed release of the InfoCenter web application's deployment descriptor.

Context Parameters

Refer to the following list for details on the context parameters.

WOAPPMODE PARAMETER

```
<context-param>
   <param-name>WOAppMode</param-name>
```

```
      <param-value>Deployment</param-value>
   </context-param>
```

This parameter setting has not changed for 8.6.

WOCLASSPATH PARAMETER

```
   <context-param>
      <param-name>WOClasspath</param-name>
      <param-value>WOROOT/IMTagLibrary.woa/Contents/Resources/Java/imtaglibrary-
      8.6.jar</param-value>
   </context-param>
```

This parameter has been updated in 8.6.

In 8.5.1 release, the parameter's value was:

<param-value>

WEBINFROOT/InfoManager.woa/Contents/Resources/Java/infomanager-8.5.1.jar

</param-value>

In versions prior to 8.5.1, the parameter's value was:

```
<param-value>
   WEBINFROOT/Library/Frameworks/JavaJDBCAdaptor.framework/Resources/Java/
   javajdbcadaptor.jar
   WEBINFROOT/Library/Frameworks/JavaEOControl.framework/Resources/Java/
   javaeocontrol.jar
   WEBINFROOT/Library/Frameworks/IMModel.framework/Resources/Java/immodel.jar
   WEBINFROOT/Library/Frameworks/JavaWOJSPServlet.framework/Resources/Java/
   javawojspservlet.jar
   WEBINFROOT/Library/Frameworks/IMServices.framework/Resources/Java/
   imservices.jar
   WEBINFROOT/Library/Frameworks/JavaWOExtensions.framework/Resources/Java/
   JavaWOExtensions.jar
   WEBINFROOT/Library/Frameworks/IMFoundation.framework/Resources/Java/
   imfoundation.jar
   WEBINFROOT/Library/Frameworks/JavaWebObjects.framework/Resources/Java/
   javawebobjects.jar
   WEBINFROOT/Library/Frameworks/JavaEOProject.framework/Resources/Java/
   javaeoproject.jar
   WEBINFROOT/Library/Frameworks/JavaEOAccess.framework/Resources/Java/
   javaeoaccess.jar
   WEBINFROOT/Library/Frameworks/JavaFoundation.framework/Resources/Java/
   javafoundation.jar
   WEBINFROOT/Library/Frameworks/JavaWebServicesSupport.framework/Resources/Java/
   javawebservicessupport.jar
   WEBINFROOT/Library/Frameworks/JavaWebServicesClient.framework/Resources/Java/
   javawebservicesclient.jar
   WEBINFROOT/Library/Frameworks/ERJars.framework/Resources/Java/ERJars.jar
   WEBINFROOT/Library/Frameworks/ERExtensions.framework/Resources/Java/
   ERExtensions.jar
   WEBINFROOT/Library/Frameworks/ERJars.framework/Resources/Java/
   erxservletadaptor.jar
   WEBINFROOT/Library/Frameworks/ERJGroupsSynchronizer.framework/Resources/Java/
   ERJGroupsSynchronizer.jar
   WEBINFROOT/IMTagLibrary.woa/Contents/Resources/Java/imtaglibrary.jar
</param-value>
```

If the `web.xml` file for the previously installed version of the InfoCenter web application specified any other class files, jar files or directories not listed above in the value of the `WOClasspath` parameter, add them to the `WOClasspath` parameter value of the newly installed version 8.6 `web.xml`.

WOAPPLICATIONCLASS PARAMETER

```
<context-param>
   <param-name>WOApplicationClass</param-name>
   <param-value>com.inquira.client.Application</param-value>
</context-param>
```

This parameter setting has not changed for 8.6.

APPLICATIONRESOURCECLASS PARAMETER

```
<context-param>
   <param-name>ApplicationResourceClass</param-name>
   <param-value>ApplicationResources</param-value>
</context-param>
```

This parameter setting has not changed for 8.6

CUSTOM CONTEXT PARAMETERS

If the web.xml for the previously installed version of the IM Management Console web application specified any other context parameters, add them to the newly installed version 8.6 web.xml.

Filters and Filter Mappings

Refer to the following list for details on filters and filter mappings.

IQOBJECTSTOREASSIGNINGFILTER FILTER

This filter should/will be called before SecurityFilter. Because SecurityFilter uses EOFactory, this filter need to do the necessary setup first.

```
<filter>
   <filter-name>IQObjectStoreAssigningFilter</filter-name>
   <filter-class>com.inquira.foundation.utilities.IQObjectStoreAssigningFilter</
   filter-class>
   <init-param>
      <description>Set this flag to true in IM Console, InfoCenter so that User
      specific ObjectStore is stored in HttpSession. But in IMWS, set this to
      false.</description>
      <param-name>attachObjectStoreToHttpSession</param-name>
      <param-value>true</param-value>
   </init-param>
</filter>
```

The IQObjectStoreAssigningFilter filter was added in 8.5.1.

IQOBJECTSTOREASSIGNINGFILTER FILTER MAPPING

```
<filter-mapping>
   <filter-name>IQObjectStoreAssigningFilter</filter-name>
   <url-pattern>/*</url-pattern>
```

```
</filter-mapping>
```

The IQObjectStoreAssigningFilter filter mapping was added in 8.5.1.

SECURITY FILTER

```
<filter>
   <filter-name>Security Filter</filter-name>
   <filter-class>com.inquira.client.filters.SecurityFilter</filter-class>
   <init-param>
      <param-name>filter-uri-prefix</param-name>
      <param-value>/index</param-value>
   </init-param>
</filter>
```

The Security Filter was added in 8.5.1.

SECURITY FILTER MAPPING

```
<filter-mapping>
      <filter-name>Security Filter</filter-name>
      <url-pattern>/index/*</url-pattern>
      <url-pattern>/WebObjects/*</url-pattern>
      <url-pattern>/controller/*</url-pattern>
      <url-pattern>*.jsp</url-pattern>
</filter-mapping>
```

The Security Filter filter mapping was added in 8.5.1.

IMTOKENSCANNER FILTER

This filter is used to dynamically replace the IM replacement tokens that can be embedded in the content

By default all request must go thru the IM index servlet in order to be scanned for replacement tokens. You can add additional filter mappings as required.

```
<filter>
   <filter-name>IMTokenScanner Filter</filter-name>
   <filter-class>com.inquira.services.application.IMTokenFilter</filter-class>
</filter>
```

The IMTokenScanner filter has not changed in 8.6.

IMTOKENSCANNER FILTER MAPPING

```
<filter-mapping>
   <filter-name>IMTokenScanner Filter</filter-name>
   <url-pattern>/index/*</url-pattern>
</filter-mapping>
```

The IMTokenScanner filter mapping has not changed in 8.6.

IQSESSIONFILTER FILTER

Filter each request to see if new IQSession id is being set as well as bind new/existing ids to request/response thread.

```
<filter>
```

```
   <filter-name>IQSessionFilter</filter-name>
   <filter-class>com.inquira.foundation.utilities.IQSessionFilter</filter-class>
</filter>
```

The IQSessionFilter filter package has changed in 8.6.0.0.

IQSESSIONFILTER FILTER MAPPING

```
<filter-mapping>
   <filter-name>IQSessionFilter</filter-name>
   <url-pattern>/index/*</url-pattern>
</filter-mapping>
```

The IQSessionFilter filter mapping has not changed in 8.6.0.0.

XSSFILTER FILTER

This filter is used to dynamically replace the Http request's parameters if there is an XSS security concern.

The param-value is the RegEx pattern that should be used to filter out the "malicious code" in parameters. the pattern should be separated by delimiter of ":::" and quoted in CDATA .

e.g.

```
<![CDATA[<(script)[^>]*>(.*?)</script>:::another pattern]]>
 -->
<filter>
   <filter-name>XSSFilter</filter-name>
   <filter-class>com.inquira.servletfilter.XSSFilter</filter-class>
   <init-param>
      <param-name>XSSRegEx</param-name>
      <param-value><![CDATA[<(script)[^>]*>(.*?)</script>]]></param-value>
   </init-param>
</filter>
```

The XSSFilter filter was disabled in 8.2.3.0.

XSSFILTER FILTER MAPPING

```
<filter-mapping>
      <filter-name>XSSFilter</filter-name>
      <url-pattern>/index/*</url-pattern>
</filter-mapping>
```

The XSSFilter filter mapping was disabled in 8.2.3.0.

Custom Filters and Filter Mappings

If the web.xml for the previously installed version of the InfoCenter web application specified any other filters and filter mappings that were not removed in 8.6, add them to the newly installed version 8.6 web.xml.

LISTENERS

IQEncoder Listener

```
<listener>
   <listener-class>com.inquira.esapi.IQEncoderListener</listener-class>
</listener>
```

The IQEncoder listener has not changed in 8.6. It became available in 8.2.3.0.

Configuration Context Listener

```
<listener>
   <listener-class>com.inquira.client.configuration.ContextListener</listener-
   class>
</listener>
```

The configuration context listener has not changed in 8.6.

InQuira HTTP Session Listener

```
<listener>
   <listener-class>com.inquira.services.webcomponents.IQHttpSessionListener</
   listener-class>
</listener>
```

The InQuira HTTP session listener has not changed in 8.6. It became available in 8.1.3.1.

CUSTOM LISTENERS

If the `web.xml` file for the previously installed version of the InfoCenter web application specified any other listeners, add them to the newly installed version 8.6 `web.xml` file.

Servlets and Servlet Mappings

Refer to the following list for details on servlets and servlet mappings.

WOSERVLETADAPTOR SERVLET

```
<servlet>
   <servlet-name>WOServletAdaptor</servlet-name>
   <servlet-class>er.extensions.jspservlet.ERXServletAdaptor</servlet-class>
   <load-on-startup>1</load-on-startup>
</servlet>
```

The WOServletAdaptor servlet has not changed in 8.6.

WOSERVLETADAPTOR SERVLET MAPPING

```
<servlet-mapping>
   <servlet-name>WOServletAdaptor</servlet-name>
   <url-pattern>/WebObjects/*</url-pattern>
</servlet-mapping>
```

The WOServletAdaptor servlet mapping has not changed in 8.6.

CONTROLLER SERVLET

```
<servlet>
   <servlet-name>Controller</servlet-name>
   <servlet-class>
      com.inquira.client.controller.Controller
   </servlet-class>
   <load-on-startup>3</load-on-startup>
</servlet>
```

The Controller servlet has not changed in 8.6.

CONTROLLER SERVLET MAPPING

```
<servlet-mapping>
   <servlet-name>Controller</servlet-name>
   <url-pattern>/controller/*</url-pattern>
</servlet-mapping>
```

The Controller servlet mapping has not changed in 8.6.

INDEX SERVLET

```
<servlet>
   <servlet-name>Index</servlet-name>
   <servlet-class>
      com.inquira.client.controller.Index
   </servlet-class>
   <load-on-startup>2</load-on-startup>
</servlet>
```

The Index servlet has not changed in 8.6.

INDEX SERVLET MAPPING

```
<servlet-mapping>
   <servlet-name>Index</servlet-name>
   <url-pattern>/index/*</url-pattern>
</servlet-mapping>
```

The Index servlet mapping has not changed in 8.6.

CKFINDERCONNECTORSERVLET SERVLET

```
<servlet>
   <servlet-name>CKFinderConnectorServlet</servlet-name>
   <servlet-class>com.inquira.services.components.CKFinderConnectorServlet</
   servlet-class>
   <init-param>
      <param-name>configuration</param-name>
      <param-value>com.inquira.services.components.CKFinderConfiguration</param-
      value>
   </init-param>
   <init-param>
      <param-name>XMLConfig</param-name>
      <param-value>/WEB-INF/ckfinder_config.xml</param-value>
   </init-param>
   <init-param>
      <param-name>debug</param-name>
      <param-value>false</param-value>
   </init-param>
   <load-on-startup>4</load-on-startup>
</servlet>
```

The CKFinderConnectorServlet servlet is new in 8.6.

CKFINDERCONNECTORSERVLET SERVLET MAPPINGS

```
<servlet-mapping>
```

```
   <servlet-name>CKFinderConnectorServlet</servlet-name>
   <url-pattern>/resources/application/components/ckfinder/core/connector/java/
   connector.java</url-pattern>
</servlet-mapping>
```

The CKFinderConnectorServlet servlet mapping is new in 8.6.

Custom Servlets and Servlet Mappings

If the `web.xml` file for the previously installed version of the InfoCenter web application specified any other servlets and servlet mappings, add them to the newly installed version 8.6 `web.xml` file. Be sure to start the load on startup value for the custom servlets at 5 to maintain the instantiation order of the ready-to-use servlets with the custom servlets.

Session Configurations

```
<session-config>
   <session-timeout>30</session-timeout>
</session-config>
```

The session timeout defines the default session timeout interval for all sessions created in this web application. The default value is 30 minutes. This default value has not changed in 8.6. The specified timeout must be expressed in a whole number of minutes. If the timeout is 0 or less, the container ensures the default behavior of sessions is never to timeout.

If the `web.xml` file for the previously installed version of the InfoCenter web application configured the session timeout to a custom value, configure the session timeout with the custom value in the newly installed version 8.6 `web.xml`.

JSP Configurations

```
<jsp-config>
   <taglib>
      <taglib-uri>/IMDiscussionBoards</taglib-uri>
      <taglib-location>/WEB-INF/tlds/discussionboards.tld</taglib-location>
   </taglib>
   <taglib>
      <taglib-uri>/IMTaglib</taglib-uri>
      <taglib-location>/WEB-INF/tlds/inquira.tld</taglib-location>
   </taglib>
</jsp-config>
```

The taglib node defines the tag library descriptors that the web application uses. The defaults for InfoCenter include discussionboards.tld and inquira.tld. These default descriptor declarations have not changed in 8.6.

If the `web.xml` file for the previously installed version of the InfoCenter web application configured other tag library descriptors, configure the other descriptors in the newly installed version 8.6 `web.xml` file.

Migrating a Custom iAuthenticator

This section describes how to migrate a custom iAuthenticator used to authenticate users in the previously installed release of Information Manager to the newly installed release 8.6 Information Manager.

The newly installed version 8.6 iAuthenticator API Java documentation is located at:

```
<8.6 INSTALL DIR>/InfoManager/docs/iAuthentication/index.html
```

Review the 8.6 iAuthenticator API Java documentation for updates to the API.

The newly installed release 8.6 iAuthenticator API can be found in the following .jar file:

```
<8.6 INSTALL DIR>/InfoManager/clientLibrary/Java/infra.jar
```

The previously installed release of the iAuthenticator API may have been contained in one of the following jar files:

- `infra-1.0.jar` together with `shared.jar`
- `inquira-infra-1.1.jar`
- `inquira-infra-1.1.1.jar`

Although none of the existing iAuthenticator interface signatures have changed in 8.6, you must recompile the source code of your custom iAuthenticator with the newly installed release 8.6 `infra.jar` file in the class path and the previously installed release infra jar files removed from the class path.

Note: The `com.inquira.infra.InquiraException` class has changed in 8.6. If your custom iAuthenticator has any classes that extend this class, review the changes below to resolve potential compilation issues.

REMOVED COM.INQUIRA.INFRA.INQUIRAEXCEPTION FIELDS

- public static final int UNKNOWN = 0;
- public static final int TRANSACTION_RETRY = 2;
- public static final int APPLICATION_FATAL = 3;
- protected static ResourceBundle resources;
- protected static ResourceBundle logResources;
- protected static HashMap resourceFormats = new HashMap();

REMOVED COM.INQUIRA.INFRA.INQUIRAEXCEPTION CONSTRUCTORS

- public InquiraException(String id, Object[] args, int disposition);
- public InquiraException(String id, Object[] args, Throwable cause, int disposition);

REMOVED COM.INQUIRA.INFRA.INQUIRAEXCEPTION METHODS

- public String printLogString();
- public static String printLogString(Throwable t);
- public String getID();
- public int getDisposition();
- public void setArguments(Object[] args);
- public boolean instanceOf(Class c);
- public boolean instanceOf(Throwable t, Class c);
- public String getFullMessage();
- public static String getFullMessage(Throwable theT);
- public String toFullString();
- public static String toFullString(Throwable theT);

- public String getFirstAndLastMessage();
- public static String getFirstAndLastMessage(Throwable theT);
- public String getFirstAndLastStackTrace();
- public static String getFirstAndLastStrackTrace(Throwable theT);
- public String toFirstAndLastString();
- public static String toFirstAndLastString(Throwable theT);

MISCELLANEOUS UPDATES TO COM.INQUIRA.INFRA.INQUIRAEXCEPTION

The following inner class has been removed:

- public static class Test;

The following method now executes a no-operation (that is, the method does not append the mode to the `StringBuilder`):

- protected static void appendExecutionMode(StringBuilder sb);

Configuring Information Manager to Use Custom iAuthenticator

After your custom iAuthenticator has been compiled against the newly installed release 8.6 iAuthenticator API, rebuild the jar files that contain your custom iAuthenticator class files.

To configure the newly installed 8.6 Information Manager to use your custom iAuthenticator, copy the newly rebuilt jar files to the following directories (where `TAGLIB_APP` refers to InfoCenter, iConnect, SSP, or any custom IM Tag Library based web application):

WebLogic

```
<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/lib
<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/imws/app/WEB-INF/lib
<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/WEB-INF/lib
```

Tomcat

```
<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/
InfoManager/WEB-INF/lib
<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/imws/WEB-INF/lib
<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/
<TAGLIB_APP>/WEB-INF/lib
```

If you have migrated the custom settings in your Information Manager configuration as part of the Information Manager upgrade process, the target Information Manager Management Console will be configured to use your custom iAuthenticator. Start the instance and follow the steps below to review the configuration:

1. Sign in to your repository in the IM Management Console with an admin user with one of the following IM Security Roles:
   - Default Administration Role - A user with this role can perform any action on the repository he was created for and can only log in to that repository.
   - Super Admin - A user with this role can perform any action on any repository.
   - Super Support - A user with this role can perform any action on any repository.
2. Navigate to **Tools**, **System Configure**.

3. Select **Go to Expert Mode**.
4. Set the REMOTE_AUTHENTICATION_ENABLED configuration parameter to **true**.
5. Set the REMOTE_AUTHENTICATION_CLASS configuration parameter to your fully qualified custom authenticator class, for example, `com.company.package.CustomAuthenticator`).
6. The IFieldBuilder interface was added in version 8.2.3.0. If a custom IFieldBuilder is in use, set the REMOTE_FIELD_BUILDER_CLASS configuration parameter to your fully qualified custom IFieldBuilder subclass.

Migrating Custom Rich Text Area Settings

In previous releases of Information Manager, the Rich Text Area component used in the IM Management Console and IM Tag Library based web applications was FCKEditor version 2.6.3. In 8.6, this component is updated to CKEditor version 3.6.1 and CKFinder version 2.0.2.1. CKEditor 3.6.1 is a new version of the previous FCKEditor and is a complete rewrite of the product, including major changes in its architecture.

If you configured the FCKEditor in the previously installed release of Information Manager with custom settings, consult the documentation from http://ckeditor.com for guidelines on how to map the configuration settings from the FCKEditor to the CKEditor.

The CKEditor and CKFinder components can be located in the following directories (where WEB_APP refers to InfoManager, InfoCenter, iConnect, and SSP):

WebLogic

`<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<WEB_APP>/app/resources/application/components/ckeditor`

`<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<WEB_APP>/app/resources/application/components/ckfinder`

Tomcat

`<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<WEB_APP>/resources/application/components/ckeditor`

`<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<WEB_APP>/resources/application/components/ckfinder`

If you have migrated the custom settings in your Information Manager configuration as part of the Information Manager upgrade process, the target Information Manager Management Console will be configured to use the custom rich text editor image upload store paths. These image upload store paths will also be used by the rich text editors in the IM Tag Library based applications. Start the instance and follow the steps below to review the configuration:

1. Sign in to the repository in which the resource configuration settings are configured in the IM Management Console as an admin user with one of the following IM Security Roles:
   - Default Administration Role - A user with this role can perform any action on the repository he was created for and can only log in to that repository.
   - Super Admin - A user with this role can perform any action on any repository.
   - Super Support - A user with this role can perform any action on any repository.
2. Select **Tools**.
3. Select **System Configure**.
4. Select **Resource Configuration**.
5. Review the Rich Text Editor Image Upload Store Paths.

6 If the WYSIWYG Library Path has been configured to a location other than `$IM_HOME/library`, set the WYSIWYG Thumbnail Path to a different directory in a relatively similar location so the images and their thumbnails can be accessed through the shared storage area (e.g. `/Server_Name/Shared_Folder/library` and `/Server_Name/Shared_Folder/thumbnail`)

If you configured the WYSIWYG Library and WYSIWYG Thumbnail paths to locations other than `$IM_HOME/library` and `$IM_HOME/thumbnail`, you must manually configure the resource web application to access the images and thumbnails from the new locations.

FOR WEBLOGIC USERS

During the installation process, the administrator specified the resource web application context name. The default name is `OKResources`. This resource web application also hosts the images and thumbnails uploaded through the rich text area. The following steps must be performed on the resource web application specified during the installation process.

1 Start the Administration Server (if it is not running).

2 Using a web browser, navigate to the WebLogic Administration Console URL. (This can be found at `http://<Administration Server's Listen Address>:<Administration Server's Listen Port>/console`).

3 Provide the administration server's credentials to log in.

4 From the **Domain Structure** section, select **Deployments** to manage and control the Information Manager Web Applications.

5 Select the name that corresponds to the name of the resource web application.

6 Note the `Path` to the web application; you must navigate there to make changes.

7 Navigate to the `Path` and edit the `weblogic.xml` file of the resource web application. (This can be found at `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<Context Name>/app/WEB-INF/weblogic.xml`)

8 If the WYSIWYG Library Path has been changed, edit the virtual-directory-mapping node that corresponds to the library path.

a Set the **local-path node** to the parent directory of the new library path.

b Set the **url-pattern node** to the directory name of the new library path using the following format:

```
/<new_library_directory>/
```

For example, if the WYSIWYG Library Path is `/home/username/Oracle/Knowledge/IM/InfoManager/library`, the virtual mapping should read:

```
<virtual-directory-mapping>
   <local-path>/home/username/Oracle/Knowledge/IM/InfoManager</local-
   path>
   <url-pattern>/library/*</url-pattern>
</virtual-directory-mapping>
```

c Save the file.

9 If the WYSIWYG Thumbnail Path has been changed, edit the virtual-directory-mapping node that corresponds to the thumbnail path.

a Set the **local-path node** to the parent directory of the new thumbnail path.

b Set the **url-pattern node** to the directory name of the new thumbnail. Use the following format: `/<new_thumbnail_directory>/`

For example, if the WYSIWYG Thumbnail Path was `/home/username/Oracle/Knowledge/IM/InfoManager/thumbnail`, the virtual mapping should read:

```
<virtual-directory-mapping>
   <local-path>/home/username/Oracle/Knowledge/IM/InfoManager</local-path>
   <url-pattern>/thumbnail/*</url-pattern>
</virtual-directory-mapping>
```

c. Save the file.

10. From the **WebLogic Administration Console**, click the **Lock & Edit** button in the Change Center to put the domain in edit mode.
11. Check the check box that corresponds to the name of the resource web application that was modified.
12. Select **Update**.
13. Select **Redeploy this application using the following deployment files:**
14. Select **Finish**.
15. Select **Activate Changes** in the Change Center to activate the modifications to the resource web application.

    The changes are reflected immediately on new web application sessions. For the changes to be reflected on existing sessions, the managed server hosting those web applications must be restarted.

FOR TOMCAT USERS

The installation process provided individual context files that represented the web applications used to access the images and thumbnails uploaded through the rich text area from the default locations. The administrator must modify these context files manually to account for the change. Perform the following steps on every instance of Oracle Knowledge.

WARNING! The following steps include a restart of the application server.

1. Open the ICE Environment from the Information Manager instance.
2. Execute `inquiraim.sh stop` on Linux, `inquiraim stop` on Windows to shutdown the instance.
3. On the file system, navigate to `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/conf/Catalina/<InfoManager Host>`.
4. If the WYSIWYG Library Path has been changed:

   a. Rename the `library.xml` context file to `<DIRECTORY>.xml`, where `DIRECTORY` is the directory name of the new library path.

   b. Edit the file and set the `docBase` attribute of the `Context` element to the fully qualified path to the new library path.

   c. Set the `path` attribute of the `Context` element to the directory name of the new library path using the following format:

   ```
   /<directory_of_new_library_path>
   ```

   For example, if the WYSIWYG Library Path is `/home/username/Oracle/Knowledge/IM/InfoManager/library`, the context file should be named `library.xml` and its contents should contain the following:

   ```
   <?xml version='1.0' encoding='utf-8'?>
   ```

```
<Context docBase="/home/username/Oracle/Knowledge/IM/InfoManager/
library" path="/library">
   <Resources className="org.apache.naming.resources.FileDirContext"
                allowLinking="true"/>
</Context>
```

d Save the file.

5 If the WYSIWYG Thumbnail Path has been changed:

a Rename the `thumbnail.xml` context file to `<DIRECTORY>.xml`, where `DIRECTORY` is the directory name of the new thumbnail path.

b Edit the file and set the `docBase` attribute of the `Context` element to the fully qualified path to the new thumbnail path.

c Set the `path` attribute of the `Context` element to the directory name of the new thumbnail path using the following format:

```
/<directory_of_new_thumbnail_path>
```

For example, if the WYSIWYG Thumbnail Path is `/home/username/Oracle/Knowledge/IM/InfoManager/thumbnail`, the context file should be named `thumbnail.xml` and its contents should contain the following:

```
<?xml version='1.0' encoding='utf-8'?>
<Context docBase="/home/username/Oracle/Knowledge/IM/InfoManager/
thumbnail" path="/thumbnail">
   <Resources className="org.apache.naming.resources.FileDirContext"
                allowLinking="true"/>
</Context>
```

d Save the file.

6 Delete the Tomcat work directory at `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/work`.

7 From the ICE Environment, start the application by executing `inquiraim.sh start` on Linux, `inquiraim start` on Windows.

For WebSphere Users

During the installation process, the administrator specified the resource web application context name. The default name is `OKResources`. This resource web application also hosts the images and thumbnails uploaded through the rich text area.
Perform the following steps on the resource web application specified during the installation process.

1 Copy a file ibm-web-ext.xml from below location to temparary directory lets say temp *profile_root*/installedApps/*cell_Name*/OKResources.ear/ResourceWebApp.war/WEB-INF.

2 Edit ibm-web-ext.xml file which is copied to temp directory.

3 In the file values for *extendedDocumentRoot* attribute are a comma-delimited list of resource locations and values for *file.serving.patterns.allow* attribute are space-separated url patterns. Values of *extendedDocumentRoot* and *file.serving.patterns.allow* are mapped to one-to-one. The first value is content resource mount point location and the second is WYSIWYG Library Path and third is WYSIWYG Thumbnail Path.

4 If the WYSIWYG Library Path or Thumbnail Path has been changed, edit the second and third values of *extendedDocumentRoot* attribute that corresponds to the library path and thumbnail path.

Set the url patterns to the directory name of the new library path and thumbnail path at second and third values of *file.serving.patterns.allow attribute* using the following format:

`<new__directory>/`

For example, if the WYSIWYG Library Path is `/home/username/Oracle/Knowledge/IM/ InfoManager/library` and WYSIWYG Thumbnail Path was `/home/username/Oracle/Knowledge/IM/ InfoManager/thumbnail` then values of *extendedDocumentRoot* and *file.serving.patterns.allow will be:*

<fileServingAttributes name="extendedDocumentRoot" value="`/home/username/Oracle/Knowledge/IM/ InfoManager, /home/username/Oracle/Knowledge/IM/ InfoManager/,/home/username/Oracle/Knowledge/IM/ InfoManager/`"/>

<fileServingAttributes name="file.serving.patterns.allow" value="resources/* library/* thumbnail/*"/>

Save the file.

5 Using a web browser, navigate to the Admin Console URL.

The port number is the HTTPS Administrative console port assigned when the profile was created.

6 Navigate to **Applications**, **Application Types**, and then **WebSphere enterprise applications**.

7 Select the check box that corresponds to the name of the resource web application

8 Click the **Stop** button.

Annotation some incomplete steps follow:

9 Select again and click the **Update** button.

10 Under **Application Update Options**, select **Replace or add a single file**, and enter the relative path of `ibm-web-ext.xml` in the resources web application ear file as *ResourceWebApp.war/WEB-INF/ibm-web-ext.xml*.

11 Under **Specify the path to the file**, select either Local file path and provide the path of *<temp>/ibm-web-ext.xml*.

12 In the Updating application screen, click **Next** and then click **OK**.

After the ear file is updated, the following message appears:

"Update of *ressoure_webapp_name* has ended. The application or its web modules may require a restart when a save is performed."

13 Click **Save**.

14 Again select the resources web application in the Enterprise applications screen and click the **Start** button.

Migrate Custom JGroups Settings

This section describes how to migrate custom JGroups configurations from previous releases into the 8.6 installation.

In previous releases, customizations could have been made to the JGroups configuration file, jgroups-default.xml. This file could have been located in the following location (where `WEB_APP` refers to InfoManager, imws, or any IM Tag Library based web application):

`<PRE-8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<WEB APP>/WEB-`

INF/Library/Frameworks/ERJGroupsSynchronizer.framework/Resources/jgroups-default.xml

If you've modified this file, follow the instructions below to properly migrate the customizations to the 8.6 installation.

Because the JGroups version was updated to 2.11 in this release, start with the latest jgroups-default.xml file from the 8.6 installation.

For WebLogic Users

1. Navigate to `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/lib`.
2. Locate the `erjgroupssynchronizer-5.0.jar` file and unzip it to a directory we'll refer to as `<TMP>`.
3. Copy the `<TMP>/Resources/jgroups-default.xml` to the following location:

   `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/InfoManager.woa/Contents/WebServerResources`

   Important! Rename the file to any other name so that there is no conflict with the default configuration file, for example, `jgroups-custom.xml`.
4. Delete the `<TMP>` directory.
5. Apply your customizations from the previously customized `jgroups-default.xml` to the newly copied file.
6. Distribute the newly customized file to the following locations and register your customized file with the application:

For InfoManager

a. Copy the newly customized file to following directory:

   `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/InfoManager.woa/Contents/WebServerResources`

b. Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

   `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/InfoManager.woa/Contents/Resources/Properties`

   You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For IMWS

a. Copy the newly customized file to following directory:

   `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/imws/app/WEB-INF/IMWebServices.woa/Contents/WebServerResources`

b. Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

`<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/imws/app/WEB-INF/IMWebServices.woa/Contents/Resources/Properties`

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For InfoCenter

a Copy the newly customized file to the following directory:

`<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/infocenter/app/WEB-INF/IMTagLibrary.woa/Contents/WebServerResources`

b Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

`<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/infocenter/app/WEB-INF/IMTagLibrary.woa/Contents/Resources/Properties`

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For any other IM Tag Library based web application

a Copy the newly customized file to the following directory:

`<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<WEB_APP>/app/WEB-INF/IMTagLibrary.woa/Contents/WebServerResources`

b Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

`<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<WEB_APP>/app/WEB-INF/IMTagLibrary.woa/Contents/Resources/Properties`

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

7 Restart the instance for the changes to take effect.

For Tomcat Users

1 Navigate to `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/WEB-INF/lib`

2 Locate the `erjgroupssynchronizer-5.0.jar` file and unzip it to a directory we'll refer to as `<TMP>`

3 Copy the `<TMP>/Resources/jgroups-default.xml` to the following location.

`<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/WEB-INF/InfoManager.woa/Contents/WebServerResources`

Important! Rename the file to any other name so that there is no conflict with the default configuration file (e.g. `jgroups-custom.xml`).

4 Delete the `<TMP>` directory

5 Apply your customizations from the previously customized `jgroups-default.xml` to the newly copied file.

6 Distribute the newly customized file to the following locations and register your customized file with the application:

For InfoManager

a Copy the newly customized file to following directory:

```
<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/
WEB-INF/InfoManager.woa/Contents/WebServerResources
```

b Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

```
<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/
WEB-INF/InfoManager.woa/Contents/Resources/Properties
```

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For IMWS

a Copy the newly customized file to following directory:

```
<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/imws/WEB-INF/
IMWebServices.woa/Contents/WebServerResources
```

b Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

```
<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/imws/WEB-INF/
IMWebServices.woa/Contents/Resources/Properties
```

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For InfoCenter

a Copy the newly customized file to the following directory:

```
<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/infocenter/WEB-
INF/IMTagLibrary.woa/Contents/WebServerResources
```

b Set the `er.extensions.jgroupsSynchronizer.properties property` to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

```
<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/infocenter/WEB-
INF/IMTagLibrary.woa/Contents/Resources/Properties
```

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

For any other IM Tag Library based web application

a Copy the newly customized file to the following directory:

`<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<WEB_APP>/WEB-INF/IMTagLibrary.woa/Contents/WebServerResources`

b Set the `er.extensions.jgroupsSynchronizer.properties` property to the file name of the newly customized file (e.g. `er.extensions.jgroupsSynchronizer.properties=jgroups-custom.xml`) in the following file:

`<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<WEB_APP>/WEB-INF/IMTagLibrary.woa/Contents/Resources/Properties`

You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

7 Restart the instance for the changes to take effect.

For WebSphere Users

1 Navigate to profile_root/installedApps/cell_Name/InfoManager.ear/InfoManager.war/WEB-INF/lib

2 Locate the erjgroupssynchronizer-5.0.jar file and unzip it to a directory we'll refer to as <JAR_TMP>.

3 Copy the <JAR_TMP>/Resources/jgroups-default.xml and <JAR_TMP>/Resources/Properties files to the temporary location refer it as <TMP:>

Important! Rename the jgroups-default.xmlfile to any other name so that there is no conflict with the default configuration file (e.g. jgroups-custom.xml).

4 Apply your customizations from the previously customized jgroups-default.xml to the newly copied file jgroups-custom.xml.

5 Set the er.extensions.jgroupsSynchronizer.properties property to the file name of the newly customized file (e.g. er.extensions.jgroupsSynchronizer.properties=jgroups- custom.xml) in the following file:

`<TMP>/Properties`

6 You must uncomment this property when you edit it, as it is commented out by default.

Important! Only specify the name of the file; do NOT specify the full path to the file.

7 Distribute the above two files customized file to the following web applications.

Using a web browser, navigate to the Admin Console URL. `https://<server_Name_or_IP_address>:<port#>/ibm/console`

The port number is the HTTPS Administrative console port assigned when the profile was created.

Navigate to Applications -> Application Types -> WebSphere enterprise applications.

For InfoManager

1 Select **InfoManager** from the list of Enterprise applications and click **Stop**.

2 Select **InfoManager** and click **Update**.

3 Under *Application Update Options* select **Replace or add a single file**, enter relative path in `InfoManager.ear` to custom jgroup file as `InfoManager.war/WEB-INF/InfoManager.woa/Contents/WebServerResources/jgroups-custom.xml`. Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/jgroups-custom.xml`.

4 Click **Next** and click **OK** in the Updating application screen. After `ear` is updated click **Save**.

5 Select **InfoManager** and click **Update**.

6 Under *Application Update Options* select **Replace or add a single file**, enter relative path in `InfoManager.ear` to Properties file as `InfoManager.war/WEB-INF/InfoManager.woa/Contents/Resources/Properties`.

7 Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/Properties`.

8 Click **Next** and click **OK** in the Updating application screen. After ear is updated click **Save**.

9 Select **InfoManager** in Enterprise applications screen and click **Start**.

For imws

1 Select **imws** from the list of Enterprise applications and click **Stop**.

2 Select **imws** and click **Update**.

3 Under *Application Update Options* select **Replace or add a single file**, enter relative path in `imws.ear` to custom jgroup file as `imws.war/WEB-INF/InfoManager.woa/Contents/WebServerResources/jgroups-custom.xml`. Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/jgroups-custom.xml`.

4 Click **Next** and click **OK** in the Updating application screen. After ear is updated click **Save**.

5 Select **imws** and click **Update**.

6 Under *Application Update Options* select **Replace or add a single file**, enter relative path in `InfoManager.ear` to Properties file as `imws.war/WEB-INF/InfoManager.woa/Contents/Resources/Properties`.

7 Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/Properties`.

8 Click **Next** and click **OK** in the Updating application screen. After ear is updated click **Save**.

9 Select **imws** in Enterprise applications screen and click **Start**.

For InfoCenter

1 Select **infocenter** from the list of Enterprise applications and click **Stop**.

2 Select **infocenter** and click **Update**.

3 Under *Application Update Options* select **Replace or add a single file**, enter relative path in `infocenter.ear` to custom jgroup file as `infocenter.war/WEB-INF/InfoManager.woa/Contents/WebServerResources/jgroups-custom.xml`. Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/jgroups-custom.xml`.

4 Click **Next** and click **OK** in the Updating application screen. After ear is updated click **Save**.

5 Select **infocenter** and click **Update**.

6 Under *Application Update Options* select *Replace or add a single file*, enter relative path in infocenter.ear to Properties file as `infocenter.war/WEB-INF/InfoManager.woa/Contents/Resources/Properties`.

7 Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/Properties`.

8 Click **Next** and click **OK** in the Updating application screen. After ear is updated click **Save**.

9 Select **infocenter** in Enterprise applications screen and click **Start**.

For any other IM Tag Library based web application

1. Select **WEB_APP** from the list of Enterprise applications and click **Stop**.
2. Select **WEB_APP** and click **Update**.
3. Under *Application Update Options* select **Replace or add a single file**, enter relative path in `WEB_APP.ear` to custom jgroup file as `WEB_APP.war/WEB-INF/InfoManager.woa/Contents/WebServerResources/jgroups-custom.xml`". Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/jgroups-custom.xml`.
4. Click **Next** and click **OK** in Updating application screen. After ear is updated click **Save**.
5. Select **WEB_APP** and click **Update**.
6. Under *Application Update Options* select **Replace or add a single file**, enter relative path in `WEB_APP.ear` to Properties file as `infocenter.war/WEB-INF/InfoManager.woa/Contents/Resources/Properties`.
7. Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/Properties`.
8. Click **Next** and click **OK** in Updating application screen. After ear is updated click **Save**.
9. Select **WEB_APP** in Enterprise applications screen and click **Start**.

Migrate Custom Tag Library Descriptors

The IM Tag Library based web applications (InfoCenter, iConnect, and SSP) allow users to provide custom tag library descriptors (TLD) for use with custom JSP files. This section describes how to migrate those custom TLD files to the 8.6 installation.

The tag library descriptors provided by Oracle Knowledge are the IM Core and IM Discussion Board tag library descriptors. These files are named inquira.tld and discussionboards.tld respectively.

For WebLogic and Apache Tomcat Servers

Custom TLD files can be found here for previously installed version IM Tag Library based web applications (where TAGLIB_APP refers to InfoCenter, iConnect, SSP, or any custom IM Tag Library based web application):

```
<Pre-8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/WEB-INF/tlds
```

If the previously installed version IM Tag Library based web application contained any custom TLD files, copy them to the corresponding 8.6 installation IM Tag Library based web application in the following directory:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/WEB-INF/tlds`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/WEB-INF/tlds`

For WebSphere Servers

Custom TLD files can be found here for previously installed versions of IM Tag Library based web applications (where TAGLIB_APP refers to InfoCenter, iConnect, SSP, or any custom IM Tag Library based web application):

```
profile_root/installedApps/cell_Name/TAGLIB_APP.ear/ TAGLIB_APP.war/WEB-INF/tlds
```

If the previously installed version IM Tag Library based web application contained any custom TLD files, copy them to temporary directory , lets refer it as <TMP> and perform below steps for each TLD file:

1. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`
   The port number is the HTTPS Administrative console port assigned when the profile was created.
2. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
   Perform the following steps for each TAGLIB_APP (where TAGLIB_APP refers to InfoManager, imws, InfoCenter, iConnect, SSP, or any custom IM Tag Library based web application) and for each TLD file:
3. Select TAGLIB_APP from the list of Enterprise applications and click **Stop**.
4. Select again TAGLIB_APP and click **Update**.
5. Under *Application Update Options* select **Replace or add a single file**, enter relative path in TAGLIB_APP.ear to TLD file as TAGLIB_APP.war/WEB-INF/TLD_FILE_NAME.tld. Under *Specify the path to the file* select **Local file path** and provide the path of `<temp>/ TLD_FILE_NAME.tld`
6. Click **Next** and click **OK** in Updating application screen. After custom authenticator jar is added to WEB_APP ear click **Save**.

After all tld files are added to TAGLIB_APP, select TAGLIB_APP in Enterprise applications screen and click **Start**.

Migrate Custom CSS

The IM Tag Library based web applications (InfoCenter, iConnect, and SSP) allow users customize the look and feel of the application. This section describes how to migrate that look and feel to the 8.6 installation IM Tag Library based web applications.

For WebLogic and Apache Tomcat Servers

Previously installed version IM Tag Library based web application CSS files can be found in the following directory (where TAGLIB_APP refers to InfoCenter, iConnect, SSP, or any custom IM Tag Library based web application):

```
<Pre-8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/
apps/infocenter/resources/css
```

Customized CSS files can be placed in the following directory for the 8.6 installation IM Tag Library based web application:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/apps/infocenter/resources/css`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/apps/infocenter/resources/css`

For WebSphere Servers

Previously installed version IM Tag Library based web application CSS files can be found in the following directory (where TAGLIB_APP refers to InfoCenter, iConnect, SSP, or any custom IM Tag Library based web application):

```
profile_root/installedApps/cell_Name/TAGLIB_APP.ear/ TAGLIB_APP.war/WEB-INF/
tlds
```

If the previously installed version IM Tag Library based web application contained any custom CSS files, copy them to temporary directory , lets refer it as <TMP> and perform below steps for each CSS file:

1. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`
   The port number is the HTTPS Administrative console port assigned when the profile was created.
2. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
   Perform below steps for each TAGLIB_APP (where TAGLIB_APP refers to InfoCenter, iConnect, SSP, or any custom IM Tag Library based web application) and for each TLD file:
3. Select TAGLIB_APP from the list of Enterprise applications and click **Stop**.
4. Select again TAGLIB_APP and click **Update**.
5. Under *Application Update Options* select **Replace or add a single file**, enter relative path in TAGLIB_APP.ear to CSS file as `TAGLIB_APP.war/WEB-INF/CSS_FILENAME.css`. Under *Specify the path to the file* select **Local file path** and provide the path of `<temp>/CSS_FILENAME.css`
6. Click **Next** and click **OK** in Updating application screen. After tld file is added to TAGLIB_APP ear click **Save**.
7. After all tld files are added to TAGLIB_APP, select TAGLIB_APP in Enterprise applications screen and click **Start**.

Configuring the application to use your custom CSS files is described in the Migrate Custom InfoCenter Properties section.

WARNING! The look and feel of the Oracle Knowledge Information Manager web applications was dramatically changed within the 8.5 releases. Other changes to your CSS, custom JSP files, and properties files may be needed to achieve the desired look and feel.

Migrate Custom Java Server Pages

The IM Tag Library based web applications (InfoCenter, iConnect, and SSP) allow users to use custom Java Server Pages (JSP). This section describes how to migrate the custom JSP files to the 8.6 installation IM Tag Library based web applications.

The 8.6 installation provides TLD documentation for the IM Core and IM Discussion Board tag library descriptors.

This documentation can be accessed at:

```
<8.6 INSTALL DIR>/InfoManager/docs/JSP/index.html
```

For WebLogic and Apache Tomcat Servers

In previous releases, the custom JSP files can be located recursively within the following directory (where TAGLIB_APP refers to InfoCenter, iConnect, SSP, or any custom IM Tag Library based web application):

```
<Pre-8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/
apps/infocenter/custom
```

If the previous installation contained any custom JSP files, review the use of the JSP tags in the custom JSP files against the 8.6 TLD documentation. After making any necessary changes, copy the custom JSP files to the 8.6 installation in the following location:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/apps/infocenter/custom`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/apps/infocenter/custom`

For WebSphere Servers

In previous releases, the custom JSP files can be located recursively within the following directory (where TAGLIB_APP refers to InfoCenter, iConnect, SSP, or any custom IM Tag Library based web application):

```
profile_root/installedApps/cell_Name/TAGLIB_APP.ear/TAGLIB_APP.war/infocenter/custom
```

If the previous installation contained any custom JSP files, review the use of the JSP tags in the custom JSP files against the 8.6.0.0 TLD documentation. After making any necessary changes, copy the custom JSP files temporary location refer it as <TMP> and perform below actions for each TAGLIB_APP:

1. 1. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`
   The port number is the HTTPS Administrative console port assigned when the profile was created.
2. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
   Perform below steps for each TAGLIB_APP (where TAGLIB_APP refers to InfoCenter, iConnect, SSP, or any custom IM Tag Library based web application) and for each custom JSP file:
3. Select **TAGLIB_APP** from the list of Enterprise applications and click **Stop**.
4. Select **TAGLIB_APP** and click **Update**.
5. Under *Application Update Options* select **Replace or add a single file**, enter relative path in TAGLIB_APP.ear to jsp file as `TAGLIB_APP.war/infocenter/custom/JSP_FILE_NAME.jsp`. Under *Specify the path to the file* select **Local file path** and provide the path of `<temp>/JSP_FILE_NAME.jsp`
6. Click **Next** and click **OK** in the Updating application screen. After custom jsp is added to TAGLIB_APP ear click **Save**.

After all jsp files are added to TAGLIB_APP, select TAGLIB_APP in Enterprise applications screen and click **Start**.

Migrate Custom InfoCenter Properties

IM Tag Library based web applications allow users to customize the look and feel as well as the behavior of the web application by customizing the settings specified in a properties file. This property file will have different settings for InfoCenter, iConnect, and SSP.

For WebLogic and Apache Tomcat Servers

The default settings for the 8.6 release can be found in the following location, where TAGLIB_APP refers to infocenter, iconnect, or ssp:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/WEB_INF/infocenter.properties`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/WEB_INF/infocenter.properties`

In release 8.6 customizations should be made in the following file:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/WEB_INF/infocenter_custom.properties`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/WEB_INF/infocenter_custom.properties`

In releases prior to 8.1.3.0, customized settings could be found in the following location, where CONTEXT refers to the application context name of your deployed IM Tag Library based web application:

```
<Pre-8.1.3.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT>/WEB-INF/infocenter.properties
```

To migrate your customizations from a release prior to 8.1.3.0, compare the settings in the previous release's infocenter.properties to the 8.6 default settings. If there are any customizations, create the new infocenter_custom.properties file in the 8.6 installation and extract the customized values from the previous release's infocenter.properties file to the newly created infocenter_custom.properties file.

In releases 8.1.3.0 and higher, customized settings could be found in the following location, where CONTEXT refers to the application context name of your deployed IM Tag Library based web application:

```
<Pre-8.1.3.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT>/WEB-INF/infocenter_custom.properties
```

To migrate your customizations from a release 8.1.3.0 or higher, copy the previous release's infocenter_custom.properties file to the 8.6 installation.

For WebSphere Servers

In release 8.6.0.0 customizations should be made in the following file:

```
profile_root/installedApps/cell_Name/TAGLIB_APP.ear/TAGLIB_APP.war/WEB-INF/infocenter_custom.properties
```

Complete below steps for each TAGLIB_APP:

1. Copy customized properties to temporary directory, refer it as `<temp>/infocenter_custom.properties`
2. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`
   The port number is the HTTPS Administrative console port assigned when the profile was created.
3. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
4. Select TAGLIB_APP from the list of Enterprise applications and click **Stop**.
5. Select TAGLIB_APP and click **Update**.
6. Under *Application Update Options* select **Replace or add a single file**, enter relative path in TAGLIB_APP.ear as `TAGLIB_APP.war/WEB-INF/infocenter_custom.properties` Under *Specify the path to the file* select **Local file path** and provide the path of `<temp>/infocenter_custom.properties`.

7 Click **Next** and click **OK** in the Updating application screen. After infocenter_custom.properties is added to TAGLIB_APP click **Save**.

8 Select TAGLIB_APP in Enterprise applications screen and click **Start**.

Migrate Custom ESAPI Properties

In release 8.2.3.0, Information Manager introduced the integration of the InQuira Web Application Security framework with the OWASP Enterprise Security API (ESAPI) framework. Settings to control the operation of the InQuira Web Application Security framework are specified in the following properties files:

- `validation.properties`
- `inquira_whitelist.properties`
- `inquira_esapi.properties`
- `securityhandlermap.properties`

Validation Properties

In previous release's, customizations to the validation.properties file can be found under the following location, where CONTEXT is the web application context name of your deployed IM Tag Library based web application:

```
<Pre-8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT>/WEB-INF/classes/resources/validation_custom.properties
```

For WebLogic and Apache Tomcat Servers

If your previous release contained any settings in the validation_custom.properties file, copy the file to the 8.6 installation in the following location, where TAGLIB_APP refers to infocenter, iconnect, or ssp:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/WEB_INF/classes/resources/validation_custom.properties`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/WEB_INF/classes/resources/validation_custom.properties`

For WebSphere Servers

If your previous release contained any settings in the validation_custom.properties file, copy the file to the Temporary directory , refer it as <TMP>/ validation_custom.properties, where TAGLIB_APP refers to infocenter, iconnect, or ssp:

Perform below steps for each TAGLIB_APP:

1 Using a web browser, navigate to the Admin Console URL.
`https://<server_Name_or_IP_address>:<port#>/ibm/console`
The port number is the HTTPS Administrative console port assigned when the profile was created.

2 Navigate to Applications -> Application Types -> WebSphere enterprise applications.

3 Select TAGLIB_APP from the list of Enterprise applications and click **Stop**.

4 Select TAGLIB_APP and click **Update**.

5 Under *Application Update Options* select **Replace or add a single file**, enter relative path in TAGLIB_APP.ear as `TAGLIB_APP.war/WEB-INF/classes/resources/validation_custom.properties`. Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/validation_custom.properties`.

6 Click **Next** and click **OK** in the Updating application screen. After validation_custom.properties is added to TAGLIB_APP click **Save**.

7 Select again TAGLIB_APP in Enterprise applications screen and click **Start**.

InQuira White List Properties

In previous release's, customizations to the inquira_whitelist.properties file can be found under the following location, where CONTEXT is the web application context name of your deployed IM Tag Library based web application:

```
<Pre-8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT>/WEB-INF/classes/resources/inquira_whitelist_custom.properties
```

For WebLogic and Apache Tomcat Servers

If your previous release contained any settings in the inquira_whitelist_custom.properties file, copy the file to the 8.6 installation in the following location, where TAGLIB_APP refers to infocenter, iconnect, or ssp:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/WEB_INF/classes/resources/inquira_whitelist_custom.properties`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/WEB_INF/classes/resources/inquira_whitelist_custom.properties`

For WebSphere Servers

If your previous release contained any settings in the inquira_whitelist_custom.properties file, copy the file to the Temporary directory , refer it as <TMP>/ inquira_whitelist_custom.properties, where TAGLIB_APP refers to infocenter, iconnect, or ssp:

Perform below steps for each TAGLIB_APP:

1 Using a web browser, navigate to the Admin Console URL.
`https://<server_Name_or_IP_address>:<port#>/ibm/console`
The port number is the HTTPS Administrative console port assigned when the profile was created.

2 Navigate to Applications -> Application Types -> WebSphere enterprise applications.

3 Select TAGLIB_APP from the list of Enterprise applications and click **Stop**.

4 Select TAGLIB_APP and click **Update**.

5 Under *Application Update Options* select **Replace or add a single file**, enter relative path in TAGLIB_APP.ear as `TAGLIB_APP.war/WEB-INF/classes/resources/inquira_whitelist_custom.properties`. Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/inquira_whitelist_custom.properties`.

6 Click **Next** and click **OK** in the Updating application screen. After inquira_whitelist_custom.properties is added to TAGLIB_APP click **Save**.

7 Select again TAGLIB_APP in Enterprise applications screen and click **Start**.

InQuira ESAPI Properties

In previous release's, customizations to the inquira_esapi.properties file can be found under the following location, where CONTEXT is the web application context name of your deployed IM Tag Library based web application:

```
<Pre-8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT>/WEB-INF/classes/resources/inquira_esapi_custom.properties
```

If your previous release contained any settings in the inquira_esapi_custom.properties file, copy the file to the 8.6 installation in the following location:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/WEB_INF/classes/resources/inquira_esapi_custom.properties`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/WEB_INF/classes/resources/inquira_esapi_custom.properties`

For WebSphere Servers

If your previous release contained any settings in the inquira_esapi_custom.properties file, copy the file to the Temporary directory , refer it as <TMP>/inquira_esapi_custom.properties, where TAGLIB_APP refers to infocenter, iconnect, or ssp:

Perform below steps for each TAGLIB_APP:

1. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`
   The port number is the HTTPS Administrative console port assigned when the profile was created.
2. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
3. Select TAGLIB_APP from the list of Enterprise applications and click **Stop**.
4. Select TAGLIB_APP and click **Update**.
5. Under *Application Update Options* select *Replace or add a single file*, enter relative path in TAGLIB_APP.ear as `TAGLIB_APP.war/WEB-INF/classes/resources/inquira_esapi_custom.properties`. Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/inquira_esapi_custom.properties`.
6. Click **Next** and click **OK** in the Updating application screen. After inquira_esapi_custom.properties is added to TAGLIB_APP click **Save**.
7. Select TAGLIB_APP in Enterprise applications screen and click **Start**.

Security Handler Map Properties

In previous release's, customizations to the securityhandlermap.properties file can be found under the following location, where CONTEXT is the web application context name of your deployed IM Tag Library based web application:

```
<Pre-8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT>/WEB-INF/classes/securityhandlermap.properties
```

If your previous release contained any custom settings in the securityhandlermap.properties file, migrate the customized values to the 8.6 installation in the following file:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/WEB_INF/classes/securityhandlermap.properties`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/WEB_INF/classes/securityhandlermap.properties`

For WebSphere Servers

If your previous release contained any settings in the securityhandlermap.properties file, copy the file to the Temporary directory , refer it as <TMP>/securityhandlermap.properties, where TAGLIB_APP refers to infocenter, iconnect, or ssp:

Perform below steps for each TAGLIB_APP:

1. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`
   The port number is the HTTPS Administrative console port assigned when the profile was created.
2. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
3. Select TAGLIB_APP from the list of Enterprise applications and click on ‘Stop’ button.
4. Select TAGLIB_APP and click **Update**.
5. Under *Application Update Options* select **Replace or add a single file**, enter relative path in TAGLIB_APP.ear as `TAGLIB_APP.war/WEB-INF/classes/securityhandlermap.properties`. Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/securityhandlermap.properties`.
6. Click **Next** and click **OK** in the Updating application screen. After securityhandlermap.properties is added to TAGLIB_APP click **Save**.
7. Select TAGLIB_APP in Enterprise applications screen and click **Start**.

Migrate Custom InfoCenter Resources

IM Tag Library based web applications allow users to customize the labels and text resources that are displayed on the web application by customizing the settings specified in a properties file. This property file will have different settings for InfoCenter, iConnect, and SSP.

The default label and text resources for the 8.6 release can be found in the following location, where TAGLIB_APP refers to infocenter, iconnect, or ssp:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/WEB_INF/classes/ApplicationResources.properties`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/WEB_INF/classes/ApplicationResources.properties`

These label and text values have been translated to the supported languages. Those files are called ApplicationResources_<language>.properties, where language is the language code (e.g. ApplicationResources_it.properties for Italian). The default language, English, does not have the language appended to the file name.

In release 8.6 customizations to the default language, English, should be made in the following file:

WebLogic `<8.6 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/WEB_INF/classes/ApplicationResources_custom.properties`

Tomcat `<8.6 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/WEB_INF/classes/ApplicationResources_custom.properties`

Similarly, translations of the customized resources should be made to ApplicationResources_custom_<language>.properties (e.g. ApplicationResources_custom_it.properties).

In releases prior to 8.1.3.0, customized resources can be found in the following location, where CONTEXT refers to the application context name of your deployed IM Tag Library based web application:

```
<Pre-8.1.3.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT>/WEB-INF/classes/ApplicationResources.properties
```

To migrate your customizations from a release prior to 8.1.3.0, compare the resource values in the previous release's ApplicationResources.properties to the 8.6 default settings. If there are any customizations, create the new ApplicationResources_custom.properties file in the 8.6 installation and extract the customized values from the previous release's ApplicationResources.properties file to the newly created ApplicationResources_custom.properties file. Repeat this process for any customized, translated resources appending the language code to the custom property file name.

In releases 8.1.3.0 and higher, customized resources can be found in the following location, where CONTEXT refers to the application context name of your deployed IM Tag Library based web application:

```
<Pre-8.1.3.0 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT>/WEB-INF/classes/ApplicationResources_custom.properties
```

To migrate your customizations from a release 8.1.3.0 or higher, copy the previous release's ApplicationResources_custom.properties file to the 8.6 installation. Repeat this process for any customized, translated resources appending the language code to the custom property file name.

For WebSphere Servers

If there are modifications to ApplicationResources_custom.properties, copy the file to the Temporary directory , refer it as <TMP>/ApplicationResources_custom.properties, where TAGLIB_APP refers to infocenter, iconnect, or ssp.

Perform below steps for each TAGLIB_APP:

1. Using a web browser, navigate to the Admin Console URL.
   `https://<server_Name_or_IP_address>:<port#>/ibm/console`
   The port number is the HTTPS Administrative console port assigned when the profile was created.
2. Navigate to Applications -> Application Types -> WebSphere enterprise applications.
3. Select TAGLIB_APP from the list of Enterprise applications and click **Stop**.
4. Select TAGLIB_APP and click **Update**.
5. Under *Application Update Options* select **Replace or add a single file**, enter relative path in TAGLIB_APP.ear as `TAGLIB_APP.war/WEB-INF/classes/ApplicationResources_custom.properties`. Under *Specify the path to the file* select **Local file path** and provide the path of `<TMP>/ApplicationResources_custom.properties`.
6. Click **Next** and click **OK** in the Updating application screen. After ApplicationResources_custom.properties is added to TAGLIB_APP click **Save**.
7. Select again TAGLIB_APP in Enterprise applications screen and click **Start**.

CHAPTER 6

Upgrading AnswerFlow

This section describes how to upgrade AnswerFlow to the target release.

Preparing to Upgrade AnswerFlow

AnswerFlow Release 8.6 requires Oracle Knowledge Information Manager Release 8.6. Before you upgrade AnswerFlow:

- Upgrade the base Information Manager environment that the AnswerFlow application uses.
- Configure AnswerFlow to use the target Information Manager environment when you install the target AnswerFlow release.

Release-Specific Directions

This table describes how to upgrade from a base release to the target release:

If you are upgrading from this release...	Do the following...
8.5.1.3	Create a new database schema for the target release. You will migrate data from the old schema to the new schema. See “Configuring the AnswerFlow Upgrade Script”.
8.5.1.2.3	Replicate the old installation database schema into a new schema. Use the new schema for the target AnswerFlow installation. Do not run the upgrade script. Go directly to “Updating Configuration Properties from Release 8.5.1.2.3”.
8.5.1.3 or 8.5.1.2.3	Make sure that the Information Manager channel you use for the target AnswerFlow installation has the same documents with the same document IDs as the base AnswerFlow installation's Information Manager channel.

Note: You can verify the release of an existing installation by viewing the contents of the text file `<AnswerFlow installation directory>/VERSION`. Proceed with these upgrade steps in your present base installation, not the target installation.

Configuring Information Manager in Release 8.5.1.3 Only

For Release 8.5.1.3 only, under the Information Manager channel used for documents promoted from the 8.6 AnswerFlow installation, under the System Data node, do the following:

1. If the attribute **Compiled Data Format** is not listed, then add it. Enable this text field for full text searching and attribute level searching.
2. If the attribute Compiled Data is included in full text search (represented by a red T next to the attribute on the Schema Properties screen), then edit the attribute and uncheck **Enable full text searching**.

   The following image of the Information Manager console shows the Compiled Data and Compiled Data Format attributes listed at the bottom of the AnswerFlow Schema Properties.

Configuring the AnswerFlow Upgrade Script

The Oracle Knowledge upgrade archive contains an AnswerFlow upgrade archive, named `upgrade-answerFlow-<release>-<platform>_build_<build number>.zip` (in which `<platform>` is the base platform, `<release>` is the target release, and `<build number>` is an internal build number).

Extract both:

- the upgrade archive and then run the upgrade script in the base installation only
- the 8.6 AnswerFlow upgrade archive to a temporary folder, (for example, <AF-UPGRADE-TMP-DIR>)

The upgrade script, `<AF-UPGRADE-TMP-DIR>/answerFlowUpgrade.properties,` contains multiple sections, each of which is related to a specific task that the upgrade script can perform. To configure the upgrade script:

1. Add a database JDBC URL to the file in the format:
   - Oracle database: `jdbc:oracle:thin:@[$HOST][:$PORT]:$SID`, for example:
     `jdbc:oracle:thin:@example.com:1521:ORCL`
   - MS SQL Server database: `jdbc:jtds:sqlserver://` [$HOST[\$INSTANCE_NAME][:$PORT]][;DatabaseName=$DATABASE_NAME], for example:
     `jdbc:jtds:sqlserver://example.com:1433;DatabaseName=answerflow`

   The sections in [brackets] are optional.
2. Edit the Common Properties section as appropriate for your base release:

Release 8.5.1.*, Other Than 8.5.1.2.1, 8.5.1.2.1.1, 8.5.1.2.3, or 8.5.1.3

The upgrade script migrates AnswerFlow configuration properties from the file system of your existing installation to the database of your new 8.6 installation. If any of the default values for the properties in the section “Properties for migrating the configuration from the file system to the 8.6 database” are not what you want, change those values appropriately before running the script.

Release 8.5.1.3

If you are upgrading from Release 8.5.1.3, then the upgrade script will do up to two things:

- migrate configuration and data from the old database to the 8.6 database
- compress the data in Information Manager documents that are promoted from AnswerFlow

As part of the 8.6 upgrade, perform each of these two tasks only once. However, each time you run the upgrade script, you can choose to perform either both of these tasks or just one task. Read both of the following sections, whether or not you currently plan to perform both tasks, because they explain, among other things, how to prevent the upgrade script from performing each task.

If you want to migrate configuration and data from the old database to the 8.6 database, then fill in the properties in the section labeled “Properties for migrating configuration and data from the old database to the 8.6 database”. Make sure that the property `migrateFromOldDatabase` is set to **true**.

- If the upgrade script migrates data successfully from the existing database to the new database, then set `migrateFromOldDatabase` to **false** if you want to run the script again. If the upgrade script fails to migrate data from the existing database to the new database the first time it runs, then you can attempt to correct things and run it again until it succeeds.
- If you do not want to migrate the configuration and data from the existing database to the 8.6 database, then set `migrateFromOldDatabase` to **false**.

If you want to compress the data in Information Manager documents that are promoted from AnswerFlow, then fill in the properties in the section “Properties for compressing the data in Information Manager documents promoted from AnswerFlow” and ensure that the property `compressInfoManagerDocuments` is set to **true**. While the script is running, make sure that the target Information Manager environment is not servicing any other requests.

If you do not want to compress the data in Information Manager documents, then set `compressInfoManagerDocuments` to **false**.

Running the Upgrade Script

To run the upgrade script:

1. Open an Editor ICE prompt in the base installation by executing:
   - Linux or Solaris: `<AnswerFlow installation directory>/instances/Editor/setenv.sh`
   - Windows: `<AnswerFlow installation directory>/instances/Editor/setenv.bat`
2. Change the directory to the extracted upgrade files temporary directory <AF-UPGRADE-TMP-DIR>, then execute:
   - Linux or Solaris: `upgradeAnswerFlow.sh`
   - Windows: `upgradeAnswerFlow.bat`
3. On Linux or Solaris, execute **`chmod 750 *.sh`** to make shell scripts executable.

Important! When you run this script, ignore any warning similar to the following:

"WARNING: Error while registering Oracle JDBC Diagnosability MBean.

java.security.AccessControlException: access denied"

Note: The script might prompt you to choose whether to use the old installation or new installation value for properties with values that differ between these installations. In general, choose whichever value is appropriate for the 8.6 installation. However, always choose "b. Current database value" for the properties `sampleUi.credentials.username` and `sampleUi.credentials.password`. If you need to change these two properties in the 8.6 installation, you can do so later in the AnswerFlow Editor Configuration page.

Example:

```
[java] Key = sampleUi.credentials.password, Value =
iUK2B2eRNjOeIfp3JHvNvKHSW+CFkDnGPrpQYnvXxgw=
[java] The property value for sampleUi.credentials.password in this
installation conflicts with the value already stored in the database. Please
type the letter corresponding to the value you want to use for the database.
[java] a. This installation's value: iUK2B2eRNjOeIfp3JHvNvKHSW+CFkDnGPrpQYn-
vXxgw=
[java] b. Current database value:
3elx9KKRyzEMY11w1h1I5Yy+MBfkt8FZMbqkximZs1g=
b
```

Updating SampleUI Integration into InfoCenter

If you are upgrading from any release other than 8.5.1.2.3, and you have set up AnswerFlow SampleUI to integrate with InfoCenter, the integration files have changed. Contact Oracle Support for more information.

Updating Configuration Properties from Release 8.5.1.2.3

The following procedure applies only to upgrading from existing Release 8.5.1.2.3.

1. Log in to AnswerFlow Editor in the 8.6 installation.
2. Click **Configuration**.
3. Update the following configuration properties so that their values are appropriate for your 8.6 environment:

   Information Manager Connection Settings:

   - common.imConsoleUrl
   - common.imResourceUrl
   - common.imwsUrl

   RuntimeUI and SampleUI Settings:

   - sampleUi.domainAndPort
   - sampleUi.credentials.password (Whether or not the value for this is different between 8.5.1.2.3 and 8.6, enter the 8.6 value of `sampleUi.credentials.password` at this time.)

   Editor Settings:

   - editor.imageUrl
   - editor.url

   Performance Settings:

- common.memcachedServer

4 Click **Save**.

Restart AnswerFlow

Restart AnswerFlow Editor and RuntimeUI in the 8.6 installation.

Migrating Data from File System to Database

Release 8.5.1.*, other than 8.5.1.2.1, 8.5.1.2.1.1, 8.5.1.2.3, or 8.5.1.3

Optionally, you can migrate data from the file system of the existing installation to the 8.6 database.

For instructions, see “Migrating Data from a Previous Release of AnswerFlow” in the 8.6 *Oracle Knowledge AnswerFlow Implementation and User’s Guide*.

Validating Post Upgrade

Validate the upgrade by using the following instructions that apply to your existing release of AnswerFlow.

Any 8.5.1.x release other than 8.5.1.2.1, 8.5.1.2.1.1, 8.5.1.2.3, or 8.5.1.3

The 8.6 installation configuration should have changed based on the choices you made when you ran the upgradeAnswerFlow script.

Release 8.5.1.3

If `migrateFromOldDatabase` was set to true in “Configuring the AnswerFlow Upgrade Script”, then the 8.6 installation configuration should have changed based on the choices you made when you ran the `upgradeAnswerFlow` script, and the data in the old installation should be replicated in the 8.6 installation.

If `compressInfoManagerDocuments` was set to true in “Configuring the AnswerFlow Upgrade Script”, then in the latest release of your promoted documents in Information Manager the Compiled Data Format attribute should now be `zlib`, and the Compiled Data attribute now contains Base64-encoded compressed data.

Release 8.5.1.2.3

The 8.6 AnswerFlow installation should have the same configuration and data as your 8.5.1.2.3 installation, other than the changes you made in the procedure “Updating Configuration Properties from Release 8.5.1.2.3”.

CHAPTER 5

Upgrading Analytics

This chapter provides the process to upgrade your current version of Analytics to version 8.6. This process consists of the following procedures:

Preparing to Upgrade Analytics	This procedure backs up your databases, and backs up your OBIEE and ODI repositories.
Installing Analytics 8.6	This procedure installs the 8.6 version of Analytics.
Upgrading ODI	This procedure upgrades the current version of ODI.
Upgrading OBIEE	This procedure upgrades the current version of OBIEE.
Upgrading the Analytics Database Schemas	This procedure upgrades the Oracle and Microsoft database schemas.
Validating the Analytics 8.6 Upgrade	This procedure validates the Analytics 8.6 upgrade.

Important! To install Analytics 8.6, use the procedures in *Installing and Configuring Oracle Knowledge Guide*.

Preparing to Upgrade Analytics

Because of the new architecture of release 8.5 Analytics, it is impossible to upgrade the Analytics system from previous releases, that is, 8.4.2.2 or earlier. If you desire access to the Analytics data and reports for the current system, you must keep the application running in parallel to the new Analytics application.

To upgrade to the new Analytics application, perform a new installation of Oracle Knowledge Analytics and complete all post installation configuration. To install the new Analytics application, see *Oracle Knowledge Installation Guide*.

Backing Up the Analytics Components

You must back up the Analytics components before you begin to upgrade to the 8.6 version of Analytics. This includes shutting down the Analytics event router, backing up your current databases, and backing up your OBIEE and ODI repositories.

1. Sign in to your current Weblogic server
2. Shut down Analytics event router:
   a. Navigate to **Home >Servers.**
   b. Select the **Control** tab.
   c. Select **AnalyticsEventRouter_Server**.

d Select **Shutdown > Force Shutdown Now**.

3 Back up the `DW_STAGE` and `DW_REPORTING` database schemas.

4 Back up (copy) the analytics messages-<the current version_number>.jar file and AnalyticsEventRouterEA < the current version_number>.ear file.

5 Back up the ODI master, logical and work repositories. For more information on ODI repositories, see the ODI documentation located here:

https://docs.oracle.com/cd/E17904_01/integrate.1111/e12643/admin_reps.htm#ODIDG154.

6 Back up the OBIEE repository and catalog.

Follow the OBIEE procedures in the *Installing and Configuring Oracle Knowledge Guide.*

You can find backup recommendations and procedures in the *Backup and Recovery Recommendations for Oracle Business Intelligence* documentation located here:

http://docs.oracle.com/cd/E14571_01/core.1111/e10105/br_intro.htm#ASADM11238Install the 8.6.0 supported versions of OBIEE and ODI on the OBIEE and ODI servers.

7 Make sure you have access to the 8.6 supported versions of OBIEE and ODI. They need to be installed on the OBIEE and ODI servers; see the step-by-step procedures later in this chapter.

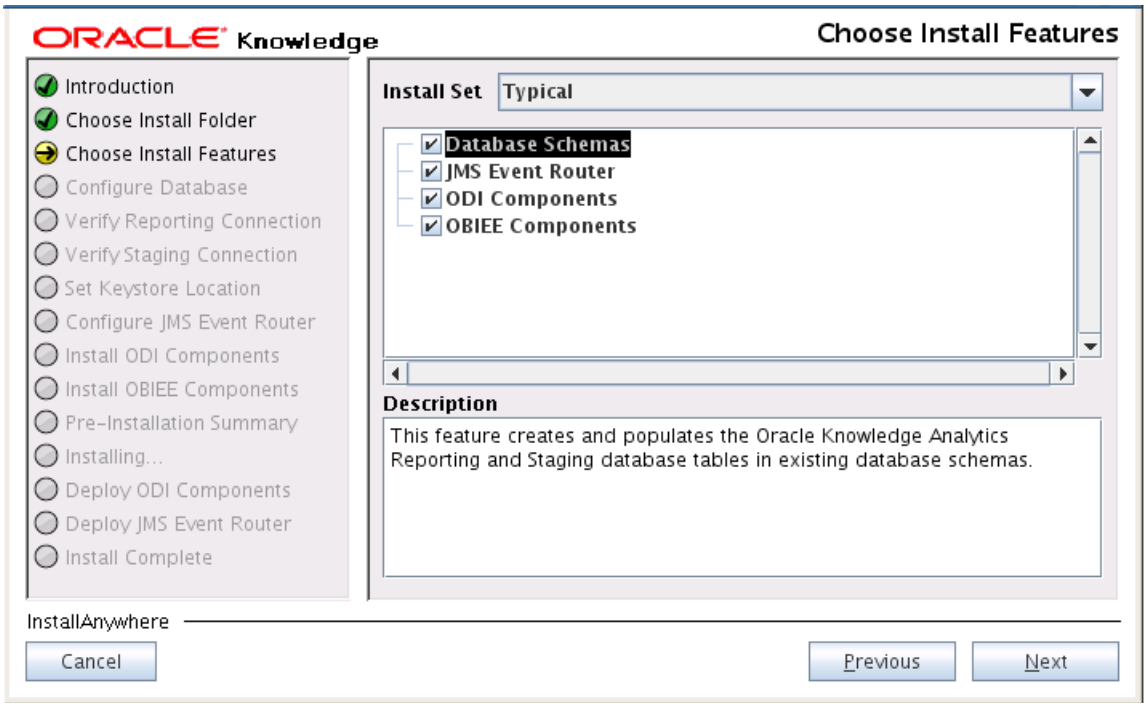
8 If you are using an Oracle database, make sure the ORACLE_HOME value is set on both the current Analytics database and the 8.6 Analytics database.

Installing Analytics 8.6

The following procedure installs Analytics 8.6 using the OKOP 8.6 Analytics installer. For complete installation procedures, see

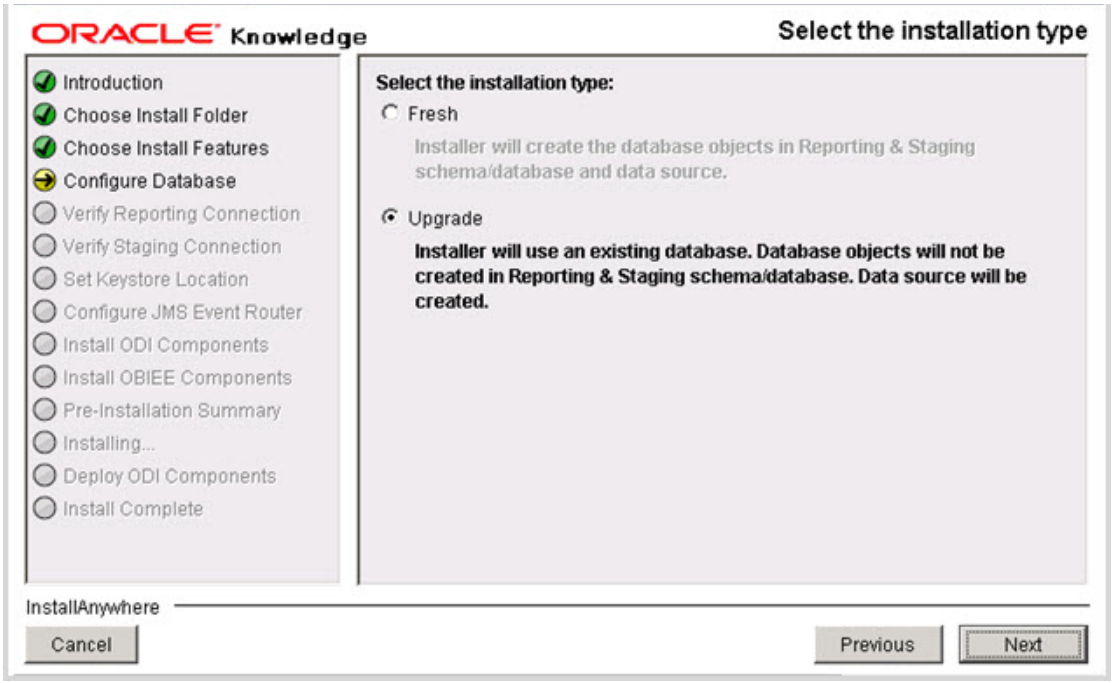
1 Launch the OKOP 8.6 Analytics Installer.

2 On the Choose Install Features screen, install the Database Schemas, JMS Event Router, ODI components, and OBIEE components to install.



You can install each component (recommended) or install all components at the same time. For information on how to install each component, see *Installing and Configuring Oracle Knowledge Guide.*

3 In the **Select the installation type:** panel, select **Upgrade**.



4 Select **Next** and continue with the installation process. For complete installation instructions, see *Installing and Configuring Oracle Knowledge Guide.*

Upgrading ODI

You must upgrade the current version of ODI (Oracle Data Integrator). Specifically, you must complete the following tasks:

- **Install ODI 11.1.1.7.0**
- **Downloading and Importing the ODI Repositories**:
  - **Download and Import the ODI Master Repository (Oracle and MSSQL)**
  - **Download and Import the ODI Logical Repository (Oracle and MSSQL)**
  - **Download and Import the ODI Work Repository (Oracle and MSSQL)**
  - **Connect ODI to the Database (All)**.
  - **Migrate ODI Customizations from Versions Prior to 8.6**

Version Requirements

Analytics version 8.6 is certified on ODI 11.1.1.7.0.

Analytics versions 8.5.0.x and 8.5.1.x are certified on ODI 11.1.1.6.0; therefore you must install ODI 11.1.1.7.0 to install 8.6.

Install ODI 11.1.1.7.0

Make sure you have installed ODI before beginning the upgrade process. See “Installing Analytics 8.6” in this guide.

Downloading and Importing the ODI Repositories

After ODI is installed, you must download and import the ODI Master, Logical, and Work repositories.

Download and Import the ODI Master Repository (Oracle and MSSQL)

1 Open the ODI Studio as *Supervisor* and connect to the **Master Repository**.

2 On the **Topology** tab, right-click on the **Connect Navigator** icon (top-right of the window).

3 Select **Import > Import the Master Repository** and click **OK**.

4 On the pop-up window, at **Import mode**, select *Synonym Mode INSERT*.

5 Select **Import** from a folder option.

Provide the path of Master Repository to be imported. For example, the path might look like:

```
/<$ODI Components location installed from latest build$>/
Analytics_ODI_Packages-8.6/master
```

Note: The import process may take some time to complete.

Download and Import the ODI Logical Repository (Oracle and MSSQL)

1. Open the ODI Studio as Supervisor and connect to the **Master Repository**.
2. On the Topology tab, right-click on the **Connect Navigator** icon (top-right).
3. Select **Import, Import the Logical Topology**, and click **OK**.
4. On the pop-up window, for **Import mode**, select **Synonym Mode INSERT**.
5. Select Import from a folder option.
   Provide the path of the Logical Repository to be imported. For example, the path might look like:
   ```
   /<$ODI Components location installed from latest build$>/
   Analytics_ODI_Packages-8.6/logical
   ```

Note: The import process may take some time to complete.

Download and Import the ODI Work Repository (Oracle and MSSQL)

1. Open the ODI Studio as Supervisor and connect to the **Work** repository.
2. On the **Topology** tab, right-click on the **Connect Navigator** icon (top-right).
3. Select **Import > Import the Work Repository** and click **OK**.
4. On the pop-up window, for **Import mode**, select **Synonym Mode INSERT**.
5. Select **Import** from a folder option.
   Provide the path of the ODI Work Repository to be imported.
   For example, the path might look like:
   ```
   /<$ODI Components location installed from latest build$>/
   Analytics_ODI_Packages-8.6/work
   ```

Note: The import process could take a prolonged time to complete.

Connect ODI to the Database (All)

The procedure to connect to ODI to the Oracle database is available in *Installing and Configuring Oracle Knowledge Guide*.

Migrate ODI Customizations from Versions Prior to 8.6

If you have customizations to prior versions of ODI, use this procedure to migrate the changes to 8.6.

1. Connect to ODI 11.1.1.6.0 and export the Master, Logical, and interfaces packages following the procedures in “Downloading and Importing the ODI Repositories”.
2. Import the interfaces and Packages from **Projects, Interfaces/Packages, Import Interface/ Packages,** using INSERT_UPDATE mode.

Upgrading OBIEE

You must upgrade the current version of OBIEE (Oracle Business Intelligence, Enterprise Edition). Specifically, you must complete the following tasks:

- **Upgrading to OBIEE 11.1.1.7. 1**
- **Install ODI 11.1.1.7.0**
- **Apply the OBIEE 11.1.1.7.1 Patches**
- **Apply the 8.6 Custom Styles**

Version Requirements

Analytics version 8.6 is certified on OBIEE 11.1.1.7.1.

Note: Upgrading to OBIEE 11.1.1.7. 1 does not apply to installations on the Websphere server.

Analytics versions 8.5.x and 8.5.1.x are certified on OBIEE 11.1.1.6.0; therefore you must install OBIEE 11.1.1.7.1 to install 8.6.

Upgrading to OBIEE 11.1.1.7. 1

Perform the procedures in each of the following sections in the order in which they appear.

Important! Before attempting to install or upgrade OBIEE and ODI, you must back up any existing Analytics code, including ODI Repositories, the RPD File, the Catalog and all existing relevant configuration files of OBIEE. See the “Preparing to Upgrade Analytics” for more information.

Install OBIEE 11.1.1.7.0

Make sure you have installed OBIEE before beginning the upgrade process. See “Installing Analytics 8.6” in this guide.

Apply the OBIEE 11.1.1.7.1 Patches

The procedure to apply these patches is available in the *OBIEE 11.1.1.7.1 Patches Read Me* document included in the media kit.

Apply the 8.6 Custom Styles

1. Sign in to the Weblogic console.
2. Under the **Domain Structure,** click the **Deployments.**
3. Check to see if you have a deployment named *analyticsres*.
   a. If it does exist, select the **Lock and Edit** button under **Change Center**.
   b. Select the *analyticsres* deployment and delete it.
4. Redeploy the Analytics styles by following the *Apply the Analytics Styles to the OBIEE User Interface* procedure in the **Installing and Configuring Oracle Knowledge Guide** to redeploy Analytics Styles.

Upgrading the Analytics Database Schemas

You must upgrade the Analytics database schemas. Specifically, you must complete the following tasks:

Locate the Current Analytics Database Version

Upgrading the Oracle Database Schema

Upgrading the Microsoft SQL Database Schema

Version Requirements

You can upgrade the database schemas from any of the following versions to 8.6:

8.5 (For Oracle Database users only)	**8.5.1.2.2.1**
8.5.1	**8.5.1.2.3**
8.5.1.1	**8.5.1.2.4**
8.5.1.1.1	**8.5.1.2.4.1**
8.5.1.1.2	**8.5.1.2.4.2**
8.5.1.1.3	**8.5.1.2.5**
8.5.1.1.4	**8.5.1.3**
8.5.1.2	**8.5.1.4**
8.5.1.2.2	**8.5.1.5**

Locate the Current Analytics Database Version

1. Connect to the `DW_REPORTING` database schema of your current database using an SQL editor, command prompt, or terminal.
2. Execute the following command to find the Analytics version you are using currently.

   ```
   SELECT BUILD_ACTION FROM INSTALL_HISTORY
   ```

   The `BUILD_ACTION` column in the `INSTALL_HISTORY` table provides the value of the latest analytics patch applied on your 8.5.1 (or other version) database.

   If the `INSTALL_HISTORY` table is empty, find the version of the latest Analytics patch applied and then update the table with the value using the following SQL statements:

   If you are using an Oracle Database

   ```
   INSERT INTO INSTALL_HISTORY
   (BUILD,ACTION_PERFORMED,DATE_APPLIED,ACTION_TYPE)
   VALUES('8.5.1.<current_version_number>','PATCH
   8.5.1.<current_version_number> COMPLETED',SYSDATE,'S');
   ```

   If you are using a Microsoft SQL Database

   ```
   INSERT INTO INSTALL_HISTORY
   (BUILD,ACTION_PERFORMED,DATE_APPLIED,ACTION_TYPE)
   VALUES('8.5.1.<current_version_number>','PATCH
   8.5.1.<current_version_number> COMPLETED',GETDATE(),'S');
   ```

Example

INSERT INTO INST ALL_HISTORY (BUILD,ACTION_PERFORMED,DATE_APPLIED,ACTION_TYPE) VALUES('8.5.1.2','PATCH 8.5.1.2 COMPLETED',SYSDATE,'S');

Upgrading the Oracle Database Schema

Use the following procedure to upgrade the Oracle database schema.

1. Locate and then unzip the **Analytics Upgrader** into the <TMP-DIR>.
2. Sign in to the 8.5 or 8.5.1 (or current database) server as an administrator.
   - If you are using Windows, open a command prompt.
   - If you are using Linux/Solaris OS, open a terminal.
3. Refer to the following table and execute the Oracle SQL scripts for the DW_REPORTING and DW_STAGE schemas.

   These scripts are located in <TMP-DIR>/Oracle.

Release	DW_REPORTING	DW_STAGE
8.5	Reporting_Build_8501.sql Reporting_Build_8502sql Reporting_Build_8510.sql Reporting_Build_85124.sql Reporting_Build_8513.sql Reporting_Build_8514.sql Reporting_Build_8515.sql Reporting_Build_8600.sql	Staging_Build_8502.sql Staging_Build_8510.sql Staging_Build_85123.sql Staging_Build_8514.sql Staging_Build_8600.sql
8.5.1 8.5.1.1 8.5.1.1.1 8.5.1.1.2 8.5.1.1.3 8.5.1.1.4 8.5.1.1.5 8.5.1.2 8.5.1.2.2 8.5.1.2.2.1	Reporting_Build_85124.sql Reporting_Build_8513.sql Reporting_Build_8514.sql Reporting_Build_8515.sql Reporting_Build_8600.sql	Staging_Build_85123.sql Staging_Build_8514.sql Staging_Build_8600.sql
8.5.1.2.3	Reporting_Build_85124.sql Reporting_Build_8513.sql Reporting_Build_8514.sql Reporting_Build_8515.sql Reporting_Build_8600.sql	Staging_Build_8514.sql Staging_Build_8600.sql

Release	DW_REPORTING	DW_STAGE
8.5.1.2.4 8.5.1.2.4.1 8.5.1.2.4.2 8.5.1.2.5	Reporting_Build_8513.sql Reporting_Build_8514.sql Reporting_Build_8515.sql Reporting_Build_8600.sql	Staging_Build_85123.sql only if 85123 was not applied. Check the analytics history table; if 85123 is applied, you do not have to execute the script. Staging_Build_8514.sql Staging_Build_8600.sql
8.5.1.3	Reporting_Build_8514.sql Reporting_Build_8515.sql Reporting_Build_8600.sql	Staging_Build_85123.sql only if 85123 was not applied. Check the analytics history table; if 85123 is applied, you do not have to execute the script. Staging_Build_8514.sql Staging_Build_8600.sql
8.5.1.4	Reporting_Build_8515.sql Reporting_Build_8600.sql	Staging_Build_85123.sql only if 85123 was not applied. Check the analytics history table; if 85123 is applied, you do not have to execute the script. Staging_Build_8600.sql
8.5.1.5	Reporting_Build_8600.sql	Staging_Build_85123.sql only if 85123 was not applied. Check the analytics history table; if 85123 is applied, you do not have to execute the script. Staging_Build_8600.sql

Upgrading the Microsoft SQL Database Schema

Use this procedure to upgrade the Microsoft SQL database.

1. Locate and then unzip the **Analytics Upgrader** into TEMP >/mssql.
2. Open Microsoft SQL Server Management Studio and sign in to the 8.6 database.
3. Refer to the following table and execute the Oracle SQL scripts for the DW_REPORTING and DW_STAGE schemas.

   These scripts are located in TEMP >/mssql.

Release	DW_REPORTING	DW_STAGE
8.5.1 8.5.1.1 8.5.1.1.1 8.5.1.1.2 8.5.1.1.3 8.5.1.1.4 8.5.1.1.5 8.5.1.2 8.5.1.2.2 8.5.1.2.2.1	Reporting_Build_85124.sql Reporting_Build_8513.sql Reporting_Build_8514.sql Reporting_Build_8515.sql Reporting_Build_8600.sql	Staging_Build_8512sql Staging_Build_85123.sql Staging_Build_8514.sql Staging_Build_8600.sql
8.5.1.2.3	Reporting_Build_85124.sql Reporting_Build_8513.sql Reporting_Build_8514.sql Reporting_Build_8515.sql Reporting_Build_8600.sql	Staging_Build_8514.sql Staging_Build_8600.sql
8.5.1.2.4 8.5.1.2.4.1 8.5.1.2.4.2 8.5.1.2.5	Reporting_Build_8513.sql Reporting_Build_8514.sql Reporting_Build_8515.sql Reporting_Build_8600.sql	Staging_Build_85123.sql only if 85123 was not applied. Check the analytics history table; if 85123 is applied, you do not have to execute the script. Staging_Build_8514.sql Staging_Build_8600.sql
8.5.1.3	Reporting_Build_8514.sql Reporting_Build_8515.sql Reporting_Build_8600.sql	Staging_Build_85123.sql only if 85123 was not applied. Check the analytics history table; if 85123 is applied, you do not have to execute the script. Staging_Build_8514.sql Staging_Build_8600.sql
8.5.1.4	Reporting_Build_8515.sql Reporting_Build_8600.sql	Staging_Build_85123.sql only if 85123 was not applied. Check the analytics history table; if 85123 is applied, you do not have to execute the script. Staging_Build_8600.sql
8.5.1.5	Reporting_Build_8600.sql	Staging_Build_85123.sql only if 85123 was not applied. Check the analytics history table; if 85123 is applied, you do not have to execute the script. Staging_Build_8600.sql

Validating the Analytics 8.6 Upgrade

After the upgrade is installed, you must configure and validate that the components, such as OBIEE and the database schemas, are updated properly.

1. Create a small number of Information Manager (IM) and Intelligent Search events. Then check that the events are captured from the Event router and loaded to the DW_STG_DATA table.
2. In the ANALYTICS_PROPERTIES table, update the `CURRENT_BATCH_PROCESS_DATE` value to the upgrade date.

   ODI begins processing data in `DW_STAGE` from this date.
3. Sign in to the ODI 8.6.0 repository and import the master, logical and work repositories.
4. Sign in to the ODI_WORK schema and delete all the E$ or I$ tables (such as `E$_AGG_WEEK_TOTAL`) or that may appear in your current ODI work schema, and any additional E$ or I$ tables from any customizations to ODI.
5. Sign in to the 8.6. ODI repository.
   a. Locate and run the PKG-ORACLE_REPROCESS package.
   b. Locate and run the PKG-ORACLE_KNOWLEDGE_MAIN package.
6. Make sure all the jobs run without any errors. You can ignore the warnings. If you do encounter errors, contact the Oracle Support Team.
7. Deploy the 8.6 OBIEE repository and catalog, using the **OBIEE Enterprise Manager**.

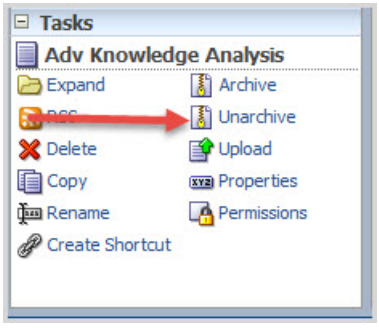
   For more information on deploying OBIEE, see *Installing and Configuring Oracle Knowledge Guide*.
8. Test all the 8.6 reports to ensure they are running without any errors.

(Optional) Migrate Custom Reports or Dashboards

Optionally, you can migrate custom reports or dashboards from prior versions into the 8.6 catalog. If you do not have custom reports or dashboards, or you choose not to migrate them, you can skip this step.

To migrate custom reports, you merge the backed-up RPD with the current RPD using the OBIEE Admin Tool Merge functionality.

1. At OBIEE, select **Catalog** and then navigate to the folder in the left pane where you want to add the folder of the backed up reports.
2. Select the **Unarchive** link in the bottom left pane (Tasks).



3 At the Unarchive window:

a At the **Archive file** field, click the **Browse** button and select the earlier archived file.

b At the **Replace** field, select the appropriate value.

c At the **ACL** field, select *Inherit*.

d Click **OK**.

Note: Alternatively, you can use the Catalog Manager to migrate objects from the backed- up catalog to the new one, with:

Source: Backed up copy of Catalog from prior version

Destination: Current Catalog

4 Migrate any custom configuration changes to the new configuration files.