



# Upgrading Oracle Knowledge

*A Guide to Upgrading Oracle Knowledge Components*

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Release 8.5.1

Document Number OKPF-UPGR851-04

February 2014

**Oracle, Inc.**

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# About This Guide

This guide is intended for technical staff who are responsible for upgrading Oracle Knowledge to Release 8.5.1. This guide covers only the process for upgrading a “plain vanilla” installation of Oracle Knowledge. It does not cover processes for upgrading any custom work done to your installation.

**Important!** All changes should be applied and thoroughly tested in a development environment prior to being implemented in production. Also be sure to back up your database prior to upgrading to mitigate risk of data loss.

More information about specific features and defect resolution for each release can be found in Release Notes for your point release.

This preface contains the following information:

- **In This Guide**
- **Examples of Product Screens and Text**
- **References to Web Content**
- **Examples of Product Screens and Text**

## In This Guide

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

<b>Chapter 1: General Upgrade Information</b>	This chapter contains general information about performing the upgrade.
<b>Chapter 2: Upgrading Intelligent Search</b>	This chapter describes the upgrade process for the Oracle Knowledge Intelligent Search component.
<b>Chapter 3: Upgrading Information Manager</b>	This chapter describes the upgrade process for the Oracle Knowledge Information Manager component.
<b>Chapter 4: Upgrading InfoCenter and Web Applications</b>	This chapter describes the upgrade process for the Oracle Knowledge InfoCenter and web applications components.
<b>Chapter 5: Performing an In-place Upgrade</b>	This chapter describes the upgrade process for release 8.5.0.0, or higher. This chapter covers all products in the Oracle Knowledge suite.

## 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.

## 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.

## 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

# General Upgrade Information

This chapter provides an overview of the upgrade process.

## Upgrade Process Overview

Oracle Knowledge provides a parallel upgrade from release 8.1.2.1 through release 8.4.2.2. With a parallel upgrade, you install the latest release and then upgrade and migrate necessary components from the previous installation into the new installation. There are several benefits of the parallel upgrade process:

- **Requires less downtime.** Since the previous installation continues to operate as usual while the new installation is configured and tested, there is minimal downtime.
- **Reduces risk of failure.** With a parallel upgrade, you can manage and resolve issues in the development environment before you put the new installation into production.
- **Simplifies the back-out procedure.** Backing out is as simple as switching back to the previous installation's URL.

Oracle Knowledge provides an in-place upgrade for release 8.5.0.0 and higher. With an in-place upgrade, you run an upgrade process on the current installation, which involves installing the new software over the current software and upgrading and migrating the data and configuration. This may require more downtime than a parallel upgrade as the system must be offline to run the upgrade process.

This section provides the following upgrade information:

- **Supported Upgrade Paths**
- **Preparing to Upgrade**
- **Performing the Parallel Upgrade**

## Supported Upgrade Paths

This guide provides instructions for completing a parallel upgrade to release 8.5.1 from any release between 8.1.2.1 and 8.4.2.2; and also provides information on the in-place upgrade from release 8.5.0.0 and higher.

For information on upgrading from release 8.1.2.0 or earlier, please contact Oracle Consulting Services.

## Preparing to Upgrade

There are a few tasks you should complete before you start the Oracle Knowledge upgrade.

- Check your hardware configuration to assure that you have the necessary hardware to support the 8.5.1 installation.

For details, see the *Oracle Knowledge 8.5 Supported Environments Matrix* on the Oracle Knowledge documentation website at <http://www.oracle.com/technetwork/indexes/documentation/knowledge-documentation-1506742.html>.

- Install all necessary supporting software for 8.5.1.

For details, see *Installing and Configuring Oracle Knowledge*.

- Download and extract the 8.5.1 installer and upgrade files.

Extract the 'upgrade-8.5.1.0.zip' upgrade archive into a temporary directory; we refer to this directory as <TMP-DIR> throughout this document.

**Important!** You must extract the upgrader into a temporary directory that contains only alpha-numeric characters and no spaces. For example, `852_IMDBUpgrader` would be a valid name while `852_IM+DB_Upgrader` would not be valid.

- For Intelligent Search, perform a dictionary object export from the most current dictionary. You need these objects to recreate any customizations from your current installation.
- Make a backup of your Information Manager and Analytics Databases.
- Make a backup of the Information Manager content resource files stored at the Content Resource Mount Point. The files stored at this location include content .xml files and any file attachments for each translation and version of a document.

**Important!** The instructions contained in this guide assume that all planned and required operating system upgrades and database upgrades have been successfully completed prior to beginning the Oracle Knowledge upgrade. Specifically, upgrades should be performed in the following order:

1. Upgrade the operating system
2. Upgrade the database
3. Upgrade Oracle Knowledge

## Performing the Parallel Upgrade

**Note:** This section applies only to customers upgrading from release 8.1.2.1 through release 8.4.2.2, using the parallel upgrade process. For upgrading from release 8.5.0.0 and higher, please see “Performing an In-place Upgrade” on page 100.

To perform a parallel upgrade to the Oracle Knowledge 8.5.1 release, you first install and configure the products you want to upgrade in a Development environment using the installer available from Oracle. Test the installation to assure that it works as expected, without any customizations. Then recreate any customizations from the current implementation. This process is then repeated for the Staging environment and the Production environment.

The following sections provide an overview of the upgrade process for individual products. The upgrade process for a given product may involve a number of manual steps as well as some initial setup, which is covered in “Preparing to Upgrade” on page 4.

## Intelligent Search Upgrade

Perform a fresh installation of the new release for Intelligent Search, including all required instances and basic configuration.

For Intelligent Search, you must 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.

Next, you must recreate the Personalized Navigation as it appears in the current Production environment. Reconcile differences between the current #.xml with the new #.xml file. Finally, recompile all customizations with the new JRE and rebuild into .war files. Then you can complete full content processing and system testing. See “Upgrading Intelligent Search” on page 7.

## Information Manager Upgrade

First, make a copy of the current IM database schema. Perform a fresh installation of the new release of Information Manager across all required machines using the Information Manager installer. 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. 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.

Proceed to 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. Finally, migrate any other customizations that you wish to deploy with the new release. See “Upgrading Information Manager” on page 19.

## WEB APPLICATIONS UPGRADE

Install InfoCenter and migrate InfoCenter configuration and data from the current environment to 8.5.1. Verify InfoCenter is working. Repeat this for other web applications (iConnects). 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 76.

## Analytics Upgrade

Because of the new architecture of release 8.5 Analytics, it is impossible to upgrade the Analytics system from previous releases, i.e. 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 the *Oracle Knowledge Installation Guide*.

To upgrade from release 8.5.0.0 and higher, please see “Performing an In-place Upgrade” on page 100.

## AnswerFlow Upgrade

You can install AnswerFlow using the Oracle Knowledge 8.5.1 installer. There is no parallel upgrade available for AnswerFlow.

To upgrade from release 8.5.0.0 and higher, please see “Performing an In-place Upgrade” on page 100.

## Taking Production Live

After the Production environment has been sufficiently tested and ready to go into live mode you must stop any further Information Manager authoring, if you have not done so already. Once you stop all Information Manager authoring, you must copy the current IM database into the 8.5.1 production environment and run the IM Upgrade utility to upgrade the database. IM authoring has to be stopped until the upgrade has been completed and turned live. Any transactional information such as document ratings and user visits will not be visible while the IM database upgrade utility runs. Run full content processing with synchronization.

Shut down the current production environment. Route the production web applications to use the 8.5.1 production environment.

Finally, live-test the production application.

### FALLBACK PROCESS

If a critical problem occurs after cutting over to 8.5.1, you may fallback by routing the production web applications to use the old production environment.

# Upgrading Intelligent Search

This chapter provides instructions to upgrade Intelligent Search to 8.5.1.

## Overview of the Search Upgrade Process

The following steps must be taken to upgrade the Search installation:

- 1 **Pre-Migration Upgrade Steps**
- 2 **Migrate the Search Dictionary**
- 3 **Migrate Custom Code**
- 4 **Migrate the Search Configuration**
- 5 **Migrate the Application Settings**
- 6 **Post Upgrade Instructions**

## Packaging

The upgrade package contains one utility in the Media Pack for Oracle Knowledge Intelligent Search 8.5.1:

- Search Configuration Migration utility – `searchConfigUpgradeUtility-8.5.1.zip`

## Pre-Migration Upgrade Steps

Before you begin migrating the current installation, complete the following steps:

- **Install Fresh 8.5.1**
- **Configure the Application Data Stores**
- **Configure Existing Data Sources**

### Install Fresh 8.5.1

Install Intelligent Search 8.5.1 following the instructions in the *Oracle Knowledge 8.5.1 Installation Guide*.

During the installation, when prompted to install the Dictionary, select **Yes**. When prompted to create the Application Instance, select **No**.

After the installation is complete, create a Content Processing instance in the development environment following the instructions in the *Oracle Knowledge 8.5.1 Installation Guide*.

After the instance has been created and the web application has been built and deployed, set the Administrator account password following the instructions in the *Oracle Knowledge 8.5.1 Installation Guide*.

## Configure the Application Data Stores

With your Database Management System tool, create a new schema to be used as the new Content Store.

Following the instructions in the *Oracle Knowledge 8.5.1 Installation Guide*, configure the Application Data Stores:

- 1 Configure the Content Store Data Source to point to the newly created database schema.
- 2 Configure the Quality Monitor Data Source to point to the previous installation's Quality Monitor database schema.

**Note:** You should restart your browser when switching between viewing the old 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.

After the data stores have been configured, use the Common Environment to create the Content Store. To create the content store database tables, enter the following command from the Common Environment command line prompt:

On Linux:

```
createContentStore.sh
```

On Windows:

```
createContentStore.bat
```

## Configure Existing Data Sources

Follow the instructions below to configure the other pre-existing data sources in the 8.5.1 installation environment. These other data sources may be used with the Information Manager settings, database crawlers, or custom crawlers. It is important to configure these data sources before migrating the Search Configuration, since the configuration may depend on the data sources.

- 1 Launch the pre-8.5.1 and 8.5.1 System Manager in two separate browser windows or tabs (to avoid overlapping cookie issues) and log in both.
- 2 In both windows, open the **Advanced Config** window.
- 3 In both **Advanced Config** windows, navigate to the **Data Sources List**. One method of doing this is:
  - a Click **Crawler Settings**.
  - b Click **Edit**, under *Database Crawlers*.
  - c Click **Add New Item**.
  - d Click **Edit List** for the Data Source.
- 4 In the pre-8.5.1 Advance Config window, click each non-sample data source in the list to view the data source properties.

- 5 In the 8.5.1 Advanced Config window, click **Add New Item** and add a new data source for each existing one and enter the *exact* match of the **Item Name**, connection information, and any additional properties listed.

**Note:** The **Item Name** must match exactly because the Search Configuration Migration Utility may migrate crawlers that depend on the data source **Item Name**.

## Migrate the Search Dictionary

This section consists of following sections:

- **Preparation Before Exporting**
- **Export Custom Dictionary Content**
- **Add or Enable User-Added Languages or Locales**
- **Import Custom Dictionary Content**

## Preparation Before Exporting

Perform the following prerequisites before exporting dictionary content:

- **Perform Dictionary Validation**
- **Commit All Dictionary Changes**
- **Record Domain Lists and Subject Maps in Use**

### Perform Dictionary Validation

For each domain list in use, perform dictionary validation on all objects, using the “Validate Dictionary” option from the Tools menu. Fix all issues, e.g. concept loops and null references within custom rules and intents.

### Commit All Dictionary Changes

Commit all custom dictionary changes, using the “Commit work to central repository” option from the Tools menu.

### Record Domain Lists and Subject Maps in Use

Record the domain lists and subject maps in use. Record all domains for the domain lists in use, make sure the orders are kept. These objects can’t be exported and must be manually added in the 8.5.1 dictionary.

## Export Custom Dictionary Content

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

- **Export Concepts**

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

## Export Concepts

Find the concepts that have been either created or modified for the installation by searching on author or last edit date. This 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 desired concepts:

- 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.

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 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 there are installed intents or rules being used, we recommended that you do *not* export them, but instead use the 8.5.1 versions of these. Most of these 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 were found to not consistently improve search results. 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 you want to export, select them, right-click, and choose **Export**. Export each of the result sets to the same directory. Objects are stored in subdirectories as follows:

- 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.

## Add or Enable User-Added Languages or Locales

If your current installation has user-added languages or locales, you must add these languages or locales 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 Log in System Manager as Administrator/Administrator.  
You will be asked to change your password through Language Workbench.
- 2 Select the **Languages** tab in System Manager.
- 3 Select the language you want to enable  
- or -  
add a language that is not preconfigured in the **Languages** tab.
  - a Select **New**.
  - b Provide the **Language Display Name** and the **Language Code**.
- 4 Click **Save**.

**Important!** Once enabled, languages or locales cannot be disabled.

## Import Custom Dictionary Content

**Important!** If your pre-8.5.1 install has user-added languages or locales named differently from 8.5.1, you need to edit the exported files before importing. Please back up all exported files before editing.

In Release 8.5.1, the naming convention is defined by language name followed by region name. For example, en-AR is named Spanish Argentina. If your pre-8.5.1 installation named en-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 8.5.1 Dictionary as English Great Britain, Chinese Simplified, and Chinese Traditional respectively, as this is an Oracle Knowledge installed name change.

## Import Users

To import users:

- 1 Copy `<PRE_8.5.1_INSTALL_HOME>\instances\<SCHEDULER_INSTANCE>\development\content\applications\default\userdata\users\_META_USER\user` directory to a location accessible by the 8.5.1 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 Log in to Language Workbench as Administrator/Administrator.  
You will be asked to change your password if this is the first time accessing Language Workbench.
- 5 Choose **Import Dictionary Objects** under *Tools*.
- 6 Browse to the parent directory of the `USER` directory copied in step 1.
- 7 Select **Import**.

**Note:** If you wish to search on these objects by author in the 8.5.1 dictionary, you must add those users. For this reason, you want to keep users who have edited objects even if they are no longer using the Language Workbench.

## Import US City Concepts (Optional)

If your installation requires the set of approximately 23,000 US city concepts, import these to 8.5.1 at this time.

- 1 Choose **Import Ontology Objects** from the *Tools* menu.
- 2 Browse to the following directory:  
`<8.5.1_INSTALL_HOME>\resources\Dictionary_Import_Files\US_City_Concept_Import`
- 3 Select **Import**.

## Recreate Custom Domains, Domain Lists, And Subject Maps

Go through the domain lists and subject maps you recorded in the **Record Domain Lists and Subject Maps in Use** step. If they exist in the 8.5.1 Dictionary, verify that the domains included in these domain lists are identical with your pre-8.5.1 Dictionary. Make changes if necessary. If they do not exist in the 8.5.1 Dictionary, You must recreate them manually.

## Import 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 Choose **Import Ontology Objects** from the *Tools* menu of the Dictionary Manager.

- 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 8.5.1 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 8.5.1 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 8.5.1 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 8.5.1 version or make any other desired changes.

**Note:** If your import files contain synonyms in British English, Simplified Chinese, or Taiwanese Chinese, they are imported to the 8.5.1 Dictionary as synonyms in English Great Britain, Chinese Simplified, and Chinese Traditional, respectively.

## Backing Out of 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**.

This resets the dictionary to its original state, and 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 list(s) 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, back out your changes, and reimport, as described in [Backing Out of 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

Select **Import Dictionary Objects** from the *Tools* menu to import all other 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 list(s) that contain the imported objects and run dictionary validation. Fix any issues found.

## Commit Dictionary Import

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

## Import Taxonomy

- 1 Choose **Import Taxonomies** under *Tools*.
- 2 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
```
- 3 Select **Import** to import from your pre-8.5 installation.

# Migrate Custom Code

This section describes how to migrate any custom Java classes implemented in your previous installed release of Intelligent Search to the freshly installed release 8.5.1 Intelligent Search.

You must recompile the source code of your custom implementations of Crawlers, Document Preprocessors, Tasks, Authenticators, and Handlers with the freshly installed release 8.5.1 interface jar files in the class path and the previously installed release jar files removed from the class path.

All jars containing the interfaces can be found within the following directory:

```
<8.5.1 INSTALL DIR>/inquira/lib/
```

After your custom code has been compiled against the freshly installed release 8.5.1 Intelligent Search APIs, rebuild the jar file(s) that contain your custom class files.

To configure the freshly installed Intelligent Search to use your custom code, copy the newly rebuilt jar file(s) to the following directories:

```
<8.5.1 INSTALL DIR>/lib
```

For the Content Processing instance you created in your freshly installed release 8.5.1 Intelligent Search environment, shut down the instance if it was running and exit any open Common Environment command line prompts. 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 freshly installed release 8.5.1 Intelligent Search will be configured to use your custom code following the steps outlined in the “Migrate the Search Configuration” and “Migrate the Application Settings” sections below.

## Migrate 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 8.5.1 installation. This is so that utility can have access to the environment’s configuration.

Before the utility can be executed, you must save the in-memory configuration to the `n.xml` file (where `n` is {1, 2, 3...}) in the pre-8.5.1 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-8.5.1 environment to the utility.

The utility analyzes certain configuration elements within the Pre-8.5.1 `n.xml`, determine if the elements are user added or customized, and export them for migration. These elements include reject patterns, URL builders, filters, collections, crawlers, email notifications, tasks, jobs, and handlers. The elements are not exported if they have been discontinued in 8.5.1. The utility generates an `autoimport.xml` file that is used to synchronize the exported configuration elements with the latest `n.xml` file in the 8.5.1 installation.

## Running the Search Configuration Migration Utility

Before you begin the Search Configuration migration steps, shutdown the 8.5.1 environment Content Processing instance if it is running. Extract the `searchConfigUpgradeUtility-8.5.1.zip` file into a temporary directory on the machine hosting the 8.5.1 environment. This temporary directory is referred to as `<TMP>` in the following instructions.

To run the migration utility:

- 1 Log into the System Manager of the Pre-8.5.1 environment and open the **Advanced Config** window.
- 2 Select **Custom Config**.
- 3 Select **Edit**.
- 4 Select **Add New Item**, provide `8.5.1_Upgrade` as the *Item Name* and select **OK**.
- 5 Select to delete the newly added *Configuration Item* and select **OK**.
- 6 Select **Save** and select **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-8.5.1 environment, where `n` is the highest number available. It can be found in the following location:

```
<Pre-8.5.1 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-8.5.1 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 8.5.1 environment.
- 9 Open the Common Environment command line prompt from the 8.5.1 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-8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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.

## Migrate 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 the "Migrate the Search Configuration" section.

- 1 Launch the pre-8.5.1 and 8.5.1 System Manager in two separate browser windows or tabs (to avoid overlapping cookie issues) and log in on both.
- 2 In both windows, open the Advanced Config window.
- 3 Review each setting that was changed in the pre-8.5.1 release (while ignoring the settings affected by the migration utility) and make the same change in the 8.5.1 release.
- 4 Save any configuration changes.

After the settings available through Advanced Config have been migrated, you must manually verify that all remaining settings not available for configuration through the UI are migrated. Create a backup of the latest `n.xml` in your Content Processing instance in your 8.5.1 environment (where `n` is in `{1, 2, 3...}`). Perform a manual file comparison of the latest `n.xml` in your 8.5.1 environment and the `n.xml` that was used as the source of the pre-8.5.1 environment's configuration in the [Migrate the Search Configuration](#) section. Determine if any remaining settings should be configured on the 8.5.1 release and manually add them.

After all the settings have been migrated, exit any open Common Environment command line prompts and open a new Common Environment command line prompt. Validate the configuration by executing the following command:

On Linux: `validateConfig.sh`

On Windows: `validateConfig`

Resolve any errors that the validation yields or revert to your backup `n.xml` file.

---

# Post Upgrade Instructions

After the migration steps have been completed, complete the following steps to finish the upgrade:

- 1 Create the desired instances within the 8.5.1 environment using the `createApp` utility. Follow the instructions in the *Oracle Knowledge 8.5.1 Installation Guide*, Installing Oracle Knowledge Intelligent Search, “Configuring Application Remote Clients and Data Stores”. This 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 `<8.5.1 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**.

# Upgrading Information Manager

This chapter provides instructions for upgrading Information Manager. You can upgrade Information Manager using either a parallel upgrade process or an in-place upgrade process. Both processes include 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 one of the following processes, depending on whether you are performing a parallel upgrade or an in-place upgrade.

- 1 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 “Resolving Duplicate and Missing User Information” on page 20
- 2 Create a copy or backup of the database:
  - a For parallel upgrades, create a copy of the database, as described in “Creating the Database Copy for a Parallel Upgrade” on page 27
  - b For in-place upgrades, or applying a patch, create a backup of the database as described in “Backing Up the Database for an In-Place Upgrade or when Applying a Patch” on page 28
- 3 Configure an instance of the current Information Manager release to database you are upgrading:
  - a For parallel upgrades, install the new release of Information Manager, and configure it to use the copied database as described in “Installing the New Information Manager Software for a Parallel Upgrade” on page 27
  - b For in-place upgrades, upgrade the Information Manager software as described in “Performing an In-place Upgrade” on page 92
  - c If you are applying a patch, follow the patch README instructions to apply the software changes to the Information Manager installation
- 4 Analyze the database for duplicate content text records, and resolve any duplicate records using the Database Upgrade utility and the resolution process described in “Identifying and Resolving Duplicate Content Text Records” on page 30
- 5 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 8.5.1 database model.

## Information Manager Upgrade Utilities

The Oracle Knowledge 8.5.1 Media Pack includes the following Information Manager upgrade utilities:

Utility	File Name
Database Upgrade utility	im_database_upgrade-8.5.1.zip
Duplicate User Information utility	dup_login_email_utility.zip

## Resolving Duplicate and Missing User Information

In Release 8.5.1, 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

Release 8.5.1 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 8.5.1, you must resolve any null or duplicate login or email information prior to upgrading the database.

**Important!** If you are performing a parallel upgrade process, ensure that you create the parallel upgrade and backup copies of the database only after you resolve duplicate user information.

## 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.

**Note:** You can use the Duplicate User Information utility independent of the upgrade process.

You use the utility by:

- running the utility on your existing 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:** You can use the Duplicate User Information utility independent of the upgrade process. See “Using the Duplicate User Information Utility” on page 20 for information on how Read Only mode and Update mode operate before using the utility.

## Duplicate User Information Utility Operation

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

In...	The utility...
<b>Read Only mode...</b>	<ul style="list-style-type: none"> <li>• analyzes all of the user information in the database</li> <li>• generates reports of null and duplicate login information and email addresses</li> <li>• does not modify the database</li> </ul> <p>The utility operates in Read Only mode by default. You can run the utility in Read Only mode in releases 8.5, as well as earlier and later releases.</p> <p><b>Note:</b> You do not need to stop the Information Manager application to run the duplicate user information utility; the utility does not modify the database.</p>
<b>Update mode...</b>	<ul style="list-style-type: none"> <li>• automatically updates the database to resolve null and duplicate login information and email addresses</li> <li>• generates reports listing the affected users and the missing or duplicate information for each</li> </ul> <p>See “Automatically Resolving Null and Duplicate User Information” on page 24</p>

## 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 will operate 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 either the original (pre-8.5.1) instance or in the 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:

- a (Linux and Solaris) `dup_login_email_utility.sh -im_home=<full path to IM configuration files>`
- b (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 Jan 2014 13:23:40,876] - [INFO]: Supplied value of dryrun=true, Null login/
email and duplicates login/email will NOT be fixed!
[23 Jan 2014 13:23:40,877] - [INFO]: About to perform analysis: DetectAndCleanDu-
pLoginAndEmail
[23 Jan 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/InfoMan-
ager/logs/UPGRADE/Reports/NullLoginsEmails_1390501421394.xls
[23 Jan 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 Jan 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 Jan 2014 13:23:41,756] - [INFO]: DetectAndCleanDupLoginAndEmail: Duplicates
Count:38, Duplicate logins and emails will NOT be fixed as per request!
[23 Jan 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 22.

## 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 24
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 26.

## 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	<ul style="list-style-type: none"> <li>• automatically determines which instance among each set of duplicates to preserve, and changes all but that instance using a pre-set pattern to rename the user logins and/or email addresses as described in "Automatically Resolving Null and Duplicate User Information" on page 24.</li> <li>• 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</li> </ul>
users that have no login or email address information	<ul style="list-style-type: none"> <li>• 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 24.</li> <li>• 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</li> </ul>

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 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:

```
[09 Dec 2013 20:59:31,494] - [INFO]: Supplied value of dryrun=false, Duplicates
login/email will be fixed!
[09 Dec 2013 20:59:31,495] - [INFO]: About to perform analysis: DetectAndCleanDu-
pLoginAndEmail
[09 Dec 2013 20:59:32,048] - [INFO]: There are duplicate login/email. A report has
been generated and saved to /home/username/IM_HOME/InQuira_8.1.2.5/InfoManager/
logs/UPGRADE/Reports/DuplicateLoginAndEmails_1386640771940.xls
[09 Dec 2013 20:59:32,111] - [INFO]: DetectAndCleanDupLoginAndEmail: Duplicates
Count:31, Duplicate logins and emails will be fixed as per request!
[09 Dec 2013 20:59:32,112] - [INFO]: Cleaning up any previous execution's arti-
facts.
[09 Dec 2013 20:59:32,347] - [INFO]: Successfully removed duplicate logins/emails
from USERINFORMATION table: Both login and email fixed:10, Only Login Fixed: 4,
Only Email Fixed: 10
[09 Dec 2013 20:59:32,371] - [INFO]: Number of Errored duplicates:0
[09 Dec 2013 20:59:32,425] - [INFO]: Number of fixedDuplicates found for the Fixed
Report:31
[09 Dec 2013 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/In-
foManager/logs/UPGRADE/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 25.

## 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-8.5.1 instance as an Administrator having one of the following Security Roles:

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

**Important!** You can use the Duplicate User Information utility independent of the upgrade process.

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.

## Creating 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 will configure it to use this copied database.

## Installing the New Information Manager Software for a Parallel Upgrade

Install Information Manager 8.5.1 by following the instructions in Installing Oracle Knowledge, Release 8.5.1.

**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 (pre-8.5.1) 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-8.5.1 database schema and data do not match the 8.5.1 database model.

The next steps in the upgrade process updates the tables and data in the database copy to match the 8.5.1 database model.

## Backing Up the Database for an In-Place Upgrade or when Applying a Patch

If you are performing an in-place upgrade, or are applying a patch, we recommend that you create a backup copy of your IM database for use as a restore point if you need to roll back the upgrade or patch.

## 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 8.5.1 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 8.5.1 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 “Resolving Duplicate and Missing User Information” on page 20 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 30

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 32.

## Running the IM Database Upgrade Utility

Extract the `im_database_upgrade-8.5.1.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 8.5.1 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:

```
[14 Feb 2013 13:45:38,966] - [INFO] :
=====
[14 Feb 2013 13:45:38,967] - [INFO]: INFORMATION MANAGER DATABASE UPGRADE UTILITY
[14 Feb 2013 13:45:38,968] - [INFO] :
=====
[14 Feb 2013 13:45:38,968] - [INFO]: IM_HOME folder found-/home/username/Oracle/Knowledge/IM/
InfoManager
[14 Feb 2013 13:45:38,995] - [INFO]: Database type is Oracle
[14 Feb 2013 13:45:40,597] - [INFO]: The target upgrade version is 8.5.1
[14 Feb 2013 13:45:42,691] - [INFO]: The last installed version is 8.1.2.4
[14 Feb 2013 13:45:42,703] - [INFO]: The last installation date is Feb 14, 2013 12:58 PM
[14 Feb 2013 13:45:42,724] - [INFO]: Verifying that pre-upgrade requirements have been met.
[14 Feb 2013 13:45:43,686] - [INFO]: Checking to see if duplicate Content Text records exist
in the db.
[14 Feb 2013 13:45:43,700] - [INFO]: About to perform analysis: DetectDuplicateContentTexts
[14 Feb 2013 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
```

[14 Feb 2013 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 "Resolving Duplicate and Missing User Information" on page 20 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 32.

## 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 30.

## 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 31.

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 31
- 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\InfoMan-
```

ager\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 8.5.1 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 associated with release 8.5.0.0
- runs all the data migration classes associated with release 8.5.0.0
- runs all the post-data migration SQL scripts associated with release 8.5.0.0

When these processes complete, the database is upgraded to Release 8.5.0.0, and the upgrade process:

- runs all the pre-data migration SQL scripts associated with release 8.5.1

Since there are no data migration classes or post-data migration SQL scripts associated with 8.5.1, the upgrade process is complete and the database schema and data match the 8.5.1 database model.

See "Information Manager Database Upgrade Scripts and Classes" on page 33 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:

```
[15 Jan 2014 19:00:17,577] - [INFO]: ===== VERSION 8.5.1 STARTING =====
[15 Jan 2014 19:00:18,213] - [INFO]:

[15 Jan 2014 19:00:18,214] - [INFO]: Pre-migration SQL scripts starting...
[15 Jan 2014 19:00:19,767] - [INFO]: Executing 8.5.1: SQL Script BUILD_8510.sql.
[15 Jan 2014 19:10:26,900] - [INFO]: SUCCESS: 8.5.1 SQL Script BUILD_8510.sql completed successfully with no errors.
Please see /home/username/Oracle/Knowledge/IM/InfoManager/logs/UPGRADE/01-15-2014_161137/8.5.1/1_pre-migration-SQL/
BUILD_8510.log for more details.
[15 Jan 2014 19:10:28,470] - [INFO]: Executing 8.5.1: SQL Script BUILD_unique_contenttext_constraints.sql.
[15 Jan 2014 19:11:08,762] - [INFO]: SUCCESS: 8.5.1 SQL Script BUILD_unique_contenttext_constraints.sql completed suc-
cessfully with no errors. Please see /home/username/Oracle/Knowledge/IM/InfoManager/logs/UPGRADE/01-15-2014_161137/
8.5.1/1_pre-migration-SQL/BUILD_unique_contenttext_constraints.log for more details.
```

```
[15 Jan 2014 19:11:10,317] - [INFO]: Executing 8.5.1: SQL Script BUILD_unique_contenttextpub_constraints.sql.
[15 Jan 2014 19:11:12,326] - [INFO]: SUCCESS: 8.5.1 SQL Script BUILD_unique_contenttextpub_constraints.sql completed
successfully with no errors. Please see /home/username/Oracle/Knowledge/IM/InfoManager/logs/UPGRADE/01-15-
2014_161137/8.5.1/1_pre-migration-SQL/BUILD_unique_contenttextpub_constraints.log for more details.
[15 Jan 2014 19:11:13,886] - [INFO]: Executing 8.5.1: SQL Script BUILD_unique_userinformation_constraints.sql.
[15 Jan 2014 19:11:15,199] - [INFO]: SUCCESS: 8.5.1 SQL Script BUILD_unique_userinformation_constraints.sql completed
successfully with no errors. Please see /home/username/Oracle/Knowledge/IM/InfoManager/logs/UPGRADE/01-15-
2014_161137/8.5.1/1_pre-migration-SQL/BUILD_unique_userinformation_constraints.log for more details.
[15 Jan 2014 19:11:15,200] - [INFO]:

[15 Jan 2014 19:11:15,200] - [INFO]: Pre-migration SQL scripts completed.
[15 Jan 2014 19:11:15,277] - [INFO]:

[15 Jan 2014 19:11:15,277] - [INFO]: Data migration classes starting...
[15 Jan 2014 19:11:16,102] - [INFO]: Executing 8.5.1 Data Migration Class IMCaseLinkCleanup
[15 Jan 2014 19:11:18,259] - [INFO]: IM_HOME folder found - /home/username/Oracle/Knowledge/IM/InfoManager
[15 Jan 2014 19:11:18,261] - [INFO]: Database type is Oracle
[15 Jan 2014 19:11:18,362] - [INFO]: The target upgrade version is 8.5.1
[15 Jan 2014 19:11:18,370] - [INFO]: Initializing EOFactory!
[15 Jan 2014 19:11:18,370] - [INFO]: MultiOSC: EOFactory initialized: Not using IQECManager.ObjectStore pooling!
[15 Jan 2014 19:11:19,107] - [INFO]: ObjectStore Added Notification
[15 Jan 2014 19:11:19,110] - [INFO]: ObjectStore Delegate Set to all stores
[15 Jan 2014 19:13:03,760] - [INFO]: SUCCESS: 8.5.1 Data Migration Class IMCaseLinkCleanup completed successfully with
no errors. Please see /home/username/Oracle/Knowledge/IM/InfoManager/logs/UPGRADE/01-15-2014_161137/8.5.1/2_data-mi-
gration-classes?IMCaseLinkCleanup.log for more details.
[15 Jan 2014 19:13:03,760] - [INFO]:

[15 Jan 2014 19:13:03,761] - [INFO]: Data migration classes completed.
[15 Jan 2014 19:13:04,405] - [INFO]:

[15 Jan 2014 19:13:04,406] - [INFO]: Post-migration SQL scripts starting...
[15 Jan 2014 19:13:06,606] - [INFO]: Executing 8.5.1: SQL Script BUILD_8510_CaseLinkCleanup-post.sql.
[15 Jan 2014 19:13:36,085] - [INFO]: SUCCESS: 8.5.1 SQL Script BUILD_8510_CaseLinkCleanup-post.sql completed suc-
cessfully with no errors. Please see /home/username/Oracle/Knowledge/IM/InfoManager/logs/UPGRADE/01-15-2014_161137/8.5.1/
3_post-migration-SQL/BUILD_8510_CaseLinkCleanup-post.log for more details.
[15 Jan 2014 19:13:37,666] - [INFO]: Executing 8.5.1: SQL Script BUILD_8510_CONTENTATTRIBUTESUMMARY.sql.
[15 Jan 2014 19:13:44,181] - [INFO]: SUCCESS: 8.5.1 SQL Script BUILD_8510_CONTENTATTRIBUTESUMMARY.sql completed suc-
cessfully with no errors. Please see /home/username/Oracle/Knowledge/IM/InfoManager/logs/UPGRADE/01-15-2014_161137/
8.5.1/3_post-migration-SQL/BUILD_8510_CONTENTATTRIBUTESUMMARY.log for more details.
[15 Jan 2014 19:13:44,182] - [INFO]:

[15 Jan 2014 19:13:44,182] - [INFO]: Post-migration SQL scripts completed.
[15 Jan 2014 19:13:45,173] - [INFO]:

[15 Jan 2014 19:13:45,173] - [INFO]: ===== VERSION 8.5.1 COMPLETE =====
```

**Note:** The console output can also be found in this log file: <8.5.1 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 8.5.1.0.

**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.

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

Release	Script	Description
8.1.2.7	BUILD_8127.sql	<ol style="list-style-type: none"> <li>1. Adds the LASTMODIFIEDDATE column to the CONTENTTEXT table.</li> <li>2. Adds the SPELLCHECKINGSUPPORT column to the LOCALE table and set it to 'N' for all entries.</li> <li>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.</li> <li>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.</li> </ol>
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	<ol style="list-style-type: none"> <li>1. Adds the REPLACEMENTTEXT_NON_FORMATTED column to the LOCALIZEDTOKENS table.</li> <li>2. Creates an index on the CONTENTTEXT PUB table.</li> <li>3. Updates the locale table to set the LOCALEDESC value to Português Brasileiro where RECORDID is pt_BR.</li> <li>4. Sets the NUMBEROFVERSIONS column to NULL for all rows in the CONTENTCHANNEL table.</li> </ol>
8.2.0.1	BUILD_8201.sql	Updates the database to support the <b>Move Topic</b> functionality.
8.4.0.0	BUILD_8400.sql	Creates indexes on the CONTENT, CONTENTTEXT, CONTENTTEXT PUB, and SURVEYRESULTSDETAILS tables.
8.4.2.0	BUILD_8420.sql	Updates the PUBLISHEDDATE column in all rows of the CONTENTTEXT PUB 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 CONTENTTEXT PUB table.

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

Release	Script	Description
8.5.0.0	BUILD_8500.sql	<ol style="list-style-type: none"> <li>1. Removes anything related to the <b>Geocode</b> functionality.</li> <li>2. Increases the capacity of the COUNT column of the CONTENTMETRICS table.</li> <li>3. Updates the priority look-up codes in order for them to display in order in the UI.</li> <li>4. Adds the data needed for the Publish channel privilege.</li> <li>5. Adds the data needed for the Manage Analytics secured activity and give all Site Administrators the activity.</li> <li>6. Adds the REPORTINGUSERGROUPID column to the USERINFORMATION table.</li> <li>7. Adds the REFERENCEKEY column to the WORKFLOWSTEP table.</li> <li>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.</li> <li>9. Updates Quartz-related tables in order to support the Quartz upgrade.</li> <li>10. Adds the RETENTION column to the BATCHJOBS table.</li> <li>11. Adds the URLTOKEN and URLTOKENEXPIRATION columns to the USERINFORMATION table.</li> <li>12. Creates DBMESSAGEFILE and DBTOPICFILE tables.</li> <li>13. Performs miscellaneous localization updates.</li> </ol>
	BUILD_8500_startEndDatesNotNull.sql	Updates database to ensure that the DISPLAYSTARTDATE and DISPLAYENDDATE columns in the CONTENT, CONTENTTEXT, CONTENTTEXT PUB, and SURVEY tables are not NULL and will never be NULL.
	BUILD_8500_tasksUpdate.sql	<ol style="list-style-type: none"> <li>1. Updates all content expiration tasks with the correct ContentTexts.</li> <li>2. Updates all translation tasks with correct ContentTexts using the CONTENTLOCALEREQUEST version.</li> <li>3. Updates the TASKLOG table so that records are per-ContentText instead of per-Content for content expiration tasks.</li> <li>4. Updates all content changed tasks with the correct ContentText.</li> </ol>
	BUILD_8500_GFR.sql	Adds the data needed to support <b>Global Find and Replace</b> .
	BUILD_8500_SDP.sql	Adds the data needed to support <b>Start Date Publishing</b> .

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

Release	Script	Description
8.5.0.0 (continued)	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.
8.5.1.0	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.
8.5.1.0	BUILD_unique_contenttextpub_constraints.sql	This script is for Oracle DB only. Adds a unique constraint on CONTENTTEXT PUB so that only one version of a content can be published at a time.
8.5.1.0	BUILD_unique_userinformation_constraints.sql	Adds 2 different unique constraints on the USER-INFORMATION table so that user logins and emails are unique per repository.

TABLE 2. Data Migration Classes

Release	Class	Description
8.2.0.0	com.inquirainfomanager.migration.IM8200	For each localized token in system, saves a version of the replacement text without formatting.
8.5.0.0	com.inquirainfomanager.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.inquirainfomanager.migration.IM8500_PublishPrivilege	For each content channel, add the Publish privilege to the CONTENTCHANNELPRIVILEGE table.
	com.inquirainfomanager.migration.IM8500_WFStepRefKeys	For each Workflow Step, creating a reference key based on the name in the base locale for the repository.
	com.inquirainfomanager.migration.IM8500_TasksNamesUpdate	For each ContentTask-related task, update the task name by prepending the document ID to the current task's name.
	com.inquirainfomanager.migration.IM8500_BatchJobRetention	For each current batch job, update the job with the correct default for its retention time.
	com.inquirainfomanager.migration.IM8500_NewBatchJobs	For each existing repository, add the new Start-DatePublisher, BulkUpdateJob, TrimBatchHistory batch jobs.
	com.inquirainfomanager.migration.IM8500_RoleNameTranslations	For both the Default Administration and Default User Roles, update their display names for all available locales in each repository.
	com.inquirainfomanager.migration.IM8500_DBAttachFilePrivilege	For each discussion board and discussion board forum in all repositories, add the <b>Attach File</b> privilege and configure accordingly.
8.5.0.0	com.inquirainfomanager.migration.IMMetricsMerger	This is an Update Class to create Topic and Content Metrics Merger batch jobs for existing repositories.
	com.inquirainfomanager.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.inquirainfomanager.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.

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 LOCALE-DESC 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 CONTENTTEXT PUB 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.
8.5.1.0	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.
8.5.1.0	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.

## 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-8.5.1.zip as well as the im\_database\_upgrade-8.5.1.zip itself.

**Note:** You should restart your browser before proceeding 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 72 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.properties`**
- **Migrate 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 8.5.1 of Information Manager in order to fully complete the upgrade process.

**Note:** The following instructions must be performed after the database upgrade to 8.5.1 and the parallel installation of Information Manager 8.5.1 have been completed and verified.

### Migrate Custom Settings in `application.properties`

This section describes how to migrate custom settings from the `application.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 8.5.1 of Information Manager.

As part of the installation process of release 8.5.1, 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 8.5.1 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 8.5.1:

- `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 8.5.1 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 8.5.1.
- 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 8.5.1.

**Important!** Disregard the settings listed in the above bullet lists when performing this step.
- 4 If the setting name is found in 8.5.1:
  - 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 8.5.1, copy both the setting name and value from the previously installed release to 8.5.1, 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 8.5.1 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 | • MANAGEMENT_CONSOLE_URL    |
| • FILE_TRANSFER_TYPE           | • RESOURCE_HOST_URL         |
| • FTP_SERVER_HOSTNAME          | • SECURE_RESOURCE_HOST_URL  |
| • FTP_SERVER_PASSWORD          | • STAGING_RESOURCE_HOST_URL |
| • FTP_SERVER_USERNAME          | • STATIC_RESOURCE_PATH      |
| • FTP_STAGING_SERVER_HOSTNAME  | • USE_SSL                   |
| • FTP_STAGING_SERVER_PASSWORD  | • WYSIWYG_LIBRARY_PATH      |
| • FTP_STAGING_SERVER_USERNAME  | • 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-8.5.1 release to 8.5.1 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-8.5.1 release, do the following:

- 1 Launch the pre-8.5.1 and 8.5.1 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 8.5.1 LDAP Configuration page that exist in the pre-8.5.1 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-8.5.1 release, do the following for each repository with changes:

- 1 Launch the pre-8.5.1 and 8.5.1 Information Manager in two separate browser windows or tabs and log into the System repository on both.
- 2 In the pre-8.5.1 browser/tab, change the repository to the repository with changes.
- 3 In the 8.5.1 browser/tab, change the repository to the 8.5.1 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 8.5.1 browser/tab, If not displayed, proceed to step 7.
- 7 Make the same changes in the 8.5.1 LDAP Configuration page that exist in the pre-8.5.1 LDAP Configuration page.  
If the text boxes and/or radio buttons in the 8.5.1 browser/tab are not editable, do the following in the 8.5.1 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-8.5.1 release to 8.5.1 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-8.5.1 release, do the following:

- 1 Launch the pre-8.5.1 and 8.5.1 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 8.5.1 InQuira Search Configuration page that exist in the pre-8.5.1 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-8.5.1 release, do the following for each repository with changes:

- 1 Launch the pre-8.5.1 and 8.5.1 Information Manager in two separate browser windows or tabs and log into the System repository on both.
- 2 In the pre-8.5.1 browser/tab, change the repository to the repository with changes.
- 3 In the 8.5.1 browser/tab, change the repository to the 8.5.1 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 8.5.1 browser/tab, If not, proceed to step 7.

- 7 Make the same changes in the 8.5.1 InQira Search Configuration page that exist in the pre-8.5.1 InQira Search Configuration page.  
If the text boxes and/or radio buttons in the 8.5.1 browser/tab are not editable, do the following while in the 8.5.1 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 InQira 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:

- |                                     |  |
|-------------------------------------|--|
| • <code>ChangeLocalAction</code>    | • <code>LostPasswordAction</code>        |
| • <code>ChannelSearchAction</code>  | • <code>NewsletterFindEmailAction</code> |
| • <code>ContributeAction</code>     | • <code>NewsletterSubscribeAction</code> |
| • <code>CreateFaqAction</code>      | • <code>PageEmailAction</code>           |
| • <code>EditProfileAction</code>    | • <code>RecommendAction</code>           |
| • <code>FullTextSearchAction</code> | • <code>TakeSurveyAction</code>          |
| • <code>GenericFormAction</code>    | • <code>TalkbackAction</code>            |
| • <code>LoginAction</code>          |  |

If you have custom changes to the Delegate Classes configuration in the System repository in the pre-8.5.1 release, do the following:

- 1 Launch the pre-8.5.1 and 8.5.1 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 8.5.1 Delegate Classes Configuration page that exist in the Pre-8.5.1 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-8.5.1 release, do the following for each repository with changes:

- 1 Launch the pre-8.5.1 and 8.5.1 Information Manager in two separate browser windows or tabs and log into the System repository on both.
- 2 In the pre-8.5.1 browser/tab, change the repository to the repository with changes.

- 3 In the 8.5.1 browser/tab, change the repository to the 8.5.1 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 8.5.1 browser/tab. If not, proceed to step 7.
- 7 Make the same changes in the 8.5.1 Delegate Classes Configuration page that exist in the pre-8.5.1 Delegate Classes Configuration page.  
If the text boxes and/or radio buttons in the 8.5.1 browser/tab are not editable, do the following while in the 8.5.1 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-8.5.1 release, do the following:

- 1 Launch the pre-8.5.1 and 8.5.1 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 8.5.1 Translation Delegate Class Configuration page that exists in the pre-8.5.1 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-8.5.1 release, do the following for each repository with changes:

- 1 Launch the pre-8.5.1 and 8.5.1 Information Manager in two separate browser windows or tabs and log into the System repository on both.
- 2 In the pre-8.5.1 browser/tab, change the repository to the repository with changes.

- 3 In the 8.5.1 browser/tab, change the repository to the 8.5.1 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 8.5.1 browser/tab. If not, proceed to step 7.
- 7 Make the same change in the 8.5.1 Translation Delegate Class Configuration page that exists in the pre-8.5.1 Translation Delegate Class Configuration page.  
If the text boxes and/or radio buttons in the 8.5.1 browser/tab are not editable, do the following while in the 8.5.1 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-8.5.1 and 8.5.1 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-8.5.1 browser/tab, change the repository to the repository with changes.
- 3 In the 8.5.1 browser/tab, change the repository to the 8.5.1 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-8.5.1 release (while ignoring the settings affected by configuration pages), make the same change in the 8.5.1 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 8.5.1. 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 8.5.1 and should *not* be migrated from the previously installed release to 8.5.1.
- **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 8.5.1 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 8.5.1 if needed.

**Note:** If necessary, the email Template migration can be performed while both the previously installed release of Information Manager and release 8.5.1 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 8.5.1. 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_8.5.1_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 8.5.1
- 2 Navigate to the matching `<8.5.1_IM_HOME>/config/<REPO_REFKEY>/taskconfig`, and paste the copied e-mail template files into the directory.  
 If `<8.5.1_IM_HOME>/config/<REPO_REFKEY>` does not exist, log into that repository using the 8.5.1 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 8.5.1. 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 8.5.1, create the following folder structure for backups if it does not already exist:
 

```
<8.5.1_INSTALL_DIR>/backups/8.5.1/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 `<8.5.1_IM_HOME>/config/SYSTEM/` to the following path: `<8.5.1_INSTALL_DIR>/backups/8.5.1/IM_HOME/config/SYSTEM` created in step 1.
- 4 Navigate to `<PRE_8.5.1_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 8.5.1
- 5 Navigate to the matching `<8.5.1_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 8.5.1. 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 8.5.1

Since the steps to migrate custom additions to the spell-check dictionaries include the replacement of files in version 8.5.1, perform the following steps to back up the spell-check dictionaries in version 8.5.1.

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

`<8.5.1_INSTALL_DIR>/backups/8.5.1/IM_HOME`

- 2 Copy `<8.5.1_IM_HOME>/ssce` into `<8.5.1_INSTALL_DIR>/backups/8.5.1/IM_HOME`, which you created in step 1. This should result in `<8.5.1_INSTALL_DIR>/backups/8.5.1/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 8.5.1 installation is not running. The previously installed release can still be running if needed.

## CUSTOMIZATIONS TO THE IMSPELLCHECK.PROPERTIES FILE

If no customizations were 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_8.5.1_IM_HOME>/ssce`.
- 2 In a text editor, open up the `imspellcheck.properties` file in `<8.5.1_IM_HOME>/ssce`.
- 3 For each setting, compare the value from the previously installed release to 8.5.1, and change the value in 8.5.1 if they do not match.  
If a setting was added in the previously installed release and does not exist in the 8.5.1, add it to the end of the file in 8.5.1.

**Note:** The default value for the setting, `SPLIT_HYPHENATED_WORDS_OPT`, is now **false** in 8.5.1.

## 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_8.5.1_IM_HOME>/ssce`, and copy the following files:
  - `ssceam.tlx`
  - `ssceam2.clx`
  - `userdic.tlx`
- 2 Navigate to `<8.5.1_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_8.5.1_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 `<8.5.1_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 8.5.1 IM Management Console web application.

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-8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/WEB-INF/web.xml
```

In release 8.5.1, the IM Management Console web application's deployment descriptor location depends upon which application server you use:

**WebLogic**    <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/web.xml

**Tomcat**      <8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/WEB-INF/web.xml

The freshly installed 8.5.1 deployment descriptor uses the following descriptor elements:

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

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 the freshly installed release 8.5.1 `web.xml`.

For every descriptor element used in the freshly installed release 8.5.1 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.

## 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 8.5.1.

### WOCLASSPATH PARAMETER

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

```
8.5.1.jar</param-value>
</context-param>
```

This parameter has been updated in 8.5.1. 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/
javawebsevicesupport.jar
WEBINFROOT/Library/Frameworks/JavaWebServicesClient.framework/Resources/Java/
javawebsevicesclient.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 8.5.1 web.xml.

## WOAPPLICATIONCLASS PARAMETER

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

This parameter setting has not changed for 8.5.1.

## 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 8.5.1 web.xml.

## Filters and Filter Mappings

### INFOMANAGER SERVLET FILTER

```
<filter>
  <filter-name>InfoManager Servlet Filter</filter-name>
  <filter-class>com.inquiria.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.inquiria.servletfilter.IMServletFilter`, has not changed for 8.5.1.

The `cookieExpireMinutes` initialization parameter has not changed for 8.5.1. 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 8.5.1 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 8.5.1 `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 8.5.1 `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 8.5.1.

## 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.inquiria.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 is new in 8.5.1.

## IQOBJECTSTOREASSIGNINGFILTER FILTER MAPPING

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

The `IQObjectStoreAssigningFilter` filter mapping is new in 8.5.1.

## 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 8.5.1 `web.xml`.

## Listeners

### CONFIGURATION CONTEXT LISTENER

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

The configuration context listener has not changed in 8.5.1.

### 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 8.5.1 `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 8.5.1.

### 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 8.5.1.

### CKFINDERCONNECTORSERVLET SERVLET

```
<servlet>
  <servlet-name>CKFinderConnectorServlet</servlet-name>
  <servlet-class>com.inquiria.services.components.CKFinderConnectorServlet</
    servlet-class>
  <init-param>
    <param-name>configuration</param-name>
    <param-value>com.inquiria.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 is new in 8.5.1.

## 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 8.5.1.

## 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 8.5.1 `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 8.5.1. 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 8.5.1 `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 8.5.1 IMWS web application.

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

```

<Pre-8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/imws/WEB-INF/

```

web.xml

The web application's deployment descriptor for the freshly installed release 8.5.1 IMWS web application can be found in:

**WebLogic** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/imws/app/WEB-INF/web.xml

**Tomcat** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/imws/WEB-INF/web.xml

The freshly installed 8.5.1 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 the freshly installed release 8.5.1 web.xml.

For every descriptor element used in the freshly installed release 8.5.1 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 8.5.1.

### WOCCLASSPATH PARAMETER

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

This parameter has been updated in 8.5.1. 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/
javawebservicesupport.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 8.5.1 `web.xml`.

## WOAPPLICATIONCLASS PARAMETER

```

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

```

This parameter setting has not changed for 8.5.1.

## 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 8.5.1 `web.xml`.

## Filters and Filter Mappings

### UTF8FILTER FILTER

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

The filter class specification, `com.inquiria.imwows.filters.ForceUTF8RequestEncodingFilter`, has not changed for 8.5.1.

### UTF8FILTER FILTER MAPPING

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

The UTF8Filter filter mapping has not changed in 8.5.1.

### IQOBJECTSTOREASSIGNINGFILTER FILTER

```
<filter>
  <filter-name>IQObjectStoreAssigningFilter</filter-name>
  <filter-class>com.inquiria.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 is new in 8.5.1.

### IQOBJECTSTOREASSIGNINGFILTER FILTER MAPPING

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

The IQObjectStoreAssigningFilter filter mapping is new 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 8.5.1 `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 8.5.1.

### 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 8.5.1.

### GATEWAYAUTODEPLOYER SERVLET

```
<servlet>
  <servlet-name>gatewayautodeployer</servlet-name>
  <!--
  <display-name>Gateway Autodeployer Servlet</display-name>
  <description>no description</description>
  -->
  <servlet-class>com.inquiria.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 8.5.1.

### 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 8.5.1, add them to the freshly installed release 8.5.1 `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 8.5.1.

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 8.5.1 `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 8.5.1 Information Manager.

The freshly installed version 8.5.1 iAuthenticator API Java documentation can be found under:

```
<8.5.1 INSTALL DIR>/InfoManager/docs/iAuthentication/index.html
```

Review the 8.5.1 iAuthenticator API Java documentation for updates to the API.

The freshly installed release 8.5.1 iAuthenticator API can be found in the following .jar file:

```
<8.5.1 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`

Though none of the existing iAuthenticator interface signatures have changed in 8.5.1, you must recompile the source code of your custom iAuthenticator with the freshly installed release 8.5.1 `infra.jar` in the class path and the previously installed release `infra.jar` file(s) removed from the class path.

**Note:** The `com.inquirainfra.InquiraException` class has changed in 8.5.1. 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 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

- `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(Throwabel 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 (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 8.5.1 `iAuthenticator` API, rebuild the jar file(s) that contain your custom `iAuthenticator` class files.

To configure the freshly installed 8.5.1 Information Manager to use your custom `iAuthenticator`, copy the newly rebuilt jar file(s) to the following directories:

<b>WebLogic</b>	<8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/WEB-INF/lib
	<8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/imws/app/WEB-INF/lib
<b>Tomcat</b>	<8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/InfoManager/WEB-INF/lib
	<8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/imws/WEB-INF/lib

The freshly installed release 8.5.1 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 8.5.1, 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 freshly installed release 8.5.1 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 `<8.5.1 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 `<8.5.1 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 `<8.5.1 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.

## Migrate Custom JGroups Settings

This section describes how to migrate custom JGroups configurations from previous releases into the 8.5.1 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-8.5.1 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 8.5.1 installation.

Because the JGroups version was updated to 2.11 in this release, start with the latest `jgroups-default.xml` file from the 8.5.1 installation.

## For WebLogic Users

- 1 Navigate to `<8.5.1 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:  
`<8.5.1 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:  
`<8.5.1 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:  
`<8.5.1 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:  
`<8.5.1 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:  
`<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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 `<8.5.1 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.

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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.

## 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 8.5.1 Information Manager.

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

```
<Pre-8.5.1 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 8.5.1 installation under and replace the existing file:

```
<8.5.1 INSTALL DIR>/InfoManager/config/SYSTEM/profanitylist.txt
```

## Migrate Custom Delegate Classes

This sections describes how to migrate custom delegate classes from the previously installed release to the freshly installed release 8.5.1 Information Manager.

Though none of the existing delegate class interface signatures have changed in 8.5.1, you must recompile the source code of your custom delegate classes with the freshly installed release 8.5.1 `imservices-8.5.1.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 8.5.1 installation, rebuild the jar file(s) that contain your custom class files.

To configure the freshly installed 8.5.1 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    <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/InfoManager/app/
               WEB-INF/lib
               <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/imws/app/WEB-INF/
               lib
               <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB_APP>/app/
               WEB-INF/lib
```

**Tomcat**

```
<8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/  
InfoManager/WEB-INF/lib  
  
<8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/imws/  
WEB-INF/lib  
  
<8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/  
<TAGLIB_APP>/WEB-INF/lib
```

The freshly installed release 8.5.1 IM Management Console should already be configured to use your custom delegate classes by the steps outlined in the “Migrate Custom Settings in config.properties section, above.

## 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 8.5.1 Information Manager.

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

```
<Pre-8.5.1 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 8.5.1 installation and replace the existing file:

```
<8.5.1 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 8.5.1 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 8.5.1 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 8.5.1 parallel installation environment.
IM_HOME path <8.5.1 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 8.5.1, the default location for the IM_HOME path after installation is <8.5.1 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 <8.5.1 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.
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 <8.5.1 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 <8.5.1 INSTALL DIR>/InfoManager/config/IMWEBSERVICES/application.properties if IMWS was installed; as well as <8.5.1 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
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 <code>-delete.from.report</code> 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 <b>RemoveRecord</b> column have been modified. After the report has been reviewed and/or modified, rerun the utility supplying the <code>-delete.from.report=&lt;full path to the modified report file&gt;</code> . 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 8.5.1.
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.
SQL Exceptions on Alter Table Drop Column statements	When the utility is executing a pre-data migration or post-data migration SQL script.	<p>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 &lt;TMP&gt;/sql/oracle for Oracle database users and &lt;TMP&gt;/sql/mssql for SQL Server database users.</p> <p>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.</p>

**TABLE 4. Common Error Messages and Solutions (Continued)**

Error Message	Use Case	Suggested Solution
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 <8.5.1 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 <8.5.1 INSTALL DIR>/InfoManager/config/IMWEBSERVICES/application.properties if IMWS was installed as well as <8.5.1 INSTALL DIR>/InfoManager/config/<REPOSITORY>/application.properties if a web application was installed.
SQL Exceptions not related to database connectivity during a data migration class execution, not including com.inquiria.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.

TABLE 4. Common Error Messages and Solutions (Continued)

Error Message	Use Case	Suggested Solution
SQL Exception during the com.inquiri.infomanager.data.migration.IMMetricsMerger data migration class that caused the class to fail with errors	When the com.inquiri.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 <b>ERROR: While trying to run SQL File: sql/&lt;oracle mssql&gt;/BUILD_immetricsmerger.sql</b> , 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.inquiri.infomanager.data.migration.IM8500_NewBatchJobs or the com.inquiri.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 <b>The Publish privilege does not exist. Please run database update scripts.</b>	When the com.inquiri.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 <8.5.1 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.

---

# Upgrading InfoCenter and Web Applications

This chapter provides instructions to upgrade and migrate custom settings for InfoCenter and other web applications.

**Important!** The IM Upgrade must be performed successfully before continuing with the InfoCenter upgrade.

## 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**
- **Migrate a Custom iAuthenticator**
- **Migrate 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 freshly installed version 8.5.1 InfoCenter web application.

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

```
<Pre-8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/  
<CONTEXT_NAME>/WEB-INF/web.xml
```

The web application's deployment descriptor for the freshly installed version 8.5.1 InfoCenter web application can be found in:

**WebLogic** `<8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/infocenter/app/WEB-INF/web.xml`

**Tomcat** `<8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/infocenter/WEB-INF/web.xml`

The freshly installed 8.5.1 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 contained any descriptor elements not mentioned above, add them to the freshly installed version 8.5.1 web.xml.

For every descriptor element we use in the freshly installed version 8.5.1 InfoCenter web application's deployment descriptor, we will outline the out of the box settings and how to maintain your customizations from the previously installed version of the InfoCenter 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 8.5.1.

## WOCLASSPATH PARAMETER

```
<context-param>
  <param-name>WOClasspath</param-name>
  <param-value>WEBINFROOT/IMTagLibrary.woa/Contents/Resources/Java/
    imtaglibrary-8.5.1.jar</param-value>
</context-param>
```

This parameter has been updated in 8.5.1. 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 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 freshly installed version 8.5.1 web.xml.

## WOAPPLICATIONCLASS PARAMETER

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

This parameter setting has not changed for 8.5.1.

## APPLICATIONRESOURCECLASS PARAMETER

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

This parameter setting has not changed for 8.5.1

## 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 freshly installed version 8.5.1 web.xml.

## 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.inquiria.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 is new in 8.5.1.

### IQOBJECTSTOREASSIGNINGFILTER FILTER MAPPING

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

The IQObjectStoreAssigningFilter filter mapping is new in 8.5.1.

## SECURITY FILTER

```
<filter>
  <filter-name>Security Filter</filter-name>
  <filter-class>com.inquiria.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 is new 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 is new 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.inquiria.services.application.IMTokenFilter</filter-class>
</filter>
```

The IMTokenScanner filter has not changed in 8.5.1.

## 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 8.5.1.

## 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.inquiria.client.filters.IQSessionFilter</filter-class>
</filter>
```

The IQSessionFilter filter is new in 8.5.1.

## IQSESSIONFILTER FILTER MAPPING

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

The IQSessionFilter filter mapping is new in 8.5.1.

## 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.inquiria.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 8.5.1, add them to the freshly installed version 8.5.1 web.xml.

### LISTENERS

#### IQEncoder Listener

```
<listener>
  <listener-class>com.inquiria.esapi.IQEncoderListener</listener-class>
</listener>
```

The IQEncoder listener has not changed in 8.5.1. It became available in 8.2.3.0.

#### Configuration Context Listener

```
<listener>
  <listener-class>com.inquiria.client.configuration.ContextListener</listener-
class>
</listener>
```

The configuration context listener has not changed in 8.5.1.

#### InQuira HTTP Session Listener

```
<listener>
  <listener-class>com.inquiria.services.webcomponents.IQHttpSessionListener</
listener-class>
```

```
</listener>
```

The InQuira HTTP session listener has not changed in 8.5.1. It became available in 8.1.3.1.

## CUSTOM LISTENERS

If the `web.xml` for the previously installed version of the InfoCenter web application specified any other listeners, add them to the freshly installed version 8.5.1 `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 8.5.1.

### 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 8.5.1.

### CONTROLLER SERVLET

```
<servlet>
  <servlet-name>Controller</servlet-name>
  <servlet-class>
    com.inquir.client.controller.Controller
  </servlet-class>
  <load-on-startup>3</load-on-startup>
</servlet>
```

The Controller servlet has not changed in 8.5.1.

### 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 8.5.1.

### INDEX SERVLET

```
<servlet>
  <servlet-name>Index</servlet-name>
  <servlet-class>
```

```

        com.inquire.client.controller.Index
    </servlet-class>
    <load-on-startup>2</load-on-startup>
</servlet>

```

The Index servlet has not changed in 8.5.1.

## 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 8.5.1.

## CKFINDERCONNECTORSERVLET SERVLET

```

<servlet>
    <servlet-name>CKFinderConnectorServlet</servlet-name>
    <servlet-class>com.inquire.services.components.CKFinderConnectorServlet</servlet-class>
    <init-param>
        <param-name>configuration</param-name>
        <param-value>com.inquire.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 8.5.1.

## 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 8.5.1.

## Custom Servlets and Servlet Mappings

If the web.xml for the previously installed version of the InfoCenter web application specified any other servlets and servlet mappings, add them to the freshly installed version 8.5.1 web.xml. Be sure to start the load on startup value for the custom servlets at 5 in order to maintain the instantiation order of the out of the box 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 8.5.1. 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 version of the InfoCenter web application configured the session timeout to a custom value, configure the session timeout with the custom value in the freshly installed version 8.5.1 `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/inquire.tld</taglib-location>
  </taglib>
</jsp-config>
```

The `taglib` node defines the tag library descriptors that are used by the web application. The defaults for InfoCenter include `discussionboards.tld` and `inquire.tld`. These default descriptor declarations have not changed in 8.5.1.

If the `web.xml` for the previously installed version of the InfoCenter web application configured other tag library descriptors, configure the other descriptors in the freshly installed version 8.5.1 `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 8.5.1 Information Manager.

The freshly installed version 8.5.1 iAuthenticator API Java documentation can be found under:

```
<8.5.1 INSTALL DIR>/InfoManager/docs/iAuthentication/index.html
```

Review the 8.5.1 iAuthenticator API Java documentation for updates to the API.

The freshly installed release 8.5.1 iAuthenticator API can be found in the following `.jar` file:

```
<8.5.1 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`
- `inquire-infra-1.1.jar`

- inquiria-infra-1.1.1.jar

Though none of the existing iAuthenticator interface signatures have changed in 8.5.1, you must recompile the source code of your custom iAuthenticator with the freshly installed release 8.5.1 infra.jar in the class path and the previously installed release infra jar file(s) removed from the class path.

**Note:** The com.inquiria.infra.InquiriaException class has changed in 8.5.1. If your custom iAuthenticator has any classes that extend this class, review the changes below to resolve potential compilation issues.

#### REMOVED COM.INQUIRIA.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.INQUIRIA.INFRA.INQUIRAEXCEPTION CONSTRUCTORS

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

#### REMOVED COM.INQUIRIA.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 getFirstAndLastStackTrace(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 (i.e. the method does not append the mode to the `StringBuilder`):

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

## Configuration Steps

After your custom `iAuthenticator` has been compiled against the freshly installed release 8.5.1 `iAuthenticator` API, rebuild the jar file(s) that contain your custom `iAuthenticator` class files.

To configure the freshly installed 8.5.1 Information Manager to use your custom `iAuthenticator`, copy the newly rebuilt jar file(s) to the following directories (where `TAGLIB_APP` refers to InfoCenter, iConnect, SSP, or any custom IM Tag Library based web application):

<b>WebLogic</b>	<pre>&lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/webapps/InfoManager/app/WEB-INF/lib &lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/webapps/imws/app/WEB-INF/lib &lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/webapps/&lt;TAGLIB_APP&gt;/app/WEB-INF/lib</pre>
<b>Tomcat</b>	<pre>&lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/appserverim/webapps/InfoManager/WEB-INF/lib &lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/appserverim/webapps/imws/WEB-INF/lib &lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/appserverim/webapps/&lt;TAGLIB_APP&gt;/WEB-INF/lib</pre>

The freshly installed release 8.5.1 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 and IM Tag Library based web applications was FCKEditor version 2.6.3. In 8.5.1, 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):

<b>WebLogic</b>	<pre>&lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/webapps/&lt;WEB_APP&gt;/app/ resources/application/components/ckeditor &lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/webapps/&lt;WEB_APP&gt;/app/ resources/application/components/ckfinder</pre>
<b>Tomcat</b>	<pre>&lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/appserverim/webapps/&lt;WEB_APP&gt;/ resources/application/components/ckeditor &lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/appserverim/webapps/&lt;WEB_APP&gt;/ resources/application/components/ckfinder</pre>

The freshly installed version 8.5.1 IM Management Console should have already been 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. These image upload store paths will also be used by the rich text editors in the IM Tag Library based applications. 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 as 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 `<8.5.1 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 `<8.5.1 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 `<8.5.1 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.

## Migrate Custom JGroups Settings

This section describes how to migrate custom JGroups configurations from previous releases into the 8.5.1 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-8.5.1 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 8.5.1 installation.

Because the JGroups version was updated to 2.11 in this release, start with the latest `jgroups-default.xml` file from the 8.5.1 installation.

## For WebLogic Users

- 1 Navigate to `<8.5.1 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:  
`<8.5.1 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:  
`<8.5.1 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:  
`<8.5.1 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:  
`<8.5.1 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:  
`<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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 `<8.5.1 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.

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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:

```
<8.5.1 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.

## 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 8.5.1 installation.

The tag library descriptors provided by Oracle Knowledge are the IM Core and IM Discussion Board tag library descriptors. These files are named `inquiratld` and `discussionboards.tld` respectively.

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-8.5.1 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 8.5.1 installation IM Tag Library based web application in the following directory:

<b>WebLogic</b>	<code>&lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/webapps/&lt;TAGLIB_APP&gt;/app/WEB-INF/tlds</code>
<b>Tomcat</b>	<code>&lt;8.5.1 INSTALL DIR&gt;/instances/&lt;INSTANCE&gt;/appserverim/webapps/&lt;TAGLIB_APP&gt;/WEB-INF/tlds</code>

## 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 8.5.1 installation IM Tag Library based web applications.

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-8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB_APP>/
apps/infocenter/resources/css
```

Customized CSS files can be placed in the following directory for the 8.5.1 installation IM Tag Library based web application:

**WebLogic** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB\_APP>/app/apps/infocenter/resources/css

**Tomcat** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB\_APP>/apps/infocenter/resources/css

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 8.5.1 installation IM Tag Library based web applications.

The 8.5.1 installation provides TLD documentation for the IM Core and IM Discussion Board tag library descriptors.

This documentation can be accessed at:

<8.5.1 INSTALL DIR>/InfoManager/docs/JSP/index.html

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-8.5.1 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 8.5.1 TLD documentation. After making any necessary changes, copy the custom JSP files to the 8.5.1 installation in the following location:

**WebLogic** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB\_APP>/app/apps/infocenter/custom

**Tomcat** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<TAGLIB\_APP>/apps/infocenter/custom

## 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.

The default settings for the 8.5.1 release can be found in the following location, where TAGLIB\_APP refers to infocenter, iconnect, or ssp:

**WebLogic** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB\_APP>/app/  
WEB\_INF/infocenter.properties

**Tomcat** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/  
<TAGLIB\_APP>/WEB\_INF/infocenter.properties

In release 8.5.1 customizations should be made in the following file:

**WebLogic** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB\_APP>/app/WEB\_INF/  
infocenter\_custom.properties

**Tomcat** <8.5.1 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 8.5.1 default settings. If there are any customizations, create the new infocenter\_custom.properties file in the 8.5.1 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 8.5.1 installation.

## 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
- inquiria\_whitelist.properties
- inquiria\_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-8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT>/
WEB-INF/classes/resources/validation_custom.properties
```

If your previous release contained any settings in the validation\_custom.properties file, copy the file to the 8.5.1 installation in the following location, where TAGLIB\_APP refers to infocenter, iconnect, or ssp:

**WebLogic** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB\_APP>/app/  
WEB\_INF/classes/resources/validation\_custom.properties

**Tomcat** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/  
<TAGLIB\_APP>/WEB\_INF/classes/resources/validation\_custom.properties

## InQuira White List Properties

In previous release's, customizations to the inquiria\_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-8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT>/  
WEB-INF/classes/resources/inquiria\_whitelist\_custom.properties

If your previous release contained any settings in the inquiria\_whitelist\_custom.properties file, copy the file to the 8.5.1 installation in the following location, where TAGLIB\_APP refers to infocenter, iconnect, or ssp:

**WebLogic** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB\_APP>/app/  
WEB\_INF/classes/resources/inquiria\_whitelist\_custom.properties

**Tomcat** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/  
<TAGLIB\_APP>/WEB\_INF/classes/resources/  
inquiria\_whitelist\_custom.properties

## InQuira ESAPI Properties

In previous release's, customizations to the inquiria\_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-8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/<CONTEXT>/  
WEB-INF/classes/resources/inquiria\_esapi\_custom.properties

If your previous release contained any settings in the inquiria\_esapi\_custom.properties file, copy the file to the 8.5.1 installation in the following location:

**WebLogic** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB\_APP>/app/  
WEB\_INF/classes/resources/inquiria\_esapi\_custom.properties

**Tomcat** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/  
<TAGLIB\_APP>/WEB\_INF/classes/resources/inquiria\_esapi\_custom.properties

## 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-8.5.1 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 8.5.1 installation in the following file:

**WebLogic** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB\_APP>/app/  
WEB\_INF/classes/securityhandlermap.properties

**Tomcat** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/appserverim/webapps/  
<TAGLIB\_APP>/WEB\_INF/classes/securityhandlermap.properties

## 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 8.5.1 release can be found in the following location, where TAGLIB\_APP refers to infocenter, iconnect, or ssp:

**WebLogic** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB\_APP>/app/  
WEB\_INF/classes/ApplicationResources.properties

**Tomcat** <8.5.1 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 8.5.1 customizations to the default language, English, should be made in the following file:

**WebLogic** <8.5.1 INSTALL DIR>/instances/<INSTANCE>/webapps/<TAGLIB\_APP>/app/  
WEB\_INF/classes/ApplicationResources\_custom.properties

**Tomcat** <8.5.1 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 8.5.1 default settings. If there are any customizations, create the new ApplicationResources\_custom.properties file in the 8.5.1 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 8.5.1 installation. Repeat this process for any customized, translated resources appending the language code to the custom property file name.

# Performing an In-place Upgrade

## In-place Upgrade Process Overview

To perform an in-place upgrade to the Oracle Knowledge 8.5.1 release, follow the instructions in this chapter. If your environment is configured to use Oracle Knowledge Analytics, be sure to upgrade the Analytics before Information Manager and Intelligent Search.

The upgrade package contains the following zip file for the in-place upgrade utilities:

For Linux:

- `in_place_upgrade_linux-8.5.1.zip`

For Windows:

- `in_place_upgrade_windows-8.5.1.zip`

Unzip the appropriate zip file for your environment to a temporary directory we'll refer to later as `<TMP>`.

## Analytics Upgrade

**Note:** This patch can be installed directly on the Analytics webpage.

Navigate to `<TMP>/Analytics` and verify that the following files and directories exist:

SQL

```
Reporting_Build_8501.sql
Reporting_Build_8502.sql
Reporting_Build_8510.sql
Staging_Build_8502.sql
Staging_Build_8510.sql
```

Router

```
AnalyticsEventRouterEA-8.5.1.ear
analytics-messages-8.5.1.jar
```

Analytics\_OBIEE\_Artifacts-8.5.1.zip (zip file contents)

```
analyticsReportingModel-8.5.1.rpd
analyticsReportingModel85V2
CSS/
META-INF/
```

Analytics\_ODI\_Packages-8.5.1.zip (zip file contents)

```
logical/
master/
META-INF/
work/
```

## Upgrade the Analytics Database Schema

The following sections provide information for upgrading the database schema for DW\_Reporting and DW\_Stage.

### UPGRADING DW\_REPORTING

From a SQL client tool, go to the DW\_REPORTING schema and execute the scripts as per the following matrix.

Version upgrading from	SQL files to run (in the order listed)
8.5.0.0	Reporting_Build_8501.sql Reporting_Build_8502.sql Reporting_Build_8510.sql
8.5.0.1	Reporting_Build_8502.sql Reporting_build_8510.sql
8.5.0.2	Reporting_Build_8510.sql

### UPGRADING DW\_STAGE

From a SQL client tool, go to the DW\_STAGE schema and execute the as per the following matrix.

Version upgrading from	SQL files to run (in the order listed)
8.5.0.0	Staging_Build_8502.sql Staging_Build_8510.sql
8.5.0.1	Staging_Build_8502.sql Staging_Build_8510.sql
8.5.0.2	Staging_Build_8510.sql

## Upgrade the Analytics JMS Event Router

To upgrade the analytics event router:

- 1 Start the WebLogic Server.
- 2 Start the Node Manager.
- 3 Stop Analytics Router Managed Server.
- 4 Login to Console, <http://localhost:7001/console>
- 5 Delete folder <WebLogic Domain Path>\servers\<Analytics Server Name>\stage  
\AnalyticsEventRouterEA-8.5.0.0
- 6 Copy the Router/AnalyticsEventRouterEA-8.5.1.ear file to <Analytics Installation  
Dir>/instances/AnalyticsEventRouter/webapps/ and remove the 8.5.0.0.ear file.
- 7 Delete the 8.5.0.0 JMS Event Router deployment using the WebLogic Admin Console and deploy the  
new 8.5.1 JMS Event Router in its place.
  - a Open the WebLogic Admin Console.
  - b Select **Deployments** in the *Domain Structure* section in the left-side panel.

- c Click **Lock & Edit** in the *Change Center* section in the left-side panel.
- d Select all of the JMS Event Router deployments, in the **Deployments** table in the main *Summary of Deployments* panel, by selecting the checkbox to the left of each name.
- e Click **Delete** above the table.
- f Click **Yes** when prompted to confirm that you want to *Delete Deployments*.
- g Click **Activate Changes** in the *Change Center* section in the left-side panel.
- 8 Restart the WebLogic server and Node Manager.
- 9 Start Analytics Router process via the Admin Console.
- 10 Ensure the new deployment has the name **AnalyticsEventRouterEA-8.5.1**.
- 11 Start the Analytics Router Managed Server via the Admin Console, if not started.

## Upgrade ODI

The following information is needed to perform an ODI update from 8.5.0/8.5.0.1/8.5.0.2 to 8.5.1:

To update ODI:

- 1 Stop the ODI package - PKG-ORACLE\_KNOWLEDGE\_MAIN.
- 2 Unzip the contents of <TMP>/Analytics/Analytics\_ODI\_Packages-8.5.1.zip to a temporary location, <TMP-DIR>/ODI

### UPGRADE THE MASTER ODI REPOSITORY

To upgrade the master ODI repository:

- 1 Backup the existing **Master** ODI repository.
- 2 Open ODI Studio as Supervisor.
- 3 Connect to the **Master** repository.
- 4 On Topology tab, click on the **Connect Navigator** icon (top-right).
- 5 Select **Import > Import the Master Repository**.
- 6 Click **Ok**.
- 7 On the pop-up window, for **Import** mode, select **Synonym Mode INSERT\_UPDATE**.
- 8 Select **Import from a folder**.
- 9 Browse to <TMP-DIR>/ODI and select the **Master** folder.
- 10 Click **Ok**. The merging takes several minutes.

### UPGRADE THE LOGICAL ODI REPOSITORY

To upgrade the logical ODI repository:

- 1 Backup the existing **Logical** ODI repository.
- 2 Open ODI Studio as Supervisor.

- 3 Connect to the **Logical** repository.
- 4 On Topology tab, click on the **Connect Navigator** icon (top-right).
- 5 Select **Import > Import the Logical Topology**.
- 6 Click **Ok**.
- 7 On the pop-up window, for **Import** mode, select **Synonym Mode INSERT\_UPDATE**.
- 8 Select **Import from a folder**.
- 9 Browse to <TMP-DIR>/ODI and select the **Logical** folder.
- 10 Click **Ok**. The merging takes several minutes.

## UPGRADE THE WORK ODI REPOSITORY

To upgrade the work ODI repository:

- 1 Backup the existing **Work** ODI repository.
- 2 Open ODI Studio as Supervisor.
- 3 Connect to the **Work** repository.
- 4 On Designer tab, click on the **Connect Navigator** icon (top-right).
- 5 Select **Import > Import the Work Repository**.
- 6 Click **Ok**.
- 7 On the pop-up window, for **Import** mode, select **Synonym Mode INSERT\_UPDATE**.
- 8 Select **Import from a folder**.
- 9 Browse to <TMP-DIR>/ODI and select the **Work** folder.
- 10 Click **Ok**. The merging takes several minutes.

## SET THE ORACLE SERVER CONNECTION

After the above three ODI Repositories are successfully imported, continue with setting the Oracle Server connection.

To set the Oracle server connection:

- 1 Open ODI Studio as Supervisor.
- 2 Connect to the **Work** repository.
- 3 On the Topology Tab, click on **Physical Architecture**
- 4 Select **Technologies**, expand, and select **Oracle > ORACLE\_SERVER**.
- 5 Open **ORACLE\_SERVER**, select **Definition Menu** on *Data Server*.
- 6 Enter the **Instance/dblink (Data Server)**.
- 7 Enter **Username** and **password**.
- 8 Select **JDBC Menu**, select **oracle.jdbc.OracleDriver** for **JDBC Driver**:

- 9 Complete `jdbc:oracle:thin:@<host>:<port>:<sid>` on JDBC URL:
- 10 Select **Oracle > ORACLE\_SERVER > ORACLE\_SERVER.DW\_STAGE**
- 11 Enter the ODI Work Schema in **Schema (Work Schema)**.
- 12 Select **Oracle > ORACLE\_SERVER > ORACLE\_SERVER.DW\_REPORTING**
- 13 Enter the ODI Work Schema in **Schema (Work Schema)**.
- 14 Save changes.
- 15 Restart ODI package - PKG-ORACLE\_KNOWLEDGE\_MAIN.

## Upgrade OBIEE

To upgrade OBIEE for Analytics, perform the following tasks:

- Reset the RPD (repository) password
- Configure the connection between OBIEE and the data warehouse
- Deploy the RPD and Catalog to create the Oracle Knowledge Analytics project within OBIEE
- Validate your installation

### CONNECT OBIEE TO THE DATA WAREHOUSE

Unzip the contents of `Analytics_OBIEE_Artifacts-8.5.1.zip` file to a temporary location, `<TMP-DIR>/OBIEE`. Connect the OBIEE instance to the data warehouse by editing the database connection parameters in the RPD file that is provided in the `<TMP-DIR>/OBIEE` folder. The RPD file is edited using the OBIEE Administration Tool. This tool only runs on the Windows platform.

#### Open the RPD

You must open the RPD file to configure it for your installation. This operation must be performed on a Windows machine using the OBIEE BI Administration Tool.

- 1 Open the Oracle BI Administration Tool
- 2 Select **File > Open > Offline**
- 3 Select the **Oracle Knowledge Analytics RPD** file
- 4 Enter the default password: **password85**

#### Change the RPD password

The RPD file is shipped with a default password. It is strongly recommended that you change the RPD password prior to deploying the RPD and Catalog.

To change the RPD password:

- 1 Select **File > Change Password**
- 2 Enter the current (old) password: **password85**
- 3 Enter the new password and confirm.

The repository password must be at least eight characters, with at least one numeric character. The New Password field cannot be empty.

## CONFIGURE CONNECTIONS TO THE DATABASE

The next step is to configure the OBIEE connection to the data warehouse. This requires the creation of System ODBC data sources using the Windows Control Panel.

Set your connections using the Oracle Business Intelligence (BI) Administration tool.

## CONNECT TO THE REPORTING SCHEMA

Use the following procedures to set the data source, set the reporting schema password, and check the connection to the reporting schema.

To set the database connection properties:

- 1 In the Physical pane of the OBI Administration Tool, select **Oracle Data Warehouse > Oracle Data Warehouse Connection Pool**.
- 2 Enter the ODBC data source name for the `DW_REPORTING` schema.
- 3 Enter the password for schema `DW_REPORTING` under **Shared Logon**.
- 4 Repeat for **Oracle Data Warehouse > Oracle Data Warehouse Initblocks Connection Pool**.

To check the connection:

- 1 Select **Oracle Data Warehouse > DW\_REPORTING > DIM\_CONTENT**, then select **View Data**.
- 2 Select **Oracle Data Warehouse Connection Pool**, then select **OK**.
- 3 If no data has been propagated from the staging schema to the reporting schema, the test succeeds.
- 4 Repeat this test, but select **Oracle Data Warehouse Repository Initblocks Connection Pool** instead of Oracle Data Warehouse Connection Pool.

## SAVE THE RPD

Use this procedure to save the RPD.

- 1 Select **File > Save**.
- 2 Close the OBI Administration Tool.

## DEPLOY THE RPD AND CATALOG

The RPD and catalog define the Oracle Knowledge Analytics project, including the dashboards and reports, that you access using the OBIEE user interface.

To deploy the catalog:

- 1 Navigate to OBIEE Enterprise Manager at `http://<hostname>:7001/em`, where `<hostname>` is the name of the server where OBIEE is installed.
- 2 Log in with the user name and password you used to install OBIEE.
- 3 On the left pane, select **Business Intelligence/coreapplication**.
- 4 On the right pane, select **Lock and Edit Configuration**. This prevents anyone else from making configuration changes at the same time. Wait for confirmation popup.
- 5 On the right pane, select **Deployment/Repository**.

- 6 Select **Upload BI Server Repository** >
- 7 Choose File, and select the edited RPD file.
- 8 Copy the analyticsReportingModel85V2 folder to the catalog directory at:  
<OBIEE\_INSTALL\_DIR>\instances\instance1\bifoundation\OracleBIPresentationServicesComponent\coreapplication\_obips1\catalog
- 9 At BI Presentation Catalog, change the catalog location to \$ORACLE\_INSTANCE/bifoundation/OracleBIPresentationServicesComponent/\$COMPONENT\_NAME/catalog/analyticsReportingModel85V2.
- 10 Enter the Repository password.
- 11 Select **Apply**.
- 12 Select **Activate Changes**.
- 13 Select **Restart to Apply Recent Changes**.
- 14 Select **Restart**.

The RPD is deployed and the catalog that defines the Oracle Knowledge Analytics project within OBIEE is added.

**Note:** To incorporate any customizations in the newly deployed RPD,

Use OBIEE Admin Tool Merge functionality to merge the backed up RPD (from Section 2.5) with the current RPD. More information on this functionality is available at [http://docs.oracle.com/cd/E15586\\_01/fusionapps.1111/e20836/mngreposfiles.htm#DAFCHIGD](http://docs.oracle.com/cd/E15586_01/fusionapps.1111/e20836/mngreposfiles.htm#DAFCHIGD)

**Note:** To migrate custom reports or dashboards into the new 8.5.1 catalog,

- 1 Navigate to Oracle Business Intelligence at <http://<hostname>:9704/analytics>, where <hostname> is the name of the server where OBIEE is installed.
- 2 Go to Catalog, navigate to the folder in the left pane where the backed up reports folder is to be added.
- 3 Select **Unarchive** link in the bottom left pane (Tasks).
- 4 In the Unarchive window:
  - a Click the Browse button and select the earlier archived file.
  - b For the **Replace** field, select the appropriate value
  - c For the **ACL** field, select value *Inherit*.
  - d Click **OK**.

# Information Manager Upgrade

These instructions must be repeated for each installation that contains an IM instance.

## Prepare to Upgrade

- 1 Stop the IM instance using the instructions in the Oracle Knowledge Installation Guide. Take care to stop the instance using the method by which it was started. For example, if the instance was started using the WebLogic Admin Console, stop the IM instance using the WebLogic Admin Console. If the instance was started through ICE, stop the instance using the ICE command.
- 2 Open a new command prompt and change directory into `$ORACLE_ROOT/instances/<company>` where `<company>` refers to the IM instance name on this installation.
- 3 Create an ICE prompt by executing the `setenv.sh` shell script for Linux/Solaris OR the `setenv.bat` script for Windows.
- 4 Do not exit the ICE prompt.

## Upgrade the IM Applications

To upgrade IM applications:

- 1 Change directory into the extracted upgrade files temporary directory `<TMP-DIR>`.
- 2 On Linux, set permissions on files so that they are executable by executing:  

```
chmod 750 *.sh
```
- 3 Modify the `ANT_OPTS` to allocate the appropriate amount memory for the JVM according to the machine's memory limitations when running this script. The default initial java heap size (`-Xms`) is set to 512M. The default maximum java heap size (`-Xmx`) is also set to 1024M. Please raise these settings if the system can allocate more memory to the JVM. Please lower these settings if the system cannot handle the default memory settings for the JVM in order to prevent Out Of Memory errors.  
For Linux/Solaris, modify the `applyIMPatch_weblogic.sh` file by modifying the following line:
  - `ANT_OPTS="-Xmx1024m -Xms512m"`For Windows, modify the `applyIMPatch_weblogic.bat` file by modifying the following line:
  - `set "ANT_OPTS=-Xmx1024m -Xms512m"`
- 4 Execute the `applyIMPatch_weblogic.sh` script for Linux/Solaris OR `applyIMPatch_weblogic.bat` for Windows. The following log file should be reviewed for errors:  
`$ORACLE_ROOT/backups/8.5.1/im_patch_installation_<INSTANCE_NAME>_<DATE_TIME>.log`

## Upgrade the IM Database

Use the IM Database Upgrade utility to upgrade the database as described in “Upgrading the Information Manager Database” on page 19.

## Restart the IM Instances

Start the IM instances following the instructions in the *Oracle Knowledge Installation Guide* to complete the IM upgrade. In the WLS console, go to Environments > Servers. Start the IM and/or IC managed server(s).

**Note:** The installed e-mail templates and their translations have been provided to `$ORACLE_ROOT/InfoManager/config/SYSTEM/taskconfig`. If any customizations were made to any e-mail notification templates at the SYSTEM repository level, please migrate your changes from the customized files to the new files. The customized files are backed up during the upgrade to `$ORACLE_ROOT/backups/8.5.1/IM_HOME/config/SYSTEM/taskconfig`.

# Intelligent Search Upgrade

These instructions must be repeated for each Search installation that may contain a Search Scheduler (Indexer) instance, one or more Search Runtime instances, one or more Search Workclient instances, one or more Search Query Coordinator instances, or one or more Search Query Worker instances.

## Prepare to Upgrade

Stop all of the Search instances using the instructions in the Oracle Knowledge Installation Guide. Take care to stop the instance using the method it was started. For example, if the instance was started using the WebLogic Admin Console, stop the Search instance using the WebLogic Admin Console. If the instance was started through ICE, stop the instance using the ICE command.

## Delete the WebLogic Search Deployments

In 8.5.1, the source location of the Search application war files has been changed to improve performance. You must undeploy the existing deployments or they will fail to redeploy after the upgrade.

- 1 Open the WebLogic Admin Console.
- 2 Select **Deployments** in the *Domain Structure* section, in the left-side panel.
- 3 Click **Lock & Edit** in the *Change Center* section in the left-side panel.
- 4 Select all of the Search deployments, in the **Deployments** table in the main *Summary of Deployments* panel, by selecting the checkbox to the left of each name.
- 5 Click **Delete** above the table.
- 6 Click **Yes** when prompted to confirm that you want to Delete Deployments.
- 7 Click **Activate Changes** in the *Change Center* section in the left-side panel.

## Upgrade the Search Installation

- 1 Open a command prompt and cd into `<install_dir>/instances/<instance>` where `<install_dir>` is the top search installation folder and `<instance>` refers to a Search instance name on this installation.
- 2 Create an ICE prompt by executing the `setenv.sh` script for a Linux/Solaris system or `setenv.bat` script for a Windows system.
- 3 cd to the `<TMP>/Search` directory.
- 4 On Linux, set permissions on files so that they are executable by executing:  

```
chmod 750 *.sh
```
- 5 Run the upgrade script by executing the `upgrade.sh` script for a Linux/Solaris system or `upgrade.bat` script for a Windows system.
  - The script compares the versions of the installed Search components with those of the upgrade package. It lists a summary of this version information, then prompts you to enter 'y' (Yes) or 'n' (No) to confirm that you want to continue with the upgrade.
  - If you reply 'y', the upgrader upgrades any component that either does not exist in the current installation or which has an older version #.

- If you are using WebLogic the upgrader prompts you for two values:
    - a. The full path of the directory where WebLogic is installed (e.g., <oracle\_home>/Middleware/wlserver\_10.3, where <oracle\_home> is replaced by the path to the parent folder).
    - b. The full path of the WebLogic domain used for Search servers (e.g., <oracle\_home>/Middleware/user\_projects/domains/<my\_domain>, where <oracle\_home> is replaced by the path to the parent folder and <my\_domain> is replaced by the name of your domain).

The Upgrader uses the entered values to verify that the respective WebLogic folders exist. If not, the Upgrader exits.
  - Before upgrading the components, the upgrader creates a backup folder in the current installation (<install\_dir>/backup-<release\_number>-<timestamp>) and either moves or makes a copy of each component to be upgraded to that folder.
- 6 When the upgrade script finishes, save the console log to a file in the <TMP>/Search directory for reference.
  - 7 Exit the ICE window.

## Rebuild and Deploy The Web Application Instances

Repeat the following rebuild and deploy steps for the Search Scheduler instance, each Search Runtime instance, and each Search Query Coordinator instance.

- 1 Open a command prompt and cd into <install\_dir>/instances/<instance> where <install\_dir> is the top search installation folder and <instance> refers to the Search Scheduler, a Search Runtime, or a Search Query Coordinator instance name on this installation.
- 2 Create an ICE prompt by executing the `setenv.sh` script for Linux/Solaris environment OR `setenv.bat` script for Windows environment.
- 3 Run the `buildWebApp` and `deployApp` scripts on each Search Scheduler and Runtime instance and Search Query Coordinator instance.

On Linux/Solaris:

- a Run `buildWebapp.sh` script
- b Run `deployApp.sh` script

On Windows:

- a Run `buildWebapp.bat` script
- b Run `deployApp.bat` script

## Rebuild and Deploy the Non-Web Application Instances

Repeat the following steps for each Search Workclient instance and each Search Query Worker instance.

- 1 Open a command prompt and cd into <install\_dir>/instances/<instance> where <install\_dir> is the top search installation folder and <instance> refers to a Search Workclient or Search Query Worker instance name on this installation.
- 2 Create an ICE prompt by executing the `setenv.sh` script for Linux/Solaris environment OR `setenv.bat` script for Windows environment.

- 3 Run the applyUpdates script.  
On Linux/Solaris, run `applyUpdates.sh` script.  
On Windows, run `applyUpdates.bat` script.

## Import Dictionary Changes

Open `<install_dir>/resources/Dictionary_Import_Files/8.5.1_Dictionary_Import_Files-README.docx`, and import 8.5.1 Dictionary changes according to the instructions.

## Restart the Search Instances

Start the Search instances using the instructions in the *Oracle Knowledge Installation Guide*.

# AnswerFlow Upgrade

AnswerFlow upgrade support applies to Linux environments using WebLogic only.

## Prepare to Upgrade

Stop all the AnswerFlow Editor and RuntimeUI instances using the instructions in the Oracle Knowledge Installation Guide. Take care to stop the instance using the method it was started. For example, if the instance was started using the WebLogic Admin Console, stop the Search instance using the WebLogic Admin Console. If the instance was started through ICE, stop the instance using the ICE command.

## Upgrade the AnswerFlow Installation

- 1 Open a bash shell by entering bash command:  
`bash`
- 2 Use `cd` to go to the AnswerFlow upgrade temporary directory, `<TMP>`.
- 3 Set permissions on files so that they are executable by executing:  
`chmod 750 *.sh`
- 4 Start the Editor ICE.  
Execute `<AnswerFlow installation directory>/instances/Editor/setenv.sh`
- 5 From the Answer Flow Editor ICE command, enter `cd <TMP>/AnswerFlow/`
- 6 Execute `bash runupgrade.sh <AnswerFlow installation directory>`

After the upgrade is complete, execute `setSampleUICredentials.sh`

- 1 Start the RuntimeUI ICE.  
Execute `<AnswerFlow installation directory>/instances/RuntimeUI/setenv.sh`
- 2 Execute `setSampleUICredentials.sh`
- 3 You will be asked to enter the credentials for SampleUI to connect to Information Manager.

## Redeploy the SampleUI

If you are planning to run RuntimeUI, you will need to redeploy SampleUI.

- 1 Start or restart the WebLogic Admin Server for the domain in which you installed AnswerFlow.
- 2 If the RuntimeUI ICE is not running, start it.  
Execute `<AnswerFlow installation directory>/instances/RuntimeUI/setenv.sh`
- 3 Execute `deploy.sh -s <location of SampleUI source directory> -w <location of SampleUI war>`  
For Example:  
`deploy.sh -s ../../Sample/SampleUI -w ../../Sample/SampleUI/target/SampleUI.war`

## Change Arguments of AnswerFlowRuntimeUIServer on WebLogic Admin Console

- 1 Log on the WebLogic Admin Console.
- 2 Expand the Environment tree from the Deployment Structure and click **Servers**.
- 3 Click **Lock & Edit** from the *Change Center* to make changes to the domain.
- 4 Click the server name for the RuntimeUI instance.
- 5 Under the *Server Start* tab, edit the **Arguments** and remove the parameter:  
`-XX:+PrintCommandLineFlags`  
and add the parameter:  
`-DKEYSTORE_LOCATION=$KEYSTORE_LOCATION`  
For example, `-DKEYSTORE_LOCATION=/afgroup/apps/Keystore`
- 6 Save the changes.
- 7 Click **Activate Changes** from the *Change Center* to activate the changes to the server.  
The AnswerFlow RuntimeUI Server can be started from the WebLogic Admin Console.

## Recreate Answer Flow startManagedWebLogic.sh

If `startManagedWebLogic.sh` scripts were created prior to the upgrade, they must be recreated after upgrading. To recreate:

- 1 Delete the old `startManagedWebLogic.sh` scripts under:  
`Knowledge_ROOT/instances/Editor` and `Knowledge_ROOT/instances/RuntimeUI`
- 2 Execute `createStartupScripts.sh` on Answer Flow Editor or RuntimeUI ICE.

## Restart the AnswerFlow Instances

Start the AnswerFlow Editor and RuntimeUI instances using the instructions in the *Oracle Knowledge Installation Guide*.

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## Post In-Place Upgrade Validation

If your installation is configured to use Oracle Knowledge Analytics, validate that the Analytics Event Router upgrade was successful.

To validate the Oracle Knowledge Analytics upgrade:

- 1 Ensure that Information Manager has been upgraded to 8.5.1 and its instance restarted.
- 2 Check Total Messages on Router. Navigation: Login WLS Console: Go to Environment >Services > Messaging > JMS Modules.
  - a Click on **SystemModule-OracleKnowledgeModule**.
  - b Click on your Analytics Queue (The default name is Queue AnalyticsQueue).
  - c Click on **Monitoring**.
- 3 Create a new message on Information Manager.
- 4 Check Total Messages on Router following steps listed in step 2.
- 5 Compare the results from step 2 and 4. The messages total should be higher in step 4.