

Oracle® Fusion Middleware

Oracle WebCenter Forms Recognition Migration Guide

12c Release 1 (12.2.1.4.0)

E93586-02

September 2019

Documentation for Oracle WebCenter Forms Recognition administrators that describes how to upgrade Forms Recognition.

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1 Introduction

This guide provides instructions for upgrading from older WebCenter Forms Recognition versions to version 12.2.1.4.0. It is recommended that you consult a trained implementation partner regarding project-specific customization.

1.1 Upgrade from Version 11.1.1.8.0 or later

The installation process provides a *Repair* option to upgrade version 11.1.1.8.0 or later to version 12.2.1.4.0.

Refer to [Section 4.4: Upgrade from Version 11.1.1.8.0 or later](#) for the specific instructions on how to migrate from version 11.1.1.8.0 or later to 12.2.1.4.0.

1.2 Upgrade from Version 10.1.3.5.0

You must uninstall **WebCenter Forms Recognition** version 10.1.3.5.0 before installation of the latest version. Refer to the following sections of this document for additional information:

- [Section 2: Backup and Preparation](#)
- [Section 3: Uninstall a Previous Version](#)
- [Section 4.2: Installation Procedure](#)

2 Backup and Preparation

It is imperative that you perform backups of projects, data, and configuration files prior to migration.

As it is expected that some downtime may be incurred during the migration, you should plan in advance with all user groups prior to the migration.

The migration for this entails updating the following workstations or servers.

- WebCenter Forms Recognition Runtime Server Machines
- WebCenter Forms Recognition Verifier Workstations
- WebCenter Forms Recognition Development Workstations
- WebCenter Forms Recognition Web Verifier Server

Backup the following materials in accordance with the internal processes implemented at site:

- All project related data. Refer to [Section 2.2.2: Project Related Data](#) for more information. Related data may include the following items:
 - Project .sdp file
 - Project Learnset
 - ASSA Pool files
 - Project utilization files such as .ini file, custom DLLs, etc.
- Batch folder. If the batch folder is not empty and resides on the file system, back up the Batch folder.
- License file that is located at `<Installation Folder>\Components\Cairo\zCroWFR.lic`
- Back up the application files located in the installation folder. Refer to [Section 2.2.3: Application Files Backup](#) for more information.
- Back up the configuration (.config) files. These files are located in the following folders:
 - `<Installation Folder>\Bin\bin`
 - `<Installation Folder>\WebCenter Forms Recognition Web Server`
- Settings files. Refer to [Section 2.2.1: Runtime Server Settings](#) for more information:
 - *.dvs Verifier Settings
 - *.set Runtime Server Settings
- Database backup. Consult your database administrator for more information on database backup. Create a full database backup prior to the upgrade. Refer to [Section 2.2.4: Database Backup](#) for more information
- OCR language files
- OCR engine(s) used within the project files

2.1 Migration Prerequisites

This section provides tasks you need to perform prior to upgrading your version of WebCenter Forms Recognition.

Note: After you save a project in a later version of WebCenter Forms Recognition, you cannot open it in an earlier version of the product. The backed up data should be kept for at least one month in read-only format.

- Stop the WebCenter Forms Recognition services before performing a database or file backup.
- Reference project-related documentation for further information that may be specific to your project requirements and installations. This can include scheduled tasks, custom DLLs, special configurations, and so on.
- Familiarize yourself with the permissions and security settings of any shared folders that are used, such as a project data folder. You may also want to ensure that the share names remain the same for any folders you move.
- Ensure that no batch exports are pending prior to the migration.
- Ensure that there are no Accumulated Documents pending in the Learnset Manager prior to the upgrade. These should be completed (accepted or rejected) and migrated into the project prior to the migration.
- Review any scheduled tasks or additional services that may be running on the system as these also need to be temporarily stopped during the upgrade process.
- Prior to commencing with any upgrade, ensure that you adhere to the following prerequisites:
 - All users are logged out of the system (Designer, Verifier, Learnset Manager and Web Verifier).
 - All RTS instances are in a stopped state, and the WebCenter Forms Recognition services have been stopped.
- Download new software to a disk.
- It is highly recommended that the migration process be tested on a development environment prior to migration to a production environment.
- Review the Windows services used, and locate any account credentials used to run the services, such as the WebCenter Forms Recognition Runtime Server Service. You need to reenter these credentials after you complete the installation process.

2.2 Backup Procedures

This section provides information about back up procedures you need to perform prior to product installation.

2.2.1 Runtime Server Settings

To upgrade the runtime server settings, complete the following steps.

1. Launch the *WebCenter Forms Recognition Runtime Service Management Console*
2. Select the instances from the first machine in the first RTS group
3. Stop the instances
4. Right-click the instance and select **Export Settings** from the popup menu
5. Save the RTS settings file, using an appropriate name, to a secure backup location

Note: In the file name, use the RTS machine name to simplify re-importing the settings.

6. Repeat steps 3 – 5 above for all the RTS instances on all the WebCenter Forms Recognition machines
7. Close the *WebCenter Forms Recognition Runtime Service Management Console*
8. Stop the WebCenter Forms Recognition services for *Runtime Service Manager* and *System Monitoring*. You can accomplish this using the Windows Services pane or through the application shortcuts
9. Check the Windows Task Manager to ensure that no **DstHost.exe** or **DstMgr.exe** tasks are present running

2.2.2 Project Related Data

The project files are typically located in one folder, which may include the following items:

- SDP project files
- Learn set folders and files
- ASSA pool(s)
- INI files
- SET files
- DVS files
- Any other project-related data, such as custom DLL files, scheduled tasks, or special configurations. Consult your solutions documentation for further details regarding upgrade.

The batch folder should not contain any batches for verification. It is not a requirement to have an empty batch list for the migration but it can simplify the process.

2.2.3 Application Files Backup

To back up the application files, complete the following steps:

1. Back up all files in the installation folder (e.g. C:\Program Files (x86)\Oracle\WebCenter Forms Recognition) to a secure backup location

Note: It is recommended to delete all historical logs prior to archiving, to reduce the size of the backup.

2. Back up the configuration (.config) files for Designer, Verifier, Workdoc Browser, Runtime Server, Learnset Manager and Web Verifier. These files are located in the following folders:

- <Installation Folder>\Bin\bin
- <Installation Folder>\WebCenter Forms Recognition Web Server

These backed up files will be referenced later in the migration steps.

2.2.4 Database Backup

To back up the data in your Forms Recognition database, complete the following steps:

1. Consult your database administrator to facilitate a backup of the Forms Recognition database

2. Save and name the backup file with an appropriate name

3 Uninstall a Previous Version

You must uninstall any versions of WebCenter Forms Recognition prior to version 11.1.1.8.0. Complete the uninstall process prior to installing the latest version.

Note: Refer to [Section 2: Backup and Preparation](#) for more information on preparation steps.

3.1 Prerequisites for Uninstalling

To prepare for the uninstall process, complete the following steps:

1. Review and ensure that all back up steps and precautions are taken and that all users have exited the application
2. Verify that all services and scheduled tasks that relate to the application are in a stopped state

3.1.1 Uninstall Procedure

The following steps outline the process for removing the software from the machine:

1. Launch the Windows Control Panel
2. Navigate to *Add or Remove Programs* (Windows Server 2003) or *Programs and Features* (Windows Server 2008 R2)
3. Select **Oracle Forms Recognition 10g Release 3** or **Oracle WebCenter Forms Recognition** in the programs list, depending on the version you are uninstalling
4. Click **Remove** (Windows Server 2003) or **Uninstall** (Windows Server 2008 R2)
5. Follow the steps to remove the selected application and all its features

Note: For additional information, refer to the *WebCenter Forms Recognition Installation Guide* when uninstalling the application.

6. After you complete the uninstallation, reboot the computer
7. After the reboot, delete all files left inside the installation folder (e.g. C:\Program Files (x86)\Oracle\WebCenter Forms Recognition)
8. Navigate to the ...**Windows\Temp** folder and delete the **Bwe**, **Dist** and **CdrDbCache** folders. This step is only applicable for the Runtime Server machine

4 Installation and Migration Procedures

Use the following guidelines to ensure that you are prepared to upgrade to this version of WebCenter Forms Recognition.

4.1 Upgrade Guidelines

Review the *WebCenter Forms Recognition Installation Guide* prior to following the steps outlined below.

1. Do **not** copy the old configuration (.config) files into the root of the installation setup folder

Note: The database schema cannot be reverted to the older version once it is upgraded.

2. Do **not** use the backup configuration (.config) files with the new version. This renders the system unstable. You can use them as reference points to any custom settings used in previous versions
3. Check the project script for upgraded use of properties:
 - **Filename** refers to the database Workdoc ID
 - **DocFileName** corresponds to the original image file

Refer to the *WebCenter Forms Recognition Scripting User's Guide* document for details.

4.2 Installation Procedure

To install this version of WebCenter Forms Recognition, complete the following steps:

1. Run the **setup.exe** for WebCenter Forms Recognition version 12.2.1.4.0 and begin the installation.
2. When prompted to select from the *Database Setup Options*, select **Do not install Database** and continue.
3. Complete the installation; restart the computer if prompted to do so.
4. Launch the **Components Version Info** utility (SCBLibVersion) to ensure that the application has installed.

Note: Any sharing and security customizations that were in the previous installation should now be configured against the application folders.

4.3 Database Schema Update

The WebCenter Forms Recognition installer folder structure contains database migration scripts to update the database to the current version.

Prepare and execute the script to update the database by completing the following steps:

1. Navigate to `<installerFolderLocation>\FirstPart\Database\UpdateScripts` and open the appropriate folder for your Oracle or SQL Server database
2. Open the **BRW_Upgrade_Database.sql** script file in an appropriate text editor

3. Update the script so that it is applicable to your Forms Recognition database as follows:

For Oracle Database

Search for the **TargetDBSchemaName** string and replace all instances with the proper database schema name

For SQL Server

Search for the **TargetDatabaseName** string and replace all instances with the proper database name.

4. Save the script file and execute it against your Forms Recognition database

Note: You can re-execute the database upgrade script multiple times as necessary without issues.

4.4 Upgrade from Version 11.1.1.8.0 or later

The installation process provides a *Repair* option to upgrade from WebCenter Forms Recognition version 11.1.1.8.0 or later to version 12.2.1.4.0.

Note: All WebCenter Forms Recognition 12.2.1.4.0 implementations should use the Database option, not the File System option. Customers with a file system are required to upgrade to use the Forms Recognition Database as described in [Section 4.10: Batch Migration from File System to the Forms Recognition Database](#).

To upgrade from WebCenter Forms Recognition version 11.1.1.8.0 or later, complete the following steps:

1. Stop all RTS instances.
2. Exit all application sessions.
3. Stop Internet Information Services (IIS).
4. Perform a comprehensive backup as described in [Section 2: Backup and Preparation](#).
5. Run the **setup.exe** for WebCenter Forms Recognition version 12.2.1.4.0.
6. Select the **Repair** option and follow the installer's on-screen instructions.
7. Complete the installation and restart the computer if prompted to do so.
8. Edit the appropriate database upgrade script as described in [Section 4.3: Database Schema Update](#).
9. Execute the appropriate database upgrade script.
10. Copy the updated license file **zCroWFR.lic** from the installer directory to the *<Installation Folder>*\ **Components\Cairo** directory, replacing the existing license file in that directory.
11. To install the FineReader 11 OCR engine, run the **setup.exe** for WebCenter Forms Recognition version 12.2.1.4.0 again.
12. Select the **Modify** option and click **Next**.
13. Select **FineReader 11** from the list of available OCR engines.
14. Complete the installation; restart the computer if prompted to do so.

15. Launch the *Designer* application, then load and save all projects to automatically update them for use with WebCenter Forms Recognition version 12.2.1.4.0.
16. Restart all processes.
17. Review and perform the steps described in [Section 4.5: Configure the Application for the Database](#).

4.4.1 Open FineReader 8 Projects after Upgrade

If you perform a **Repair** action to upgrade WebCenter Forms Recognition, all existing files are updated. If FineReader 11 was not previously installed, you need to rerun the installer after the system is upgraded. The **Modify** option in the installer allows installation of the new version of FineReader.

Note: Existing projects that use FineReader 8.1 are unaffected by the new version. However, it is recommended that you upgrade to FineReader 11.

If you open an older project using the FineReader 8 engine for the first time after the upgrade, complete the following steps to change to FineReader 11.

1. Launch the *Designer* application and load the project.
2. Enter Designer's *Definition Mode* and show the project-level properties.
3. Open the **OCR Properties** dialog.
4. Change the engine to **FineReader 11**.
5. Apply your settings on the appropriate settings tabs. The settings previously available with FineReader 8 are now rearranged and spread across three tabs along with the additional FineReader 11 settings. Refer to the *WebCenter Forms Recognition Designer User's Guide* for more information.

4.4.2 Open FineReader 8 Projects after New Installation

To migrate a project that uses the FineReader 8 OCR engine to the new product version, complete the following steps.

Note: As FineReader 8 is no longer installed, the change to the FineReader 10 or 11 engines is mandatory for WebCenter Forms Recognition, version 12.2.1.4.0.

1. Launch the Designer application and open the project.
2. Observe the error message about the missing FineReader 8.1 engine and click **OK**.

Note: The OCR engine previously associated with your project automatically changes to the OCR engine that is selected as the default. All settings are automatically mapped to the new FineReader 10 or 11 properties tabs.

3. Review the project's OCR settings.
4. Save the project.

4.5 About Projects using the Recognita Barcode Engine

The Recognita Barcode Engine is no longer part of WebCenter Forms Recognition. If you open a project that previously used the Recognita Barcode Engine, WebCenter Forms Recognition updates the project to the QualitySoft Barcode Engine and transfers the existing barcode types if the QualitySoft Barcode Engine supports these types..

4.6 About Projects using the Recognita OCR Engine

The Recognita OCR Engine is no longer part of WebCenter Forms Recognition. If you open a project that previously used the Recognita OCR Engine, WebCenter Forms Recognition updates the project to FineReader. Configure the Application for the Database

1. Locate the core product configuration files listed below. These files are located in *<Installation Folder>\Bin\bin*:
 - DstDsr.exe.config
 - DstHost.exe.config
 - DstSIm.exe.config
 - DstWkBrw.exe.config
 - DstVer.exe.config
2. Open each file in a text editor, such as Notepad.
3. Locate the **connectionstring** value in the **<connectionStrings>** section.
4. Replace **Data Source**, **Initial Catalog**, **User ID**, and **Password** values with those appropriate to the installed Forms Recognition database.
Alternatively, review those values from the backed up configuration files.
5. Locate the Web Verifier configuration file, **Web.config.Template** in root of the WebCenter Forms Recognition installer folder structure.

Note: You must use this file to configure the Web Verifier client. You can access the correct values from your backed up **Web.config** file if needed.

6. Open the **Web.config.Template** file in a text editor such as Notepad.
7. Locate the **connectionstring** value in the **<connectionStrings>** section.
8. Replace **Data Source**, **Initial Catalog**, **User ID**, and **Password** values with those appropriate to the installed Forms Recognition database.
Alternatively, review those values from the backed up configuration files.
9. Locate the **projectManager** tag in the file and change the **pathToProjectExe** value to correspond to the location of the Designer application executable. This is typically *<Installation Folder>\Bin\bin*
10. Compare all settings in the **<appSettings>** section with the backed up configuration file, and port any customizations where needed.
11. Locate the **project** tag and change the **licensePath** value to reflect the correct settings.

12. Copy the content of the **Web.config.Template** file to *<Installation Folder>\Bin\bin\Brainware.System.Project.exe.config* or copy the **Web.config.Template** file to *<Installation Folder>\Bin\bin* and rename it **Brainware.System.Project.exe.config**.
13. Copy the content of the **Web.config.Template** file to *<Installation Folder>\WebCenter Forms Recognition Web Server\Web.config* or copy the **Web.config.Template** file to *<Installation Folder>\ WebCenter Forms Recognition Web Server* and rename it **Web.config**.

Important: If the Web.config file has been modified or customized prior to upgrading WebCenter Forms Recognition, those modifications must be manually re-applied to the updated file after performing step 13 above.

4.7 Add the ASP.NET 4.x role to IIS

To add the ASP.NET 4.x role to IIS, complete the following steps.

1. In **Server Manager**, open the **Add Roles and Features Wizard**.
2. In the **Add Roles and Features Wizard** dialog box, click **Next**.
3. Select **Role-based or feature-based installation** and then click **Next**.
4. Select **Select a server from the server pool** and then click **Next**.
5. Open **Web Server (IIS) > Web Server > Application Development**.
6. Select **ASP.NET 4.x** and then click **Next**.
7. Click **Next** and then click **Install**.

4.8 Change the application pool .NET CLR version to v4.0.30319

To change the application pool's .NET CLR version to v4.0.30319, complete the following steps.

1. In **Internet Information Server (IIS) Manager**, open **Sites**, and then select the Web Verifier application.
2. In the right pane, click **Basic Settings**.
3. In the **Edit Application** dialog box, from the **Application Pool** field, note the pool name and then click **OK**.
4. In the left pane, select **Application Pools**.
5. In the middle pane, right-click the Web Verifier application pool name and then click **Basic Settings**.
6. In the **Edit Application Pool** dialog box, from the **.NET CLR version** list, select **.NET CLR Version v4.0.30319** and then click **OK**.

4.9 Modify the .NET configuration for ORACLE

If you use WebCenter Forms Recognition with an ORACLE database, complete the following steps:

1. From *<drive>:\WINDOWS\Microsoft.NET\Framework\v4.0.30319\CONFIG*, open **machine.config** in a text editor.
2. Search for the *<system.data>* element.
3. Under the *<DbProviderFactories>* element, verify or add the following element.
Provider for Oracle testing"

```
type="EFOracleProvider.EFOracleProviderFactory, EFOracleProvider,
Version=1.0.0.0, Culture=neutral,
PublicKeyToken=def642f226e0e59b"/>
```

4. Save and close the file.

4.10 Configure the Application Modules

4.10.1 Conversion of existing projects to current version

To configure Forms Recognition projects on the server and development workstations, complete the following steps:

1. Open the project in the *Designer* application.

Note: The backup should not be modified. After a project is saved in WebCenter Forms Recognition version 12.2.1.4.0, it cannot be opened in a previous version of the product.

2. From the **Options** menu, select **Settings...** and configure the **Batch-Root Directory** (on the *Input Mode* tab) and the Learn Set Manager **Base Directory** (on the *Train Mode* tab) to the location of the project folder.
3. Navigate to **Definition Mode**.
4. Right-click on the project node and select **Show Properties** from the popup menu.
5. Click the **OCR Settings...** button and ensure that the OCR engine is correctly installed and configured with all used OCR language files.
6. WebCenter Forms Recognition now provides the possibility to perform a combined OCR for Korean and English in one selection. If project uses Korean and English, in the OCR Properties dialog box, complete the following sub-steps.
 - a. On the **Languages** tab, under **Used**, remove **English** and **Korean**.
 - b. Under **Installed**, select **Korean+English**, click → and then click **OK**.
7. For each base class in the project, disable correlation on all table fields as follows:
 - a. Select the class node in the **Classes** tree.
 - b. Select the **Fields** tab.
 - c. Select the table field and display the properties pane.
 - d. Select the **Analysis** tab, then the **Advanced** sub tab.
 - e. Clear the **Correlation (enable/disable)** checkbox.
8. For projects that are configured with a database job, enable the **Allow Database Authentication** setting. You must also export the users to the database. Otherwise, when launching the project in the Verifier application, the user receives an error notification:
 - a. Select **Users, Groups and Roles...** from the **Options** menu.
 - b. Check the **Allow Database Authentication** checkbox.
 - c. Review the users in the database and configure them if needed.
 - d. Save the project.
9. Navigate to **Train Mode**.
10. Ensure that the **Incremental Learning** option in the **Options** menu is disabled (i.e. does not have a checkmark).

11. Click the **Learn Documents** (light bulb) toolbar button to rebuild the learnset under the current version.
12. On completion of the learnset update, save the project to update it to the new version.

4.10.2 Configure RTS Settings on the Server

To configure the RTS settings on the server, complete the following steps:

1. Launch the Windows Control Panel.
2. Navigate to **Administrative Tools**.
3. Open the **Services** control panel and locate the two **WebCenter Forms Recognition** services.
4. For both of the services, right-click and select the **Properties** option from the popup menu.
5. Select the **Log On** tab and change the **Log on as** account credentials for the services to match the ones that were used previously.
6. Start the **WebCenter Forms Recognition Runtime Service Manager** service from Windows Services control panel.
7. Using the *WebCenter Forms Recognition Runtime Service Management Console*, expand the **Console Root** node and re-create the RTS group, and then proceed to add the RTS machines.

Note: The licensing machine should have a *gold key* icon overlay. If it does not, make sure that the correct license is installed.

8. Re-create the RTS instances with same name as the settings (.set file) that were backed up.
9. For each RTS instance, right-click on the instance node and select **Import Settings...** from the popup menu.
10. Navigate to the backup location and select the RTS settings for the current configured instance.
11. Check that the batch list displays correctly and no errors appear in the **Statistics** view.

When the Runtime Servers are fully configured, proceed to process a single document from start (Import) to end (Export) to ensure that no errors or issues occur.

4.10.3 Configure Verifier Settings on the Server or Client

To configure Verifier settings on the server or client, complete the following steps:

1. Copy the backup of **Verifier** settings to the desired location.
2. To launch **Verifier**, double-click the setting (*.dvs) file.
3. When prompted, type the user credentials to log in to the project file.
4. Verify that the batch list displays correctly.
5. Check that the batch is verified correctly with no errors.

Note: In a typical environment, a collection of settings files may be present to simulate different roles. The last step in this procedure is only required for one Verifier setting file while the others should be checked to ensure that they open correctly.

4.10.4 Configure Web Verifier Settings on the Server

To configure Web Verifier settings on the server, complete the following steps:

1. Start the **Web Verifier** Application in **IIS manager**.
2. Execute **iisreset** as administrator in a command prompt.
3. Navigate to **http://<web server name>/WebVerifier/Login.aspx** in a supported browser.
4. Delete all local cache information from the browser.
5. Log in with a valid username and verify that the project is loaded and that it is possible to verify a batch.
6. Verify a single batch to completion to ensure that there are no issues.

4.10.5 Configure Web Verifier on a Client

To configure the Web Verifier on a client, complete the following steps:

1. Start Web Verifier in a supported browser.
2. Delete all local cache information from the browser.
3. Log in with a valid username and verify that the project is loaded correctly.

4.10.6 Re-register the COM components

To re-register the COM components, complete the following steps.

1. In the *<Installation Folder>\WebCenter Forms Recognition Web Server\Bin* directory, run **Register Web Server.bat** as administrator.
2. In the *<Installation Folder>\WebCenter Forms Recognition Web Server\Bin* directory, open **Register Web Server.log** in a text editor and check the file for errors.

4.11 Review Scripts

To verify if your scripts require modifications, review the following topics.

4.11.1 About the FileName and DocFileName Properties

The **Workdoc.FileName** property changed from the filename of the original file to the workdoc's database ID/name. To retrieve the filename of the image from which the workdoc was created, use the **DocFileName** property instead of **FileName** property. Update the use of these properties in your project's custom script accordingly.

See the *WebCenter Forms Recognition Scripting Guide* for more information.

4.11.2 About the Original File Name of a Page

The stapling process returns a single multi-page document referenced by the associated workdoc. Using the **pWorkdoc.DocFileName (x)** with an index greater than zero results in an index-out-of-range error. To retrieve the original file name of a page, use the **pWorkdoc.Pages (x).OriginalDocumentFileName** property.

4.11.3 New Behavior in Cut and Append Document Process

The process for cutting and appending documents has changed.

Always use the `pWorkdoc.DocFileCount` property after appending and cutting operations to determine the number of documents.

4.12 Batch Migration from File System to the Forms Recognition Database

If you have an RTS instance pointing to file system batches, you need to migrate those batches to the Forms Recognition database in order to take advantage of the fully database based functionality of WebCenter Forms Recognition 12.2.1.4.0.

To migrate a file system batch to the database, the migration steps have to be executed for each of the states within the batch starting with the lowest batch state. This is necessary because of database requirements: A single batch for each of the states will be created. If a file system batch contains documents at two different states, this batch will be split into two different database batches.

Note: Prior to migration, backup the appropriate file system batches.

The following steps describe how to migrate batches from the file system to the Forms Recognition database:

1. Launch the *WebCenter Forms Recognition Runtime Service Management Console*.
2. Right-click the RTS instance pointing to a file system batch.
3. Open the **Properties** window.
4. Select the **Workflow** tab.
5. Enable *only* the **Database Export** process step, and disable all other process steps.
6. Observe the message box that is displayed and click **OK**.
7. Click **OK** on the RTS properties dialog to save the settings and close the dialog.
8. Right-click the RTS instance and select **Properties...** from the popup menu again to reopen the properties dialog.

Note: Notice that the **Select Job** dropdown and the **Create Job** button are now enabled on the **General** tab.

9. Select an existing job from the **Select Job** dropdown (if an appropriate job already exists in the database) or click the **Create Job** button and create a new database job for the batches that will be migrated from the file system.
10. Select the **Workflow** tab.
11. Explore your batch list for the *lowest* state, and type or select that lowest batch state as **Input State** for the **Database Export** process step.
12. Define separate success and failure states as **Output State** for the **Database Export** process step. The specified status must be different from the existing default output states, and the failure state must be lower than the succeeded state.

Oracle recommends using the following **Output State** values:

- Succeeded: **810**
- Failed: **760**

13. Click **OK** to save the RTS settings and close the properties dialog.
14. Start the RTS instance.
15. Create a new RTS instance for your project, but remember to check the **Use database** checkbox and select the database from step 9 in the **Select Job** dropdown. This will enable you to monitor the exported batches.

Explore the batch list for the newly created database RTS instance. The exported batches at state 100 can be found there. During export, they were given a new batch ID, similar to the following example:

00001770_00000016

The left part of this ID (**00001770** in this example) represents the database ID while the right part (**00000016** in this example) represents the previous file system batch ID.

16. Wait until the RTS instance has completed processing all file system batches at the state specified in step 11.
17. Stop the RTS instance.
18. Repeat steps 10 – 17 for all remaining states in your file system batch list, until all file system batches have been migrated to the Forms Recognition database.

As already mentioned above, in case of two different states, two different database batches will be created. The different parts of the originally one single batch can be easily found by its batch name using the **WHERE** text field. If you want to display all the parts for batch 16, type in a search request with the following syntax:

- **batch.name like '%_16'**

If you switch to the file system RTS instance, the file system batch still shows the original number of documents even if a part of the documents have already been exported. The exported documents are still part of the batch. However, after export they are at a higher state according to the output state you defined for database export.

4.13 Transliteration Differences

Transliteration is an advanced feature that is not commonly used in projects. The transliterated text of extended languages, such as Russian, was incorrectly changed in version 11.1.1.8.0 when the project setting **Use multi-byte encoding** was enabled. Projects using transliteration built in version 11.1.1.8.0 may require a correction to utilize the correct transliterated texts in later versions.

For example, the Russian word for "Invoice" was incorrectly transliterated to "Sqet" in version 11.1.1.8.0, but in WebCenter Forms Recognition version 12.2.1.4.0, it is correctly transliterated to "SChET".