

## **Oracle® Fusion Middleware**

Oracle WebCenter Forms Recognition Solution Configuration  
Manager Installation Guide 1.3

12c (12.2.1.4.200714)

**F33202-02**

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Describes how to install the Solution Configuration Manager

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# **1 Oracle WebCenter Forms Recognition 12c (12.2.1.4.200714) Solution Configuration Manager Overview**

Oracle WebCenter Forms Recognition Solution Configuration Manager (WFRSCM) is a web-based application for the administrators of WebCenter Forms Recognition. This application enables you to configure and manage the database for the different AP packaged solutions. You can manage a database from an Internet browser by entering the Forms Recognition Solution Configuration Manager URL. The Solution Configuration Manager saves the changes you make and creates migration packets. Migration packets can be exported and then be imported to other environments. For instance, you can migrate these packets between test and production environments.

An initial installation of Solution Configuration Manager requires that you complete several tasks in order. The installation information in this guide assumes that you are installing Solution Configuration Manager for the first time.

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## 2 Solution Configuration Installation Process

### 2.1 Preparation

The following steps outline the high-level procedures for installing and configuring Solution Configuration Manager:

- Confirm installation of software prerequisites
- Ensure you have enough disk space for the executables
- Enable Management Services in IIS

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## 3 System Requirements

### 3.1 Operating Systems

You must install and configure one of the following operating systems before you install Solution Configuration Manager:

- Microsoft Windows 10
- Microsoft Windows Server 2008 R2
- Microsoft Windows Server 2012 R2
- Microsoft Windows Server 2016

### 3.2 Database

The Solution Configuration Manager module requires central management of project data in a database. The Solution Configuration Manager database is certified to run on the following database platforms:

- Microsoft SQL Server 2008 R2
- Microsoft SQL Server 2012
- Microsoft SQL Server 2014
- Microsoft SQL Server 2016
- Oracle 11g

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**Note:** To be able to install SCM 1.3 on an Oracle 11g database, you'll need to install Oracle Client 12c on the SCM server.

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- Oracle 12c

### 3.3 Software

You must install the following software applications before you install the SCM on your machine:

- Internet Information Server 7 or later
- .NET Framework 4.6
- .NET Extensibility 3.5
- ASP.NET 3.5

### 3.4 Internet Information Server

Prior to installing Solution Configuration Manager, you must install Microsoft IIS according to the instructions provided on the Microsoft website. Refer to the Solution Configuration Manager Technical Specifications Guide for more information about supported versions of IIS, as well as any other prerequisite for this product.

During the installation of IIS, make sure that you install the following Role Services:

- Static Content
- Default Document
- Directory Browsing

- HTTP Errors
- ASP.NET
- .NET Extensibility
- HTTP Logging
- Request Monitor
- Management Service

For more information on installing and configuring IIS, refer to the Microsoft documentation.

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**Note:** If the *Import Application* option is missing in IIS, refer to the link:  
<https://social.technet.microsoft.com/wiki/contents/articles/9650.correct-the-import-application-option-missing-in-iis-manager.aspx>

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### 3.5 Internet Browsers

The Solution Configuration Manager application is certified to use the following internet browsers:

- Internet Explorer 9 and later
- Google Chrome
- Mozilla Firefox
- Microsoft Edge

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## 4 Install Solution Configuration Manager

The following sections define the steps required to install the Solution Configuration Manager.

### 4.1 Configure Database Checklist

You configure the database checklist depending on your operating system.

#### 4.1.1 SQL Server Database

You must create the following database accounts before installing Solution Configuration Manager:

- An Administrative database account with create, modify, and delete rights in the database tables. You can use windows authentication if you have administrator rights to the database server.
- A User database account to be used by Solution Configuration Manager with administrative rights to add, modify, and delete data. You can use windows authentication if your installation has the appropriate rights to the database server.

#### 4.1.2 Oracle Database

You must complete the following tasks before installing Solution Configuration Manager:

1. Create an ORACLE instance for Solution Configuration.
2. Create a user for Solution Configuration Manager with a password.
3. Assign rights to the user:
  - a. Allow increased growth of data
  - b. Allow insertion, modification, and deletion of data
  - c. Allow creation of database entities
4. Create an administrative database account with create, modify, and delete rights in the database tables. You can use windows authentication if you have administrator rights to the database server.
5. Create a database account to be used by Solution Configuration Manager with administrative rights to add, modify, and delete data. You can use windows authentication if your installation has the appropriate rights to the database server.



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## 5 Installation Steps

You can install the Solution Configuration Manager manually by following the procedure defined below:

### 5.1 Create Database Objects

After creating a new database on your server, complete the following steps to install and configure the database manually:

1. Download WFR12214200714.zip and extract it to *[Downloads]\WFR12214200714\*
2. The Solution Configuration Manager is located at *[Downloads]\WFR12214200714\Solution Configuration Manager 1.3.zip*.
3. Extract the Solution Configuration Manager 1.3.zip to a directory of your choice. It would look like *[<ExtractedFolderLocation>\Solution Configuration Manager 1.3\*.
4. Launch Windows Explorer and navigate to *[<ExtractedFolderLocation>\Solution Configuration Manager 1.3\DatabaseScripts*  
There are two folders, SQLServer and Oracle. Each folder contains database scripts to execute which will create the tables, views, indexes, and default data values.
5. Run the database script for your installed database server to create the appropriate values.
6. Verify that the database tables have been created correctly and no errors were reported during execution of the database scripts.

### 5.2 Configure Internet Information Server

You need to install the Microsoft Internet Information Server before installing Solution Configuration Manager using the settings outlined in the Internet Information Server section of this document.

#### 5.2.1 Creating the Application/Web Site

Create a new application with the following settings:

1. In IIS Manager, click **Import Application...** and then browse to the *[<ExtractedFolderLocation>\Solution Configuration Manager 1.3\WFRSCMWeb.zip* and then click **Next**.
2. Click **Next** on the **Select the Contents of the Package** page.
3. Click **Next** on the **Enter Application Package Information** page.
4. Create an application pool or change **DefaultAppPool** with the following advanced properties:
  - a. Enable 32-bit applications = **True**
  - b. Managed pipeline mode = **Integrated**
  - c. Identity is set to **NetworkService**

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**Note:** The AppPool identity user **MUST** have a permission to modify the web application's physical path and migration packet share(s). If appropriate permissions are not set, connection string passwords will be stored in plain text in the *web.config* file.

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5. On the **Connections** pane, right-click **WFRSCMWeb** and then **Manage Application > Advanced Settings...**
  - a. Assign the application pool configured earlier so that the application can run under 32-bit mode.
  - b. Provide the **Physical Path Credentials**. Set the user credentials. Prefix with [`<domain>\`]`<username>` if domain is required, for example: `domain\user`.

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**Note:** This will make sure the **WFRSCMWeb** will run with the configured user.

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- c. Click **OK** to save the changes.
6. If your installation is on Windows 2008 R2, disable DEP with following command:

```
bcdedit.exe /set {current} nx AlwaysOff
```

## 5.2.2 Directory Security

- Provide the modify permissions to the configured user (the same user configured on the previous step) on the WFRSCMWeb physical folder. The WFRSCMWeb deployed directory is located at [%SystemDrive% \inetpub \wwwroot] \WFRSCMWeb.
- If the Migration Packets are configured on a Network Share, then provide the modify permissions to the configured user on the Network share where the Export and Import Packet will occur. Refer to *Solution Configuration Manager User Guide* for more information about Migration Packets.

## 5.2.3 Configure Forms Authentication

The Solution Configuration Manager allows you to log in with your Forms Recognition user account. In this case, Solution Configuration Manager authenticates the username and password against the Forms Recognition database. The user must be assigned the ADM role within the Forms Recognition project to be able to access the Solution Configuration Manager. There are no additional steps required to enable Forms Authentication.

## 5.2.4 Configure Windows Authentication

The Solution Configuration Manager allows you to log in with your Windows user account. In this case, the password shared with Windows is used to log in to Solution Configuration Manager. A check against the AP Project Database is performed to ensure the Windows user has been assigned the ADM role within the project so the user can access the Solution Configuration Manager.

To use this option, you first need to configure the IIS server.

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**Note:** Only Windows Authentication access will be possible after this is configured.

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### 5.2.4.1 Configure Windows Authentication for IIS

Before you begin configuring IIS, make sure that the Configurator application is working properly and back up the web.config file.

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**Note:** Refer to Microsoft Website for configuring Windows Authentication access within IIS.

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To configure the Windows Authentication access to Solution Configuration Manager with IIS:

1. Open the **Authentication** application settings in IIS group.
2. Enable **Windows Authentication** and disable all other authentication methods.
3. Close all of the running browser sessions prior to access the Configurator application.

#### 5.2.4.2 Windows Authentication Changes to Web.config

It is highly recommended to have two versions of the web.config file - one for standard authentication and one for Windows Authentication. This will simplify switching between modes.

The following list shows required steps to convert a standard web.config file to a web.config file with Windows Authentication enabled.

1. Change the `<authentication>` section (located in the `<configuration><system.web>` directory) to `<authentication mode="Windows">`.
2. Remove the line: `<forms loginUrl="Login.aspx" defaultUrl="ConfigureProject.aspx" />`. This is a child of the `<authentication>` section and is needed for standard authentication.
3. Change the `<authentication>` (located in the `<configuration><system.web>`) from 'deny' to 'allow': `<authorization> <allow users="*" /> </authorization>`

#### 5.2.5 Post Installation Configuration

The following sections define the steps that let you configure the Solution Configuration Manager.

##### 5.2.5.1 Configure Database Connections in Web.config

1. In IIS, right click **WFRSCMWeb** and click **Explore**.
2. Navigate to the `web.config` file via Notepad.
3. Search for the connection string in the file - `<connectionStrings>`.
4. Modify the connection strings to connect to the databases. (The "SCM" connection string should point to the Solution Configuration Manager database, and the "PIC" connection string should point to the Forms Recognition database.) Passwords entered within the Web.config connection string will be encrypted upon the start of the Solution Configuration Application and stored as encrypted text within the Web.config file.

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**Note:** Replace the placeholder values for the server name, configurator, user ID, password, and database name with actual values, wherever applicable.

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An Example for SQL Server Database:

```
<connectionStrings>
  <add name="PIC" connectionString="Data Source=SQLServerName;Initial
Catalog=configurator;Integrated Security=False;User ID=User ID;Password=
Password;MultipleActiveResultSets=True"
providerName="System.Data.SqlClient" />

  <add name="SCM" connectionString="Data Source=SQLServerName;Initial
Catalog=Intelligent Capture database name;Integrated Security=False;User
ID=User ID;Password=Password;MultipleActiveResultSets=True"
providerName="System.Data.SqlClient" />
</connectionStrings>
```

An Example for Oracle Database:

```
<connectionStrings>
<add name="PIC" connectionString="USER ID=USER ID; PASSWORD=PASSWORD; DATA
SOURCE=HOSTNAME[:1521]/ServiceName; PERSIST SECURITY INFO=True"
providerName="Oracle.ManagedDataAccess.Client" />

<add name="SCM" connectionString="USER ID=USER ID; PASSWORD=PASSWORD; DATA
SOURCE= HOSTNAME[:1521]/ServiceName ; PERSIST SECURITY INFO=True"
providerName="Oracle.ManagedDataAccess.Client" />
</connectionStrings>
```

### 5.2.5.2 Accessing the Solution Configuration Manager Web Application

To access the Solution Configuration Manager Web Application, complete the following steps:

1. Open a supported Web Browser application.
2. Enter the URL `http://<host>[:port]/WFRSCMWeb` in the address bar.

### 5.2.5.3 Deploying a Project Package

Solution Configuration Manager-supported projects are deployed into the application by uploading the appropriate package. Packages are named `SCM_ProjectNameandVersion_PackageBuildNumber`. For instance, the first Package delivered for AP Project version 2.8 is named `SCM_PIC12.8_001.zip`. It is located at `[<ExtractedFolderLocation>]\Solution Configuration Manager 1.3\`. This package contains the control file that Solution Configuration Manager uses to display the project's configuration options along with Help Text for the project's configurable options. To upload a package, follow these steps:

1. Log in to Solution Configuration Manager.
2. Select **Manage Project Configuration > Manage Existing Package** from the menu bar.
3. Click **Browse** and select the package Zip file you want to add.
4. Select the **Is Active** check box to make the project active upon deployment.
5. Click **Add New Package**.  
A message that the package has been deployed is displayed. The new package now displays in the **Existing Packages** table.

### 5.2.5.4 Managing Database Connections

Solution Configuration Manager needs access to the configuration database of the AP projects (the database or schema created at the time of AP Project 2803 installation). These connection settings should be configured for each project you wish to configure. To configure database connections:

1. Log in to Solution Configuration Manager.
2. Select **Manage Project Configuration > Manage Database Connections** from the menu bar.
3. Enter a database connection number (this can be any integer from 1 to 999999999, but it is suggested to start with 1).
4. Select a Provider Type (SQL Server or Oracle).
5. Configure the appropriate columns for the provider selected (**Server Name, Database Name** (SQL Server only), **Username/Password** or **Integrated Security**).

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**Note:** For Oracle Database, the **Server Name** will be in this format  
HostName[:Port]/ServiceName

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6. To test the connection settings, click **Test Connection**.
7. Click **Close** in the Connection Status dialog and click the **Insert** hyperlink next to the **Test Connection** button to add the connection number to the list of available connections.

#### 5.2.5.5 Adding a Project

Now that a package is deployed and a database connection group is available, you can add your project to the Solution Configuration Manager's table of available projects. To add a project, complete the following steps:

1. Log in to Solution Configuration Manager.
2. Select **Manage Project Configuration** from the menu bar.
3. Enter a **Project Name** (This name does not have to align with the actual project file name, but should be easily recognizable by all project administrators, for example, "Invoices").
4. Select a **Package** and **Version** from the drop-down lists and select the **Connection Group** assigned to the project's configuration database.
5. Set the **Active** flag according to whether you want the project to appear within **Configure Project**.
6. Click **Insert** to add the project.

#### 5.2.5.6 Restart the Internet Information Server

After adding a package, you need to restart the IIS server that hosts the Solution Configuration Manager. This enables you to view the updates that the package brings into the project.

When the IIS server starts, the display text table is cached locally. So, the updates made to this table are not displayed even if you refresh the login session after adding the package. To view the changes to the display text in the Solution Configuration Manager user interface, you must restart the IIS server.

### 5.3 Migration Packet Share Path

[Optional] Solution Configuration Manager saves each configuration change into a migration packet. These packets can be exported to a network share and then imported to another system from the share. Configuration of the Share path is controlled within the web.config file. To configure the Share path:

1. In IIS, right click **WFRSCMWeb** and click **Explore**.
2. Navigate and open the *web.config* file via Notepad.
3. Search for `<add key="DefaultImportPath" and <add key="DefaultExportPath"`.
4. Modify the Import and Export path values to your network share.
5. Save the *web.config* file.

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## 6 Troubleshooting

### 6.1 Database Connectivity

The trace.log is generated at [C:\]inetpub\wwwroot>\WFRSCMWeb. Check the following error and take the recommended action:

Error: *System.ArgumentException: Unable to find the requested .Net Framework Data Provider. It may not be installed.*

Solution: Download and extract the *Managed ODP.NET* ODAC XCopy version of ODAC Runtimes from Internet. Open the command prompt as an administrator and run the following command on the extracted directory for Installation:

```
install_odpm.bat c:\oracle x86 true
```

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Note: If the trace.log file is not getting generated, then try changing the value from <level value="ALL" to <level value="DEBUG" /> in [C:\]inetpub\wwwroot>\WFRSCMWeb\web.config

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## 7 Frequently Asked Questions (FAQ)

This section contains frequently asked questions and solutions to them.

### 7.1 Can SCM 1.3 be installed on an Oracle 11g database?

Yes. However, to be able to install SCM1.3 on an Oracle11g database, you must install Oracle Client 12c on the SCM server.

### 7.2 Can the SCM Installer be used to automatically install or deploy AP Project Solution packages?

No, once SCM is installed, Solution SCM Packages can be deployed using the existing capability within SCM. This helps in removing any dependencies or requirements to deploy solution packages as part of the SCM installation process.