Oracle® Fusion Middleware

Oracle WebCenter Forms Recognition
Solution Configuration Manager Installation
Guide 2.0

14c (14.1.1.0.0)

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Describes how to install the Solution
Configuration Manager

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Oracle Fusion Middleware Oracle WebCenter Forms Recognition Solution Configuration Manager Installation Guide 2.0, 14c (14.1.1.0.0)

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WebCenter Forms Recognition Solution Configuration Manager Overview

The WebCenter Forms Recognition Solution Configuration Manager (WFRSCM) is a web-based application for the administrators of WebCenter Forms Recognition. This application allows you to configure and manage the database for the different packaged solutions delivered by Oracle. You can manage a database from an Internet browser by entering the Solution Configuration Manager URL. The WebCenter Forms Recognition Solution Configuration Manager saves the changes made and creates migration packets. Migration packets can be exported and then be imported to other environments, for example, from Test to Production.

An initial installation of Solution Configuration Manager requires that you complete several tasks in order. The following installation information assumes that you are performing an initial installation of Solution Configuration Manager.

WebCenter Forms Recognition Solution Configuration Manager Installation Process

Prepare to install

The following steps outline the high-level procedures that you need to perform to install and configure Solution Configuration Manager and the information you need to verify before the installation.

Perform and verify the following procedures during the installation process.

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

System Requirements

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 2016
- Microsoft Windows Server 2019

WebCenter Forms Recognition Solution Configuration Manager 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.

- Oracle 11g

  Note: To be able to install SCM 2.0 on an Oracle 11g database, you will need to install Oracle Client 12c on the SCM server.

- Oracle 12c

- Oracle 19c

- Microsoft SQL Server 2012

- Microsoft SQL Server 2014

- Microsoft SQL Server 2016

  Note: Every installation of Oracle requires to be configured for odp.net4 and Oracle Database Access Components (ODAC) for the installed Oracle client.

Software

You must install the following software applications before you install the application on your machine.

- Internet Information Server 7

- .NET Framework 4.6

- .NET Extensibility 3.5

- ASP .NET 3.5

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 *Oracle WebCenter Forms Recognition Solution Configuration Manager Technical Specifications* document for information about supported versions of IIS, as well as any other prerequisite for this product.

During the installation of IIS 7, 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.

Note: If the Import Application option is missing in IIS, download and install Web Deploy
https://www.iis.net/downloads/microsoft/web-deploy

Internet browsers

The Solution Configuration Manager application is certified to use the Google Chrome browser.

Oracle Managed Data Access Component (ODAC)

Oracle Data Access Components (ODAC) are a set of Windows and .NET data access drivers and tools. They include support for .NET data access, Microsoft Visual Studio tools for developing Oracle database applications; and ASP.NET providers. ODAC provides comprehensive client support for advanced Oracle database functionality, including performance, high availability, and security, among other features.

Solution Configuration Manager requires **Managed** ODAC Driver to access Oracle database. ODP.NET, Managed Driver is a 100% native code .NET Framework driver for Oracle Database. No additional Oracle Client software is required to be installed to connect to Oracle Database. Visit https://www.oracle.com/database/technologies/appdev/dotnet/odp.html for more information.

Download and install the ODP.NET, Managed Data Access Driver from https://www.oracle.com or from https://www.nuget.org/packages/Oracle.ManagedDataAccess as per the target database.

Note:

- For example: On an Oracle 12c database installation, search for *ODP.NET, Managed Driver Xcopy version only* or ODP.NET_Managed_ODAC122cR1.zip at https://www.oracle.com/database/technologies/odac-nuget-downloads.html. To install ODAC, open the command prompt as an administrator and run the following command on the extracted directory.

  install_odpm.bat c:\odac_12c_managed both true

Install WebCenter Forms Recognition Solution Configuration Manager

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

Configure database checklist

You configure the database checklist depending on your operating system.

WebCenter Forms Recognition Solution Configuration Manager Oracle checklist

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.
    1. Allow increased growth of data.
    2. Allow insertion, modification, and deletion of data.

3. 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 database account used by Solution Configuration Manager with administrative rights to add, modify, and delete data. You can use windows authentication if you are installation has the appropriate rights to the database server.

Solution Configuration Manager SQL server checklist

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

- 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.

- User database account 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.

Upgrade Procedure

Pre-Upgrade

It is important to take the backup of WFRSCM webapp configuration by taking either notes or screenshots of the database connections, package information and the number of AP Projects defined. Also make sure all the pending changes to AP Project(s) are either committed or backed up in the form of packets.

Note: The Upgrade process will **DELETE (or recreate) the existing WFRSCM database schema** and with it all the configurations defined in WFRSCM webapp will be **LOST**, so it is very important to take the backup as mentioned earlier. Also note that the Solution Configuration Manager upgrade does not affect the AP Project database schema(s).

Upgrade

The WebCenter Forms Recognition Solution Configuration Manager is a tool to configure AP Project. The following steps will drop the previous WFRSCM database objects and recreate them. You would need to reconfigure the Configuration Manager packages, database connections and AP Project(s) later.

You can upgrade/replace a previous version of Solution Configuration Manager by following the procedure defined below:

1. Create Database Objects as mention in Installation Steps. Run the SQL script multiple times until it is completed successfully.

2. Stop the IIS server.

3. In IIS Manager, click **Default Web Site** and then click **Import Application** and then browse to the [<ExtractedFolderLocation>]\Solution Configuration Manager 2.0\WFRSCMWeb.zip and then click **Next**.

4. Click **Next** on the **Select the Contents of the Package** page.

5. Click **Next** on the **Enter Application Package Information** page.

6. On the **Overwrite Existing Files** page, Select **Yes, delete all extra files and folders on the destination that are not in application package**, then click **Next**.

7. Reconfigure the Web.config as mentioned in the subsequent section "*Configure Database Connections in Web.config*".

8. Start the IIS Server.

9. Clear the Internet Browser cache.

Post-Upgrade

Recreate the WFRSCM webapp configuration from the backed-up notes or screenshots.

Installation Steps

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

Create Database Objects

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

1. Extract the Solution Configuration Manager 2.0.zip to a directory of your choice. It would look like [<ExtractedFolderLocation>]\Solution Configuration Manager 2.0\.

2. Launch Windows Explorer and navigate to [<ExtractedFolderLocation>]\Solution Configuration Manager 2.0\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.

3. Run the database script for your installed database server to create the appropriate values.

    Warning: The database script will drop the existing Solution Configuration Manager schema and create a fresh schema required for SCM 2.0. The Solution Configuration Manager is just a configuration tool for AP Project.

4. Verify that the database tables have been created correctly and no errors were reported during execution of the database scripts.

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.

Creating the Application/Web Site

Create a new application with the following settings:

1. In IIS Manager, click **Default Web Site** and then click **Import Application** and then browse to the [<ExtractedFolderLocation>]\Solution Configuration Manager 2.0\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**

   Note: You can use the built-in account which is selected by default or create a custom account. The AppPool identity user must have modify permission on 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 or not encrypted text in the web.config file.

   d. On the Connections pane, right-click WFRSCMWeb and then Edit Permissions... > Security. Add/Edit the user/group added in previous step (or **NetworkService**) to have full control or modify permissions on the directory.

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.

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

   c. Click **OK** to save the changes.

6. Restart the IIS server.

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.

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.

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.

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

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.

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

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.

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>

4. Restart the IIS Server.

Post Installation Configuration

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

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.

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

    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. If you select a database date format that is different from the one that is default, you must also set the *EffectiveDateFormat* setting in the web.config file accordingly.

6. Restart the IIS Server.

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.

Troubleshooting

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.
```

Refer to Section Oracle Data Access Component.

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