Oracle® Fusion Middleware

Repository Creation Utility User's Guide

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Oracle Fusion Middleware Repository Creation Utility User's Guide 11*g* Release 1 (11.1.1)

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Contents

Preface

The *Oracle Fusion Middleware Repository Creation Utility User's Guide* contains overview information and usage instructions for Oracle Repository Creation Utility (RCU).

Intended Audience

This guide is intended for users who are installing Oracle Fusion Middleware 11*g* Release 1 (11.1.1) products for the first time and are comfortable running some system administration operations, such as creating users and groups, adding users to groups, and installing operating system patches on the computer where Oracle Fusion Middleware 11*g* Release 1 (11.1.1) products will be installed. Users on UNIX systems need `root` access to run some scripts.

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Related Documents

For additional information, see the following manuals:

- *Oracle Fusion Middleware Installation Planning Guide*
- *Oracle Fusion Middleware Administrator's Guide*
- *Oracle Fusion Middleware High Availability Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Repository Creation Utility Overview

Many of the Oracle Fusion Middleware components require the existence of schemas in a database prior to installation. These schemas are created and loaded in your database using the Repository Creation Utility (RCU).

This chapter contains the following content:

- Section 1.1, "RCU System and Database Requirements"
- Section 1.2, "RCU Features"
- Section 1.3, "Using RCU with Java Access Bridge (Windows Only)"

1.1 RCU System and Database Requirements

This section contains links to important information about supported platforms for RCU, certified databases, and database configuration information. Read this information carefully before you obtain and run RCU.

1.1.1 Supported Platforms

To see the platforms on which you can run RCU, review the "RCU Supported Platforms" section in the *Oracle Fusion Middleware System Requirements and Specifications* document, located on the following page:

`http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html`

1.1.2 Finding a Certified Database

For a list of certified databases that can be used with RCU, refer to the *System Requirements and Supported Platforms for Oracle Fusion Middleware 11gR1* document, located on the following page:

`http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html`

See the **Current System Certification** tab for Oracle databases, or the **Non Oracle DBs Certification** tab for third-party databases.

1.1.3 Configuring Your Database

Before you begin using RCU, review the "Repository Creation Utility (RCU) Requirements" section in the *Oracle Fusion Middleware System Requirements and Specifications* document, located on the following page:

http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html

This section contains important information about general and component-specific database requirements that should be met before you run RCU.

Note that not all schemas are supported on all databases. Make sure you have read the information in this section carefully so that you configure a certified database that supports the schemas you need for your Fusion Middleware components.

1.1.4 Important Information for IBM DB2 Databases

In addition to the typical space and configuration database requirements, IBM DB2 databases also have the following special requirements:

- On IBM DB2 databases running on Linux operating systems, there is a limitation with regards to the length of the schema names.
- One database operating system user must be created for each schema that is created in an IBM DB2 database.

For more information, refer to the "RCU Prerequisites for IBM DB2 Databases" section in the *Oracle Fusion Middleware System Requirements and Specifications* document:

http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html

1.2 RCU Features

Repository Creation Utility is a graphical and CLI-based tool used to create and manage Oracle Fusion Middleware database schemas.

Some key features of RCU are listed below:

- Creating Custom Schemas and Tablespaces
- Launching RCU with a Variety of Methods
- Checking Global and Component Level Prerequisites
- Integrating Components Using Declarative XML

1.2.1 Creating Custom Schemas and Tablespaces

RCU provides the flexibility to create custom schemas and tablespaces. You can choose to rename schemas, or change the tablespace allocation so that components can share a single or multiple tablespaces. In addition, auxiliary schemas can be mapped to additional tablespaces.

1.2.1.1 Creating Schemas in Multiple Databases

You can choose to create all the schemas in a single database or distribute them throughout multiple databases.

1.2.1.2 Using Custom Prefixes

You can use RCU to create multiple schemas of each component using custom prefixes.

The prefix is prepended to and separated from the schema name with an underscore (_) character, as shown below:

prefix_schemaname

The default prefix used by RCU is DEV; if DEV has already been used, then RCU will default to DEV1, then DEV2, and so on. Prefixes are used to create and organize logical groups of schemas. For example, you may want to create a test version of the Metadata Services (schema name MDS) called TEST_MDS; then, when are ready for your production version, you can create a second version of the schema called PROD_MDS. Both TEST_MDS and PROD_MDS may reside on the same or separate databases.

> **Note:** The Oracle Internet Directory (ODS) component cannot be prepended with a custom prefix; there can only be one repository for this component per database.

You are only allowed to use a prefix once per schema within a single database. For example, if you had a version of the Metadata Services schema called DEV_MDS, then you can not use the DEV prefix again to create another version of the Metadata Services schema (for example, DEV_MDS2).

If you want to create another version of the schema using the same prefix, you must first drop the existing schema and then create the schema again.

The mapping between the prefixes and schemas is maintained in schema_version_registry.

1.2.1.3 Using Custom Prefixes in IBM DB2 Databases

For important information regarding custom prefixes in IBM DB2 databases, refer to "Size Limit for Schema Prefixes" in the *Oracle Fusion Middleware System Requirements and Specifications* document:

http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html

1.2.1.4 What Happens When a Schema is Created?

The following sequence takes place when a schema is created with RCU:

1. Prior to the schema being created, RCU performs global and component level prerequisite checks to ensure that certain minimum requirements are met.
2. The schemas are created; the required tablespaces and data files are created.
3. The schema_version_registry table is updated so that the schema type is mapped to the actual schema name (for example, TEST_MDS might be mapped to the MDS Schema type).
4. The scripts provided by the various component owners are invoked; these scripts perform the following:
   a. Create the user and grant the required roles.
   b. Run ALTER SESSION SET CURRENT SCHEMA to switch the schema to user context.
   c. Create the schema objects.

1.2.2 Launching RCU with a Variety of Methods

RCU can be run locally (from the CD or download location) or remotely. In either case, both a graphical interface and command line (CLI) options are available.

1.2.2.1 Launching RCU Locally

In situations where the application administrator is not allowed to install components on the server, RCU can be started directly from the CD. The CD contains the extracted Oracle Client software and RCU uses SQLPLUS and other scripts and libraries from the CD to perform its operations.

When RCU is launched from the CD, log files are written to the user's `TEMP` directory.

If the administrator is allowed to install components, then RCU can be downloaded and the archive file can be extracted to a local directory.

1.2.2.2 Launching RCU Remotely

In situations where a database is not accessible locally for application administrators, RCU can be launched against a remote database. The SQLNET client is packaged with RCU to support this operation.

1.2.2.3 Launching RCU in Silent Mode (Using the CLI)

RCU provides a command line interface in situations where Xserver is not available or you have access to telnet terminals without display capabilities. The command line interface also allows you to embed RCU from command line scripts or with some Oracle Fusion Middleware components (for example, Enterprise Manager).

For more information using the CLI, see Chapter 4, "Running Repository Creation Utility from the Command Line".

1.2.3 Checking Global and Component Level Prerequisites

At runtime, RCU performs checks against both global and component level prerequisites. If a prerequisite is not met, RCU may issue a warning and allow the procedure to continue (soft stop), or will notify the user that a prerequisite must be met before the operation can continue (hard stop).

For more information about component level prerequisites see "Repository Creation Utility (RCU) Requirements" in the *Oracle Fusion Middleware System Requirements and Specifications* document:

`http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html`

1.2.4 Integrating Components Using Declarative XML

RCU provides extensibility with XML DTDs. Using these DTDs, component owners can integrate their components and prerequisites with RCU by providing a configuration file that adheres to the provided DTD.

For more information, refer to Chapter 3, "Extending Repository Creation Utility to Configure Custom Application Repositories".

1.3 Using RCU with Java Access Bridge (Windows Only)

Java Access Bridge enables assistive technologies, such as JAWS screen reader, to read Java applications running on the Windows platform. Assistive technologies can read Java-based interfaces, such as Oracle Universal Installer and Oracle Enterprise Manager.

1.3.1 Install Java Access Bridge

To install Java Access Bridge:

1. Download Java Access Bridge from the following URL:

   `http://java.sun.com/javase/technologies/accessibility/accessbridge/`
2. Install Java Access Bridge.
3. Copy the `access-bridge.jar` and `jaccess-1_4.jar` from your installation location to the `jre\lib\ext` directory.
4. Copy the `WindowsAccessBridge.dll`, `JavaAccessBridge.dll`, and `JAWTAccessBridge.dll` files from your installation location to the `jre\bin` directory.
5. Copy the `accessibility.properties` file to the `jre\lib` directory.

1.3.2 Configure RCU to Use Java Access Bridge

To configure RCU to use Java Access Bridge after you complete the installation, set the system variable `ORACLE_OEM_CLASSPATH` to point to the installed Java Access Bridge files:

1. Display **System** in the Control Panel.
2. Select the **Advanced** tab.
3. Click the **New** button under the System Variable list. The New System Variable dialog appears.
4. In the Variable Name field, enter `ORACLE_OEM_CLASSPATH`.
5. In the Variable Value field, enter the full path to `access-bridge.jar` and `jaccess-1_4.jar`.

   Use a semicolon to separate the two paths. Do not use quotes or character spaces.
6. Click **OK**.

2

Obtaining and Running Repository Creation Utility

This chapter describes how obtain RCU, then run RCU to create and drop schemas using both the graphical interface and command line interface.

The following topics are covered:

- Section 2.1, "Before You Begin"
- Section 2.2, "Required Schemas and Dependencies"
- Section 2.3, "Obtaining RCU"
- Section 2.4, "Starting RCU"
- Section 2.5, "Creating Schemas"
- Section 2.6, "Dropping Schemas"
- Section 2.7, "Creating the Portal Demo Schema"

2.1 Before You Begin

Before you begin, make sure you have read Section 1.1, "RCU System and Database Requirements". You should have a properly configured certified database that is up and running before you continue.

2.2 Required Schemas and Dependencies

This section lists the required schemas and their dependencies for Oracle Fusion Middleware components. Before you run RCU, you should make a note of the schemas you will need to create.

- Oracle SOA Suite Schemas
- Oracle WebCenter Schemas
- Oracle Application Developer Schema
- Oracle Identity Management Schemas
- Oracle Data Integrator Schema
- Oracle Business Intelligence Schemas
- Oracle Portal, Forms, Reports and Discoverer Schemas
- Oracle Enterprise Content Management Suite Schemas

2.2.1 Oracle SOA Suite Schemas

Table 2–2 lists the Oracle SOA Suite schemas and their supported databases.

Table 2–1 Oracle SOA Suite Schemas and Supported Databases

Component	Supported Databases
SOA Infrastructure	Oracle, Microsoft SQL Server, IBM DB2
Business Activity Monitoring	Oracle
User Messaging Service	Oracle, Microsoft SQL Server, IBM DB2

Table 2–2 lists the required schemas and dependencies for Oracle SOA Suite products on Oracle and Microsoft SQL Server databases:

Table 2–2 Required Schemas for Oracle SOA Suite Products on Oracle and Microsoft SQL Server Databases

Component	Schema Owner	Dependencies
SOA Infrastructure	*prefix*_SOAINFRA	*prefix*_MDS (Metadata Services) *prefix*_ORASDPM (User Messaging)
Business Activity Monitoring	*prefix*_ORABAM	*prefix*_MDS (Metadata Services) *prefix*_ORASDPM (User Messaging)
User Messaging Service	*prefix*_ORASDPM	*prefix*_MDS (Metadata Services)

Note: On Oracle databases, if you create schemas with a database user other than SYS or SYSTEM, you must grant that user the following AQ roles and privileges to successfully load the *prefix*_SOAINFRA schema:

```
GRANT ALL ON dbms_aqadm TO new_user WITH GRANT OPTION;
GRANT ALL ON dbms_aq TO new_user WITH GRANT OPTION;
```

Table 2–3 lists the required schemas and dependencies for Oracle SOA Suite products on IBM DB2 databases:

Table 2–3 Required Schemas for Oracle SOA Suite Products in IBM DB2 Databases

Component	Schema Owner	Dependencies	Required Operating System Users
SOA Infrastructure	*prefix*_SOA	*prefix*_MDS (Metadata Services) *prefix*_UMS (User Messaging)	*prefix*_soa *prefix*_mds *prefix*_ums
User Messaging Service	*prefix*_UMS	*prefix*_MDS (Metadata Services)	*prefix*_ums *prefix*_mds

2.2.2 Oracle WebCenter Schemas

All of the Oracle WebCenter schemas are supported on all certified databases.

Table 2–4 lists the required schemas and dependencies for Oracle WebCenter products on Oracle and Microsoft SQL Server databases:

Table 2–4 Required Schemas for Oracle WebCenter Components on Oracle and Microsoft SQL Server Databases

Component	Schema Owner	Dependencies
WebCenter Spaces	*prefix*_WEBCENTER	*prefix*_MDS (Metadata Services)
Portlet Producers	*prefix*_PORTLET	None.
Discussions	*prefix*_DISCUSSIONS	None.
Activity Graph and Analytics	*prefix*_ACTIVITIES	None.

Table 2–5 lists the required schemas for Oracle WebCenter components for IBM DB2 databases:

Table 2–5 Required Schemas for Oracle WebCenter Components on IBM DB2 Databases

Component	Schema Owner	Dependencies	Required Operating System Users
WebCenter Spaces	*prefix*_WC	*prefix*_MDS (Metadata Services)	*prefix*_wc *prefix*_mds
Portlet Producers	*prefix*_PT	None.	*prefix*_pt
Discussions	*prefix*_DS	None.	*prefix*_ds
Activity Graph and Analytics	*prefix*_AG	None.	*prefix*_ag

If you are an application developer and want to build WebCenter Portal applications, you must run RCU a second time to create a second version of the WebCenter (*prefix*_WEBCENTER on Oracle and Microsoft SQL Server databases or *prefix*_WC on IBM DB2 databases) schema. Note that this schema is separate from the WebCenter schema used by Oracle WebCenter Spaces, so you should make sure you use a different schema prefix. For information about the WebCenter services that require the WebCenter schema, see Table 5-1 in *Oracle Fusion Middleware Installation Guide for Oracle WebCenter*.

2.2.3 Oracle Application Developer Schema

Oracle Application Developer includes Oracle WSM Policy Manager and Oracle WSM-PM Extension. These components require that the Metadata Services (MDS) schema exists in your database prior to installation.

On all databases, you must create the schema *prefix*_MDS. On IBM DB2 databases, you must also create the operating system user *prefix*_mds.

2.2.4 Oracle Identity Management Schemas

Oracle Identity Management schemas are not supported on Microsoft SQL Server or IBM DB2 databases.

Table 2–6 lists the required schemas and dependencies for Oracle Identity Management products on Oracle databases:

Table 2–6 Required Schemas for Oracle Identity Management Components on Oracle Databases

Component	Schema Owner	Dependencies
Oracle Internet Directory	ODS	None.
Oracle Identity Federation	*prefix*_OIF	None.
Oracle Identity Manager	*prefix*_OIM	*prefix*_MDS (Metadata Services) *prefix*_SOAINFRA (SOA Infrastructure) *prefix*_ORASDPM (User Messaging Service)
Oracle Access Manager	*prefix*_OAM	*prefix*_IAU (Audit Services)
Oracle Adaptive Access Manager	*prefix*_OAAM	*prefix*_MDS (Metadata Services)
Oracle Adaptive Access Manager (Partition Support)	*prefix*_OAAM_PARTN	*prefix*_MDS (Metadata Services)
Oracle Entitlements Server	*prefix*_APM	*prefix*_MDS (Metadata Services)

2.2.5 Oracle Data Integrator Schema

Oracle Data Integrator requires that the Oracle Data Integrator (*prefix*_ODI_REPO) schema exists in your Oracle or Microsoft SQL Server database prior to installation.

On IBM DB2 databases, the Oracle Data Integrator schema name is *prefix*_ODI, and you must also create the operating system user *prefix*_odi.

2.2.6 Oracle Business Intelligence Schemas

Oracle Business Intelligence requires that the Business Intelligence Platform (*prefix*_BIPLATFORM) schema exists in your Oracle or Microsoft SQL Server database prior to installation.

On IBM DB2 databases, the Business Intelligence Platform schema name is *prefix*_BI, and you must also create the operating system user *prefix*_bi.

2.2.7 Oracle Portal, Forms, Reports and Discoverer Schemas

Oracle Portal and Oracle Discoverer schemas are not supported on Microsoft SQL Server or IBM DB2 databases.

Table 2–7 lists the required schemas and dependencies for Oracle Portal and Oracle Discoverer on Oracle databases:

Table 2–7 Required Schemas for Oracle Portal and Oracle Discoverer on Oracle Databases

Component	Schema Owner	Dependencies
Oracle Portal	*prefix*_PORTAL	Oracle Portlet Producers (*prefix*_PORTLET)
Oracle Discoverer	*prefix*_DISCOVERER	None.

2.2.8 Oracle Enterprise Content Management Suite Schemas

Table 2–8 lists the Oracle Enterprise Content Management (Oracle ECM) Suite schemas and their supported databases.

Table 2–8 Oracle ECM Suite Schemas and Supported Databases

Component	Supported Databases
Oracle Information Rights Management	Oracle, Microsoft SQL Server, IBM DB2
Oracle Content Server 11*g* - Complete	Oracle, Microsoft SQL Server, IBM DB2
Oracle Content Server 11*g* - Search Only	Oracle
Oracle Universal Records Management 11*g*	Oracle, Microsoft SQL Server, IBM DB2
Oracle Imaging and Process Management	Oracle, Microsoft SQL Server, IBM DB2

Table 2–9 lists the required schemas and dependencies for Oracle ECM Suite on Oracle and Microsoft SQL Server databases:

Table 2–9 Required Schemas for Oracle ECM Components on Oracle and Microsoft SQL Server Databases

Component	Schema Owner	Dependencies
Oracle Information Rights Management	*prefix*_ORAIRM	None.
Oracle Content Server 11*g* - Complete	*prefix*_OCS	None.
Oracle Content Server 11*g* - Search Only	*prefix*_OCSSEARCH	None.
Oracle Universal Records Management 11*g*	*prefix*_URMSERVER	None.
Oracle Imaging and Process Management	*prefix*_IPM	None.

Table 2–10 lists the required schemas for Oracle ECM components for IBM DB2 databases:

Table 2–10 Required Schemas for Oracle ECM Components on IBM DB2 Databases

Component	Schema Owner	Dependencies	Required Operating System Users
Oracle Information Rights Management	*prefix*_IRM	None.	*prefix*_irm
Oracle Content Server 11*g* - Complete	*prefix*_OCS	None.	*prefix*_ocs
Oracle Universal Records Management 11*g*	*prefix*_URM	None.	*prefix*_urm
Oracle Imaging and Process Management	*prefix*_IPM	None.	*prefix*_ipm

2.3 Obtaining RCU

To obtain the latest version of RCU:

1. Go to the Oracle Fusion Middleware 11*g* Software Downloads page on Oracle Technology Network:

   `http://www.oracle.com/technetwork/middleware/downloads/fmw-11-download-092893.html`

2. If you have not already done so, read the OTN License Agreement, then click on **Accept License Agreement**.
3. Look for Repository Creation Utility in the "Required Additional Software" table near the bottom of the page.

   After downloading the `.zip` file, extract the contents to a directory of your choice; this directory will be referred to as the *RCU_HOME* directory.

Note: On Windows operating systems, make sure that you do not unzip the RCU `.zip` file to a directory name containing spaces.

2.4 Starting RCU

Start RCU from the `bin` directory inside the *`RCU_HOME`* directory.

Note: If you are running RCU using a non-English database, set the following environment variables:

```
setenv LANG en_US.UTF8
setenv LC_ALL $LANG
setenv NLS_LANG american_america
```

On Linux operating systems:

```
cd RCU_HOME/bin
./rcu
```

On Windows operating systems:

```
cd RCU_HOME\bin
rcu.bat
```

If you are creating schemas in your database, go to Section 2.5, "Creating Schemas".

If you are dropping schemas from your database, go to Section 2.6, "Dropping Schemas".

2.5 Creating Schemas

Follow the instructions in Table 2–11 to create schemas.

Click on the screen name to see more detailed information for that screen. Unless otherwise noted, click **Next** to continue to the next screen.

Table 2–11 How to Create Schemas

No.	RCU Screen	Instructions and Action Required
1	Welcome Screen	None.
2	Create Repository Screen	Select **Create**.
3	Database Connection Details Screen	Specify the connection details for your database, then click **Next**. Remember that if you are creating schemas on an IBM DB2 database, you must have already created one operating system user for each schema you want to create. See Section 1.1.4, "Important Information for IBM DB2 Databases" for more information. A separate dialog window will appear while RCU checks connectivity and some database prerequisites. When the database checking as passed without errors, click **OK** to dismiss the dialog window and go to the next screen.

Table 2–11 (Cont.) How to Create Schemas

No.	RCU Screen	Instructions and Action Required
4	Select Components Screen (for Create Operation)	Specify a schema prefix and select the components for which you want to create schemas in the database. To see which schemas are required for your product, see Section 2.2, "Required Schemas and Dependencies". You must remember the prefix and schema names for the components you are installing; you will need this information during the configuration phase of your product installation. Oracle recommends that you write these values down.
5	Schema Passwords Screen	Specify the passwords for your schema owners. You must remember the passwords you enter on this screen; you will need this information during the configuration phase of your product installation. Oracle recommends that you write these values down.
6	Custom Variables Screen	If selected either Master and Work Repository (`ODI_REPO`) or Activity Graph and Analytics (`ACTIVITES`) on the Select Components Screen (for Create Operation), you must supply additional configuration information for custom variables.
7	Map Tablespaces Screen	Configure the desired tablespace mapping for the schemas you want to create, then click **Next**. A separate dialog window will appear asking you to confirm that you want to create these tablespaces. Click **OK** to proceed and dismiss the dialog window. A second dialog window will appear showing the progress of tablespace creation. After this is complete, click **OK** to dismiss this window and go to the next screen.
8	Summary Screen (for Create Operation)	Review the information on this screen, then click **Create** to begin schema creation.
9	Completion Summary Screen (for Create Operation)	Note the location of the log files, then click **Close** to dismiss the screen.

2.6 Dropping Schemas

To drop schemas from the database, start RCU (see Section 2.4, "Starting RCU"), then follow the instructions in Table 2–12.

Click on the screen name to see more detailed information for that screen. Unless otherwise noted, click **Next** to continue to the next screen.

Table 2–12 How to Drop Schemas

No.	Screen	Instructions and Action Required
1	Welcome Screen	None.
2	Create Repository Screen	Select **Drop**.
3	Database Connection Details Screen	Specify the connection details for your database, then click **Next**. A separate dialog window will appear while RCU checks connectivity and some database prerequisites. When the database checking as passed without errors, click **OK** to dismiss the dialog window and go to the next screen.

Table 2–12 (Cont.) How to Drop Schemas

No.	Screen	Instructions and Action Required
4	Select Components Screen (for Drop Operation)	Select the prefix and the schemas you want to drop, then click Next. A separate dialog window will appear asking you to verify that you want to drop the selected schemas. Click **OK** to dismiss this window. A second dialog window appears while RCU checks the prerequisites for the schemas you are dropping. After this is complete, click **OK** to dismiss this window and go to the next screen.
5	Summary Screen (for Drop Operation)	Review the information on this screen, then click **Drop** to drop the schemas.
6	Completion Summary Screen (for Drop Operation)	Note the location of the log files, then click **Close** to dismiss the screen.

2.6.1 Dropping Shared Tablespaces

Tablespaces that are shared among multiple schemas will not be dropped. For example, if you created both the Audit Services (for example, `DEV_IAU`) and Metadata Services (for example, `DEV_MDS`) schemas, both schemas would use the temporary tablespace `DEV_IAS_TEMP` (see Section A.9.1, "Default Tablespace Mappings").

If you then drop the `DEV_IAU` schema, the `DEV_IAS_TEMP` tablespace would not be dropped since it is also being used by the `DEV_MDS` schema.

2.6.2 Dropping Schemas and Deleting Datafiles (Windows Only)

If your database is running on a Windows operating system, and you are using RCU to drop schemas from that database, some components datafiles are not dropped. These datafiles are located in the `oradata` directory in the database Oracle home.

For example, the following datafiles must be removed for Oracle Internet Directory (OID):

- `ATTRS1_OID.DBF`
- `BATTRS1_OID.DBF`
- `GCATS1_OID.DBF`
- `GDEFAULT1_OID.DBF`
- `SVRMG1_OID.DBF`
- `IASTEMP.DBF`

In the event you want to re-create the dropped schema, you must first manually delete the datafiles before re-creating the schema.

2.7 Creating the Portal Demo Schema

The Oracle Portal repository includes a demo schema (*`portal_schema_user_name`*`_DEMO`) that can not be installed using RCU. If you want to install this schema for testing purposes, you must do so using the `instdemo.sql` script:

```
> sqlplus /nolog
SQL> connect sys as sysdba
SQL> @instdemo.sql portal_schema_user_name
                   portal_schema_user_password
```

default_tablespace
temporary_table_space
name_of_the_demo_schema_user
password_of_the_demo_schema_user
name_of_the_log_file
database_connection_string

For example:

```
SQL> @instdemo.sql portal portalpassword portal ias_temp portal_demo
portaldemopassword example_app.log (DESCRIPTION=(ADDRESS_
LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=db.example.com)(PORT=1521)))(CONNECT_
DATA=(SERVICE_NAME=orcl)))
```

3

Extending Repository Creation Utility to Configure Custom Application Repositories

RCU provides an XML-based framework for component owners to plug-in your schema creation and deletion scripts into RCU. This chapter provides some details of the configuration XML files and script-writing guidelines that are used to integrate your components with RCU.

The following topics are covered in this chapter:

- Section 3.1, "RCU Integration Options"
- Section 3.2, "RCU Configuration Files"
- Section 3.3, "RCU Script Writing Guidelines"

3.1 RCU Integration Options

RCU provides the following options for integrating component scripts:

- RCU JDBC Engine Compliant SQL*Plus Scripts
- Pure JDBC Scripts
- SQL*Plus Scripts
- External Processes
- Java Code Using JavaAction

RCU JDBC Engine Compliant SQL*Plus Scripts is the recommended option for integrating component scripts. SQL*Plus and External Processes are only intended for integrating Legacy/Classic components such as Oracle Portal 10*g* or Identity Management. Components that have a dependency on SQL*Plus scripts cannot be loaded with RCU when running from the installed Oracle Home. They can only be used when running RCU from CD.

3.1.1 RCU JDBC Engine Compliant SQL*Plus Scripts

The RCU JDBC Engine emulates a set of SQL*Plus features over JDBC. This set is broad enough to cover the requirements of schema creation. Your component teams can integrate existing SQL*Plus scripts with a few minor changes.

The RCU JDBC Engine parses the SQL*Plus script to get individual statements and then runs each statement over JDBC. Command line arguments to scripts and substitution using DEFINE variables are supported. Script can be nested (for example, one script can call other scripts). Component teams can specify list of expected errors

and fatal errors to RCU through configuration files and RCU would interpret these when running the scripts.

These scripts are easy to maintain and use as they can be run in SQL*Plus in development environment. However, Oracle recommends that the RCU JDBCEngine tool is also used in your development environment to ensure that these scripts run properly when integrated with RCU.

3.1.2 Pure JDBC Scripts

This option is recommended for non-Oracle databases (for Oracle databases, RCU JDBC Engine Compliant SQL*Plus scripts should be used). Contents of the script file should be a valid PL/SQL block, which can be called with `Connection.prepareCall()` or `Connection.createStatement()`. Standard JDBC Bind variables with '?' convention are supported.

Some disadvantages of this option are:

- No nested scripts, which can mean a larger number of scripts.
- May require a more significant re-work for component teams to re-write the scripts in this format.
- Difficult to maintain as every DDL statement has to be wrapped with in EXECUTE IMMEDIATE.
- Cannot be run using SQL*Plus in development environment.
- Less useful error support since the whole block would fail in case of any errors.

Below is an example:

```
<Action TYPE="JDBC" PERCENT_PROGRESS="20">
   <ValidIf DBTYPE="ORACLE" />
   <Command TYPE="INLINE">DROP USER %SCHEMA_USER% CASCADE</Command>
</Action>
```

And a second example:

```
<Action TYPE="Java" PERCENT_PROGRESS="100">
   <Command TYPE="METHOD">
      oracle.ias.version.SchemaVersionUtil:utilSetComponentValid
   </Command>

   <Parameters>
      <Parameter TYPE="String">MDS</Parameter>
    </Parameters>
</Action>
```

3.1.3 SQL*Plus Scripts

This option is mainly for the consumption of legacy components that need to be loaded from RCU. This option is available only when running RCU from the CD or standalone shiphome. RCU will use Oracle client on the CD or database server. Any 11*g* component that is expected to be loaded by launching RCU from the Oracle Home should not use this option.

Example:

```
<Action TYPE="SQLPlus" PERCENT_PROGRESS="100">
   <Command TYPE="SCRIPT">%SCRIPT_HOME%/oid/scripts/seedldap.sql</Command>
   <IgnorableErrors>
      <Error Type="ORA-01918">user name does not exist</Error>
```

```
   </IgnorableErrors>
</Action>
```

And a second example:

```
<Action TYPE="JDBCSqlScript" PERCENT_PROGRESS="20">
   <ValidIf DBTYPE="ORACLE" />
   <Command TYPE="SCRIPT">%SCRIPT_HOME%/mds/sql/mds_user.sql</Command>
   <Parameters>
      <Parameter TYPE="CmdLine">%SCHEMA_USER%</Parameter>
      <Parameter TYPE="CmdLine">%SCHEMA_PASSWORD%</Parameter>
      <Parameter TYPE="CmdLine">%DEFAULT_TABLESPACE%</Parameter>
      <Parameter TYPE="CmdLine">%TEMPORARY_TABLESPACE%</Parameter>
   </Parameters>
</Action>
```

3.1.4 External Processes

This option is provided only for those components that have their own configuration tool for schema creation, like OPCA (Oracle Portal 10*g*). This is not a recommended option for any new component, as this option cannot make use of RCU error handling framework.

Example:

```
<Action TYPE="HostCmd">
<Command TYPE="SCRIPT">%RCU_
HOME%/rcu/integration/cdb/config/bin/configure</Command>
<Parameters>
   <Parameter TYPE="ProcessInput">%JDBC_CONNECT_STRING%</Parameter>
   <Parameter TYPE="ProcessInput">%DBADMIN_USER%</Parameter>
   <Parameter TYPE="ProcessInput">%DBADMIN_PASSWORD%</Parameter>
   <Parameter TYPE="ProcessInput">%PREFIX_NAME%</Parameter>
   <Parameter TYPE="ProcessInput">%SCHEMA_USER%</Parameter>
   <Parameter TYPE="ProcessInput">%SCHEMA_PASSWORD%</Parameter>
   <Parameter TYPE="ProcessInput">%DEFAULT_TABLESPACE%</Parameter>
   <Parameter TYPE="ProcessInput">%TEMPORARY_TABLESPACE%</Parameter>
</Parameters>
</Action>
```

3.1.5 Java Code Using JavaAction

This option is provided to components that have Java code, which can accept a JDBC connection and execute SQL statements. This is generally used when huge amounts of data has to be seeded or LOBs need to be created.

Example:

```
<Action TYPE="Java">
   <Command TYPE="METHOD">
      oracle.ias.version.SchemaVersionUtil:utilCreateRegistryEntry
   </Command>

   <Parameters>
      <Parameter TYPE="Connection"></Parameter>
      <Parameter TYPE="String">%SCHEMA_USER%</Parameter>
   </Parameters>
</Action>
```

A second example:

```
<Action TYPE="Java">
```

```
   <Command TYPE="METHOD">oracle.webdb.config.PortalConfigAssistant:main</Command>
   <Parameters>
      <Parameter TYPE="StringArray">-mode PORTAL -s %SCHEMA_USER% -p %DBADMIN_
PASSWORD% -c %DB_HOSTNAME%:%DB_PORTNUMBER%:%DB_SERVICE% -silent -verbose -owa -u
%DEFAULT_TABLESPACE% -t %TEMPORARY_TABLESPACE% -d %SCHEMA_USER%_DOC -l %SCHEMA_
USER%_LOG -in %SCHEMA_USER%_IDX -demo -report -voh %RCU_HOME% -log %RCU_LOG_
LOCATION% -oh %SQLPLUS_HOME% -mrc %PREFIX_NAME% -rcu </Parameter>
   </Parameters>
</Action>
```

3.2 RCU Configuration Files

RCU provides the following configuration files types for component integration:

- Section 3.2.1, "XML DTDs Defined by RCU"
- Section 3.2.2, "Component Repository Configuration File"
- Section 3.2.3, "Component List Configuration File"
- Section 3.2.4, "Soft-Prerequisite Support"
- Section 3.2.5, "Default Tablespaces Configuration File"

3.2.1 XML DTDs Defined by RCU

This section describes the XML DTDs defined by RCU:

- Component Descriptor Configuration File
- Repository Configuration File
- Master List of Supported Components
- Storage Attributes Configuration File

3.2.1.1 Component Descriptor Configuration File

Each component owner would provide a configuration file adhering to following DTD, which lists the pre-requisites and actions:

The Component Descriptor configuration file is called `ComponentInfo.dtd` and is located in the *`RCU_HOME`*`/rcu/config` (on UNIX operating systems) or *`RCU_HOME`*`\rcu\config` (on Windows operating systems) directory:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!ENTITY % commonDTD SYSTEM "RCUCommon.dtd">
%commonDTD;
<!ELEMENT ComponentInfo (Display, PrefixSettings, Component*,
PrerequisiteDescriptor*, ExecutionDescriptor?, FatalErrors?, IgnorableErrors?)>
<!ATTLIST ComponentInfo
        VERSION CDATA #REQUIRED
        TYPE CDATA #REQUIRED
        RESOURCE_BUNDLE_PACKAGE CDATA #IMPLIED>
<!ELEMENT PrefixSettings (DetectQuery*)>
<!ATTLIST PrefixSettings
          USE_SCHEMA_PREFIX (TRUE|FALSE) "TRUE"
          USE_TABLESPACE_PREFIX (TRUE|FALSE) "TRUE">
<!ELEMENT Component (ValidIfSet?, ValidIf?, Display, RepositoryConfigFile?,
DetectQuery*, SchemaVersion?, SchemaUser?, AdditionalSchemaUser*, Dependents?,
DatabaseName?, Tablespaces?, CustomVariables?)>
<!ATTLIST Component
        ID CDATA #REQUIRED
```

```
        PROGRESS_UNITS CDATA #IMPLIED
        IS_GROUPING_COMPONENT  (TRUE|FALSE) "FALSE"
        DEFAULT_SELECTED (TRUE|FALSE) "FALSE"
        CHILD_OF CDATA #IMPLIED
        MANDATORY_SELECTED (TRUE|FALSE) "FALSE">
<!ELEMENT Display (#PCDATA)>
<!ATTLIST Display
        NLS_ID CDATA #IMPLIED>
<!ELEMENT RepositoryConfigFile (#PCDATA)>
<!ELEMENT DetectQuery (#PCDATA)>
<!ATTLIST DetectQuery
        OPERATION (CREATE|DROP) 'CREATE'
        TYPE (ORACLE|SQLSERVER|IBMDB2) 'ORACLE'>
<!ELEMENT SchemaVersion (#PCDATA)>
<!ELEMENT SchemaUser (#PCDATA)>
<!ATTLIST SchemaUser
        USER_EDITABLE (TRUE|FALSE) "TRUE"
        PREFIXABLE (TRUE|FALSE) "TRUE"
        IS_CREATED  (TRUE|FALSE) "TRUE"
        MAX_LENGTH CDATA "30">
<!ELEMENT AdditionalSchemaUser (#PCDATA)>
<!ATTLIST AdditionalSchemaUser
        STARTS_WITH_SCHEMA_USER (TRUE|FALSE) "TRUE" >
<!ELEMENT Dependents (Dependent*)>
<!ELEMENT Dependent (#PCDATA)>
<!ATTLIST Dependent
        COMPONENT_ID CDATA #REQUIRED
        ALT_COMPONENT_ID CDATA #IMPLIED>
<!ELEMENT DatabaseName (#PCDATA)>
<!ELEMENT Tablespaces (Tablespace*)>
<!ATTLIST Tablespace TYPE (DEFAULT_TABLESPACE|TEMPORARY_TABLESPACE|ADDITIONAL_
TABLESPACE1|ADDITIONAL_TABLESPACE2|ADDITIONAL_TABLESPACE3|ADDITIONAL_
TABLESPACE4|ADDITIONAL_TABLESPACE5|ADDITIONAL_TABLESPACE6|ADDITIONAL_
TABLESPACE7|ADDITIONAL_TABLESPACE8|ADDITIONAL_TABLESPACE9|ADDITIONAL_
TABLESPACE10|ADDITIONAL_TABLESPACE11|ADDITIONAL_TABLESPACE12|ADDITIONAL_
TABLESPACE13|ADDITIONAL_TABLESPACE14|ADDITIONAL_TABLESPACE15|ADDITIONAL_
TABLESPACE16|ADDITIONAL_TABLESPACE17|ADDITIONAL_TABLESPACE18|ADDITIONAL_
TABLESPACE19|ADDITIONAL_TABLESPACE20|ADDITIONAL_TABLESPACE21|ADDITIONAL_
TABLESPACE22|ADDITIONAL_TABLESPACE23|ADDITIONAL_TABLESPACE24|ADDITIONAL_
TABLESPACE25|ADDITIONAL_TABLESPACE26|ADDITIONAL_TABLESPACE27|ADDITIONAL_
TABLESPACE28|ADDITIONAL_TABLESPACE29|ADDITIONAL_TABLESPACE30|ADDITIONAL_
TABLESPACE31) "DEFAULT_TABLESPACE">
<!ELEMENT Tablespace (Prompt, TablespaceName)>
<!ELEMENT Prompt (#PCDATA)>
<!ATTLIST Prompt NLS_ID CDATA #IMPLIED>
<!ELEMENT TablespaceName (#PCDATA)>
<!ELEMENT CustomVariables (Variable*)>
<!ATTLIST Variable
          TYPE (STRING|NUMBER|PASSWORD|EXISTING_PASSWORD|FILE) "STRING"
          MAX_LENGTH CDATA "30"
          MIN_LENGTH CDATA "0"
          OPERATION (CREATE|DROP|BOTH) "BOTH"
          DEFAULT_VALUE CDATA "">
<!ELEMENT Variable (Name,Display)>
<!ELEMENT Name (#PCDATA)>
```

3.2.1.2 Repository Configuration File

The Repository configuration file is called `RepositoryConfig.dtd` and is located in the *RCU_HOME*`/rcu/config` (on UNIX operating systems) or *RCU_HOME*`\rcu\config` (on Windows operating systems) directory:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!ENTITY % commonDTD SYSTEM "RCUCommon.dtd">
%commonDTD;
<!ELEMENT RepositoryConfig (PrerequisiteDescriptor*, ExecutionDescriptor,
DeleteDescriptor?)>
<!ATTLIST RepositoryConfig
        COMP_ID CDATA #REQUIRED>
<!ELEMENT DeleteDescriptor (Action*)>
```

3.2.1.3 Master List of Supported Components

RCU maintains a master list of supported components, which contains entries for each supported component. Every time a new component is added, the master list of supported components is updated with the reference of the XML integration file provided by component owner.

This configuration file is called `RCUCommon.dtd` and is located in the *RCU_HOME*`/rcu/config` (on UNIX operating systems) or *RCU_HOME*`\rcu\config` (on Windows operating systems) directory:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!ELEMENT PrerequisiteDescriptor (DBPrerequisiteSet*, DBPrerequisite*)>
<!ATTLIST PrerequisiteDescriptor
        TYPE (CREATE|DROP|REGISTER|DEREGISTER) 'CREATE'>
<!ELEMENT DBPrerequisiteSet (ValidIfSet?, ValidIf?, PrereqSetErrorMsg?,
DBPrerequisite*)>
<!ATTLIST DBPrerequisiteSet
          OPERATOR (OR|AND) "OR"
          SOFT (TRUE|FALSE) "FALSE">
<!ELEMENT DBPrerequisite (ValidIfSet?, ValidIf?, PrereqIdentifier, PrereqValue,
PrereqErrorMsg?)>
<!ATTLIST DBPrerequisite
PREREQ_TYPE
(InitParameter|DBOption|Java|DBComponent|DBVersion|DBObject|CustomSQL|TablespaceFr
eeMB) "CustomSQL"
        DATA_TYPE (STRING|NUMBER) "STRING"
        COMPARE_OPERATOR (EQ|GT|LT|NE|GE|LE|COMPARE_VERSION) "EQ"
        SOFT (TRUE|FALSE) "FALSE">

<!ELEMENT PrereqIdentifier (#PCDATA)>
<!ELEMENT PrereqValue (#PCDATA)>
<!ELEMENT PrereqSetErrorMsg (#PCDATA)>
<!ATTLIST PrereqSetErrorMsg
        NLS_ID CDATA #IMPLIED>
<!ELEMENT PrereqErrorMsg (#PCDATA)>
<!ATTLIST PrereqErrorMsg
        NLS_ID CDATA #IMPLIED>
<!ATTLIST PrereqValue
        UNIT (KB|MB|NoUnit) 'NoUnit'>
<!ELEMENT ExecutionDescriptor (Action*)>
<!ATTLIST ExecutionDescriptor
        TYPE (Load|PreLoad|PostLoad) "Load">
<!ELEMENT Action (ValidIfSet?, ValidIf?, Command, Parameters?, FatalErrors?,
IgnorableErrors?)>
<!ATTLIST Action
        TYPE (JDBCSqlScript|JDBC|SQLPlus|HostCmd|Java) "JDBCSqlScript"
```

```
        DB_VERSION CDATA #IMPLIED
        PERCENT_PROGRESS CDATA #IMPLIED
        CONNECT_AS_OWNER (TRUE|FALSE) "FALSE"
        RESET_SESSION (TRUE|FALSE) "FALSE">
<!ELEMENT Command (#PCDATA)>
<!ATTLIST Command
        TYPE (SCRIPT|INLINE|METHOD) "SCRIPT">
<!ELEMENT Parameters (Parameter*)>
<!ELEMENT Parameter (#PCDATA)>
<!ATTLIST Parameter
        TYPE
(BindVar|CmdLine|ProcessInput|EnvVar|Connection|int|String|StringArray|boolean)
"CmdLine">
<!ELEMENT FatalErrors (Error*)>
<!ELEMENT IgnorableErrors (Error*)>
<!ELEMENT Error (#PCDATA)>
<!ATTLIST Error
        Type CDATA #REQUIRED>
<!ELEMENT ValidIfSet (ValidIf*)>
<!ATTLIST ValidIfSet
          DBTYPE CDATA #IMPLIED
          DBVERSION CDATA #IMPLIED
          OSNAME CDATA #IMPLIED
          OPERATOR (OR|AND) "OR">
<!ELEMENT ValidIf (CustomQueryFilter?)>
<!ATTLIST ValidIf
        DBTYPE CDATA #IMPLIED
        DBVERSION CDATA #IMPLIED
        OSNAME CDATA #IMPLIED >
<!ELEMENT CustomQueryFilter (#PCDATA)>
<!ATTLIST CustomQueryFilter
        DATA_TYPE (STRING|NUMBER) "STRING"
        COMPARE_OPERATOR (EQ|GT|LT|NE|GE|LE|COMPARE_VERSION) "EQ"
        VALUE CDATA #REQUIRED >
```

3.2.1.4 Storage Attributes Configuration File

RCU would maintain the list of tablespaces/datafiles and their attributes to be created. This way the tablespaces and datafiles attributes can be modified externally.

The Storage Attributes configuration file is called `Storage.dtd` and is located in the *RCU_HOME*`/rcu/config` (on UNIX operating systems) or *RCU_HOME*`\rcu\config` (on Windows operating systems) directory:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!ELEMENT StorageAttributes (TablespaceAttributes*)>
<!ELEMENT TablespaceAttributes
(Type?,DefaultTemp?,BlockSize?,ExtentSize?,PageSize?,AutoResize?,IncreaseSize?,Max
Size?,Bigfile?,AutoSegmentSpaceManagement?, DatafilesList)>
<!ATTLIST TablespaceAttributes
        NAME CDATA #REQUIRED>
<!ELEMENT Type (#PCDATA)>
<!ELEMENT DefaultTemp (#PCDATA)>
<!ELEMENT BlockSize (#PCDATA)>
<!ELEMENT ExtentSize (#PCDATA)>
<!ELEMENT PageSize (#PCDATA)>
<!ATTLIST PageSize
        UNIT (KB|NoUnit) 'KB'>
<!ELEMENT AutoResize (#PCDATA)>
<!ELEMENT IncreaseSize (#PCDATA)>
<!ATTLIST IncreaseSize
```

```
        UNIT (KB|MB|GB) 'MB'>
<!ELEMENT MaxSize (#PCDATA)>
<!ATTLIST MaxSize
        UNIT (KB|MB|GB) 'MB'>
<!ELEMENT Bigfile (#PCDATA)>
<!ELEMENT AutoSegmentSpaceManagement (#PCDATA)>
<!ELEMENT DatafilesList (DatafileAttributes+)>
<!ELEMENT DatafileAttributes (Size, Reuse?, AutoExtend?, Increment?, Maxsize?)>
<!ATTLIST DatafileAttributes
 ID CDATA #REQUIRED>
<!ELEMENT Size (#PCDATA)>
<!ATTLIST Size
        UNIT (KB|MB|GB) 'MB'>
<!ELEMENT Reuse (#PCDATA)>
<!ELEMENT AutoExtend (#PCDATA)>
<!ELEMENT Increment (#PCDATA)>
<!ATTLIST Increment
        UNIT (KB|MB|GB) 'KB'>
<!ELEMENT Maxsize (#PCDATA)>
<!ATTLIST Maxsize
        UNIT (KB|MB|GB) 'MB'>
```

3.2.2 Component Repository Configuration File

A Component Repository Configuration File (*<component>*.xml) lists the pre-requisites and the list of scripts or actions that need to be performed to load or drop a schema. This file is provided and maintained by component owners. This configuration file is referenced from Component List Configuration File (ComponentInfo.xml).

Each *<component>*.xml file can be found in the *RCU_HOME*/rcu/integration*component*/*component*.xml (on UNIX operating systems) or *RCU_HOME*\rcu\integration*component**component*.xml (on Windows operating systems) file.

Component owners can use a set of predefined RCU parameters which will be substituted at runtime by RCU based on user input. Here is the list of predefined parameters:

Table 3–1 Predefined RCU Parameters

RCU Parameter	Description
%ORACLE_HOME%	Location of the Oracle Home directory. In this book, the actual location is referred to as *RCU_HOME*; this is the location where RCU was extracted on your system.
%SCRIPT_HOME%	Location where scripts are located. It may be same as *RCU_HOME*.
%SCHEMA_USER%	Database schema name (owner) entered by the user in RCU.
%SCHEMA_PASSWORD%	Database schema password entered by the user in RCU.
%ADDITIONAL_SCHEMA_USER%	Additional schema users as defined in the ComponentInfo.xml file
%ADDITIONAL_SCHEMA_PASSWORD<n>%	Password for the additional schema users.
%DEFAULT_TABLESPACE%	Default tablespace assigned to the component by the user.
%TEMPORARY_TABLESPACE%	Temporary tablespace assigned to the component by the user.
%ADDITIONAL_TABLESPACE<n>%	Additional tablespace assigned to the component by the user. Up to three additional tablespaces are supported.

Table 3–1 (Cont.) Predefined RCU Parameters

RCU Parameter	Description
%DEFAULT_PERMANENT_TABLESPACE%	Default permanent tablespace in the database (for example, USERS or SYSTEM) is none is set.
%DEFAULT_TEMP_TABLESPACE%	Default temporary tablespace in the database (for example, TEMP in Oracle shipped databases or SYSTEM) if none is set.
%DATAFILE_LOCATION%	Default location where the tablespace/datafile will be created.
%JDBC_CONNECT_STRING%	JDBC connect string.
%PREFIX_NAME%	User-specified prefix for schema and tablespace names.
%CONNECTION%	Already-connected java.sql.Connection object to be passed into JavaAction.
%DBADMIN_USER%	Database admin user that is provided on the Database Connection Details Screen.
%DBADMIN_PASSWORD%	Database admin user password that is provided on the Database Connection Details Screen.
%DBADMIN_ROLE%	Database admin user role that is provided on the Database Connection Details Screen.
%DB_HOSTNAME%	Database hostname that is provided on the Database Connection Details Screen.
%DB_SERVICE%	Database service name.
%DB_PORTNUMBER%	Database port number that is provided on the Database Connection Details Screen.
%RCU_HOME%	Directory where RCU is installed.
%SQLPLUS_HOME%	*RCU_HOME* where SQL*Plus is located.
%RCU_LOG_LOCATION%	Location of the directory where RCU log files are created.
%DATABASE_NMAE%	Database name (for SQLServer database).

Below is a sample Component Repository Configuration file for MDS (mds.xml), which lists the series of prerequisites and actions:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!-- DOCTYPE RepositoryConfig SYSTEM
"file:////home/mmehta/development/XML/latest/RepositoryConfig.dtd" -->
<!--
  DESCRIPTION

    MDS's RCU configuration file for creating MDS repository.

  MODIFIED (MM/DD/YY)
  erwang    07/13/10 - #(9831116) Added SYSDBA role check.
  ????????  ??/??/?? - Creation

-->

<!DOCTYPE RepositoryConfig SYSTEM "RepositoryConfig.dtd">
<RepositoryConfig COMP_ID="MDS">
   <PrerequisiteDescriptor>
         <DBPrerequisite PREREQ_TYPE="TablespaceFreeMB" DATA_TYPE="NUMBER"
COMPARE_OPERATOR="GT">
            <ValidIf DBTYPE="ORACLE" />
            <PrereqIdentifier>%DEFAULT_TABLESPACE%</PrereqIdentifier>
```

```
            <PrereqValue>50</PrereqValue>
          </DBPrerequisite>
          <DBPrerequisite PREREQ_TYPE="TablespaceFreeMB" DATA_TYPE="NUMBER"
COMPARE_OPERATOR="GT">
            <ValidIf DBTYPE="ORACLE" />
            <PrereqIdentifier>%TEMPORARY_TABLESPACE%</PrereqIdentifier>
            <PrereqValue>20</PrereqValue>
          </DBPrerequisite>
          <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="STRING"
                          COMPARE_OPERATOR="EQ">
            <ValidIf DBTYPE="ORACLE"/>
            <PrereqIdentifier>select count(*) from SESSION_PRIVS where PRIVILEGE =
'SYSDBA' </PrereqIdentifier>
            <PrereqValue>1</PrereqValue>
            <PrereqErrorMsg>
--------------------------------------------------------------------------------
Component     : MDS
Error         : Repository creation check failed.
Cause         : Must connect as SYSDBA to create MDS repository.
Action        : Connect to the database as SYSDBA.  For example, you can login
                to the database using the SYS account.
--------------------------------------------------------------------------------
            </PrereqErrorMsg>
           </DBPrerequisite>
          <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="STRING"
                          COMPARE_OPERATOR="EQ">
            <ValidIf DBTYPE="SQLSERVER"/>
            <PrereqIdentifier>select is_read_committed_snapshot_on from
                              sys.databases where name='%DATABASE_NAME%'
            </PrereqIdentifier>
            <PrereqValue>1</PrereqValue>
            <PrereqErrorMsg>
--------------------------------------------------------------------------------
Component     : MDS
Error         : Repository creation check failed.
Cause         : Database: '%DATABASE_NAME%' is not configured correctly.
Action        : Alter database to turn on the READ_COMMITTED_SNAPSHOT option.
                Ensure you have DBA priviliges. Also the DBA should not have
                multiple logins on this database - else it will result in a
                lock error.
Command       : ALTER database %DATABASE_NAME% SET READ_COMMITTED_SNAPSHOT ON
--------------------------------------------------------------------------------
            </PrereqErrorMsg>
           </DBPrerequisite>
           <DBPrerequisite PREREQ_TYPE="CustomSQL"
 DATA_TYPE="NUMBER"
                           COMPARE_OPERATOR="GE">
            <ValidIf DBTYPE="SQLSERVER"/>
            <PrereqIdentifier>select count(*) from sys.databases
            where name='%DATABASE_NAME%' AND
            patindex('%%[_]CS[_]%%', collation_name) > 0
            </PrereqIdentifier>
            <PrereqValue>1</PrereqValue>
            <PrereqErrorMsg>
--------------------------------------------------------------------------------
Component     : MDS
Error         : Repository creation check failed.
Cause         : Database: '%DATABASE_NAME%' is not configured correctly.
Action        : Alter database to apply the correct collate to the database.
                Ensure you have DBA priviliges. Also, the DBA should not have
```

```
                multiple logins on this database - else it will result in a
                lock error.
Command       : DECLARE @collate   sysname
                SELECT @collate = convert(sysname, serverproperty('COLLATION'))
                IF ( charindex(N'_CI', @collate) > 0 )
                BEGIN
                  select @collate = replace(@collate, N'_CI', N'_CS')
                  exec ('ALTER database $(DATABASE_NAME) COLLATE ' + @collate)
                END
                GO
--------------------------------------------------------------------------------
            </PrereqErrorMsg>
          </DBPrerequisite>

   </PrerequisiteDescriptor>

   <PrerequisiteDescriptor TYPE="DROP">
       <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="NUMBER" COMPARE_
OPERATOR="EQ">

          <ValidIf DBTYPE="ORACLE" />
              <PrereqIdentifier>select count(*) from v$session where
                 username='%SCHEMA_USER%'</PrereqIdentifier>
          <PrereqValue>0</PrereqValue>
          <PrereqErrorMsg>The schema owner '%SCHEMA_USER%' is connected to the
               database. Please disconnect and try again.</PrereqErrorMsg>
       </DBPrerequisite>
   </PrerequisiteDescriptor>

   <ExecutionDescriptor>
     <Action TYPE="Java">
         <Command
TYPE="METHOD">oracle.ias.version.SchemaVersionUtil:utilCreateRegistryEntry</Comman
d>
         <Parameters>
            <Parameter TYPE="Connection"></Parameter>
            <Parameter TYPE="String">MDS</Parameter>
            <Parameter TYPE="String">Metadata Services</Parameter>
            <Parameter TYPE="String">%PREFIX_NAME%</Parameter>
            <Parameter TYPE="String">MDS</Parameter>
            <Parameter TYPE="String">MDS</Parameter>
            <Parameter TYPE="String">%SCHEMA_USER%</Parameter>
            <Parameter TYPE="String">11.1.1.4.0</Parameter>
            <Parameter TYPE="String">LOADING</Parameter>
         </Parameters>
      </Action>
 <Action TYPE="JDBCSqlScript" PERCENT_PROGRESS="20">
         <ValidIf DBTYPE="ORACLE" />
         <Command TYPE="SCRIPT">%SCRIPT_HOME%/mds/sql/mds_user.sql</Command>
         <Parameters>
            <Parameter TYPE="CmdLine">%SCHEMA_USER%</Parameter>
            <Parameter TYPE="CmdLine">%SCHEMA_PASSWORD%</Parameter>
            <Parameter TYPE="CmdLine">%DEFAULT_TABLESPACE%</Parameter>
            <Parameter TYPE="CmdLine">%TEMPORARY_TABLESPACE%</Parameter>
         </Parameters>
      </Action>
      <Action TYPE="JDBCSqlScript" PERCENT_PROGRESS="20">
         <ValidIf DBTYPE="SQLSERVER" />
         <Command TYPE="SCRIPT">%SCRIPT_
HOME%/mds/MSSQL/cremduser-rcu.sql</Command>
```

```
            <Parameters>
               <Parameter TYPE="CmdLine">%DATABASE_NAME%</Parameter>
               <Parameter TYPE="CmdLine">%SCHEMA_USER%</Parameter>
               <Parameter TYPE="CmdLine">%SCHEMA_PASSWORD%</Parameter>
            </Parameters>
         </Action>
         <Action TYPE="JDBCSqlScript" PERCENT_PROGRESS="20">
            <ValidIf DBTYPE="IBMDB2" />
            <Command TYPE="SCRIPT">%SCRIPT_HOME%/mds/db2/cremduser-rcu.db2</Command>
            <Parameters>
               <Parameter TYPE="CmdLine">%SCHEMA_USER%</Parameter>
               <Parameter TYPE="CmdLine">%DEFAULT_TABLESPACE%</Parameter>
               <Parameter TYPE="CmdLine">%TEMPORARY_TABLESPACE%</Parameter>
            </Parameters>
         </Action>
         <Action TYPE="JDBCSqlScript" PERCENT_PROGRESS="20">
            <ValidIf DBTYPE="ORACLE" />
            <Command TYPE="SCRIPT">%SCRIPT_HOME%/mds/sql/cremds-rcu.sql</Command>
            <Parameters>
               <Parameter TYPE="CmdLine">%SCHEMA_USER%</Parameter>
            </Parameters>
         </Action>
         <Action TYPE="JDBCSqlScript" PERCENT_PROGRESS="20" CONNECT_AS_OWNER="TRUE">
            <ValidIf DBTYPE="SQLSERVER" />
            <Command TYPE="SCRIPT">%SCRIPT_HOME%/mds/MSSQL/cremds-rcu.sql</Command>
            <Parameters>
               <Parameter TYPE="CmdLine">%DATABASE_NAME%</Parameter>
               <Parameter TYPE="CmdLine">%RCU_VARCHAR%</Parameter>
            </Parameters>
         </Action>
         <Action TYPE="JDBCSqlScript" PERCENT_PROGRESS="20" CONNECT_AS_OWNER="TRUE">
            <ValidIf DBTYPE="IBMDB2" />
            <Command TYPE="SCRIPT">%SCRIPT_HOME%/mds/db2/cremds-rcu.db2</Command>
            <Parameters>
               <Parameter TYPE="CmdLine">%DEFAULT_TABLESPACE%</Parameter>
            </Parameters>
         </Action>
         <Action TYPE="Java">
            <Command
TYPE="METHOD">oracle.ias.version.SchemaVersionUtil:utilSetComponentValid</Command>
            <Parameters>
               <Parameter TYPE="String">MDS</Parameter>
            </Parameters>
         </Action>
      </ExecutionDescriptor>
    <DeleteDescriptor>
         <Action TYPE="JDBC" PERCENT_PROGRESS="20">
            <ValidIf DBTYPE="ORACLE" />
            <Command TYPE="INLINE">DROP USER %SCHEMA_USER% CASCADE</Command>
         </Action>
         <Action TYPE="JDBCSqlScript" PERCENT_PROGRESS="20">
            <ValidIf DBTYPE="SQLSERVER" />
            <Command TYPE="SCRIPT">%SCRIPT_
HOME%/mds/MSSQL/dropmduser-rcu.sql</Command>
            <Parameters>
               <Parameter TYPE="CmdLine">%DATABASE_NAME%</Parameter>
               <Parameter TYPE="CmdLine">%SCHEMA_USER%</Parameter>
            </Parameters>
         </Action>
         <Action TYPE="JDBCSqlScript" PERCENT_PROGRESS="20">
```

```
         <ValidIf DBTYPE="IBMDB2" />
         <Command TYPE="SCRIPT">%SCRIPT_HOME%/mds/db2/dropmds-rcu.db2</Command>
         <Parameters>
            <Parameter TYPE="CmdLine">%SCHEMA_USER%</Parameter>
         </Parameters>
      </Action>
      <Action TYPE="Java">
          <ValidIf DBTYPE="IBMDB2" />
          <Command
TYPE="METHOD">oracle.sysman.assistants.common.dbutil.jdbc.DB2DropUtil:dropCompRepo
s</Command>
          <Parameters>
             <Parameter TYPE="Connection"></Parameter>
             <Parameter TYPE="String">%SCHEMA_USER%</Parameter>
          </Parameters>
      </Action>
      <Action TYPE="Java">
         <Command
TYPE="METHOD">oracle.ias.version.SchemaVersionUtil:utilDropRegistryEntry</Command>
         <Parameters>
            <Parameter TYPE="Connection"></Parameter>
            <Parameter TYPE="String">MDS</Parameter>
            <Parameter TYPE="String">%PREFIX_NAME%</Parameter>
            <Parameter TYPE="String">MDS</Parameter>
         </Parameters>
      </Action>
   </DeleteDescriptor>
</RepositoryConfig>
```

3.2.3 Component List Configuration File

The Component List configuration file (`ComponentInfo.xml`) lists all the components, their respective configuration files and their default user and tablespace mappings. This file also lists the high-level pre-requisite checks and high level actions (like creating `schema_version_registry` table) to be done globally for all the components. Also, a list of global Ignorable or Fatal errors can be specified.

This file can be found in the *RCU_HOME*`/rcu/config` (on UNIX operating systems) or *RCU_HOME*`\rcu\config` (on Windows operating systems) directory.

Below is a sample `ComponentInfo.xml` file:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!-- DOCTYPE ComponentInfo SYSTEM "dtds/ComponentInfo.dtd" -->
<!DOCTYPE ComponentInfo SYSTEM "ComponentInfo.dtd" [
<!ENTITY mds SYSTEM "../integration/mds/mds_ComponentInfo.xml">
<!ENTITY oid SYSTEM "../integration/oid/oid_ComponentInfo.xml">
<!ENTITY soainfra SYSTEM "../integration/soainfra/soainfra_ComponentInfo.xml">
<!ENTITY bam SYSTEM "../integration/bam/bam_ComponentInfo.xml">
<!ENTITY WebCenterSuite SYSTEM "../integration/webcenter/WebCenterSuite_
ComponentInfo.xml">
<!ENTITY iau SYSTEM "../integration/iau/iau_ComponentInfo.xml">
<!ENTITY discoverer SYSTEM "../integration/dc/discoverer_ComponentInfo.xml">
<!ENTITY sdpm SYSTEM "../integration/sdpm/sdpm_ComponentInfo.xml">
<!ENTITY portal SYSTEM "../integration/portal/portal_ComponentInfo.xml">
<!ENTITY oif SYSTEM "../integration/oif/oif_ComponentInfo.xml">
<!ENTITY oim SYSTEM "../integration/oim/oim_ComponentInfo.xml">
<!ENTITY oam SYSTEM "../integration/oam/oam_ComponentInfo.xml">
<!ENTITY oaam SYSTEM "../integration/oaam/oaam_ComponentInfo.xml">
<!ENTITY oaam_with_partition SYSTEM "../integration/oaam/oaam_with_partition_
ComponentInfo.xml">
```

```
<!ENTITY oaam_with_mssql_unicode SYSTEM "../integration/oaam/oaam_with_mssql_
unicode_ComponentInfo.xml">
<!ENTITY irm SYSTEM "../integration/irm/irm_ComponentInfo.xml">
<!ENTITY ess SYSTEM "../integration/ess/ess_ComponentInfo.xml">
<!ENTITY odi SYSTEM "../integration/odi/odi_ComponentInfo.xml">
<!ENTITY biplatform SYSTEM "../integration/biplatform/biplatform_
ComponentInfo.xml">
<!ENTITY contentserver11 SYSTEM "../integration/contentserver11/contentserver11_
ComponentInfo.xml">
<!ENTITY contentserver11search SYSTEM
"../integration/contentserver11search/contentserver11search_ComponentInfo.xml">
<!ENTITY urm SYSTEM "../integration/urm/urm_ComponentInfo.xml">
<!ENTITY ipm SYSTEM "../integration/ipm/ipm_ComponentInfo.xml">
<!ENTITY commspresence SYSTEM "../integration/commspresence/commspresence_
ComponentInfo.xml">
<!ENTITY commssds SYSTEM "../integration/commssds/commssds_ComponentInfo.xml">
<!ENTITY commsls SYSTEM "../integration/commsls/commsls_ComponentInfo.xml">
<!ENTITY epm SYSTEM "../integration/epm/epm_ComponentInfo.xml">
<!ENTITY apm SYSTEM "../integration/apm/apm_ComponentInfo.xml">
<!ENTITY opss SYSTEM "../integration/opss/opss_ComponentInfo.xml">
]>
<ComponentInfo VERSION="11.0.0.0" TYPE="AS_REPOSITORY" RESOURCE_BUNDLE_
PACKAGE="oracle.sysman.rcu.as.ASBundle">
  <Display NLS_ID="ASREP_ID">Oracle AS Repository Components</Display>
  <PrefixSettings USE_SCHEMA_PREFIX="TRUE" USE_TABLESPACE_PREFIX="TRUE">
     <DetectQuery>
        Select distinct mrc_name from schema_version_registry
     </DetectQuery>
     <DetectQuery TYPE="IBMDB2">
        Select distinct mrc_name from NULLID.schema_version_registry
     </DetectQuery>
  </PrefixSettings>

  <!-- AS Common GROUP START -->
<Component ID="AS_COMMON" IS_GROUPING_COMPONENT="TRUE">
      <Display NLS_ID="AS_COMMON_ID">AS Common Schemas</Display>
    </Component>
&mds;
&iau;
&ess;
&opss;
<!-- AS Common GROUP END -->

<!-- OID GROUP START -->
<Component ID="IDM" IS_GROUPING_COMPONENT="TRUE">
      <Display NLS_ID="IDM_ID">Identity Management</Display>
    </Component>
&oid;
&oif;
&oim;
&oam;
&oaam;
&oaam_with_partition;
&oaam_with_mssql_unicode;
&apm;

<!-- OID GROUP START -->

<!-- ECM_SUITE START -->
<Component ID="ECM_SUITE" IS_GROUPING_COMPONENT="TRUE">
```

```
      <Display NLS_ID="ECM_SUITE">Enterprise Content Management</Display>
    </Component>
&irm;
&contentserver11;
&contentserver11search;
&urm;
&ipm;
<!-- ECM_SUITE END -->

<!-- ODI_SUITE START -->
<Component ID="ODI_REPOSITORIES" IS_GROUPING_COMPONENT="TRUE">
      <Display NLS_ID="ODI_REPOSITORIES">Oracle Data Integrator</Display>
    </Component>
&odi;
<!-- ODI_SUITE END -->


<!-- BI_SUITE START -->
<Component ID="BUSINESS INTELLIGENCE" IS_GROUPING_COMPONENT="TRUE">
      <Display NLS_ID="BUSINESS INTELLIGENCE">Oracle Business
Intelligence</Display>
    </Component>
&biplatform;
<!-- BI_SUITE END -->

<!-- OWLCS START -->
   <Component ID="OWLCS" IS_GROUPING_COMPONENT="TRUE">
       <ValidIf DBTYPE="ORACLE" />
       <Display NLS_ID="OWLCS_ID">WebLogic Communication Services</Display>
   </Component>
&commspresence;
&commssds;
&commsls;
<!-- OWLCS END -->

<!-- SOA INFRA GROUP START -->
        <Component ID="SOA" IS_GROUPING_COMPONENT="TRUE">
      <Display NLS_ID="SOA_ID">SOA and BPM Infrastructure</Display>
    </Component>
&soainfra;
&bam;
&sdpm;
<!-- SOA INFRA GROUP END -->

<!-- WEBCENTER_SUITE START -->
        <Component ID="WEBCENTER_SUITE" IS_GROUPING_COMPONENT="TRUE">
      <Display NLS_ID="WEBCENTER_SUITE_ID">Webcenter Suite</Display>
    </Component>
&WebCenterSuite;
<!-- WEBCENTER_SUITE END -->



<!-- PORTAL_BI START -->
        <Component ID="PORTAL_BI" IS_GROUPING_COMPONENT="TRUE">
        <ValidIf DBTYPE="ORACLE" />
      <Display NLS_ID="PORTAL_BI_ID">Portal and BI</Display>
    </Component>

&portal;
```

```
&discoverer;

&epm;
<!-- AS Common GROUP END -->



<!-- PORTAL_BI END -->

 <PrerequisiteDescriptor>
      <DBPrerequisiteSet OPERATOR="OR">
      <ValidIf DBTYPE="ORACLE" />
       <DBPrerequisite PREREQ_TYPE="InitParameter" DATA_TYPE="NUMBER" COMPARE_
OPERATOR="GE">
            <PrereqIdentifier>SHARED_POOL_SIZE</PrereqIdentifier>
            <PrereqValue UNIT="KB">147456</PrereqValue>
         </DBPrerequisite>
         <DBPrerequisite PREREQ_TYPE="InitParameter" DATA_TYPE="NUMBER" COMPARE_
OPERATOR="GE">
            <PrereqIdentifier>SGA_MAX_SIZE</PrereqIdentifier>
            <PrereqValue UNIT="KB">147456</PrereqValue>
        </DBPrerequisite>
      </DBPrerequisiteSet>

      <DBPrerequisite PREREQ_TYPE="InitParameter" DATA_TYPE="NUMBER" COMPARE_
OPERATOR="GE">
            <ValidIf DBTYPE="ORACLE" />
            <PrereqIdentifier>DB_BLOCK_SIZE</PrereqIdentifier>
            <PrereqValue UNIT="KB">8</PrereqValue>
      </DBPrerequisite>
 <DBPrerequisite PREREQ_TYPE="DBVersion" DATA_TYPE="STRING" COMPARE_OPERATOR="GE">
        <ValidIf  DBTYPE="ORACLE" >
        <CustomQueryFilter DATA_TYPE="NUMBER" COMPARE_OPERATOR="EQ" VALUE="0">
            select 1 from dual where exists (select column_name from dba_tab_
columns where table_name(+) like 'V_$INSTANCE' and column_name(+) = 'EDITION')
union select 0 from dual where not exists (select column_name from dba_tab_columns
where table_name(+) like 'V_$INSTANCE' and column_name(+) = 'EDITION')
          </CustomQueryFilter>
        </ValidIf>
        <PrereqIdentifier>version</PrereqIdentifier>
        <PrereqValue>10.2.0.4.0</PrereqValue>
                <PrereqErrorMsg>
                                The database you are connecting is not a supported
version.  Enter Database with version equal to or higher than 10.2.0.4.0 in 10g or
version equal to or higher than 11.1.0.7.0 in 11g. Refer to the certification
matrix for supported DB versions
                  </PrereqErrorMsg>
        </DBPrerequisite>

<DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="NUMBER" COMPARE_OPERATOR="EQ">
        <ValidIf  DBTYPE="ORACLE" >
        <CustomQueryFilter DATA_TYPE="NUMBER" COMPARE_OPERATOR="EQ" VALUE="0">
            select 1 from dual where exists (select column_name from dba_tab_
columns where table_name(+) like 'V_$INSTANCE' and column_name(+) = 'EDITION')
union select 0 from dual where not exists (select column_name from dba_tab_columns
where table_name(+) like 'V_$INSTANCE' and column_name(+) = 'EDITION')
          </CustomQueryFilter>
        </ValidIf>
        <PrereqIdentifier>select count(*) from product_component_version  where
product like 'Oracle%Database%'  AND version BETWEEN '11' AND '11.1.0.6.0'
```

```
</PrereqIdentifier>
        <PrereqValue>0</PrereqValue>
                <PrereqErrorMsg>
                                The database you are connecting is not a supported
version.  Enter Database with version equal to or higher than 10.2.0.4.0 in 10g or
version equal to or higher than 11.1.0.7.0 in 11g. Refer to the certification
matrix for supported DB versions
                  </PrereqErrorMsg>
        </DBPrerequisite>


<DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="NUMBER" COMPARE_OPERATOR="EQ">
            <ValidIf DBTYPE="IBMDB2"/>
            <PrereqIdentifier>select count(*) from syscat.tablespaces where
tbspace = 'SYSCATSPACE' and pagesize >= 32768
            </PrereqIdentifier>
            <PrereqValue>1</PrereqValue>
            <PrereqErrorMsg>
                        Component     : RCU
                        Error         : Database prerequisite check failed.
                        Cause         : Database: '%DATABASE_NAME%' needs to be
configured with
                        default pagesize 32768 or 32K.
                        Action        : Modify the default of the current database
or create a new
                        database with the required default pagesize.
           </PrereqErrorMsg>
    </DBPrerequisite>


<DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="STRING" COMPARE_OPERATOR="EQ">
                <ValidIf DBTYPE="SQLSERVER" />
                 <PrereqIdentifier>SELECT count(*) where
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) like '1.%' or
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) like '4.%' or
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) like '6.%' or
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) like '7.%' or
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) like
'8.%'</PrereqIdentifier>
                <PrereqValue>0</PrereqValue>
                  <PrereqErrorMsg>
                  The database you are connecting is not a supported version.
Enter Database with version equal to or higher than 2005. Refer to the
certification matrix for supported DB versions.
                  </PrereqErrorMsg>
</DBPrerequisite>

 <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="STRING" COMPARE_OPERATOR="EQ">
                <ValidIf DBTYPE="IBMDB2" />
                  <PrereqIdentifier>select count(*) FROM TABLE (sysproc.env_get_
inst_info()) where INT(substr(service_level, POSSTR(service_level, 'v')+1,
LOCATE('.', service_level,POSSTR(service_level, 'v') +1) - POSSTR(service_level,
'v') -1 ) ) = 9  AND INT(substr(service_level, POSSTR(service_level,  '.')+1,
LOCATE('.',service_level,POSSTR(service_level, '.') +1) - POSSTR(service_level,
'.') -1 )) &lt; 7 OR INT(substr(service_level, POSSTR(service_level, 'v')+1,
LOCATE('.', service_level,POSSTR(service_level, 'v') +1) - POSSTR(service_level,
'v') -1 ) ) &lt; 9</PrereqIdentifier>
                  <PrereqValue>0</PrereqValue>
                  <PrereqErrorMsg>
                          The database you are connecting is not a supported
```

```
version. Enter Database with version equal to or higher than 9.7. Refer to the
certification matrix for supported DB versions.
               </PrereqErrorMsg>
</DBPrerequisite>


       <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="STRING" COMPARE_
OPERATOR="EQ">
               <ValidIf DBTYPE="ORACLE" />
                 <PrereqIdentifier>select GRANTED_ROLE from DBA_ROLE_PRIVS
where((GRANTED_ROLE='DBA' and GRANTEE=(select user from dual) and lower(SYS_
CONTEXT ('USERENV', 'SESSION_USER'))='sys') OR(GRANTED_ROLE='DBA' and
GRANTEE=(select user from dual)))</PrereqIdentifier>
                 <PrereqValue>DBA</PrereqValue>
                 <PrereqErrorMsg>
                       User should have sysdba or dba privilages.
                 </PrereqErrorMsg>
               </DBPrerequisite>

<DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="STRING" COMPARE_OPERATOR="EQ">
               <ValidIf DBTYPE="SQLSERVER" />
                 <PrereqIdentifier>select Is_Member('db_
owner')</PrereqIdentifier>
                 <PrereqValue>1</PrereqValue>
                 <PrereqErrorMsg>
                       User should have sysdba or dba privilages.
                </PrereqErrorMsg>
    </DBPrerequisite>

      <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="STRING" COMPARE_
OPERATOR="EQ" SOFT="TRUE">
                 <ValidIf DBTYPE="ORACLE" />
                 <PrereqIdentifier>select value from nls_database_parameters
where parameter = 'NLS_CHARACTERSET'</PrereqIdentifier>
                 <PrereqValue>AL32UTF8</PrereqValue>
                 <PrereqErrorMsg>
                             The database you are connecting is with
non-AL32UTF8 character set. Oracle strongly recommends using AL32UTF8 as the
database character set.
                 </PrereqErrorMsg>
               </DBPrerequisite>

 <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="NUMBER" COMPARE_OPERATOR="EQ"
SOFT="TRUE">
       <ValidIf  DBTYPE="ORACLE" >
       <CustomQueryFilter DATA_TYPE="NUMBER" COMPARE_OPERATOR="EQ" VALUE="0">
           select 1 from dual where exists (select column_name from dba_tab_
columns where table_name(+) like 'V_$INSTANCE' and column_name(+) = 'EDITION')
union select 0 from dual where not exists (select column_name from dba_tab_columns
where table_name(+) like 'V_$INSTANCE' and column_name(+) = 'EDITION')
         </CustomQueryFilter>
       </ValidIf>
       <PrereqIdentifier>select count(*) from product_component_version  where
product like 'Oracle%Database%'  AND version BETWEEN '10.2.0.6.0' AND '10.9.9.9.9'
</PrereqIdentifier>
       <PrereqValue>0</PrereqValue>
               <PrereqErrorMsg>
               The database you are connecting to, is a more recent than the
supported version. Refer to the certification matrix for supported DB versions.
                 </PrereqErrorMsg>
```

```
        </DBPrerequisite>


        <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="NUMBER" COMPARE_
OPERATOR="EQ" SOFT="TRUE">
        <ValidIf  DBTYPE="ORACLE" >
        <CustomQueryFilter DATA_TYPE="NUMBER" COMPARE_OPERATOR="EQ" VALUE="0">
            select 1 from dual where exists (select column_name from dba_tab_
columns where table_name(+) like 'V_$INSTANCE' and column_name(+) = 'EDITION')
union select 0 from dual where not exists (select column_name from dba_tab_columns
where table_name(+) like 'V_$INSTANCE' and column_name(+) = 'EDITION')
          </CustomQueryFilter>
        </ValidIf>
        <PrereqIdentifier>select count(*) from product_component_version  where
product like 'Oracle%Database%'  AND version > '11.1.0.7.0' AND version not like
'11.2._._._'</PrereqIdentifier>
        <PrereqValue>0</PrereqValue>
                <PrereqErrorMsg>
            The database you are connecting to, is a more recent one than the
supported version. Refer to the certification matrix for supported DB versions.
               </PrereqErrorMsg>
        </DBPrerequisite>

        <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="NUMBER" COMPARE_
OPERATOR="EQ" SOFT="TRUE">
        <ValidIf  DBTYPE="ORACLE" >
        </ValidIf>
        <PrereqIdentifier>select 1 from dual where exists (select column_name from
dba_tab_columns where table_name(+) like 'V_$INSTANCE' and column_name(+) =
'EDITION') union select 0 from dual where not exists (select column_name from dba_
tab_columns where table_name(+) like 'V_$INSTANCE' and column_name(+) = 'EDITION')
</PrereqIdentifier>
        <PrereqValue>0</PrereqValue>
                <PrereqErrorMsg>
                                The database you are connecting is not a supported
version. Enter Database with version equal to or higher than 10.2.0.4.0 in 10g or
version equal to or higher than 11.1.0.7.0 in 11g. Refer to the certification
matrixfor supported DB versions
                                </PrereqErrorMsg>
        </DBPrerequisite>

 <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="STRING" COMPARE_OPERATOR="EQ"
SOFT="TRUE">
                <ValidIf DBTYPE="SQLSERVER" />
                  <PrereqIdentifier>SELECT count(*) where
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) not like '1.%' and
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) not like '4.%' and
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) not like '6.%' and
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) not like '7.%' and
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) not like '8.%' and
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) not like '9.%' and
CAST(SERVERPROPERTY('productversion') as VARCHAR(20)) not like '10.%'
</PrereqIdentifier>
                  <PrereqValue>0</PrereqValue>
                  <PrereqErrorMsg>
                   The database you are connecting to, is a more recent than the
supported version.  Refer to the certification matrix for supported DB versions.
                  </PrereqErrorMsg>
       </DBPrerequisite>
```

```
      <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="STRING" COMPARE_
OPERATOR="EQ" SOFT="TRUE">
               <ValidIf DBTYPE="IBMDB2" />
                 <PrereqIdentifier>select count(*) FROM TABLE (sysproc.env_get_
inst_info()) where INT(substr(service_level, POSSTR(service_level, 'v')+1,
LOCATE('.', service_level, POSSTR(service_level, 'v') +1) - POSSTR(service_level,
'v') -1 ) ) = 9 and INT(substr(service_level, POSSTR(service_level, '.')+1,
LOCATE('.', service_level, POSSTR(service_level, '.') +1) - POSSTR(service_level,
'.') -1 )) &gt; 7 or INT(substr(service_level, POSSTR(service_level, 'v')+1,
LOCATE('.', service_level, POSSTR(service_level, 'v') +1) - POSSTR(service_level,
'v') -1 ) ) &gt; 9</PrereqIdentifier>
                 <PrereqValue>0</PrereqValue>
                 <PrereqErrorMsg>
                         The database you are connecting to, is a more recent
than the supported version. Refer to the certification matrix for supported DB
versions.
               </PrereqErrorMsg>
       </DBPrerequisite>

   </PrerequisiteDescriptor>

 <ExecutionDescriptor TYPE="PreLoad">
        <Action TYPE="Java" PERCENT_PROGRESS="60">
        <ValidIf DBTYPE="ORACLE">
            <CustomQueryFilter DATA_TYPE="NUMBER" COMPARE_OPERATOR="EQ"
VALUE="1">
              select count(*) from  dba_views where VIEW_NAME = 'APP_REGISTRY'
and not exists (select view_name from  dba_views where VIEW_NAME= 'SCHEMA_VERSION_
REGISTRY')
            </CustomQueryFilter>
        </ValidIf>
        <Command
TYPE="METHOD">oracle.ias.version.SchemaVersionUtil:utilCreateRegistryAndCopyData</
Command>
        <Parameters>
           <Parameter TYPE="Connection"></Parameter>
        </Parameters>
    </Action>
        <Action TYPE="Java" PERCENT_PROGRESS="60">
        <ValidIf DBTYPE="ORACLE">
            <CustomQueryFilter DATA_TYPE="NUMBER" COMPARE_OPERATOR="EQ"
VALUE="0">
            select count(*) from  dba_views where VIEW_NAME= 'SCHEMA_VERSION_
REGISTRY'
            </CustomQueryFilter>
        </ValidIf>
        <Command
TYPE="METHOD">oracle.ias.version.SchemaVersionUtil:utilCreateRegistryTable</Comman
d>
        <Parameters>
           <Parameter TYPE="Connection"></Parameter>
        </Parameters>
    </Action>
        <Action TYPE="Java" PERCENT_PROGRESS="60">
       <ValidIf DBTYPE="SQLSERVER">
           <CustomQueryFilter DATA_TYPE="NUMBER" COMPARE_OPERATOR="EQ" VALUE="0">
           select count(*) from  INFORMATION_SCHEMA.TABLES where TABLE_
NAME='SCHEMA_VERSION_REGISTRY'
           </CustomQueryFilter>
       </ValidIf>
```

```
        <Command
TYPE="METHOD">oracle.ias.version.SchemaVersionUtil:utilCreateRegistryTable</Comman
d>
        <Parameters>
           <Parameter TYPE="Connection"></Parameter>
        </Parameters>
    </Action>
        <Action TYPE="Java" PERCENT_PROGRESS="60">
                <ValidIf DBTYPE="IBMDB2">
                        <CustomQueryFilter DATA_TYPE="NUMBER" COMPARE_
OPERATOR="EQ" VALUE="0">
                         select count(*) from syscat.tables where TABNAME='SCHEMA_
VERSION_REGISTRY'
                        </CustomQueryFilter>
                </ValidIf>
                <Command
TYPE="METHOD">oracle.ias.version.SchemaVersionUtil:utilCreateRegistryTable</Comman
d>
      <Parameters>
         <Parameter TYPE="Connection"></Parameter>
      </Parameters>
    </Action>
   </ExecutionDescriptor>

 <FatalErrors>
     <Error Type="ORA-17439">Invalid SQL type</Error>
         <Error Type="ORA-01435">user does not exist</Error>
         <Error Type="ORA-01435">user does not exist</Error>
     <Error Type="ORA-00955">name is already used by an existing object</Error>
         <Error Type="ORA-01031">name is already used by an existing
object</Error>
   </FatalErrors>

   <IgnorableErrors>
     <Error Type="ORA-02289">sequence does not exist</Error>
     <Error Type="ORA-00904">invalid identifier</Error>
     <Error Type="ORA-01920">user name conflicts with another user or role
name</Error>
     <Error Type="ORA-01418">specified index does not exist</Error>
     <Error Type="ORA-00942">table or view does not exist</Error>
     <Error Type="ORA-06512">Not found</Error>
     <Error Type="ORA-01403">no data found</Error>
         <Error Type="ORA-04043">does not exist</Error>
         <Error Type="ORA-04080">Trigger does not exist</Error>
         <Error Type="ORA-00959">Tablespace  does not exist</Error>
         <Error Type="ORA-24035">AQ agent not subscriber</Error>
         <Error Type="ORA-24185">Transformation not found</Error>
         <Error Type="ORA-24042">Does not exist</Error>
         <Error Type="ORA-24088">Does not exist</Error>
   </IgnorableErrors>
</ComponentInfo>
```

3.2.4 Soft-Prerequisite Support

In the `ComponentInfo.xml` file, If a particular `<DBPrerequisiteSet>` or `<DBPrerequisite>` is not mandatory, then you can use the soft-prerequisite option by setting the `SOFT` attribute to `TRUE`. When a soft-prerequisite is not met, a pop-up dialog window with an error or warning message will appear; the user will have the option to ignore the message or abort the operation. You can define a soft-prerequisite

at the <DBPrerequisiteSet> level, the <DBPrerequisite> level, or both; if both are defined, then <DBPrerequisiteSet> will take higher precedence.

Below is an example of setting a soft-prerequisite at the <DBPrerequisite> level:

```
<DBPrerequisiteSet>
...
   <DBPrerequisite PREREQ_TYPE="CustomSQL" DATA_TYPE="STRING" COMPARE_
OPERATOR="EQ" SOFT="TRUE">
      <PrereqIdentifier>select value from nls_database_parameters where parameter
= 'NLS_CHARACTERSET'</PrereqIdentifier>
      <PrereqValue>AL32UTF8</PrereqValue>
      <PrereqErrorMsg>
      The database you are connecting is with non-AL32UTF8 character set.
      Oracle strongly recommends using AL32UTF8 as the database character
      set.
      </PrereqErrorMsg>
   </DBPrerequisite>
...
<DBPrerequisiteSet>
```

3.2.5 Default Tablespaces Configuration File

The default tablespaces configuration file (`Storage.xml`) lists the components for which tablespaces are created out-of-the-box. This file is located in the *RCU_HOME*`/rcu/config` (on UNIX operating systems) or *RCU_HOME*`\rcu\config` (on Windows operating systems) directory.

The actual tablespace configuration file for each component is located in the *RCU_HOME*`/rcu/integration`*component*`/`*component*`_Storage.xml` (on UNIX operating systems) or *RCU_HOME*`\rcu\integration`*component*`\`*component*`_Storage.xml` (on Windows operating systems) file. Each component has its own tablespaces configuration file.

Below is a sample `soainfra_Storage.xml` file:

```
<?xml version="1.0" encoding="UTF-8"?>
         <!-- SOAINFRA -->
      <TablespaceAttributes NAME="SOAINFRA" >
      <DatafilesList>
        <DatafileAttributes ID="%DATAFILE_LOCATION%/soainfra.dbf">
          <Size UNIT="MB">
            200
          </Size>
          <Reuse>
            True
          </Reuse>
          <AutoExtend>
            True
          </AutoExtend>
          <Increment UNIT="MB">
            50
          </Increment>
          <Maxsize UNIT="GB">
            2
          </Maxsize>
        </DatafileAttributes>
      </DatafilesList>
    </TablespaceAttributes>

   <!-- End 0f SOAINFRA -->
```

3.3 RCU Script Writing Guidelines

Below are some common RCU script writing guidelines:

Schema user names and passwords should not be hard coded. They should be coded as substitutable variables.

- If schema user needs to be created, it should be created first using the parameters passed in by RCU.
- Tablespace and temporary tablespace references should not be hard coded; they should be coded as variables.
- Do not use CONNECT; instead, use "ALTER SESSION SET CURRENT_SCHEMA = <SCHEMA_OWNER>" after creating the schema user.
- The set of ignorable and fatal ORA errors (if any) should be listed in the RCU XML component configuration file.
- Avoid any "shutdown" or "startup" that would bounce the database instance.
- SCHEMA_VERSION_REGISTRY should be updated before and after loading schema. This can be done using JavaAction as shown in Section 3.1.5, "Java Code Using JavaAction" or with in the component scripts using SCHEMA_VERSION PL/SQL package.
- Block comments that contain line comments (/* -- comment */) are not supported.

3.3.1 Guidelines for RCU JDBC Engine Compliant SQL*Plus Scripts

Below are some guidelines for writing RCU JDBC Engine SQL*Plus scripts:

- All statements must be terminated with appropriate terminating chars. CREATE PACKAGE, TYPE needs to be terminated with ";" with "/" on the next line. All other statements (Create TABLE, VIEW, etc.) need to be terminated by ";" or "/" (only one of them, not both).
- EXECUTE calls should be replaced with "BEGIN/END blocks".
- DEFINE statements should be in one line, no comments in the same line and no ";" at the end.
- SET, SHOW, SPOOL, WHENEVER, BREAK, EXIT statements are simply ignored.
- HOST command is not supported yet.
- VARIABLE and COL(UMN) are not supported.

Dynamically calling another SQL Script within a PL/SQL block using the following technique is not supported:

```
VARIABLE initfile VARCHAR2(32)
COLUMN :initfile NEW_VALUE init_file NOPRINT;
BEGIN
  IF (some condition) THEN
     :initfile := 'initcdc.sql';
  ELSE
     :initfile := 'nothing.sql';
  END IF;
END;
/
SELECT :initfile FROM DUAL;
```

```
@@&init_file
```

The work around is to have a separate Action with "ValidIf" tag to specify the condition.

3.3.2 Guidelines for Pure JDBC Scripts

Below are some guidelines for writing Pure JDBC scripts for RCU:

- Should not contain any SQL*Plus directives (like SET, WHENEVER, etc.).
- All DEFINES should be changed to PL/SQL variable declarations.
- All SQL statements should be wrapped in EXECUTE IMMEDIATE.
- PL/SQL style comments are allowed, But SQL*Plus style (REM) comments are not allowed.
- DROP statements preceding CREATE statements do not work. DROP should only be done after checking for the existence of the object. Ideally, all DROP statements should put into different PL/SQL script and RCU can call this script before calling a CREATE script, if that is desired.
- Contents of the script file should be a valid PL/SQL block, which can be called within `Connection.prepareCall()`.

3.3.3 Guidelines for SQL*Plus Scripts

Below are some guidelines for writing SQL*Plus scripts for RCU:

- Should not have any "exit" statements or "WHENEVER ERROR EXIT" directives. This would cause RCU SQL*Plus session to exit unexpectedly and may impact other component scripts to be executed later.
- Scripts should not have any spool commands. RCU would generate a spool log for each component.

3.3.4 Guidelines for SQL Server-Based Scripts

Below are some guidelines for writing SQL Server-based scripts for RCU:

- Support is a subset of what is supported in t-sql scripts that can be executed by `sqlcmd`.
- "ValidIf" tags should be added around all database-specific Actions and Prerequisites. For example:

```
<DBPrerequisite PREREQ_TYPE="TablespaceFreeMB" DATA_TYPE="NUMBER" COMPARE_
OPERATOR="GT">
   <ValidIf DBTYPE="ORACLE" />
   <PrereqIdentifier>%DEFAULT_TABLESPACE%</PrereqIdentifier>
   <PrereqValue>50</PrereqValue>
</DBPrerequisite>
```

- RCU supports recursive variable definitions such as:

```
setvar var1 value1
setvar var2 $(var1)
```

- There should be a "go" statement to end blocks of statements. All statements preceding the "go" statement will be executed as a single statement over JDBC.
- The JDBC connection is created in the auto-commit "on" mode.

- Currently, begin transaction and commit transaction statements are not supported.
- Variables passed to scripts via the XML file will be passed as follows:

  ```
  Script.sql -v v1=value1 v2=value2
  ```

  This is only for scripts called using the XML files. If a script calls another script, you can use any other variable name.

4

Running Repository Creation Utility from the Command Line

This chapter describes how to use the Repository Creation Utility's (RCU) command line interface (CLI). The CLI is necessary for integration with both the Oracle Fusion Middleware installer and Enterprise Manager during application deployment. Additionally, you can use the CLI in cases where Xserver is not configured or if you are using a telnet terminal that does not have proper display capabilities.

This chapter contains the following topics:

4.1 Command Line Syntax and Parameters

The syntax for the RCU command line interface is:

```
rcu [-silent | -interactive] [-createRepository | -dropRepository] {parameters}
```

Table 4–1 lists the CLI commands and their descriptions.

Table 4–1 RCU CLI Commands and Description

Command	Description
`-silent`	Run RCU with minimal or no interaction from the command line. For more information, see Section 4.2, "Using the -silent Command".

Table 4–1 (Cont.) RCU CLI Commands and Description

Command	Description
`-interactive`	Run the RCU graphical interface. This is the default if neither `-silent` nor `-interactive` is specified. This command (whether specified or not) allows you to pre-populate certain screens with information as specified from the command line. You can pre-populate the Create Repository Screen and Database Connection Details Screen. For more information, see Section 4.3, "Using the -interactive Command".
`-createRepository`	Run RCU with either `-silent` or `-interactive` to create a repository. For more information, see Section 4.4, "Creating a Repository from the Command Line".
`-dropRepository`	Run RCU with either `-silent` or `-interactive` to drop a repository. For more information, see Section 4.5, "Dropping a Repository from the Command Line".

Table 4–2 lists the various parameters and their descriptions.

Table 4–2 RCU CLI Parameters and Descriptions

Parameter	Type	Description
`-compInfoXMLLocation`	Optional	Full path to the location of the `ComponentInfo.xml` file. The default location is *RCU_HOME*`/rcu/config` (on UNIX systems) or *RCU_HOME*`\rcu\config` (on Windows systems).
`-storageXMLLocation`	Optional	Full path to the location of the `StorageInfo.xml` file. The default location is *RCU_HOME*`/rcu/config` (on UNIX systems) or *RCU_HOME*`\rcu\config` (on Windows systems).
`-databaseType`	Optional	Type of database to which you are connecting. Valid options are `ORACLE`, `IBMDB2`, or `SQLSERVER`.
`-connectString`	Mandatory	Credentials for connecting to your database. ■ Oracle databases: use the format *host*:*port*:*sid*. ■ Microsoft SQL Server and IBM DB2 databases: use the format *server name or host*:*port*:*database name*.
`-dbUser`	Mandatory	Database user name (for example, the default user name on Oracle databases is `SYS`).
`-dbRole`	Optional	Database user role (for example, `SYSDBA` for the `SYS` user on Oracle databases).
`-unicodeSupport`	Optional	Whether or not your database creates schemas that support encodings. Valid values are Yes or No. The default value is Yes. This parameter is valid for the `SQLSERVER` database type only.
`-skipCleanupOnFailure`	Optional	Whether or not you want to skip the schema cleanup if you create or drop operation fails. The default is No.
`-variables`	Optional	Comma separated variables in the format *variablename=value*. See Section 4.6, "RCU Environment Variables" for a list of RCU environment variables.
`-schemaPrefix`	Optional	Prefix for your schemas. For more information about schema prefixes, refer to Section 1.2.1, "Creating Custom Schemas and Tablespaces" and Section A.5, "Select Components Screen (for Create Operation)".

Table 4–2 (Cont.) RCU CLI Parameters and Descriptions

Parameter	Type	Description
-component	Mandatory	ID of the component(s) you want to add or drop. To specify a single component, use the format: -component *component_ID* To specify multiple components, use the format: -component *component_ID* -component *component_ID* For a list of valid component (schema) IDs, refer to Appendix B, "Repository Creation Utility Schemas, IDs, and Tablespaces". Multiple components are sometimes necessary because of dependencies; for example, you cannot create the Oracle Portal (PORTAL) schema if the Portlet Producers (PORTLET) schemas does not already exist. In this case, you must specify both schemas: -component PORTAL -component PORTLET For more information about schemas and their dependencies, see Appendix B, "Repository Creation Utility Schemas, IDs, and Tablespaces".
-tablespace	Mandatory	Tablespace name of the component. This tablespace must exist in the database if you are using this option. This parameter is only used with the -createRepository command.
-tempTablespace	Mandatory	TEMP tablespace name of the component. This tablespace must exist in the database if you are using this option. This parameter is only used with the -createRepository command.

4.2 Using the -silent Command

Specify -silent if you want to run RCU with minimal interaction once you have entered the commend. You must specify all mandatory command line parameters in the command. For example:

```
rcu -silent -createRepository -connectString database_connect_string -dbUser
-database_user -component component
```

In this scenario, RCU will prompt you for the database and component schema passwords from the command line. If you specify multiple components, you will be prompted for the passwords in the order in which the components are specified.

If you want to avoid all interaction from the command line, you can create a text file containing all the necessary passwords (one password per line) and then use the -f option to pass this password file to RCU. For example, if you create a file called passwordfile.txt, you can use the command below:

```
rcu -silent -createRepository -connectString database_connect_string -dbUser
-database_user -component component1_name -component component2_name -f <
passwordfile.txt
```

The passwordfile.txt file would contain, in order:

```
database_password
component1_schema_password
component2_schema_password
```

It is important to make sure that the passwords in the file are specified in the same order as the components on the command line.

Once the installation is complete the password file must be removed. The passwords are maintained in cleartext format and therefore present a security risk if the password file is left in place after installation.

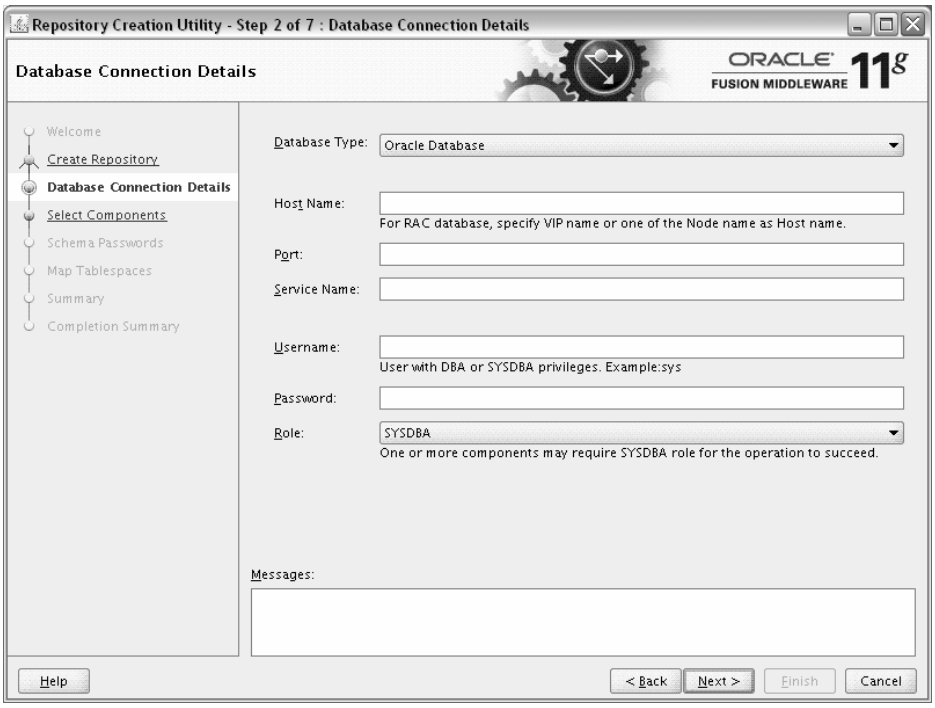
4.3 Using the -interactive Command

Specify `-interactive` to run the RCU graphical interface. This is the default is neither `-silent` nor `-interactive` is specified.

You can specify information from the command line that would be populated in the graphical interface to expedite your RCU operation. For example, if you run RCU with the following command:

```
rcu
```

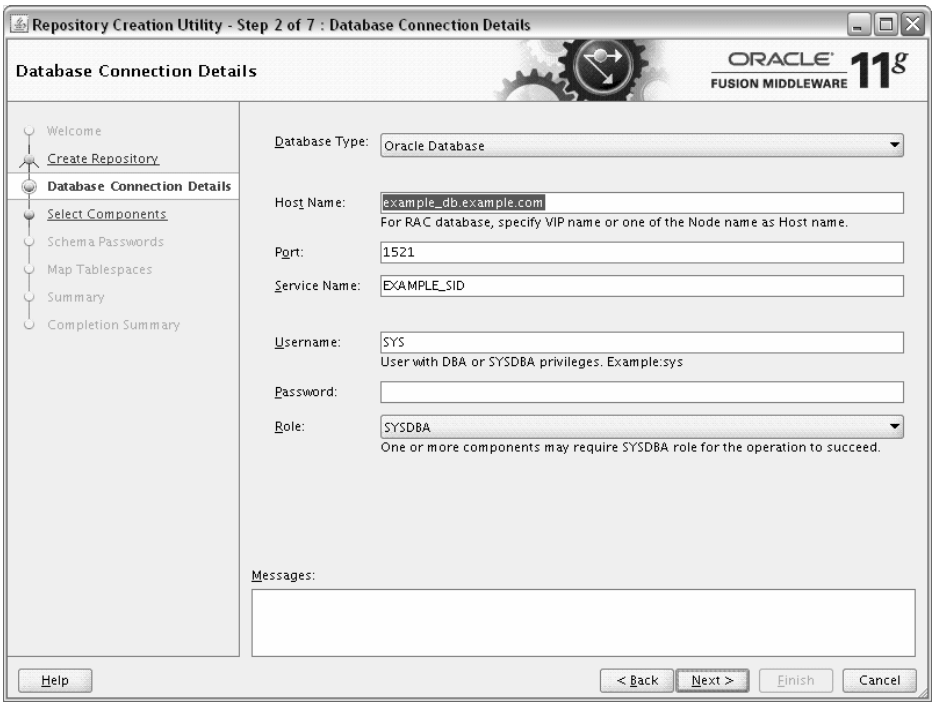
The Database Connection Details page contains blank fields, as shown below:



But if you run RCU with a few parameters from the command line:

```
rcu -interactive -createRepository -connectString example_
db.example.com:1521:example_sid -dbUser SYS -component MDS
```

The Database Connection Details page contains the information supplied from the command line:



4.4 Creating a Repository from the Command Line

The full syntax for the RCU command line interface to create a repository is shown below:

```
rcu [-silent | -interactive] -createRepository
   [-compInfoXMLLocation omponentInfo.xml_file_location]
   [-storageXMLLocation Storage.xml_file_location]
   [-databaseType [ORACLE|SQLSERVER|IBMDB2]]
   -connectString database_connect_string
   -dbUser database_username
   [-dbRole database_user_role]
   [-unicodeSupport [Yes|No]]
   [-skipCleanupOnFailure [Yes|No]
   [-variables variablename=value]
   [-schemaPrefix schema_prefix]
   -component component_ID
   -tablespace component_tablespace_name
   -tempTablespace component_temp_tablespace_name
]
```

In order to work properly, make sure that the parameters are specified in the same order that they are listed. For example, do not specify the `-compInfoXMLLocation` parameter before the `-component` parameter.

When specifying the `-component`, you must use the correct component IDs, which are listed in Appendix B, "Repository Creation Utility Schemas, IDs, and Tablespaces".

Before you create any schemas, you must be aware of and specify all dependencies for the component you are loading. For example, the `SOAINFRA` schema depends on the `MDS` and `ORASDPM` schemas; if you try to load the `SOAINFRA` schema without specifying both the `MDS` and `ORASDPM` schemas, or if the `MDS` and `ORASDPM` schemas do not already exist in the database, RCU will stop before any loading takes place.

Below is a sample command to create the SOA Infrastructure schemas on a UNIX operating system:

```
./rcu -silent -createRepository -databaseType ORACLE -connectString
host1.oracle.com:1521:orcl -dbUser sys -dbRole sysdba -schemaPrefix TEST
-component SOAINFRA -component MDS -component ORASDPM
```

4.5 Dropping a Repository from the Command Line

The full syntax for the RCU command line interface to drop a repository is shown below:

```
rcu [-silent | -interactive] -dropRepository
   [-compInfoXMLLocation ComponentInfo.xml_file_location]
   [-storageXMLLocation Storage.xml_file_location]
   [-databaseType [ORACLE|SQLSERVER|DB2]]
   -connectString database_connect_string
   -dbUser database_username
   [-dbRole database_user_role]
   [-unicodeSupport [Yes|No]]
   [-skipCleanupOnFailure [Yes|No]
   [-variables variablename=value]
   [-schemaPrefix schema prefix]
   -component component_ID
```

In order to work properly, make sure that the parameters are specified in the same order that they are listed. For example, do not specify the `-compInfoXMLLocation` parameter before the `-component` parameter.

You must also be aware of schema dependencies when dropping schemas (see Appendix B, "Repository Creation Utility Schemas, IDs, and Tablespaces"). For example, several schemas require the `MDS` schema to be present; if you choose to drop the `MDS` schema, then all the schemas that require the `MDS` schema will stop working.

Below is a sample command to drop the WebCenter Spaces schemas on a UNIX operating system:

```
./rcu -silent -dropRepository -databaseType ORACLE -connectString
host1.oracle.com:1521:orcl -dbUser sys -dbRole sysdba -schemaPrefix TEST
-component WEBCENTER
```

4.6 RCU Environment Variables

Table 4–3 shows the variables picked up by RCU from the environment. If the environment variable is not set, then RCU uses the default value.

Table 4–3 RCU Environment Variables

Variable	Default	Description
RCU_LOG_LOCATION	*RCU_HOME*/rcu/log (UNIX operating systems) *RCU_HOME*\rcu\log (Windows operating systems)	Location of the RCU log file.
RCU_TIMESTAMP_LOG_DIR	true	Determines whether or not a directory with the format *logdir.yyyy-dd_hh-mm* is created for the RCU log file. Set this variable to true or false.
RCU_LOG_NAME	rcu.log	Name of the RCU log file.
RCU_LOG_LEVEL	ERROR	Determines the RCU log level. Set this variable to one of SEVERE, ERROR, NOTIFICATION, or TRACE.

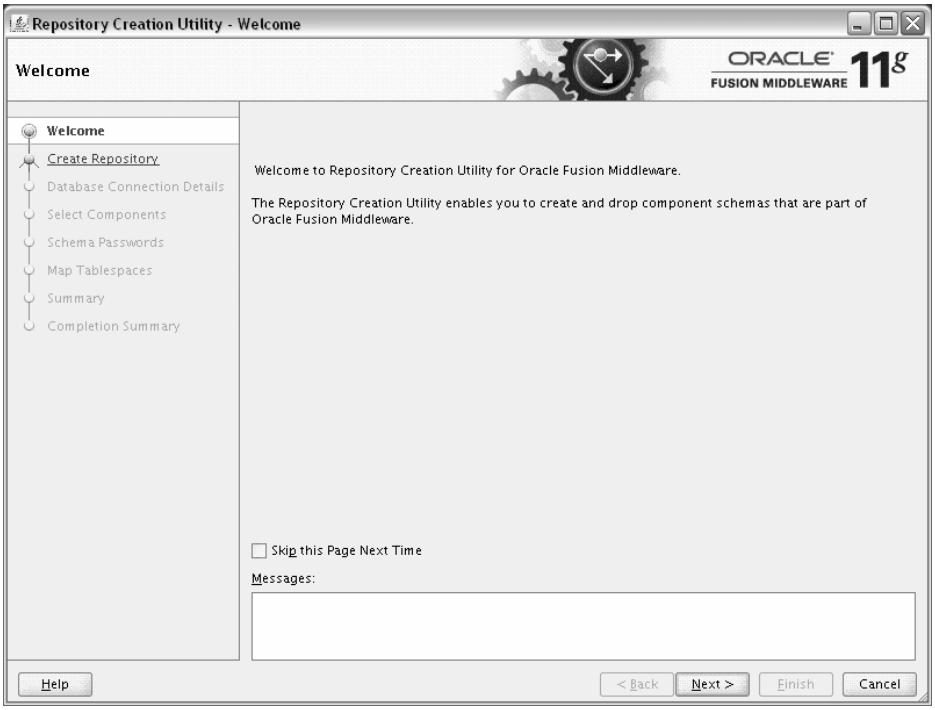
A

Repository Creation Utility Screens

This appendix contains screenshots and descriptions for all of the Repository Creation Utility screens:

- Welcome Screen
- Create Repository Screen
- Drop Repository Screen
- Database Connection Details Screen
- Select Components Screen (for Create Operation)
- Select Components Screen (for Drop Operation)
- Schema Passwords Screen
- Custom Variables Screen
- Map Tablespaces Screen
- Summary Screen (for Create Operation)
- Summary Screen (for Drop Operation)
- Completion Summary Screen (for Create Operation)
- Completion Summary Screen (for Drop Operation)

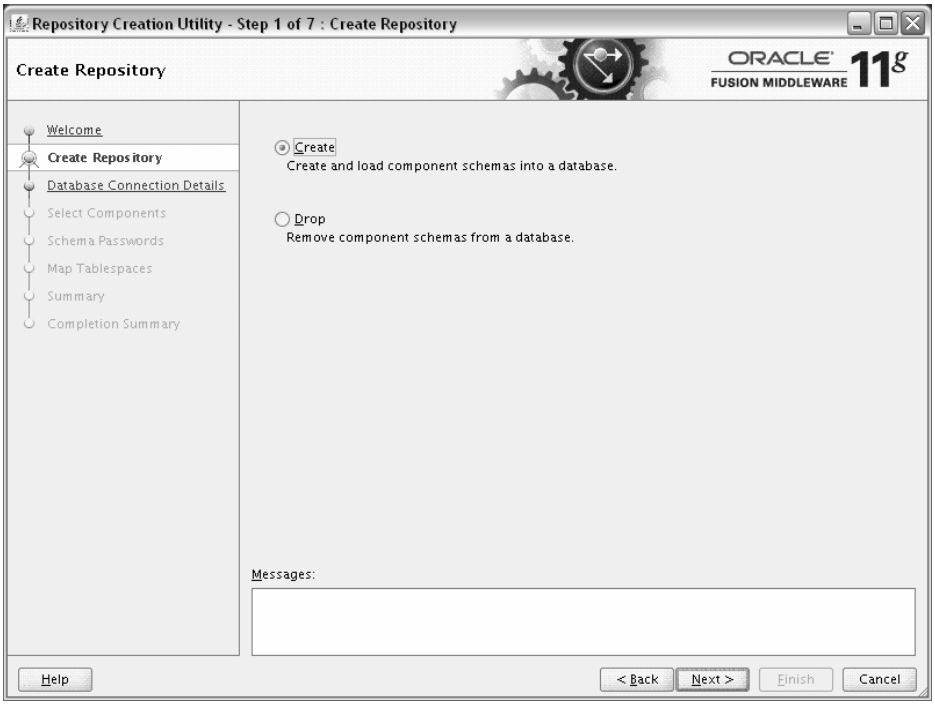
A.1 Welcome Screen



This is the first screen that appears when RCU is started.

Click **Skip This Page Next Time** if you do not want to see the Welcome screen the next time you start RCU.

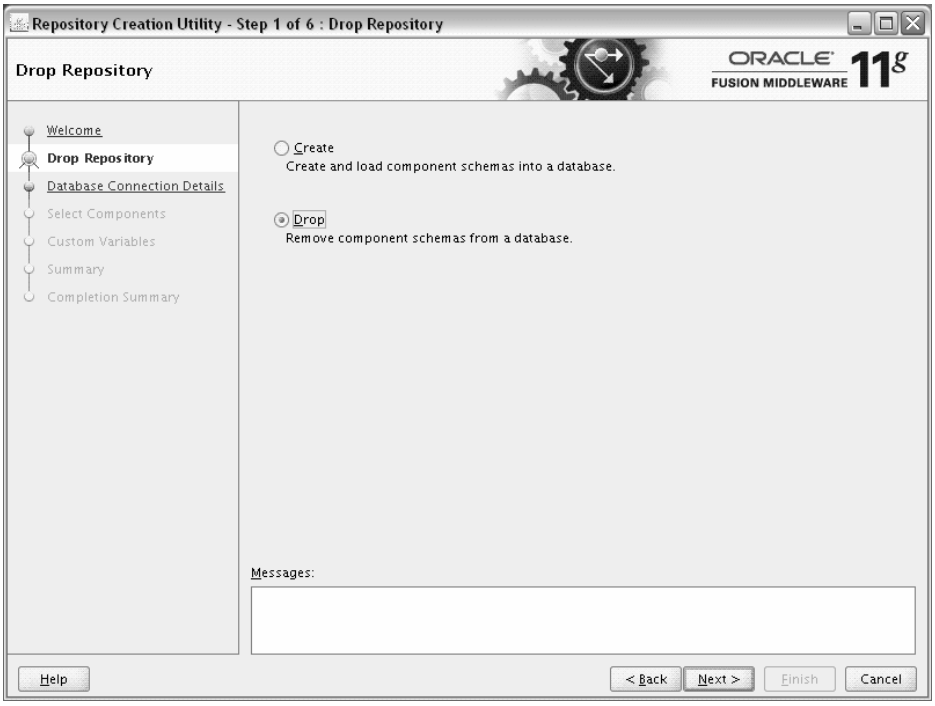
A.2 Create Repository Screen



Select **Create** to create component schemas in the database.

Select **Drop** to remove component schemas from the database.

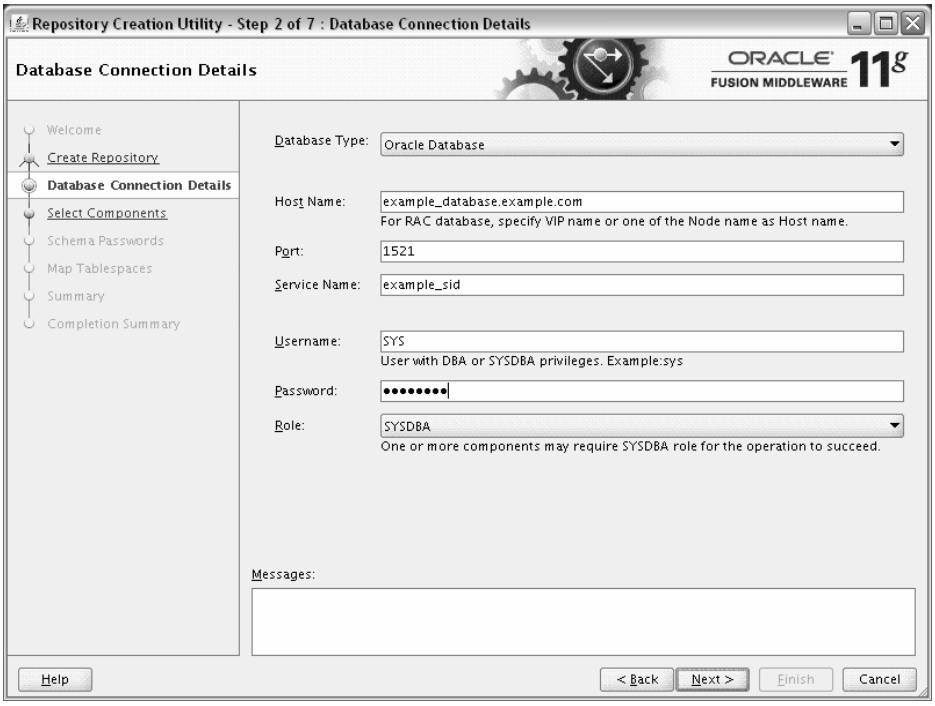
A.3 Drop Repository Screen



Select **Create** to create component schemas in the database.

Select **Drop** to remove component schemas from the database.

A.4 Database Connection Details Screen



Specific database requirements for the various schemas can be found in the *Oracle Fusion Middleware System Requirements and Specifications* document, available at the following URL:

`http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html`

For certified database versions, see the *System Requirements and Supported Platforms for Oracle Fusion Middleware 11gR1* document, which is available on the Oracle Fusion Middleware Supported System Configurations page:

`http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html`

For Oracle databases, specify the following connection credentials:

- Host Name

  Enter the name of the server where your database is running. Use the following format:

  `examplehost.exampledomain.com`

  For Oracle RAC databases, specify the VIP name or one of the node names in this field.

- Port

  Enter the port number for your database. The default port number for Oracle databases is 1521.

- Service Name

Specify the service name for the database. Typically, the service name is the same as the global database name.

If you are unsure what the service name for your database is, you can obtain it from the `SERVICE_NAMES` parameter in the database's initialization parameter file. If the initialization parameter file does not contain the `SERVICE_NAMES` parameter, then the service name is the same as the global database name, which is specified in the `DB_NAME` and `DB_DOMAIN` parameters.

For Oracle RAC databases, specify the service name of one of the nodes in this field. For example:

```
examplehost.exampledomain.com
```

- Username

  Enter the user name for your database. The default user name is `SYS`.

- Password

  Enter the password for your database user.

- Role

  Select the database user's role from the drop-down list:

  - Normal
  - SYSDBA

  All schemas installed on an Oracle database require the SYSDBA role. If you are creating schemas for Oracle Internet Directory (OID), you must use the user `SYS` and the SYSDBA role. See "Required Privileges for Oracle Databases" in the System Requirements and Specifications document for more information.

For Microsoft SQL Server databases, specify the following connection credentials:

- Unicode Support

  Select Yes or No from the drop-down list.

  Note: Oracle SOA Infrastructure schemas are created with Unicode support (database tables created with NVARCHAR) only, regardless of the option selected in this field.

- Server Name

  Enter the host name, IP address, or complete server name in host\server format of the server where your database is running.

- Port

  Enter the port number for your database.

- Database Name

  Specify the name of your database.

- Username

  Enter the user name for your database. The user must have SYSDBA or DBA privileges.

- Password

  Enter the password for your database user.

For IBM DB2 databases, specify the following connection credentials:

- Server Name

  Enter the host name, IP address, or complete server name in host\server format of the server where your database is running.

- Port

  Enter the port number for your database.

- Database Name

  Specify the name of your database.

- Username

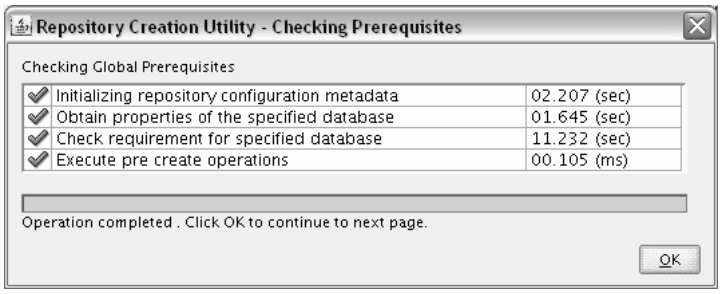
  Specify the name of a user with DB Owner privileges.

- Password

  Enter the password for your database user.

Click **Next** when you are finished entering the connection credentials for your database.

The following screen appears, indicating the progress of the installer establishing the connection with the specified database.

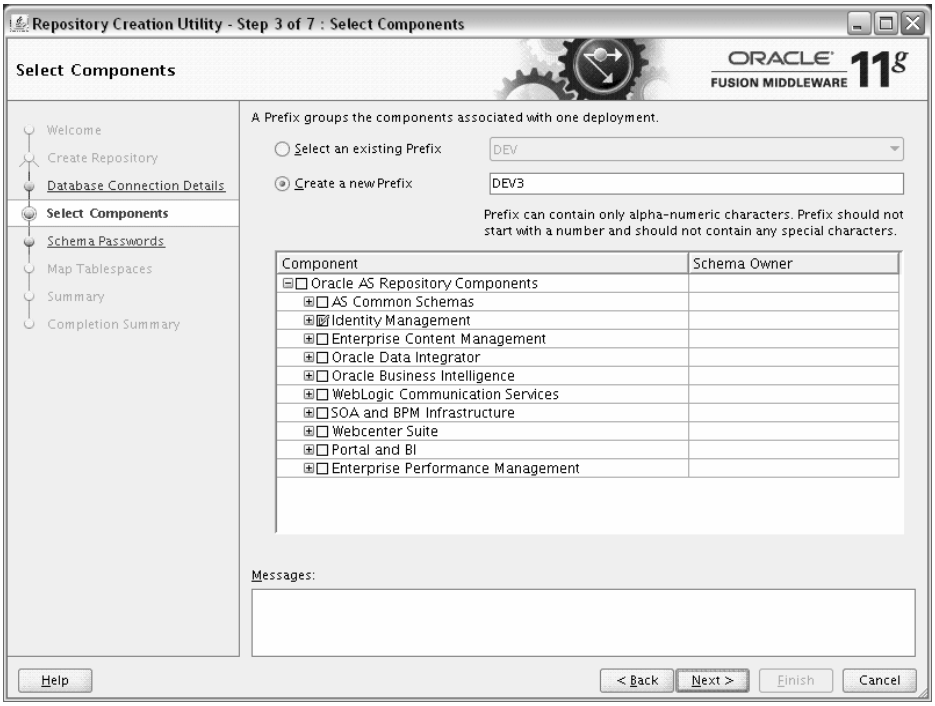


If an error occurs while the connection is being established, the error message(s) appear in the Messages field on the Database Connection Details screen.

Click **OK** to dismiss this screen.

A.5 Select Components Screen (for Create Operation)

Below is the Select Components screen if you selected **Create** on the Create Repository Screen.



The following topics are covered in this section:

- Section A.5.1, "Creating Database Users for IBM DB2 Databases"
- Section A.5.2, "Create Prefixes"
- Section A.5.3, "Select Components and Dependencies"
- Section A.5.4, "Specify Custom Schema Names"
- Section A.5.5, "Check Schema Prerequisites"

> **Note:** You must remember the prefix and schema names for the components you are installing; you will need this information during the configuration phase of Fusion Middleware product installation. Oracle recommends that you write these values down.

A.5.1 Creating Database Users for IBM DB2 Databases

IBM DB2 authenticates its database users using equivalent operating system users. Therefore, prior to running RCU, one operating system user must be created for each schema. The operating system user name must match the schema owner name and must contain only lowercase letters; no all-uppercase or mixed-case names are allowed. For example, if you create a schema named `DEV_ODI` using RCU, then the operating system user must be named `dev_odi` (all lowercase letters).

A.5.2 Create Prefixes

Prefixes are used to create logical groupings of schemas in a database. For example, if you want to create two versions of the MDS schema in the database, you can use different prefixes to uniquely identify each one (for example, TEST_MDS and PROD_MDS). Note that the prefix name and schema name are separated by an underscore (_) character.

> **Note:** The Oracle Internet Directory (ODS) component cannot be prepended with a custom prefix; there can only be one repository for this component per database.

If you want to create a new prefix for your schemas, select **Create a New Prefix** and specify a new prefix name in the field. The prefix name must be a minimum of one character in length and cannot exceed 12 alphanumeric characters (0-9, a-z, or A-Z) in length (not including the underscore character). Prefixes should not start with a number. No whitespace or special characters are allowed.

> **Note:** For IBM DB2 databases, prefixes are limited to four characters in length (not including the underscore character).

The default new prefix is DEV. If DEV already exists as a prefix, then DEV1 is used; if DEV1 exists, then DEV2 is the default, and so on.

Use existing prefixes to add additional components to an existing repository in the database. To use an existing prefix, select **Select an Existing Prefix** and choose a prefix from the drop-down list.

A.5.3 Select Components and Dependencies

When you select a component, any other components that may be required by the component you select are also selected. For example, if you select **SOA and BPM Infrastructure**, then all schemas in this category are selected along with the **Metadata Services** schema. The **Metadata Services** schema is required by each component in **SOA and BPM Infrastructure**.

If a component has a plus sign (+) next to its name, then there are sub components available. Click on the plus sign (+) to expand the category to view all sub components. If you want to select a component with all its subcomponents, click on the top-most box with the plus sign (+).

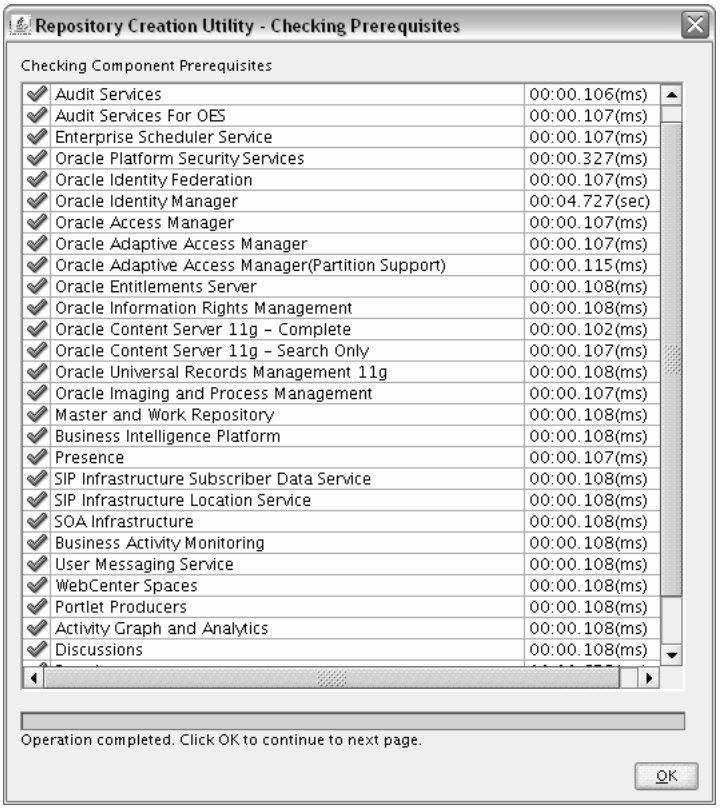
A.5.4 Specify Custom Schema Names

Click on the name of any schema in the "Schema Owner" column to change the name of the schema. Schema names can only contain alphanumeric characters (0-9, a-z, or A-Z) and are case-sensitive.

> **Note:** The Oracle Internet Directory (ODS) component cannot be prepended with a custom prefix; there can only be one repository for this component per database.

A.5.5 Check Schema Prerequisites

Click **Next** when you are finished specifying your prefix, schema names, and selecting components. The following screen appears, indicating the progress of component prerequisite checking before the schemas are created.

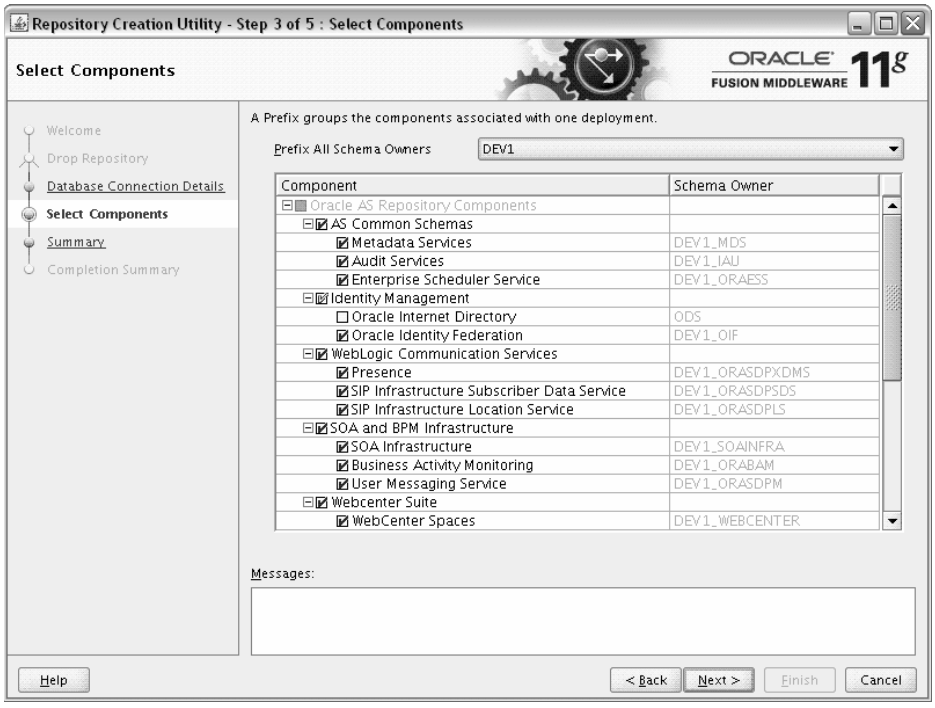


If an error occurs during the prerequisite checking, the error message(s) appear in the Messages field on the Select Components screen.

Click **OK** to dismiss this screen.

A.6 Select Components Screen (for Drop Operation)

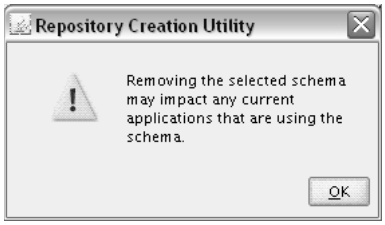
Below is the Select Components screen if you selected **Drop** on the Create Repository Screen.



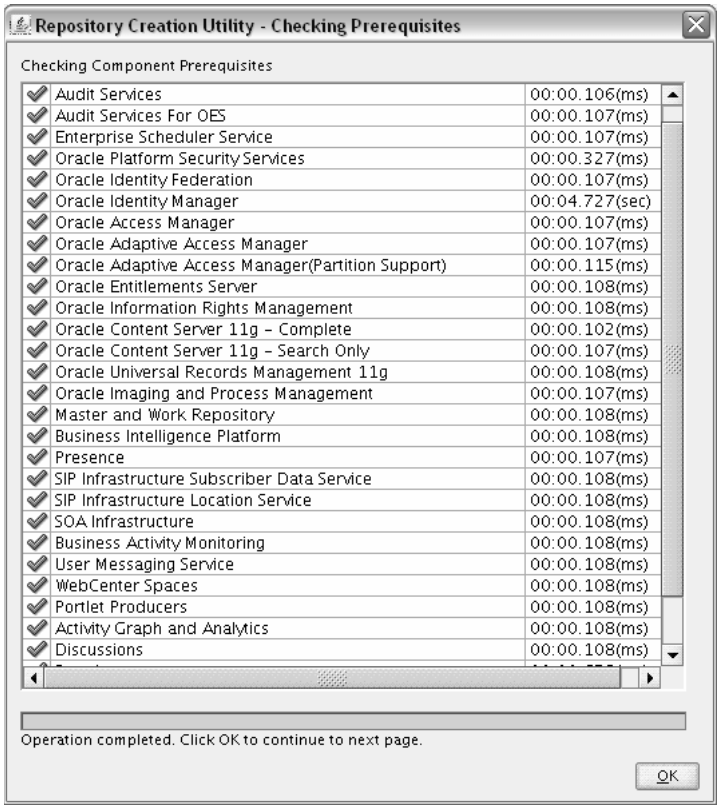
First, select the prefix associated with the schema(s) you want to drop.

Then, select the component(s) whose schemas you want to drop.

Click **Next** when you are finished. The following screen appears:



Click **OK** to continue. The following screen appears:

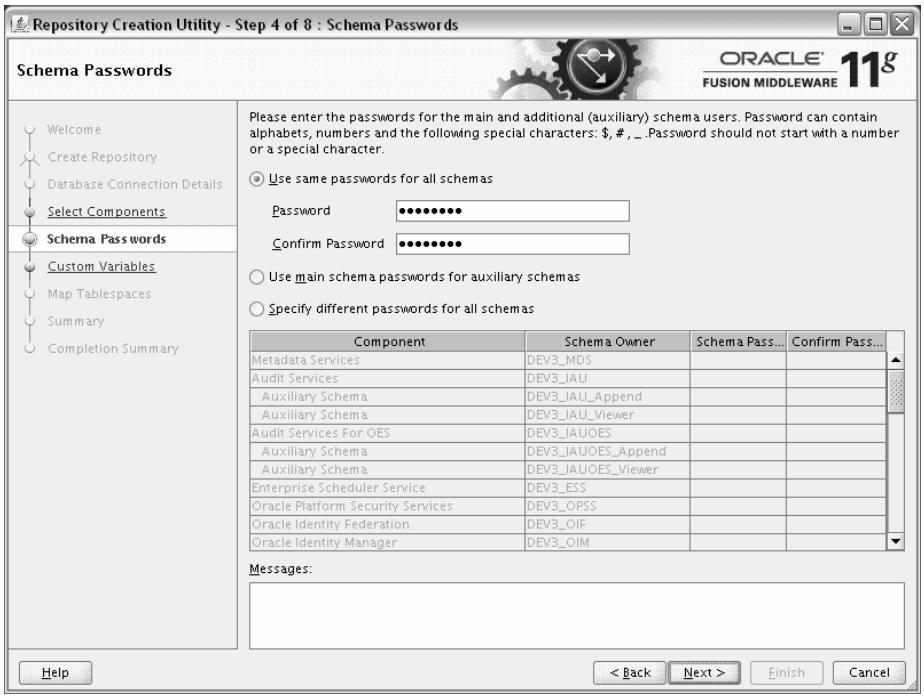


If an error occurs during the prerequisite checking, the error message(s) appear in the Messages field on the Select Components screen.

Click **OK** to dismiss this screen.

A.7 Schema Passwords Screen

Below is the Schema Passwords screen.

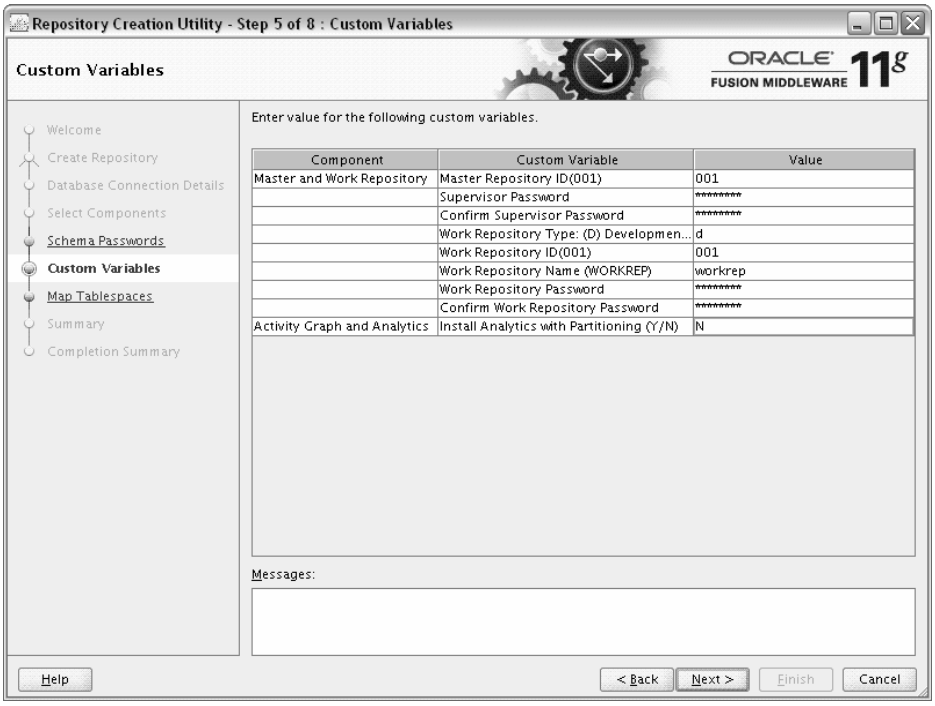


There are three ways to specify schema passwords on this screen:

- Select **Use same password for all schemas** if you want to use a single password for all schemas and their auxiliary schemas. In the Password field, enter your password. Enter your password again in the Confirm Password field.
- Select **Use main schema passwords for auxiliary schemas** if you want to specify different passwords for the main schemas, but still have the same password used for their respective auxiliary schemas. If you select this option, only the main schemas will be visible in the table. For each schema, you must enter each schema's password in the Password column in the table, and enter the same password in the Confirm Password column.
- Select **Specify different passwords for all schemas** if you want to specify unique passwords for the main schemas and auxiliary schemas. If you select this option, all main schemas and auxiliary schemas will be visible in the table. For each schema and auxiliary schema, you must enter the password in the Password column in the table, and enter the same password in the Confirm Password column.

> **Note:** You must remember the passwords you enter on this screen; you will need this information during the configuration phase of Fusion Middleware product installation. Oracle recommends that you write these values down.

A.8 Custom Variables Screen



This page allows one or more components to specify additional configuration information required by the components during runtime.

This screen only appears if you selected a component on the Select Components Screen (for Create Operation) that supports custom variables. Currently, the components that have custom variables are:

- Master and Work Repository (`ODI_REPO`)

  Specify the following for the Master and Work Repository Custom Variables:

  – Master Repository ID

    A specific ID for the new Master Repository. Master Repository ID values must be between 0 and 999. Default value is 001.

  – Supervisor Password

    Password of the supervisor user. You must confirm this password on the following line.

  – Work Repository Type

    Specify how the Work Repository will be used.

    Use **Development (D)** for creating a development repository. This type of repository allows management of design-time objects such as data models and projects (including interfaces, procedures, etc.) A development repository also includes the run-time objects (scenarios and sessions). This type of repository is suitable for development environments.

    Use **Production (P)** for creating an execution repository: This type of repository only includes run-time objects (scenarios, schedules and sessions). It allows launching and monitoring of data integration jobs in Operator

Navigator. Such a repository cannot contain any design-time artifacts. Designer Navigator cannot be used with it. An execution repository is suitable for production environments.

  - Work Repository ID

    A specific ID for the new Work Repository. Default value is 001.

  - Work Repository Name

    A unique name for the Work Repository (for example: `DEVWORKREP1`).

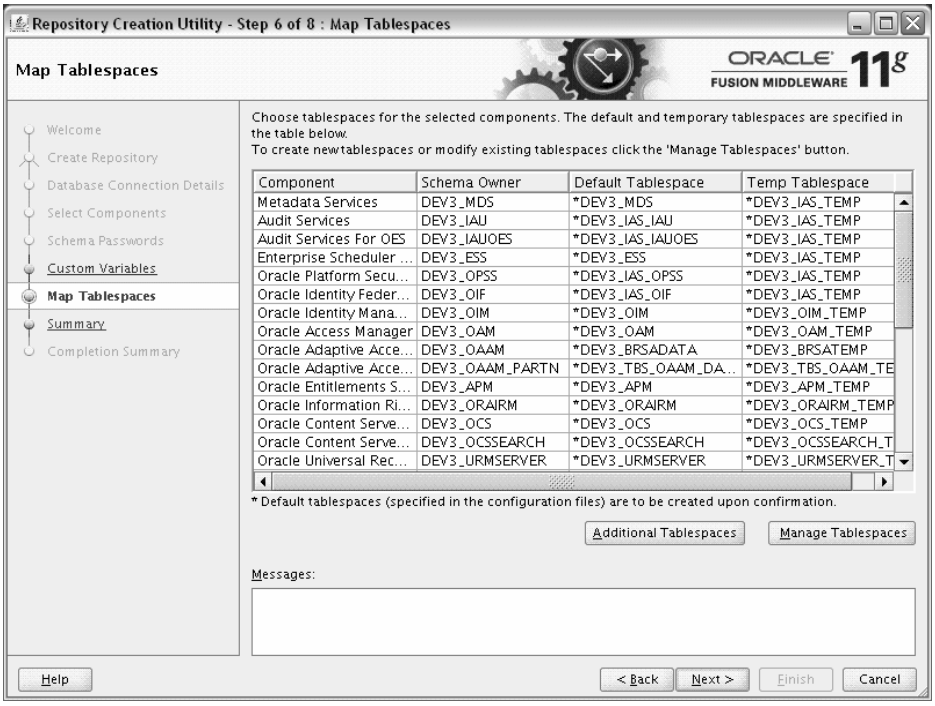
  - Work Repository Password

    (Optional) - Provide a password for the Work Repository. If you provide a password, you must confirm the password on the following line.

- Activity Graph and Analytics (`ACTIVITIES`)

  Specify `Y` if you want to install Activity Graph and Analytics with database partitioning enabled, or `N` if you do not want to enable database partitioning.

A.9 Map Tablespaces Screen



RCU Map Tablespaces screen. This screen is described in the surrounding text.

****

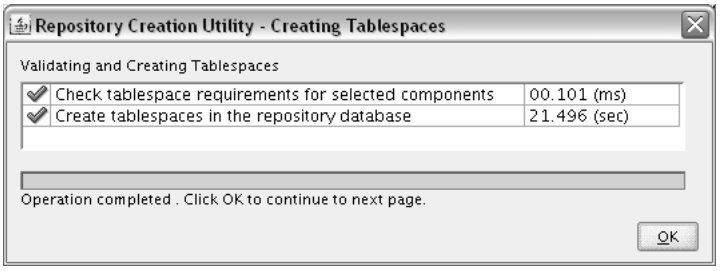
This screen only appears if you selected the **Create** option on the Create Repository Screen. The following topics are covered:

- Section A.9.1, "Default Tablespace Mappings"
- Section A.9.2, "Changing Default and Temporary Tablespaces"
- Section A.9.3, "Viewing and Changing Additional Tablespaces"
- Section A.9.4, "Managing Tablespaces and Datafiles"

Click **Next** when you are finished with your tablespace information. The following screen appears, asking you to confirm the creation of tablespaces for any new schemas.

Note: RCU only creates tablespaces for those components associated with RCU.

Click **OK** to continue. The following screen appears, indicating the progress of the tablespace creation.



Click **Stop** to cancel tablespace creation. When the tablespaces are created, click **OK** to dismiss this window.

A.9.1 Default Tablespace Mappings

The default tablespace mapping for each component are shown in Appendix B, "Repository Creation Utility Schemas, IDs, and Tablespaces".

In the Default Tablespace and Temp tablespace columns, you can click on the tablespace cell to select from a list of available additional tablespace names.

Note: OID tablespace names cannot be user specified.

A.9.2 Changing Default and Temporary Tablespaces

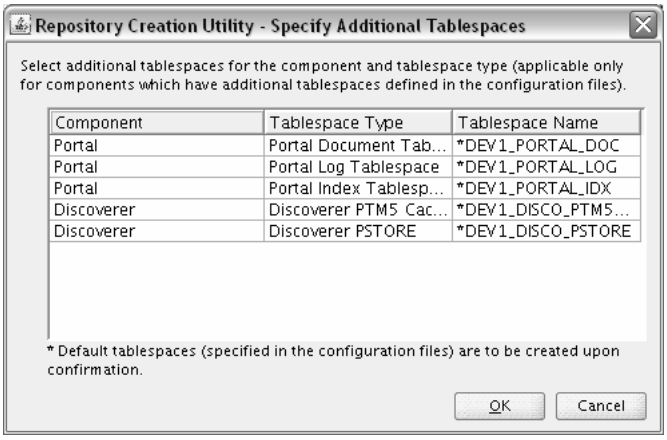
To change the default tablespace for a component, select the tablespace name in the "Default Tablespace" column, then select the tablespace name you want to use from the drop-down list. You can have your components use as many or as few tablespaces as desired to suit your configuration.

To change the temporary tablespace for a component, select the tablespace name in the "Temp Tablespace" column, then select the tablespace name you want to use from the drop-down list.

A.9.3 Viewing and Changing Additional Tablespaces

Some components have additional tablespaces associated with their schemas. If this is the case, the **Additional Tablespaces** button will appear on this screen. If none of the selected components have additional tablespaces, then this button will not appear.

To view additional tablespaces associated with the selected components, click the **Additional Tablespaces** button. You will see a screen similar to the following:



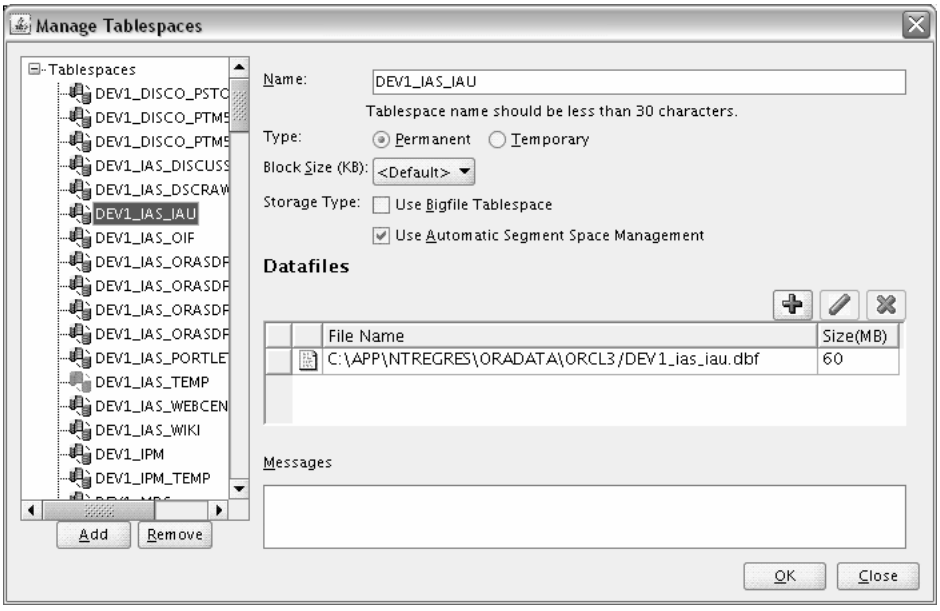
Only those components with additional tablespaces as defined in the configuration files will appear on this screen.

To change the tablespace you want to use for a component, click in the "Tablespace Name" column and select the tablespace you want to use from the drop-down list.

Click **OK** when you are finished.

A.9.4 Managing Tablespaces and Datafiles

To manage your tablespaces and datafiles, click the **Manage Tablespaces** button. You will see a screen similar to the following:



The following topics are covered in this section:

- Section A.9.4.1, "Adding, Modifying, and Removing Tablespaces"
- Section A.9.4.2, "Adding, Modifying, and Removing Datafiles"

A.9.4.1 Adding, Modifying, and Removing Tablespaces

Only tablespaces that will be created by RCU can be modified or removed. Tablespaces that existed before RCU was launched are visible on this screen but are grayed out and cannot be modified or removed.

Only tablespaces that are used by a component are created. You can specify a new tablespace here, but unless it is actually used by a component it will not be created.

To modify a tablespace, select the tablespace name on the left-hand portion of the screen, and edit the following fields as necessary:

- Name

  Edit the tablespace name this field to change the name of your tablespace.

- Type

  Specify whether you want this tablespace to be a temporary tablespace or permanent tablespace.

- Block Size (KB)

  Specify the block size (in Kilobytes) to be used for data retrieval.

- Storage Type

  Select **Use Bigfile Tablespace** if you want to create a bigfile tablespace; this is typically used if you have single large files instead of multiple small files. Select **Use Automatic Segment Space Management** if you want to use bitmaps to manage the free space within segments.

To add a tablespace, click **Add** and specify the same details as above (for modifying a tablespace) for your new tablespace.

To remove a tablespace, select the tablespace name from the navigation tree, then click **Remove**. This tablespace will not get created.

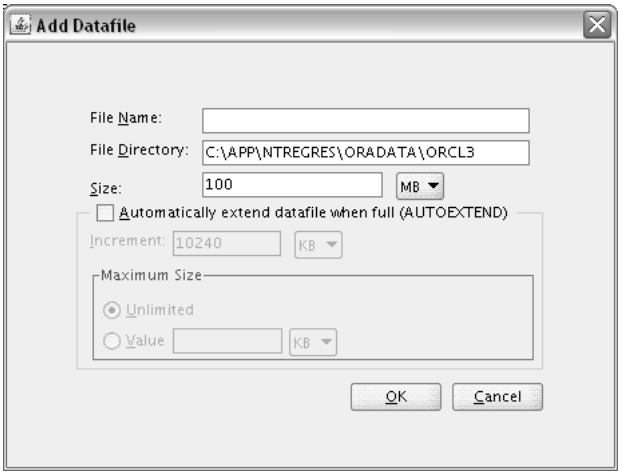
A.9.4.2 Adding, Modifying, and Removing Datafiles

In the Datafiles section, specify the datafiles that make up the selected tablespace. Select one of the following for more information:

- Section A.9.4.2.1, "Adding a Datafile"
- Section A.9.4.2.2, "Modifying a Datafile"
- Section A.9.4.2.3, "Deleting a Datafile"

A.9.4.2.1 Adding a Datafile To add a datafile, click the icon with the plus sign (+):

The Add Datafile screen appears:



Provide the following information:

- File Name

  Specify the name of the datafile.

- File Directory

  Specify the location where this datafile will reside.

- Size

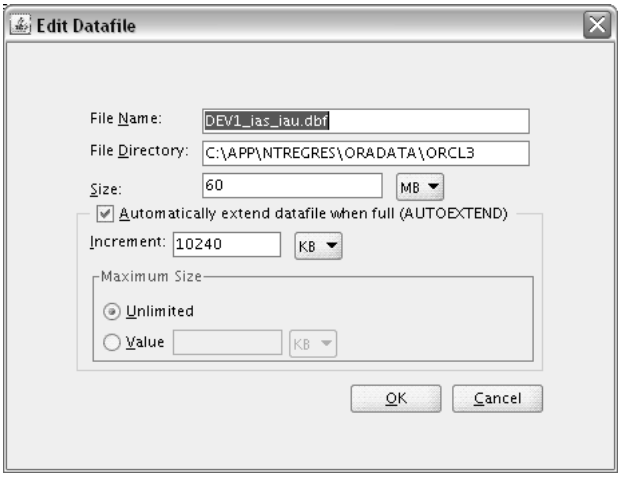
  Specify the initial size of the datafile. Use the drop-down list to specify the size in kilobytes (KB), megabytes (MB), or gigabytes (GB).

- Select **Automatically extend datafile when full (AUTOEXTEND)** if you want to automatically extend the size of your datafile when it becomes full. In the "Increment" field, specify the size by which your datafile should be increased each time it becomes full. Use the drop-down list to specify the size in kilobytes (KB), megabytes (MB), or gigabytes (GB).

- If you want to limit maximum size of the datafile, specify this value in the "Maximum Size" field.

A.9.4.2.2 Modifying a Datafile To modify or edit a datafile, select the icon next to the datafile name you want to edit, then click the icon with the pencil:

The Edit Datafile screen appears:



Provide the following information:

- File Name

  Specify the name of the datafile.

- File Directory

  Specify the location where this datafile will reside.

- Size

  Specify the initial size of the datafile. Use the drop-down list to specify the size in kilobytes (KB), megabytes (MB), or gigabytes (GB).

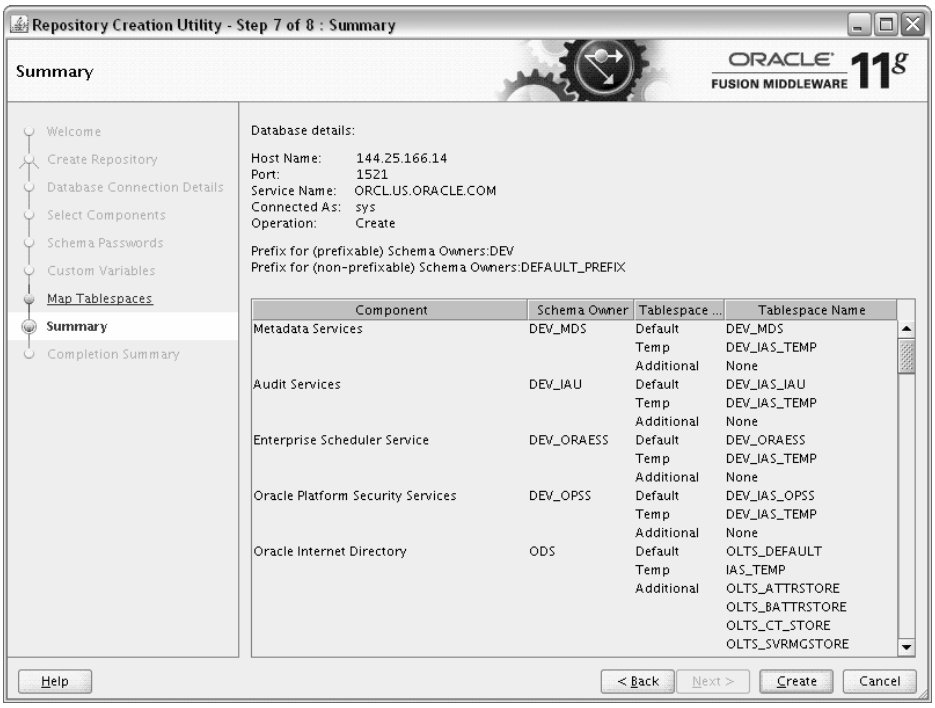
- Select **Automatically extend datafile when full (AUTOEXTEND)** if you want to automatically extend the size of your datafile when it becomes full. In the "Increment" field, specify the size by which your datafile should be increased each time it becomes full. Use the drop-down list to specify the size in kilobytes (KB), megabytes (MB), or gigabytes (GB).

- If you want to limit maximum size of the datafile, specify this value in the "Maximum Size" field.

A.9.4.2.3 Deleting a Datafile To delete a datafile, select the icon next to the datafile name you want to delete, then click the icon with the "X":

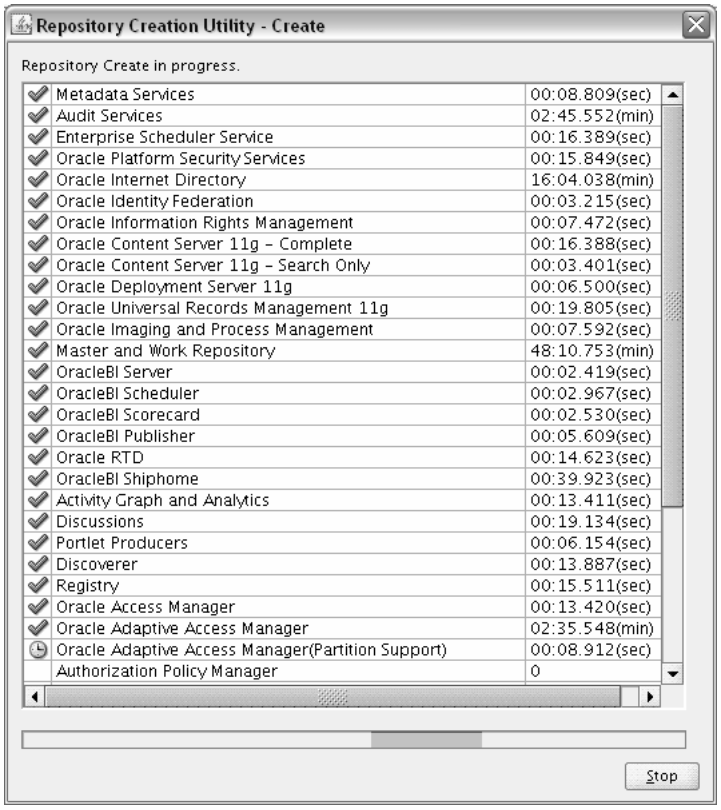
A.10 Summary Screen (for Create Operation)

Below is the Summary screen if you selected **Create** on the Create Repository Screen.



Review the information on this screen, and click **Create** to begin schema creation. The operations summarized on this page will be performed when you click **Create**.

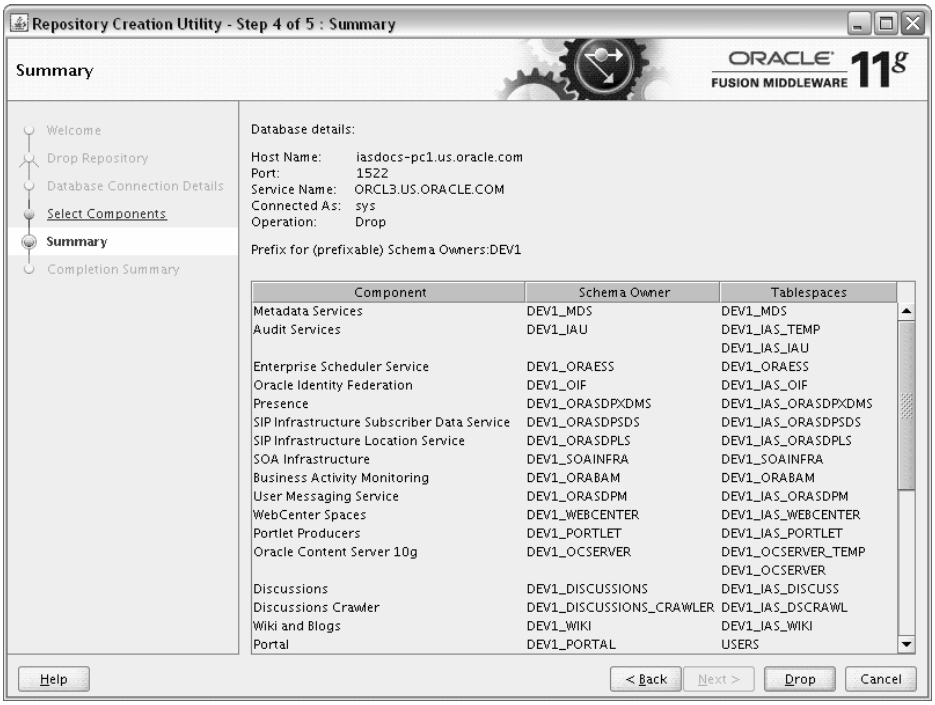
While the schemas are being created, you will see the following progress screen:



Click **Stop** if you want to stop creating the schemas.

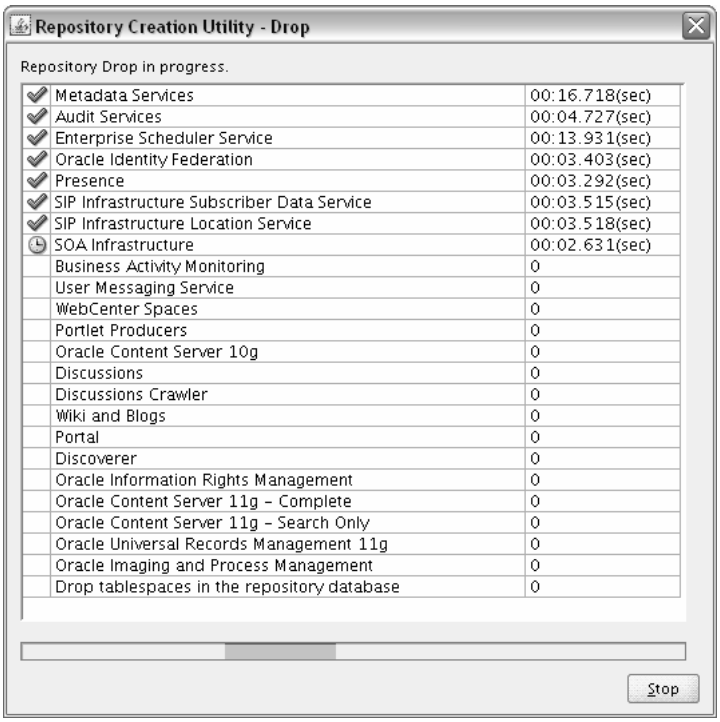
A.11 Summary Screen (for Drop Operation)

Below is the Summary screen if you selected **Drop** on the Create Repository Screen.



Review the information on this screen, and click **Drop** to begin the operations summarized on this page.

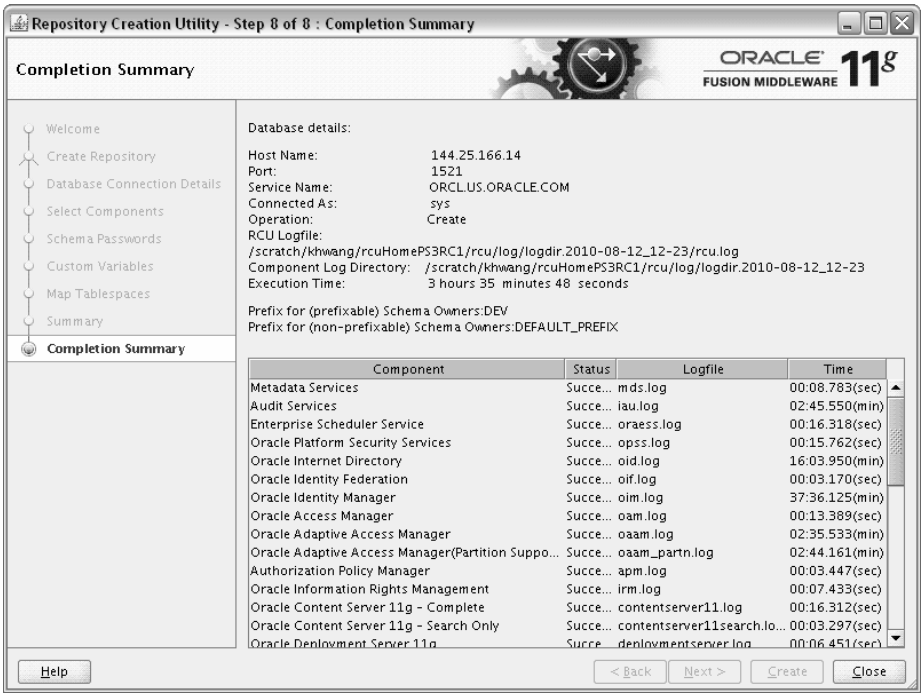
While the schema(s) are being dropped, you will see the following progress screen:



Click **Stop** if you want to cancel the operation.

A.12 Completion Summary Screen (for Create Operation)

Below is the Completion Summary screen if you selected **Create** on the Create Repository Screen.



Note the log file names for each component that are visible in the "Logfile" column.

The main RCU log and component log files are written to the following directory on UNIX operating systems:

RCU_HOME/rcu/log/logdir.*date_timestamp*

On Windows operating systems:

RCU_HOME\rcu\log\logdir.*date_timestamp*

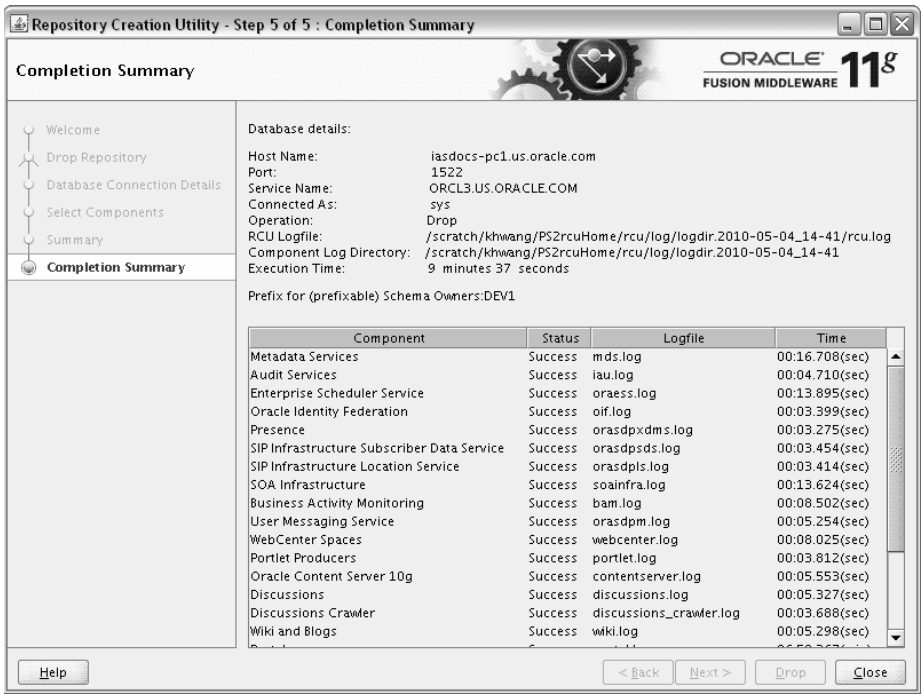
If there were any problems encountered during schema creation, you can troubleshoot the issue using the log files. For more information, see Appendix C, "Troubleshooting Repository Creation Utility".

If errors are encountered during a Create operation, or if a Create operation fails for any component, the **Cleanup for failed components** checkbox appears on this page and is selected by default. If selected, RCU will perform cleanup operations for the component that failed during the Create operation. If you choose not to select this checkbox, you can cleanup the failed component at a later time by performing a Drop operation for the failed component(s).

Review the information on this screen, then click **Close** to dismiss this screen.

A.13 Completion Summary Screen (for Drop Operation)

Below is the Completion Summary screen if you selected **Drop** on the Create Repository Screen.



Note the log file names for each component that are visible in the "Logfile" column.

The main RCU log and component log files are written to the following directory on UNIX operating systems:

RCU_HOME/rcu/log/logdir.*date_timestamp*

On Windows operating systems:

RCU_HOME\rcu\log\logdir.*date_timestamp*

If there were any problems encountered during schema creation, you can troubleshoot the issue using the log files. For more information, see Appendix C, "Troubleshooting Repository Creation Utility".

Review the information on this screen, then click **Close** to dismiss this screen.

B

Repository Creation Utility Schemas, IDs, and Tablespaces

This appendix lists the available schemas that can be created using RCU, and also their component IDs and dependencies.

Table B–1 lists the schemas along with their component IDs, tablespace mappings, and dependencies.

The "Schema Owner" is the name of the schema that you will see in RCU and is also the name you must provide in the Fusion Middleware Configuration Wizard on the Configure JDBC Component Schema screen.

The "Component ID" is the value you must specify with the `-component` parameter when you are creating or dropping schemas using the command line.

Note: Not all schemas are supported on all database types. For more information, refer to "Repository Creation Utility (RCU) Requirements" in the System Requirements and Specifications document:

`http://www.oracle.com/technology/software/products/ias/files/fusion_requirements.htm`

Table B–1 Schema Component IDs, Tablespace Mappings, and Dependencies

Component	Schema Owner	Component ID	Default Tablespace	Temp Tablespace	Dependencies
AS Common Schemas					
Metadata Services	MDS	MDS	MDS	IAS_TEMP	None
Audit Services	IAU	IAU	IAS_IAU	IAS_TEMP	None
Enterprise Scheduler Service	ORAESS	ORAESS	ORAESS	IAS_TEMP	None
Oracle Platform Security Services	OPSS	OPSS	IAS_OPSS	IAS_TEMP	None
Identity Management Schemas					
Oracle Internet Directory	ODS	OID	OLTS_ DEFAULT	IAS_TEMP	None
Oracle Identity Federation	OIF	OIF	IAS_OIF	IAS_TEMP	None

Table B–1 (Cont.) Schema Component IDs, Tablespace Mappings, and Dependencies

Component	Schema Owner	Component ID	Default Tablespace	Temp Tablespace	Dependencies
Oracle Identity Manager	OIM	OIM	OIM	OIM_TEMP	Metadata Services (MDS) SOA Infrastructure (SOAINFRA) User Messaging Service (ORASDPM)
Oracle Access Manager	OAM	OAM	OAM	OAM_TEMP	Audit Services (IAU)
Oracle Adaptive Access Manager	OAAM	OAAM	BRSADATA	BRSATEMP	Metadata Services (MDS)
Oracle Adaptive Access Manager (Partition Support)	OAAM_PARTN	OAAM_ PARTN	TBS_OAAM_ DATA	TBS_ OAAM_ TEMP	Metadata Services (MDS)
Oracle Entitlements Server	APM	APM	APM	APM_TEMP	Metadata Services (MDS)
Oracle Enterprise Content Management Suite Schemas					
Oracle Information Rights Management	ORAIRM	IRM	ORAIRM	ORAIRM_ TEMP	None
Oracle Content Server 11*g* - Complete	OCS	CONTENTS ERVER11	OCS	OCS_TEMP	None
Oracle Content Server 11*g* - Search Only	OCSSEARCH	CONTENTS ERVER11SE ARCH	OCSSEARCH	OCSSEARC H_TEMP	None
Oracle Universal Records Management 11*g*	URMSERVER	URM	URMSERVER	URMSERVE R_TEMP	None
Oracle Imaging and Process Management	IPM	IPM	IPM	IPM_TEMP	None
Oracle Data Integrator Schemas					
Master and Work Repository	ODI_REPO	ODI	ODI_USER	ODI_TEMP	None
Oracle Business Intelligence Schemas					
Business Intelligence Platform	BIPLATFORM	BIPLATFOR M	BIPLATFOR M	BIPLATFOR M_TEMP	Metadata Services (MDS)
WebLogic Communication Services Schemas					
Presence	ORASDPXDMS	ORASDPXD MS	IAS_ ORASDPXD MS	IAS_TEMP	Metadata Services (MDS) SIP Infrastructure Subscriber Data Service (ORASDPSDS) SIP Infrastructure Location Service (ORASDPLS) User Messaging Service (ORASDPM)

Table B–1 (Cont.) Schema Component IDs, Tablespace Mappings, and Dependencies

Component	Schema Owner	Component ID	Default Tablespace	Temp Tablespace	Dependencies
SIP Infrastructure Subscriber Data Service	ORASDPSDS	ORASDPSDS	IAS_ ORASDPSDS	IAS_TEMP	Metadata Services (MDS) SIP Infrastructure Location Service (ORASDPLS)
SIP Infrastructure Location Service	ORASDPLS	ORASDPLS	IAS_ ORASDPLS	IAS_TEMP	Metadata Services (MDS) SIP Infrastructure Subscriber Data Service (ORASDPSDS)
SOA and BPM Infrastructure Schemas					
SOA Infrastructure	SOAINFRA	SOAINFRA	SOAINFRA	IAS_TEMP	Metadata Services (MDS) User Messaging Service (ORASDPM)
Business Activity Monitoring	ORABAM	BAM	ORABAM	IAS_TEMP	Metadata Services (MDS) User Messaging Service (ORASDPM)
User Messaging	ORASDPM	ORASDPM	IAS_ ORASDPM	IAS_TEMP	Metadata Services (MDS)
WebCenter Suite Schemas					
Portlet Producers	PORTLET	PORTLET	IAS_ PORTLET	IAS_TEMP	None
WebCenter Spaces	WEBCENTER	WEBCENTER	IAS_ WEBCENTER	IAS_TEMP	Metadata Services (MDS)
Discussions	DISCUSSIONS	DISCUSSIONS	IAS_DISCUSS	IAS_TEMP	None
Activity Graph and Analytics	ACTIVITIES	ACTIVITIES	IAS_ ACTIVITY	IAS_TEMP	None
Portal and Business Intelligence Schemas					
Discoverer	DISCOVERER	DISCOVERER	DISCO_ PTM5_META	IAS_TEMP	None
Portal	PORTAL	PORTAL	PORTAL	IAS_TEMP	Portlet Producers (PORTLET)
Enterprise Performance Management Schemas					
Registry	EPM	EPMREGISTRY	EPM	IAS_TEMP	None

In addition to the component IDs listed in the table, there is also a SAMPLE schema that can be used for testing purposes.

C

Troubleshooting Repository Creation Utility

This appendix describes solutions to common problems that you might encounter when running Repository Creation Utility (RCU). It contains the following sections:

- Section C.1, "General Troubleshooting Tips"
- Section C.2, "RCU Log Files"
- Section C.3, "Need More Help?"

C.1 General Troubleshooting Tips

If you encounter an error during installation:

- Read the *Oracle Fusion Middleware Release Notes* for the latest updates. The release notes are available with the platform-specific documentation. The most current version of the release notes is available on Oracle Technology Network (OTN):

  `http://www.oracle.com/technology/documentation/middleware.html`

- Verify that your computer meets the requirements as specified in the Oracle Fusion Middleware System Requirements and Specifications document, which can be found on OTN:

  `http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html`

- Verify that your environment meets the certification requirements as specified in the *System Requirements and Supported Platforms for Oracle Fusion Middleware 11gR1* document, which can be found on the Oracle Fusion Middleware Supported System Configurations page:

  `http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html`

- Make sure that your database is up and running.
- If you entered incorrect information on one of the screens, use the navigation pane on the left hand side of the graphical interface to return to that screen.
- If an error occurred while running RCU:

  1. Note the error and review the installation log files (see Section C.2, "RCU Log Files").
  2. Correct the issue that caused the error. Depending on the type of error, you may either continue with your RCU operation, or be forced to restart RCU.
  3. Continue or restart RCU to complete your desired operation.

C.2 RCU Log Files

The main RCU log file is written to the *RCU_HOME*/rcu/log/logdir.*date_timestamp*/rcu.log (on UNIX operating systems) or *RCU_HOME*\rcu\log\logdir.*date_timestamp*\rcu.log (on Windows operating systems) file. For example, on a UNIX operating system:

```
RCU_HOME/rcu/log/logdir.2010-01-02_03-00/rcu.log
```

In addition to this general log file, each component writes a log file of its own. All component log files are also written to the *RCU_HOME*/rcu/log/logdir.*date_timestamp* (on UNIX operating systems) or *RCU_HOME*\rcu\log\logdir.*date_timestamp* (on Windows operating systems) directory.

Table C–1 lists the component log file names in alphabetical order.

Table C–1 RCU Component Log File Names

Component	Log File Name
Activity Graph and Analytics	activities.log
Authorization Policy Manager	apm.log
Business Activity Monitoring	bam.log
Business Intelligence Platform	biplatform.log
Oracle Content Server 11*g* - Complete	contentserver11.log
Oracle Content Server 11*g* - Search	contentserver11search.log
Oracle Content Server 10*g*	contentserver.log
Discoverer	discoverer.log
Oracle Discussions Crawler	discussions_crawler.log
Oracle Discussions	discussions.log
Registry	epmregistry.log
Audit Services	iau.log
Oracle Imaging and Process Management	ipm.log
Oracle Information Rights Management	irm.log
Metadata Services	mds.log
Oracle Access Manager	oam.log
Oracle Adaptive Access Manager	oaam.log
Oracle Adaptive Access Manager (Partition Support)	oaam_partn.log
Master and Work Repository	odi.log
Oracle Internet Directory	oid.log
Oracle Identity Federation	oif.log
Oracle Identity Manager	oim.log
Enterprise Scheduler Service	oraess.log
SIP Infrastructure Location Service	orasdpls.log
User Messaging	orasdpm.log
SIP Infrastructure Subscriber Data Service	orasdpsds.log
Presence	orasdpxdms.log

Table C–1 (Cont.) RCU Component Log File Names

Component	Log File Name
Oracle Portal	`portal.log`
Portlet Producers	`portlet.log`
SOA Infrastructure	`soainfra.log`
Oracle Universal Records Management 11*g*	`urm.log`
WebCenter Spaces	`webcenter.log`

C.3 Need More Help?

If this appendix does not solve the problem you encountered, try these other sources:

- *Oracle Fusion Middleware Release Notes*, available on the Oracle Technology Network (OTN):

  `http://www.oracle.com/technology/documentation`

- My Oracle Support (formerly Oracle*MetaLink*):

  `https://support.oracle.com/`

If you do not find a solution for your problem, open a service request.

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