Kintana Object*Migrator Installation Guide

Version 5.1

Kintana Object*Migrator, Version 5.1

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Introduction

Kintana Object*Migrator™ manages Oracle E-Business Suite™ release 10, 11, and 11i Application Object Library (AOL) objects across multiple databases to support mission-critical business applications. Concurrent programs allow users to move objects between instances while maintaining database integrity. Customizations and configurations developed in one instance can be transferred to one or all other instances. Objects can be placed under version control in an archive, providing auditing, rollback, and recovery capabilities. Data can be migrated across different releases of Oracle E-Business Suite, simplifying both upgrades and instance consolidations. With Kintana Object*Migrator, users are able to find out what has changed and what needs to change, thus saving time implementing and maintaining the AOL setups that support critical business processes.

Release Overview

Release 5.1 of Kintana Object*Migrator extends support of Oracle E-Business Suite through release 11.5.9 and the FND.G Minipack. Object*Migrator 5.1 integrates with release 5.0 of the Kintana Product Suite.

For a list of new features in Kintana Object*Migrator 5.1, and information about upgrading to Object*Migrator 5.1, see *Kintana Object*Migrator Upgrade Guide*.

> **Note**
>
> For the most up-to-date information about Object*Migrator 5.1, see the 5.1 Release Notes on the Mercury Interactive Download Center at *http://ITG.MERC-INT.COM/support/download/login.jsp*.

Document Overview

This document provides information for maintaining and configuring Kintana Object*Migrator, and for auditing Object*Migrator executions. It covers the following specific topics:

- *Product Overview*
- *System Requirements*
- *Installing Object*Migrator*

| Note | The content of this documentation reflects Oracle Release 11i forms. Release 10.7 or 11 forms may vary in appearance. |

Intended Audience and Prerequisite Knowledge

This intended audience for this document includes the following:

- Database or application administrators responsible for installing Object*Migrator

- Database or application administrators responsible for setting up database schema and maintaining one or more Oracle Applications instances
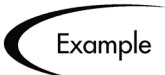
To install Kintana Object*Migrator, you need to:

- Understand the key concepts listed and described in *Kintana Object*Migrator User's Guide*

- Have privileges to create schemas and database links in the Oracle Applications database and use the System Administrator responsibility in Oracle Applications

- Have privileges to define how different databases identify each other (for example, tnsnames and global names)

Document Conventions

Table 1-1 lists the conventions used in this document.

Table 1-1. Document Conventions

Convention	Description	Example
Button, menu, tabs	Names of interface components that can be clicked (such as buttons, menus, and tabs) are shown in bold.	**Apply** button
Fields, Windows, Pages	Names of windows, fields, and pages are shown as displayed.	New Request window

`Code`	Code input and output are shown as displayed.	`CauchoConfigFile`
		`C:/`*`ITG_Home`*`/conf/`
		`resin.conf`

Link	Linked URLs, filenames, and cross references are shown as blue italicized text.	*www.merc-int.com*
Variable	Variables are shown as italicized text.	*ITG_Home*/bin directory
Note	Notes contain additional information.	Note
Caution	Cautions contain important information and instructions. Failure to follow the instructions may result in loss of data.	Caution
Example	Examples contain samples of related procedures.	Example

Additional Resources

Mercury Interactive provides the following additional resources to help you successfully install, upgrade, and use Kintana Object*Migrator. As indicated below, some of the listed documentation may be of interest to you and accessible to you only if you have purchased additional Mercury Interactive or Kintana products. This section contains the following topics:

- *Related Documentation*
- *Customer Support*

Related Documentation

The Kintana Library includes additional documents related to the topics discussed in this manual. The following related documentation might be helpful to anyone installing, configuring, and using Kintana Object*Migrator. This section includes the following categories of documentation:

- *Object*Migrator Documentation*
- *Accelerator Documentation*
- *Administration Documentation*
- *Change Management and Configuration Documentation*

Object*Migrator Documentation

The following are additional documents in the Kintana Object*Migrator documentation set. You can access this documentation (after you have purchased Object*Migrator) through the Mercury Interactive Download Center at *http://ITG.MERC-INT.COM/support/download/login.jsp*:

*Object*Migrator Upgrade Guide*	Provides system requirements and instructions for upgrading Kintana Object*Migrator from one product release to another.
*Object*Migrator User's Guide*	Provides information about using Kintana Object*Migrator, including information about migrating, archiving, and comparing specific Oracle Applications objects.

*Object*Migrator System Administration Guide*	Provides an architectural overview of Kintana Object*Migrator and instructions for maintaining the product. This document also includes instructions for setting up optional configurations and product features.

Accelerator Documentation

The following manuals document Kintana Accelerators in the Oracle environment. You can access these manuals in the Kintana Library (if you have purchased the relevant products):

- Through the Kintana online help

  To access the online help, select **Help > Contents and Index** from the Kintana menu bar.

- Through the Mercury Interactive Download Center:

  http://ITG.MERC-INT.COM/support/download/login.jsp

Accelerator for Oracle Applications	Documents Kintana Accelerator for Oracle E-Business Suite, which helps to automate change management in the Oracle E-Business Suite environment.
Accelerator for Oracle Technology	Documents Kintana Accelerator for Oracle Technology, which helps to automate change management in application environments built using Oracle tools like SQL*Plus, PL/SQL, Pre-compilers, Oracle Forms, and Oracle Reports.

Administration Documentation

The following manuals might be useful to system, database, and application administrators working with Kintana Object*Migrator. You can access the manuals (if you have purchased the relevant Kintana products):

- Through the Kintana online help

To access the online help, select **Help > Contents and Index** from the Kintana menu bar.

- Through the Mercury Interactive Download Center:

  http://ITG.MERC-INT.COM/support/download/login.jsp

Kintana Installation	Documents the requirements and procedures for installing products in Kintana Product Suite.
Kintana Upgrade	Documents the requirements and procedures for upgrading a products in Kintana Product Suite. Includes information about new features, upgrade impacts, and upgrade process.
Kintana Migration	Documents how to do instance administration.
Kintana System Administration	Documents how to implement, configure, and maintain Kintana Servers.

Change Management and Configuration Documentation

The following manuals might be useful to system, database, and application administrators working with Kintana Object*Migrator. You can access the documents (if you have purchased the relevant Kintana products):

- Through the Kintana online help

  To access the online help, select **Help > Contents and Index** from the Kintana menu bar.

- Through the Mercury Interactive Download Center:

  http://ITG.MERC-INT.COM/support/download/login.jsp

Processing Packages (Kintana Deliver)	Provides instructions for processing Packages.

Configuring a Deployment System	Provides instructions for modeling processes in the Kintana Product Suite. Contains process overviews, implementation instructions, and detailed examples.
Using Commands and Tokens in Kintana	Provides reference information about using Commands and Tokens in Kintana Product Suite.
Kintana Security Model	Provides information about the Kintana data security model and instructions for controlling access to different types of entities.

Customer Support

You can access customer support for Kintana products and also additional product information from the Mercury Interactive Support Web site, located at *http://support.mercuryinteractive.com*.

Chapter

2

Product Overview

This chapter explains the architecture and types of files used by Kintana Object*Migrator.

This chapter covers the following topics:

- *Architecture*
- *Product Components*

Architecture

Kintana Object*Migrator is a custom application installed into an Oracle E-Business Suite instance. Its default application short name is CLM, and its full application name is Kintana Object*Migrator.

Object*Migrator has its own database schema. This schema contains the Object*Migrator database objects and communicates with the APPS schema. These are required in order to migrate Application Object Library (AOL) setup data, as well as retain archived versions of objects and capture migration audit data.

Object*Migrator programs are registered as concurrent programs. These programs utilize the standard security and concurrent processing features available within the Oracle E-Business Suite, such as Concurrent Program registrations, Request Groups and Responsibilities, to control their use.

Object*Migrator has the flexibility to be installed on either the source or destination instance of data migrations, or on a completely independent instance. This is because it communicates with other instances using SQL*Net and database links created in the Object*Migrator schema. The database links are defined to provide a link from the Object*Migrator schema to the APPS schema of a given instance. If Object*Migrator is installed in an instance that

is the source or destination of a migration, the Object*Migrator schema will contain a database link pointing to the APPS schema of the local database.

Figure 2-1 illustrates the relationship between the Object*Migrator schema, APPS, source and destination databases.
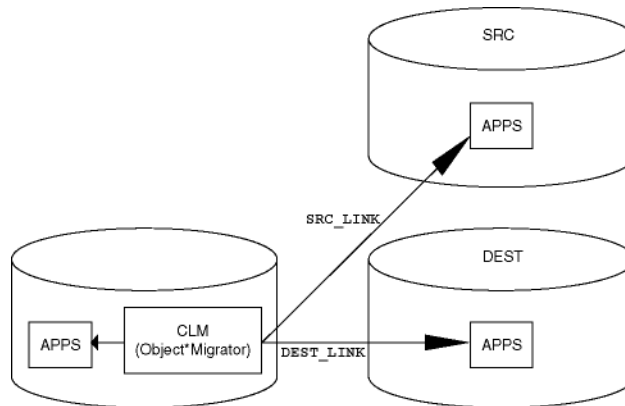
*Figure 2-1 Object*Migrator Architecture*

Product Components

Kintana Object*Migrator relies on three main components to install properly. The following sections discuss these components:

- *Reports*
- *SQL Scripts*
- *Shell Scripts*

Reports

Report files are executed as concurrent programs launched from the Submit Requests form (also known as the Run Reports form). Oracle Reports files have (.rdf) extensions. There is one report file for each of the Object*Migrator modules. Some Object*Migrator modules are not applicable to all Oracle E-Business Suite releases.

Table 2-1 on page 15 describes the reports used to perform AOL migrations. *Table 2-2 on page 15* describes the reports used to perform system administration tasks.

Table 2-1. Reports Used to Perform AOL Migrations

Report Name	Used to Migrate
CLMRMCL1.rdf	QuickCodes
CLMRMCM1.rdf	Concurrent Manager Definitions
CLMRMCP1.rdf	Concurrent Programs
CLMRMDF1.rdf	Descriptive FlexFields
CLMRMFD1.rdf	Folders
CLMRMFN1.rdf	Functions
CLMRMFS1.rdf	FSG Row/Column Sets
CLMRMGM1.rdf	GUI Menus
CLMRMHT1.rdf	Help Text
CLMRMMN1.rdf	Menus
CLMRMMS1.rdf	Messages
CLMRMNS1.rdf	Named SQL
CLMRMPO1.rdf	Profile Options
CLMRMPT1.rdf	Printer Definitions
CLMRMRG1.rdf	Report Groups
CLMRMRP1.rdf	Responsibilities
CLMRMRS1.rdf	Report Sets
CLMRMUS1.rdf	Users
CLMRMVS1.rdf	Value Sets
CLMRMZM1.rdf	Zooms

Table 2-2. Reports Used in System Maintenance and Administration

Report Name	Usage
CLMRDPG1.rdf	Purge Object*Migrator Interface Tables
CLMRDPV1.rdf	Purge Object Archive Versions
CLMRMAD1.rdf	Kintana Object*Migrator Audit Report

Table 2-2. Reports Used in System Maintenance and Administration

Report Name	Usage
CLMRMMC1.rdf	Migration Comparison Report
CLMRMVR1.rdf	Object Archive Version Detail Report
CLMRDVW1.rdf	Maintain Object*Migrator Views

SQL Scripts

SQL Script files have sql extensions. These files are used to perform automatic set up of the internal objects, such as applications, tables, indexes, sequences, concurrent programs, flexfields, and value sets necessary for each of the modules to execute.

Shell Scripts

Shell scripts do not have file extensions and are used to drive the installation process for Object*Migrator.

Chapter

3

System Requirements

This chapter explains the system requirements for Kintana Object*Migrator.

This chapter covers the following topics:

- *File System Requirements*

- *Table Space Requirements*

- *Platform Requirements*

- *Instance Requirements*

- *Distributed Database Option - Recommended*

- *Application Naming Requirements*

- *Version Control Considerations*

File System Requirements

Kintana Object*Migrator requires a minimum amount of disk space to be successfully installed. *Table 3-1* lists the space requirements for the Object*Migrator file system:

*Table 3-1. Object*Migrator File System Space Requirements*

Object	Required Space
Install Bundle	30 - 35 MB (temporary)
Install Scripts	5.0 MB
Programs (.rdf files)	1.5 MB per program 30 MB total

Table Space Requirements

Object*Migrator requires a minimum amount of table space in order to function properly. *Table 3-2* lists the table space requirements for Object*Migrator:

*Table 3-2. Object*Migrator Table Space Requirements*

Object	Required Space	Recommended Space
Interface Tables	30 MB	60 MB
Indexes on Interface Tables	20 MB	30 MB
Archive Tables and Indexes	30 MB*	60 MB*

* Requirements directly related to number of objects placed under version control.   (See *"Version Control Considerations"* on page 20 for details). In addition, sizing may depend on your database version and configuration.

Platform Requirements

Since Object*Migrator works within Oracle E-Business Suite and uses standard Oracle tools, it can run on any platform running Oracle E-Business Suite.

The Kintana Object*Migrator installation procedure utilizes a shell script to drive the installation. The location in which Object*Migrator is being installed must support bourne shell executions. The MKS Toolkit™ fulfills this requirement on Windows environments.

Instance Requirements

Kintana Object*Migrator runs as concurrent programs using Oracle Application's concurrent manager. The user accesses the Oracle Submit Requests form (also known as the Standard Request Submission form) to launch the migration programs. The instance on which Object*Migrator is installed must be able to run a concurrent program.

Object*Migrator requires only an installation of the Applications Object Library (AOL). Object*Migrator does not need any other application (such as INV, HR, or GL) to be installed, though having these applications installed will not cause any compatibility problems.

> **Note**
>
> Since Object*Migrator resides as a custom application within the Oracle E-Business Suite instance, it should be installed in an instance that will not be refreshed. Normally, this will be either a Production instance or an instance dedicated to hosting Object*Migrator.

Distributed Database Option - Recommended

Kintana Object*Migrator uses database links to access all databases. The Distributed Database Option is required to insert, delete, or update data on a remote database. It is strongly recommended that this option be active on all the databases being used as sources and destinations. For information on how to install Object*Migrator with the Distributed Database Option off, see *Kintana Object*Migrator System Administration Guide*.

> **Note**
>
> If using Object*Migrator in conjunction with Kintana Deliver, the Distributed Database Option is required.

The database where Object*Migrator resides must be configured so Oracle Applications databases that will be the source or destination of a migration can be accessed using database links (that is, configurations like tnsnames, listener, or global names).

Application Naming Requirements

Kintana Object*Migrator requires that existing applications with the short name CLM do not exist on the instance in which the Migrator is being installed. If a CLM application does exist, contact Mercury Interactive Support for assistance. For information about how to do that, see *"Customer Support"* on page 11.

Version Control Considerations

Kintana Object*Migrator uses archive tables to store version information for AOL objects. These tables reside on the instance where Object*Migrator is installed. If Object*Migrator is installed on multiple databases and uses the Version Control functionality on all the installations, multiple AOL object repositories will exist. To prevent confusion, it is recommended that the Version Control functionality be used on only one installation.

> **Note**
>
> Since Object*Migrator uses database tables to store object information, install it on a database instance that will not be periodically refreshed. If the database does need to be refreshed for some reason, export the data in the Object*Migrator tables (all Migrator table names begin with CLM) before the refresh and import the data once the refresh is completed.

Sizing Requirements for Object Archive Tables

When saving an object to the Object Archive, Object*Migrator takes the entire definition of the object and stores it in special archive tables. The growth of these archive tables directly corresponds to the number of objects and the number of versions put into these tables. For some objects, object complexity and size may also be a factor.

If periodic storage of versions of entire groups of objects is planned rather than only objects that change, then more table space will be required than the recommended 30 megabytes. It is recommended to start with a 30 megabyte allocation and then add table space as needed.

Chapter

4

Installing Object*Migrator

This chapter provides step by step instructions for installing Kintana Object*Migrator. An example is used to illustrate a typical installation scenario.

This chapter covers the following topics:

- *Example Scenario*

- *Pre-Installation Setup*

- *Installing on Unix*

- *Installing on Windows*

- *Configuring Your System to Work with Object*Migrator*

Example Scenario

The ACME Corporation is installing Kintana Object*Migrator at a site with four database instances named STAGE, DVLP, PILOT, and PROD. Carl, their database administrator, has to select one of the instances on which to install Object*Migrator. Although he could select any of the instances, he chooses the one that is refreshed least frequently. DVLP and PILOT, which are refreshed frequently, are not preferred. PROD is a good candidate on which to install Object*Migrator; however, the operations staff prefers that Carl not install any external tools in the PROD database. STAGE is a small staging database that only has Application Object Library installed and is never refreshed. STAGE is thus selected as the instance on which Object*Migrator is to be installed.

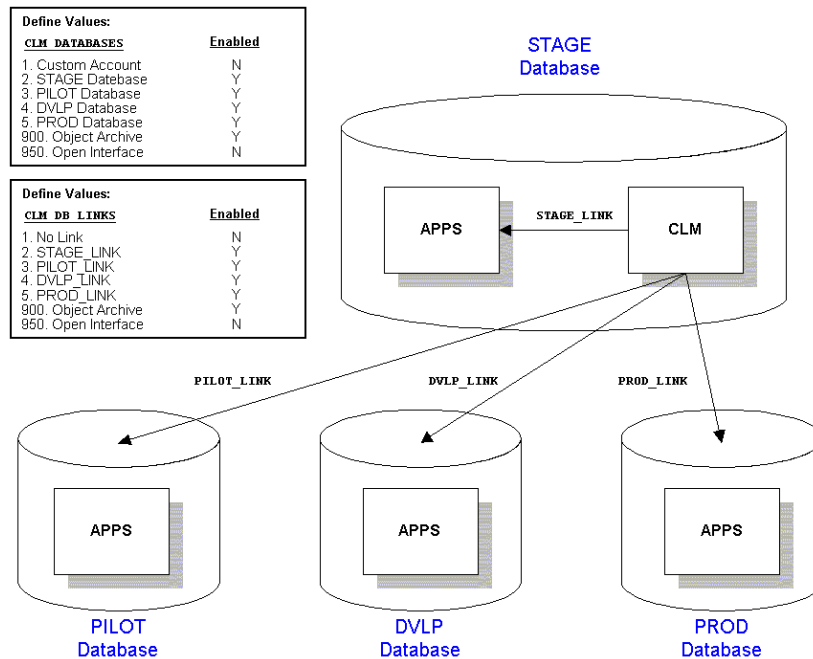*Figure 4-1 on page 22* shows the sample setup schematic.

Figure 4-1 Sample Setup Schematic

Pre-Installation Setup

Before beginning the Kintana Object*Migrator installation, you need to complete the following setup procedure.

> **Note**
>
> The syntax used below reflects a Unix environment. In a Windows environment, syntax for things such as environment variables will be different (%APPLOUT% vs. $APPLOUT), and environment information is usually contained in .cmd files, not in .env files.

To prepare to install Object*Migrator:

1. Decide where Object*Migrator will be installed and create the requisite directory structure.

Object*Migrator can be installed in its own *PROD*_TOP directory (for example, CLM_TOP), or it can share a *PROD*_TOP directory with an existing application (for example, FND_TOP). A separate *PROD*_TOP is recommended. For this guide, CLM_TOP will represent the location where Object*Migrator is installed.

a. If Object*Migrator will use its own *PROD*_TOP, create the directory structure according to Applications standards.

    A subdirectory will be needed for the installation, plus another subdirectory for the Oracle*Reports files. This file structure should be created on every tier in the instance. The directories should be owned by the user who owns the TOP directories (usually applmgr).

Example

Carl creates a TOP directory for Object*Migrator:

```
On Unix:
mkdir /u1/stageappl/CLM

On Windows:
mkdir d:\stageappl\CLM
```

Note

The directories should be owned by the user who owns the other TOP directories (usually: applmgr).

The subdirectory name for Oracle*Reports files varies by release.

- Release 10 - CLM_TOP/srw

- Release 11 - CLM_TOP/reports

- Release 11i - CLM_TOP/reports/US

b. If this instance is set up to place log and output files for concurrent processing under individual applications rather than in a central location, create a log ($APPLLOG) and out ($APPLOUT) directory under CLM_TOP.

Example

```
Unix:
mkdir /u1/stageappl/CLM/install
mkdir /u1/stageappl/CLM/reports/US
mkdir /u1/stageappl/CLM/$APPLLOG
mkdir /u1/stageappl/CLM/$APPLOUT

Windows:
mkdir d:\stageappl\CLM\install
mkdir d:\stageappl\CLM\reports\US
mkdir d:\stageappl\CLM\%APPLLOG%
mkdir d:\stageappl\CLM\%APPLOUT%
```

   c. Add the CLM_TOP environment variable to the instance context. Often, this is the customization section of the appropriate file where environment variables are set. For release 11i, this file is usually the $APPL_TOP/admin/adovars.env file for the instance (adovars.cmd on Windows).

   Your instance may have additional requirements or different procedures. On Windows, the value must be populated to the registry as well.

Example

```
Unix:
CLM_TOP="/u1/apps/CLM"
export CLM_TOP

Windows:
set CLM_TOP=d:\stageappl\CLM\
```

   d. When the environment file has been updated, source the file and then bounce the Oracle E-Business Suite applications processes in order to have the new environment information take effect.

2. Decide which tablespaces Object*Migrator will use for tables and indexes.

   It is recommended that Object*Migrator use its own tablespaces, especially if Object*Migrator will reside in a Production Oracle E-Business Suite instance.

   a. If you want new tablespaces, create them. See the sizing requirements for the tablespaces in *"Table Space Requirements"* on page 18.

b. Consider creating additional rollback segments to support Object*Migrator migration transactions, especially if Object*Migrator does not reside in a dedicated instance. Adding at least one new rollback segment for each of the new tablespaces is recommended. These rollback segments should reside in a separate tablespace reserved for rollback segments. They should be generated with the OPTIMAL size constraint to ensure that the rollback segments automatically deallocate space as it becomes free.

3. Create a custom SQL account in which to install Object*Migrator.

An existing SQL account may be used, but this is not recommended unless the account was originally created for Object*Migrator. This account needs privileges to create tables, indexes, sequences, database links, and stored procedures. It should also have access to the V$DATABASE view.

Default tablespaces should be defined for the user.

Example

Carl chooses to call his schema CLM with a password of CLM. He has also set up new tablespaces of CLM_DATA and CLM_NDX to hold the tables and indexes for CLM.

```
create user CLM identified by CLM
  default tablespace CLM_DATA
  quota unlimited on CLM_DATA
  quota unlimited on CLM_NDX;
grant connect, resource, unlimited tablespace to CLM;
```

---

4. Register the SQL account created for Object*Migrator with the Oracle E-Business Suite.

a. Log in to the Oracle E-Business Suite for this database instance.

b. Through the System Administrator responsibility, navigate to the Register Oracle IDs form. (**Security -> ORACLE -> Register**)

c. Add an entry for the new SQL account.

Example

Carl chose to call his schema CLM, so he registers that schema in the STAGE instance.

Note

For some Oracle E-Business Suite releases, this will automatically submit the program Make Foundation Grants and Synonyms for an Oracle User. Wait for the program to finish before continuing. If the program does not get submitted, continue with the installation.

Installing on Unix

The following procedure shows how to install Object*Migrator in a Unix environment.

To install Object*Migrator on Unix:

1. Decide where Object*Migrator will be installed and create the requisite directory structure. For more information, see *"Pre-Installation Setup"* on page 22.

Example

Carl has signed on to his database server, hostname **Cobra**, as **applmgr**, the user who owns Oracle Applications files.

2. Download the Object*Migrator bundle from the Download Center at *http://ITG.MERC-INT.COM/support/download/login.jsp*.

   The executables are compressed into a tar file for Unix named `CLM_51_tar.Z`. Place this file into the directory where Object*Migrator installation is to be staged.

> Example
>
> In Carl's case, the directory is `/u1/stageappl/CLM/install`.

3. Uncompress and untar the Object*Migrator bundle.

> Example
>
> The files are uncompressed and unarchived.
>
> ```
> % uncompress CLM_51_tar.Z
> % tar -xvf CLM_51_tar
> ```

4. Navigate to the install subdirectory created by the untar process, `CLM_5_1/install`.

   Under the install directory are two subdirectories, one for Oracle Release 10 (r10) and another for Release 11 (r11). When installing Object*Migrator on a Release 10 instance, navigate to the r10 directory. When using a Release 11 or 11i instance, navigate to the r11 directory.

> Example
>
> Carl is installing Object*Migrator on a Release 11i instance.
>
> ```
> % cd CLM_5_1/install/r11
> ```

5. Make sure the custom SQL account discussed in *"Pre-Installation Setup"* on page 22 has been created and registered.

6. Set the environment context to the Oracle E-Business Suite instance, if not already set.

7. Run the CLM_INSTALL script.

Regardless of the shell that is being run, the installation script will spawn a bourne shell and run under it.

CLM_INSTALL is an interactive program that prompts for the parameters listed in *Table 4-1* before installing Object*Migrator. In each case, the program will verify the information entered and only proceed if the information is valid (for example, the install program will try to connect to the database using the username and password you have entered). Additionally, the installation process can be stopped by entering a period (.) at any user prompt.

Table 4-1. Parameters Prompted by CLM_INSTALL Script

Parameter	Description
SQL Account registration	Confirm (Y/N) whether the Object*Migrator SQL account has been registered in the Oracle E-Business Suite.
Username of Object*Migrator sql account	The username for the Object*Migrator SQL account that was created and registered in Oracle E-Business Suite.
Password for CLM sql acct	The password for this SQL account.
Connect string for Object*Migrator database	Specifies the database on which Object*Migrator is being installed. • When using SQL*Net 1.0, enter the entire two-task database connect string. (for example, T:dev_machine:MIGRATE) • When using SQL*Net 2.0 or higher, enter the database identifier (usually the ORACLE_SID).
Tablespace for Object*Migrator tables	All Object*Migrator tables will go into the specified tablespace. Note: The SQL account must have permissions to write to this tablespace.
Tablespace for Object*Migrator indexes	All Object*Migrator indexes will go into the specified tablespace. Note: The SQL account must have permissions to write to this tablespace.
Username of APPS user	The username for the Oracle E-Business Suite APPS account.
APPS user password	The password for this SQL account.

Example

```
% CLM_INSTALL
```

- Confirm whether the SQL account has been registered: **Y** (Carl registered the SQL account using the steps in *"Pre-Installation Setup"* on page 22)

- Username of Object*Migrator sql account: **CLM**

- Password for CLM sql account: **CLM** (twice)

- Connect String for Object*Migrator Database: **STAGE** (if Carl had been using SQL*Net 1.x, he would have entered **t:cobra:STAGE** as the connect string)

- Tablespace for Object*Migrator tables: **CLM_DATA**

- Tablespace for Object*Migrator indexes: **CLM_NDX**

- Username of APPS user: **APPS**

- Password for APPS user: **APPS** (twice)

Carl had already created the CLM_DATA and CLM_NDX tablespaces before he began the installation process. You can use an existing tablespace.

The script will output log messages as standard output on the screen. It will also save the output to a log file named clm_log.out in the current directory.

The command file CLM_INSTALL will run all the Object*Migrator install scripts. These scripts perform the following actions:

- Creates Kintana Object*Migrator Application (application code = **CLM**)

- Adds the new application to all Data Groups that contain the FND application (using the OracleID in which Object*Migrator was installed)

- Creates database objects used by Object*Migrator

- Creates value sets and registers the concurrent programs used to run migrators, system maintenance and administration reports

- Creates a limited number of grants and synonyms to the APPS account to facilitate request submission.

- Defines incompatibilities between different Object*Migrator programs

> **Note**
>
> All object names created by the install scripts begin with CLM. If an application with a name of CLM already exists, please contact Mercury Interactive Support.

8. Move the .rdf files from the "srw" subdirectory of the untarred Object*Migrator bundle (e.g. CLM_TOP/install/CLM_5_1/srw) to their permanent location under CLM_TOP.

   This location varies by release:

   - CLM_TOP/srw for release 10

   - CLM_TOP/reports for release 11

   - CLM_TOP/reports/us for release 11i

> **Example**
>
> Carl is using the CLM_TOP directory structure to store the Object*Migrator programs and files.
>
> ```
> % cp $CLM_TOP/install/CLM_5_1/srw/*.rdf $CLM_TOP/reports/US/
> ```
>
> (Note: If Carl were using a Release 11 instance, he would copy the files to $CLM_TOP/reports. For Release 10.7, he would copy the files to $CLM_TOP/srw/10.7)
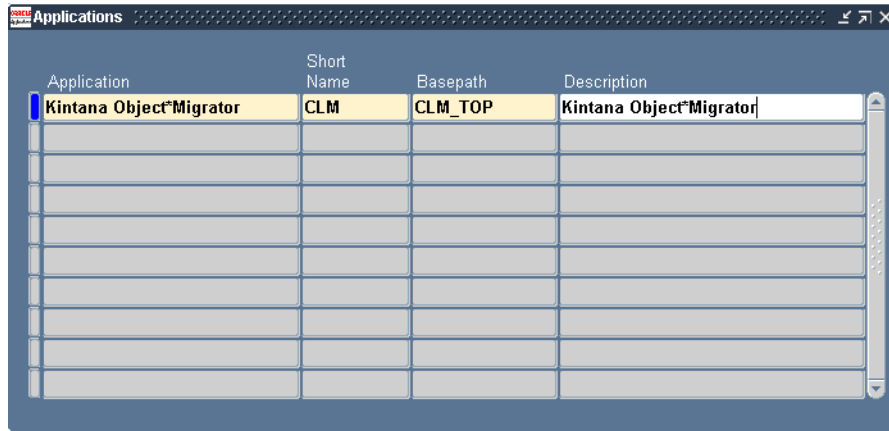
> **Note**
>
> The installation files are not needed for continued use of Object*Migrator, but it is recommended that they be saved.

9. Point Object*Migrator to the correct Base Path.

   The installation program defaults to point the CLM application to the FND_TOP area. Update this value to reference the *PROD*_TOP where Object*Migrator is installed.

   To change the CLM application to point to an existing directory structure, navigate to the Register Application form. Query the application named

Kintana Object*Migrator. Change the Basepath Field to point to *PROD_*TOP environment variable for the CLM application.


At this point, Object*Migrator must be configured before it can be used to migrate data. For instructions on how to do that, see *"Configuring Your System to Work with Object*Migrator"* on page 36.

Installing on Windows

The following procedure shows how to install Object*Migrator in a Windows environment.

To install Object*Migrator on Windows:

1. Decide where Object*Migrator will be installed and create the requisite directory structure. For more information, see *"Pre-Installation Setup"* on page 22.
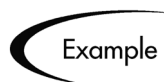
> Example Carl has signed onto his database server, hostname **Cobra**, as the user who owns Oracle Apps files, **applmgr**.

2. Download the Object*Migrator bundle from the Download Center at *http://ITG.MERC-INT.COM/support/download/login.jsp*.

   The executables are compressed into one zip file for Windows named CLM_51.zip. These files are placed into the directory where the Kintana Object*Migrator installation is to be staged.

Example

In Carl's case, the directory is `d:\stageappl\CLM\install`

3. Unzip the Object*Migrator zip file using an unzip utility.

   This creates an installation directory, CLM_5_1, with install and srw subdirectories beneath it.

   • The install directory contains all the installation scripts necessary to install Object*Migrator.

   • The srw directory contains all of the Object*Migrator executables.

4. Navigate to the install subdirectory created by the unzip process.

   Under the install directory are two subdirectories, one for Release 10 (r10) and another for Release 11 (r11). When installing Object*Migrator on a Release 10 instance, navigate to the r10 directory. When using a Release 11 or 11i instance, navigate to the r11 directory.

Example

Carl is installing Object*Migrator on a Release 11i instance.

```
cmd d:\stageappl\envshell.cmd
cd d:\stageappl\CLM\install\CLM_5_1\install\r11
```

   a. Start a command shell and set the Oracle E-Business Suite context, if required.

   b. Navigate to the install directory.

5. Make sure the custom SQL account discussed in *"Pre-Installation Setup"* on page 22 has been created and registered.

6. Run the installation program CLM_INSTALL_NT.

   a. Start a BASH shell.

      In environments where MKS Toolkit™ is in use, this is not required, but MKS must be in the user's path.

b. Run the installation script CLM_INSTALL_NT:

```
sh CLM_INSTALL_NT
```

CLM_INSTALL_NT is an interactive program that prompts for the information in *Table 4-2*. In each case, the program verifies the information entered and proceeds only if the information is valid (for example, the install program will try to connect to the database using the username and password you have entered). Additionally, the install process can be stopped by entering a period (.) at any user prompt.

Table 4-2. Parameters Prompted by CLM_INSTALL_NT

Parameter	Description
SQL Account registration	Confirm (Y/N) whether the Object*Migrator SQL account has been registered in the Oracle E-Business Suite.
sql executable	The executable to use in order to make a command-line SQL*Plus connection. This could be plus80 or sqlplus, depending on the toolset in use.
Username of Object*Migrator sql account	The username for the Object*Migrator SQL account that was created and registered in Oracle E-Business Suite.
Password for CLM sql acct	The password for this SQL account.
Connect string for Object*Migrator database	Specifies the database on which Object*Migrator is being installed. • When using SQL*Net 1.0, enter the entire two-task database connect string. (for example, T:dev_machine:MIGRATE) • When using SQL*Net 2.0 or higher, enter the database identifier (usually the ORACLE_SID).
Tablespace for Object*Migrator tables	All Object*Migrator tables will go into the specified tablespace. Note: The SQL account must have permissions to write to this tablespace.
Tablespace for Object*Migrator indexes	All Object*Migrator indexes will go into the specified tablespace. Note: The SQL account must have permissions to write to this tablespace.
Username of APPS user	The username for the Oracle E-Business Suite APPS account.

Table 4-2. Parameters Prompted by CLM_INSTALL_NT

Parameter	Description
APPS user password	The password for this SQL account.

Example

```
D:\stageappl\CLM> bash
bash-2.2$ sh CLM_INSTALL_NT
```

- Confirm whether the SQL account has been registered: **Y** (Carl registered the SQL account per the steps in *"Pre-Installation Setup"* on page 22)

- Command name used for invoking SQL*Plus: **plus80**

- Username of Object*Migrator sql account: **CLM**

- Password for CLM sql account: **CLM** (twice)

- Connect String for Object*Migrator Database: **STAGE** (if Carl had been using SQL*Net 1.x, he would have entered **t:cobra:STAGE** as the connect string)

- Tablespace for Object*Migrator tables: **CLM_DATA**

- Tablespace for Object*Migrator indexes: **CLM_NDX**

- Username of APPS user: **APPS**

- Password for APPS user: **APPS** (twice)

Carl had already created the CLM_DATA and CLM_NDX tablespaces before the install process. You can use an existing tablespace.

The script outputs log messages as standard output on your screen. It will also save the output to a log file named clm_log.out in the current directory.

The command file CLM_INSTALL_NT will run all the Object*Migrator install scripts. These scripts perform the following actions:

- Create Kintana Object*Migrator Application (application code = **CLM**)

- Add the new application to all Data Groups that contain the FND application (using the OracleID in which Object*Migrator was installed)

- Create database objects used by Object*Migrator

- Create value sets and registers concurrent programs used to run migrators, system maintenance and administration reports

- Create a limited number of grants and synonyms to the APPS account to facilitate request submission.

- Define incompatibilities between different Object*Migrator programs

Note

All object names created by the install scripts begin with CLM. If an application with a name of CLM already exists, please contact Mercury Interactive Support.

7. Move the .rdf files from the srw subdirectory of the untarred Object*Migrator bundle (for example, CLM_TOP/install/CLM_5_1/srw) to their permanent location under CLM_TOP.

   This location varies by release:

   - CLM_TOP/srw for release 10

   - CLM_TOP/reports for release 11

   - CLM_TOP/reports/us for release 11i

Example

Carl is using the CLM_TOP directory structure to store the Object*Migrator programs and files, so he is copying from %CLM_TOP%/install/CLM-5_1/srw to %CLM_TOP%/reports/US.

(Note: If Carl were using a Release 11 instance, he would copy the files to $CLM_TOP/reports. For Release 10.7, he would copy the files to $CLM_TOP/srw/10.7)
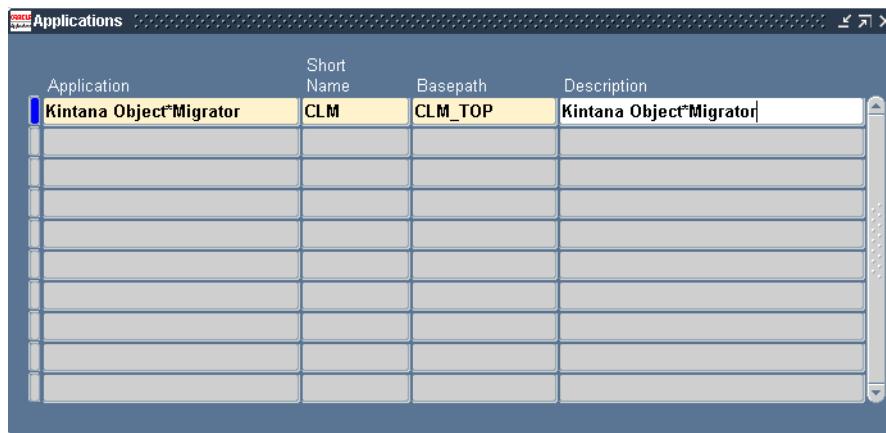
Note

The installation files are not needed for continued use of Object*Migrator, but it is recommended that they be saved.

8. Point Object*Migrator to the correct Base Path.

   The installation program defaults to point the CLM application to the FND_TOP area. Update this value to reference the *PROD*_TOP where Object*Migrator is installed.

To change the CLM application to point to an existing directory structure, navigate to the Register Application form. Query the application named Kintana Object*Migrator. Change the Basepath Field to point to *PROD_*TOP environment variable for the CLM application.

Application	Short Name	Basepath	Description
Kintana Object*Migrator	CLM	CLM_TOP	Kintana Object*Migrator

At this point, Object*Migrator must be configured before it can be used to migrate data. For these instructions, see *"Configuring Your System to Work with Object*Migrator"* on page 36.

Configuring Your System to Work with Object*Migrator

After installing Kintana Object*Migrator, you need to configure Oracle E-Business Suite system to work with Object*Migrator. Configuration consists of the following major steps, which are discussed below:

1. Create database links for each source and destination database.

2. Register these database links with Object*Migrator.

3. Define security to access Object*Migrator programs, including users, responsibilities, report groups, etc.

4. Run the Maintain Object*Migrator Views report.

5. Run a test migration with Report Only set to **Yes** to validate the installation.

Note
The example given is a simplified case that assumes the System Administrator will be able to access all Object*Migrator functions. See *Kintana Object*Migrator System Administration Guide* for more information about security options.

To configure your system:

1. Create database links to all valid source and destination databases. Note that the database configurations (for example, tnsnames.ora) must support connection using the database link.

Note
Prior to this step, you need to have configured the database to see other databases.

Perform this step in the instance containing Object*Migrator using the SQL account under which Object*Migrator was installed.   Create a database link to the APPS account of each remote database that will be a source or destination of migrations.

Example

Carl signs on to the STAGE database as CLM and creates a link to each database he will use.

Create database link called STAGE_LINK from STAGE to STAGE:

```
SQL> create database link STAGE_LINK
2 connect to APPS identified by APPS <Password for 'APPS'
   account in STAGE>
3 using 'STAGE' ; <Connect string for the STAGE database>
```

Create database link called DVLP_LINK from STAGE to DVLP:

```
SQL> create database link DVLP_LINK
2 connect to APPS identified by APPS <Password for 'APPS'
   account in DVLP>
3 using 'DVLP' ; <Connect string for the DVLP database>
```

Create database link called PILOT_LINK from STAGE to PILOT:

```
SQL> create database link PILOT_LINK
2 connect to APPS identified by APPS <Password for 'APPS'
   account in PILOT>
3 using 'PILOT'  ; <Connect string for the PILOT database>
```

Create database link called PROD_LINK from STAGE to PROD:

```
SQL> create database link PROD_LINK
2 connect to APPS identified by APPS <Password for 'APPS'
   account in PROD>
3 using 'PROD'    ; <Connect string for the PROD database>
```

Test each link after creating it by executing the following in sql*plus:

```
select count(*) from fnd_user@<db_link_name> where rownum =
1;
```

Example

```
select count(*) from fnd_user@stage_link where rownum = 1;
```

2. Add a value to the CLM_DATABASES Value Set for each valid source or destination database.

This includes a value for the database in which Object*Migrator is installed. Disable the Value **1** if this value is not already disabled.

Note	The values need to be pure numeric values with no leading 0's.

a. Select the **System Administrator** responsibility. Go to the Define Value Set Values screen (standard path **Application:Validation:Values**).

b. Type **CLM_DATABASES** in the Name field of the Find block.

c. Click **Find**.

d. Query up all the records in the Values zone.

This should bring up three records:

- One representing the Object*Migrator account (this value is initially set to **Disabled**)

- One representing the Object Archive (for version control)

- One representing the Open Interface (this value is initially set as **Disabled**)

This value set represents all the database instances between which objects will be migrated.

e. Add additional records in this region, one per database instance, as shown below.

This includes a value for the current database. The Value field needs to be a pure numeric value. The Description value should be a value that will easily identify the instance to users.

Example
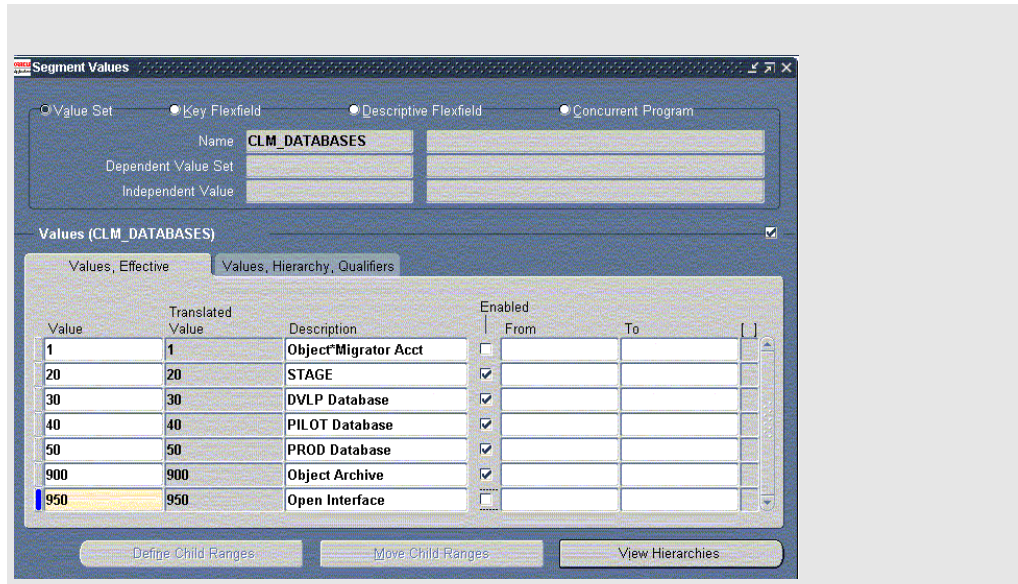
3. For each database link, add a value to the CLM_DB_LINKS Value Set. For the descriptions, use the exact database link names.

   This value set represents all the database links that have been created.

   a. Type **CLM_DB_LINKS** in the Name field of the Find Block.

   b. Click **Find**.

   c. Query up all the records in the Values zone.

      This should bring up three records.
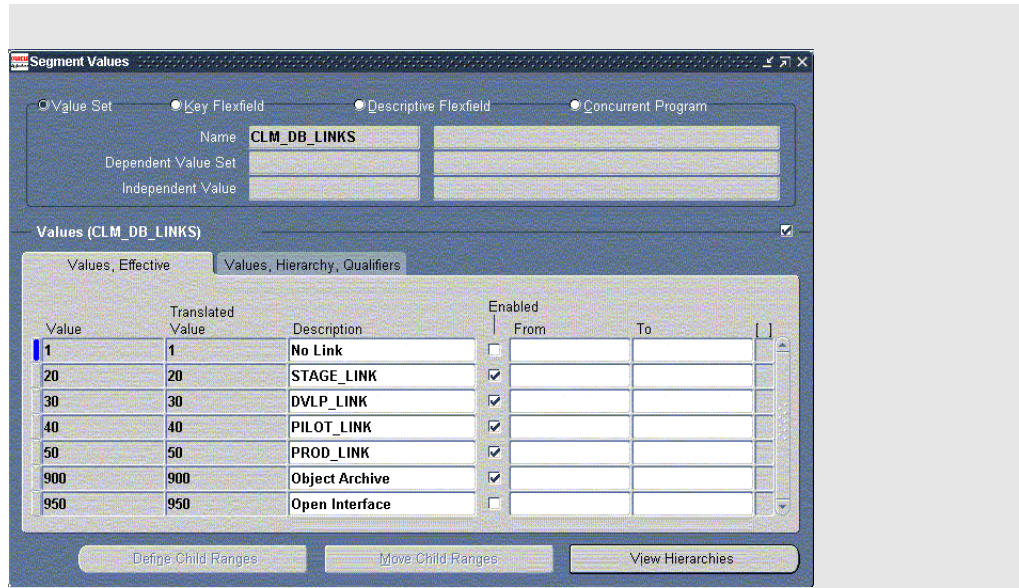
   d. Add all the database links created in the prior steps as shown below.

      Make sure that the Value column matches with the corresponding Value column in the CLM_DATABASES value set. The values need to be pure numeric values

Note
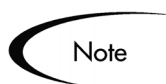
Use the same number in the Value field that were used for the corresponding database in the CLM_DATABASES Value Set.

Example

4. Add the Concurrent Programs defined to execute the program files for each of the Object*Migrator modules (and the System Administrator Reports) to the appropriate Request Security Group(s).

   Add Reports one by one or attach the entire CLM application to the Request Security Group. *Table 4-3* provides a complete list of Concurrent Program Names that can be included; check off each one as they are included.

*Table 4-3. Object*Migrator Concurrent Program Names*

Concurrent Program Name	Included?
Kintana Object Archive Version Detail Report	
Kintana Object*Migrator Audit Report	
Maintain Object*Migrator Views	
Migrate Concurrent Manager Definitions	
Migrate Concurrent Programs	
Migrate Descriptive Flexfields	
Migrate FSG Row/Column Sets	
Migrate Folders	

*Table 4-3. Object*Migrator Concurrent Program Names*

Concurrent Program Name	Included?
Migrate Functions	
Migrate GUI Menus	
Migrate Help Text	
Migrate Menus	
Migrate Messages	
Migrate Named SQL	
Migrate Profile Options	
Migrate Printer Definitions	
Migrate Responsibilities	
Migrate Report Groups	
Migrate Report Sets	
Migrate QuickCodes	
Migrate Value Sets	
Migrate Users	
Migrate Zooms	
Migration Comparison Report	
Purge Object Archive Tables	
Purge Object*Migrator Interface Tables	

For optional setups, see *Kintana Object*Migrator System Admininistration Guide*.

Example

Carl is adding the Object*Migrator concurrent programs to the System Administrator Reports request group. This allows the System Administrator to run all the Object*Migrator programs.

   a. Carl navigates to the Define Request Security Group screen (**Security:Responsibility:Request**).

   b. Carl queries up a request group called **System Administrator Reports**.

   c. Carl goes to the Requests zone.

   d. Carl inserts a record by using the **Add Row** button from the tool bar.

   e. Carl picks **Application** in the Type field.

   f. Carl picks **Kintana Object*Migrator** as the application.

Alternatively, Carl could have added individual programs rather than the Object*Migrator application.

5. Run the program Maintain Object*Migrator Views with Report Only set to **2** (**No**).

    This program defines the views used by some Object*Migrator parameters when submitting Object*Migrator migrations.

    This program should be scheduled to run periodically (once a day is suggested) to keep the Object*Migrator views current with the number and

statuses or your databases. For details regarding the support of these views, see *Kintana Object*Migrator System Administration Guid*e.

Note

If you have more than four databases that you will be migrating to or from, increase the value for the database parameter open_links (suggested is 20) and bounce the database before executing this step. For more information, see *Kintana Object*Migrator System Administration Guide*.

Make sure to view the report output of this program. The output lists all the enabled databases for use with Object*Migrator and any errors encountered while trying to connect to these databases.

Example

Since Carl has only four enabled databases, he does not need to change the open_links database parameter. Therefore, he can immediately run this concurrent program with Report Only set to **2** (**No**). He runs this concurrent program with reschedule options to run 1 day after completion. For information regarding the support of these views, see *Kintana Object*Migrator System Administration Guide*.

6. To validate your installation, launch one of the Object*Migrator programs with the Report Only parameter set to **Yes**.

Carl is validating his installation as recommended.

Example

a. Carl launches Object*Migrator programs.

b. Carl logs on to the Oracle E-Business Suite in the STAGE database and selects the **System Administrator** responsibility.

c. Carl navigates to the Submit Requests screen **Other:Requests:Run**

d. Carl picks **Request** for the Type field.

e. Carl enters **Migrate%** in the Name field.

This brings up all the Kintana Object*Migrator programs.
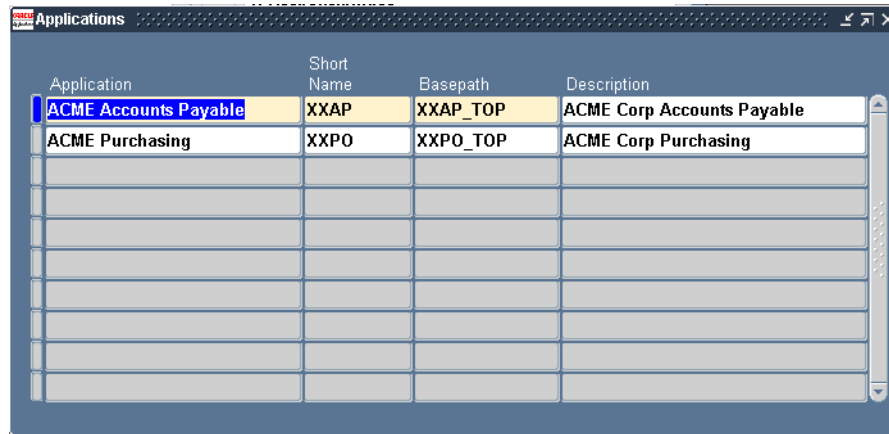
f. Carl selects **Migrate Concurrent Programs**.

This opens up the parameters screen.

g. Carl selects source and destination databases and fills in other information as shown in the illustration below.

In this example, Object*Migrator migrates a concurrent program called WIPDJDSP from the DVLP database to the PROD database with the Compare Only option set to **Yes**. Carl commits the information and monitors the concurrent program. At the end of the run, Object*Migrator produces an easy-to-read report that gives him the results of the program comparison.

Figure 4-2 Migration Report Parameters

7. In the Object*Migrator instance, define any custom applications for which data will be migrated. For more information, see *Kintana Object*Migrator System Administration Guid*e.

See *Kintana Object*Migrator System Administration Guide* for additional optional configurations.