

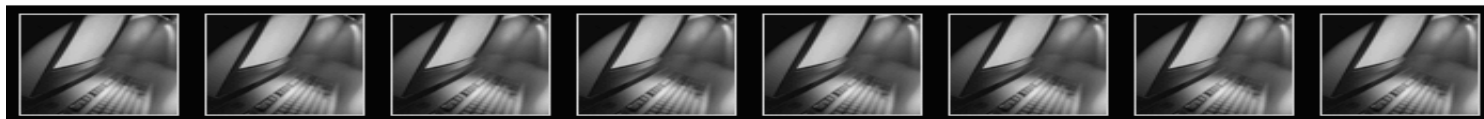
Migration Tool User's Guide

Oracle® Policy Administration-Life

Release 8.1

E14444-01

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Oracle® Insurance Rules Palette Release – Life V8.1

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Migration Tool

Overview

The Migration Tool is a data migration tool that migrates and transfers the OIPA database schemas, rules and records. The Migration Tool allows for the comparison and migration of essential OIPA tables between multiple environments with one application. You may also compare files and data in different environments. This tool creates and uses manifest files to handle migrations.

This tool can accommodate various databases such as Oracle, DB2, MS-SQL Server and PostgreSQL. Not only can you migrate the OIPA tables, but the Internal Versioning System(IVS) records as well. This utility can even handle migrating versioned data from specified third party vendors.

The Migration Tool was designed to enable a much cleaner and organized migration. The design was intended to more closely associate database information to application information. It supports a multi-track development strategy and migration via move sheets. You can easily move records from one database to another. The key advantage of using this tool is the ability to compare the current state of a development environment and a production environment and synchronize the two. You may also create difference reports using up to four databases for the report.

Windows Installation

Follow these steps to begin using the Migration Utility.

(Note: Zip file will be provided by Oracle Corp.)

1. Double-click the **winAdminServer.exe** file and the Migration Tool Setup Wizard opens.
2. Select the **Next** button.
3. Either keep the default destination folder that is populated for you or locate a different destination using the **Browse** button.
4. Select the **Next** button.
5. Either keep the default Start Menu location for the Migration Utility or select a different one using the list of Start Menu folders.
6. Select the **Install** button.
7. After the installation is complete, select the **Next** button.
8. Select the **Finish** button.
9. Download and Save the following **required** .jar files in the **Command Center\lib** folder.
 - **xpp3-1.1.3.4.jar** - <http://www.extreme.indiana.edu/dist/java-repository/xpp3/jars/>
 - **rowset.jar** - http://java.sun.com/products/jdbc/download.html#rowsetcobundle1_0
10. Download and Save the following **database dependent** .jar files in the **Command Center\lib** folder.
 - a. **DB2 jar files:** *These files are included with the purchase of the DB2 software. They are not available for download. Contact your IT department for assistance.*
 - **db2jcc_license_cu.jar**
 - **db2jcc.jar**
 - b. **SQL Server**
 - **jt400.jar** - <http://sourceforge.net/projects/jtds/>
 - c. **Oracle9i:**
 - **ojdbc14.jar** - http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/htdocs/jdbc9201.html
 - d. **Oracle10g:**
 - **ojdbc14.jar** - http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/htdocs/jdbc_10201.html
 - **ojdbc14.jar** - http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/htdocs/jdbc_10201.html
 - e. **Harvest Connection**
 - **j2ssh-core.jar** - <http://www.findjar.com/index.jsp?query=j2ssh-core>
 - f. **JDBC**
 - **jt400.jar** - <http://www.findjar.com/index.jsp?query=jt400.jar>

UNIX Installation

1. Create a new home directory named ashome by typing *mkdir ashome*.
2. Open the ashome directory by typing *cd ashome*.
3. Create a new subdirectory named migration by typing *mkdir migration*.
4. Copy "MigrationTool.tar.gz" tar file into your subdirectory called migration by typing *cp MigrationTool.tar.gz migration*.
5. Extract "MigrationTool.tar.gz" zip file under the new migration subdirectory by typing *gunzip <MigrationTool.tar.gz | tar xvf -*.
6. In the ashome/migration folder you will have a new folder called lib. You need to copy the necessary .jar files into this folder. Step 10 of the [Windows Installation Instructions](#) lists the various .jars needed by the database. You will need to download the correct .jars and save them in the lib folder.
7. Type *ls* to list the files in the migration folder.
8. Run the migration.jar by typing *java -Xmx512m -Xms512m -jar migration.jar*.

Getting Started

The Migration Tool consists of four major areas:

- Menu Bar
- Data Source Selection Area
- Record Selection Area
- Actions Buttons

AdminServer Migration Tool v.3.0

Menu Bar: File View Options Tools Menu Bar

Source Selection: Source DB: [Dropdown] Source IVS: [Dropdown] Select Source Database Information

Destination Selection: Destination DB: [Dropdown] Destination IVS: [Dropdown] Select Destination Database Information

Group	Action	Status
<input type="checkbox"/> Business Rules - CTRL+F1	Do Not Migrate	
<input type="checkbox"/> Chart Of Accounts - CTRL+F2	Do Not Migrate	
<input type="checkbox"/> Codes - CTRL+F3	Do Not Migrate	
<input type="checkbox"/> Files - CTRL+F4	Do Not Migrate	
<input type="checkbox"/> Funds - CTRL+F5	Do Not Migrate	
<input type="checkbox"/> Integration Processes - CTRL+F6	Do Not Migrate	
<input type="checkbox"/> Plans - CTRL+F7	Do Not Migrate	
<input type="checkbox"/> Security Roles - CTRL+F8	Do Not Migrate	
<input type="checkbox"/> Segment Names - CTRL+F9	Do Not Migrate	
<input type="checkbox"/> Transactions - CTRL+F10	Do Not Migrate	
<input type="checkbox"/> Reports - CTRL+F11	Do Not Migrate	
<input type="checkbox"/> Stored Procedures - CTRL+F12	Do Not Migrate	
<input type="checkbox"/> State Approvals - CTRL+1	Do Not Migrate	

Action Buttons: Save Manifest Migrate Promotions Exit

Select Tables and Code to Migrate: [Dropdown]

Four Sections of the Migration Tool

The Menu Bar

The menu bar stores migration functionality.



File Menu

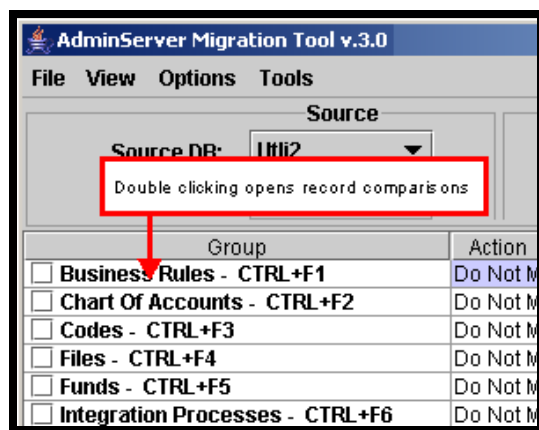
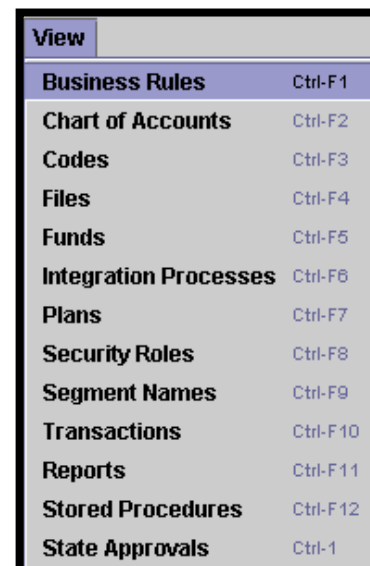
1. **Manage Data Sources:** This function allows you to **Add**, **Modify** and **Remove** data sources that you want to use for migrations or roll backs. Data sources are databases that you have setup a connection to in the Migration Tool. You may also test any of your data source connectivity with the **Test Data Source** button from this window.
2. **Quit:** Closes the Migration Tool application.



View Menu

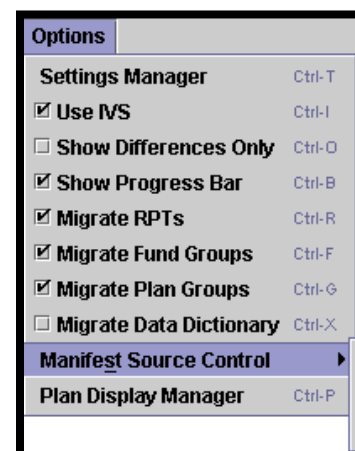
When you select an item from the View menu, a screen opens and displays a comparison of the records in the source database and the destination. For example, if you selected Business Rules, a screen would open displaying all the business rules records in a source and destination database along with the differences.

Another way of opening these comparison screens is by double clicking on the item name under the Group column in the Main screen.



Options Menu

1. **Settings Manager**
 - a. **Paths:** Allows you to set-up either a path to the executable file for Guiffy or Beyond Compare. The Migration Tool requires one of these differ and merge tools to run. See [Diff Tool](#) for more information.
 - b. **Settings:** Allows you to rename of the Migration Tool window.
 - c. **Display Defaults:** Set-up Source and Destination databases that will initially be populated when the Migration Tool is opened.
2. **Use IVS:** This box must be checked in order to select an IVS database for compare and migrate.
3. **Show Differences Only:** This box should be checked when you only want to see differences on the Comparison screen. This eliminates the need to sort through all records to find the differences.
4. **Show Progress Bar:** This box must be checked to see the migration progress bar.
5. **Migrate RPTs:** Check this box if you want to migrate reports. You may only migrate to and from application servers that support secure shell (ssh) sessions. It uses the ssh client to create a secure file transfer protocol (sftp) session to pull the file from the source application server to the local machine. Then another session is used to write the file to the destination application server from the local machine. If this box is not checked the AsUpload record will still be migrated, but the actual report file will not move.
6. **Migrate Fund Groups:** Check this box if you want to migrate fund groups, which are stored in AsFundGroup. This is not used to migrate funds, but to migrate the tables that group funds into classes. FundGroup table records are migrated. They store the classification of funds as parent and children. If fund groups are used this selection should be made. The fund group migration occurs after the funds are migrated.
7. **Migrate Plan Groups:** Check this box if you want to migrate the table that stores what group a plan belongs to. The Plan Group table, AsPlanGroup, organizes plans into different groups. If plan groups are used this selection should be made. The plan group migration occurs after the plan is migrated.
8. **Migrate Data Dictionary:** Check this box if you want to migrate all of the Data Dictionary records from the AsDataDictionary tables. Migration of AsDataDictionary records migrated are based on BusinessRuleGUID, TransactionGUID and SegmentGUID.
9. **Manifest Source Control:** You have the option of selecting a third party application as your versioning system and having the correct manifest file created during migration. If you select none, the standard JAVA manifest file is created that is compatible with IVS.
 - a. **IMPORTANT:** If you select Harvest or PVCS, you must have a build of the Migration Tool specific to those external clients. You can receive a specific build from Oracle upon request.
 - b. When choosing either Harvest or PVCS you will be able to input information under the Data Source Screen, which is under [Data Source Management](#).
10. **Plan Display Manager:** Use this option if you would like to filter out plans that you don't want migrated. See the [Plan Display Manager](#) section for more information.



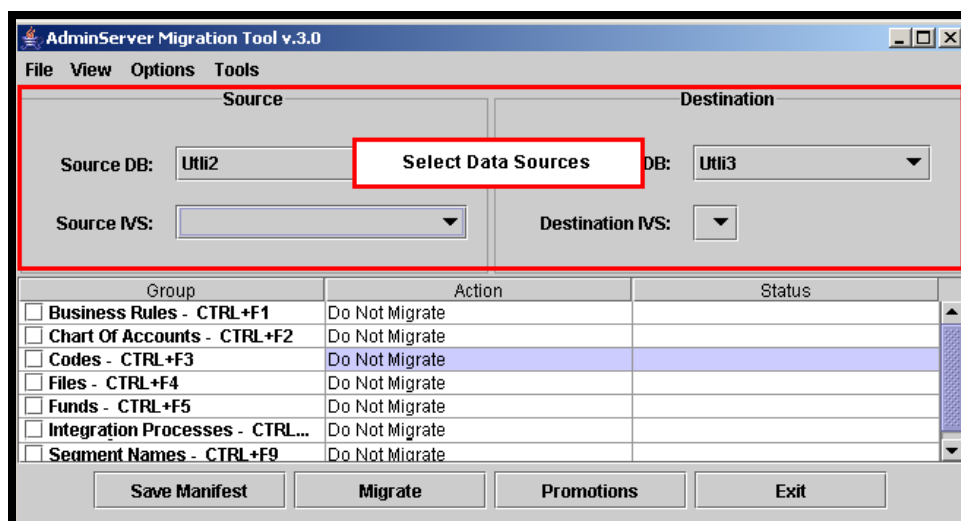
Tools Menu

1. **Difference Reporting:** Use this tool to create an .html difference report. You may select two databases for comparison and then run a report on the differences. See the [Difference Reporting](#) section for more detail.

Data Source Selection Area

In this area you select the source and destination databases for migration. You may also select source and destination IVS databases, as long as **Use IVS** is selected from the **Options** menu.

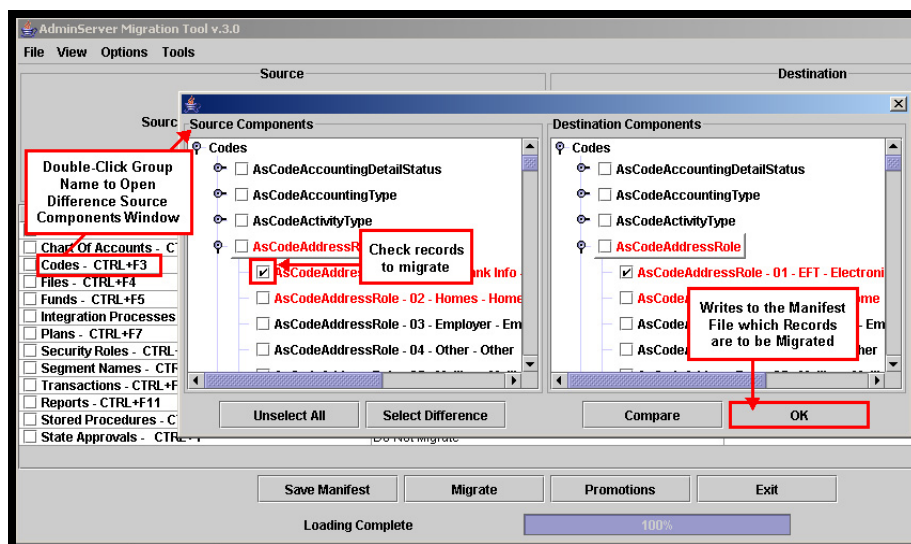
You must first enter the data source via the **Manage Data Sources** window in the **File** menu. This will make it available in a drop-down box.



Select Data Sources

Record Selection Area

When you double click on an item name in the **Group** column, a window opens showing a comparison of the source and destination database in the **Source Components** window. You may select the records you want to migrate according to group. The **Action** column and status will change according to the selections made in a **Group**.



Record Selection Area

Action Buttons

There are four action buttons on the Main screen.

- **Save Manifest:** This creates an XML manifest file from all the group selections made. This serves as a record of items migrated, or items to be accessed later for migration. The manifest file is saved to the path identified in the **Manifest Path** (local) field in the applicable Data Source window. The folder where the manifest file should be saved must exist on the drive, The Migration Tool will not create the folder for you. See [Manifest File](#) section for more information.
- **Migrate:** Migrates the data that has been selected under the Group column.

IMPORTANT: Selecting the **Migrate** button from here DOES NOT create a manifest file and can NOT be rolled back. This is usually only used for development.

- **Promotions** – Lists approved manifest files that can be used for a migration.
- **Exit** – Allows the user to save the current source and destination information and then exits the application.



Four Action Buttons on the Main Screen

What is the Manifest File

A manifest file is an XML file that stores the instructions to be performed for a migration. Update, insert and delete SQL operations are associated with records according to their Grouping. Records are grouped according to Business Rules, Chart of Accounts, Codes, Files, Funds, Integration Processes, Plans, Security Roles, Segment Names, Transactions, Reports, Stored Procedures and State Approvals. They are listed on the Main screen of the Migration Tool or in the View menu. The manifest file not only holds instructions for an operation, but can also be used to back out of a migration.

Initially when creating a manifest file for a migration, you need to go into each Group listed on the Main screen and select the records you want to migrate. A manifest file is initially created when you select records from the first group. The manifest file is stored in memory at this point. After you make selections in each group, the manifest file in memory is appended. It is not until you select the **Save Manifest** button on the Main screen that the manifest file is actually written and stored on a local drive.

Manifest files are saved to the location identified in **Manifest Path** of a source databases' **Data Source** information. You may locate this by going to **File>Manage Data Sources**. Select **Data Source** and then select the **Modify** button.

Various organizations have different policies, workflows and procedures when it comes to actually performing a migration. It is common practice to have the manifest file reviewed and approved prior to it being used to perform a migration. In order to support this process the Migration Tool uses a **Promotions** button to locate Approved Manifest files that can be used for migration. The Migration Tool considers a manifest file approved when it is in a folder identified in the **Manifest Path** of a destination databases' **Data Source** information. You may locate this by going to **File>Manage Data Sources**. Select **Data Source** and then select the **Modify** button.

After selecting an approved manifest file, you may select the **Migrate** button. A manifest file will not be created if you fail to perform any of these steps.

Example Manifest File:

```
<MigrationManifest>
  <MigrationData>
    <BusinessRules></BusinessRules>
    <ChartOfAccounts></ChartOfAccounts>
    <Codes>
      <Code Action="Update">
        <Source>
          <CodeName>AsCodeAddressRole</CodeName>
          <CodeValue>01</CodeValue>
          <ShortDescription>EFT</ShortDescription>
          <LongDescription>Electronic Funds Transfer</LongDescription>
        </Source>
        <Destination>
          <CodeName>AsCodeAddressRole</CodeName>
          <CodeValue>01</CodeValue>
          <ShortDescription>EFT</ShortDescription>
          <LongDescription>Electronic Funds Transfer</LongDescription>
        </Destination>
      </Code>
      <Code Action="Delete">
        <Destination>
          <CodeName>AsCodeRole</CodeName>
          <CodeValue>50</CodeValue>
          <ShortDescription>Payer Successor</ShortDescription>
          <LongDescription>Payer Successor</LongDescription>
        </Destination>
      </Code>
      <Code Action="Insert">
```

High-level Steps to Migrate Using a Manifest File

1. If you are using Harvest or PVCS, select **Options>Manifest Source Control** and check either **Harvest** or **PVCS**.
2. Set-up data sources via **File>Manage Data Sources**.
3. Set-up the path to either Guiffy or Beyond Compare via **Options>Settings Manager**.
4. Select any options you want via the **Options** menu.
5. Select the source and destination databases from the Main screen.
6. Double click on any **Group** with records you want to migrate. Selecting the check box from this Main screen does not perform any function.
7. Select any differences that you want to migrate.
8. Select the **OK** button to write to the manifest file. The manifest file is in memory at this point.
9. Repeat steps 6 through 8 until all desired records for migration have been written to the manifest file in memory.
10. Select the **Manifest** button from the Main screen. This actually writes the manifest file into the folder identified in data source set-up, from step 2.
11. Perform your company's workflow for approving the manifest file internally.
12. Move the manifest file to the folder identified as the location for approved manifest files for the destination data source.
13. Select the **Promotions** button from the Main screen.
14. Select the approved manifest file from the list.
15. Select the **Migrate** button from the Main screen.

Performing a Migration

Step 1: Setting up Data Sources

Initially, you must set-up the **Data Sources** that you want to manage via the Migration Tool. In the Migration Tool a **Data Source** is the required connectivity information for the database you want to manipulate. The **Manage Data Source** window allows you to set-up data sources. You will enter the connectivity information for the database(s) and application(s) you would like to perform migration operations on. You will need to enter multiple **Data Sources**. You must enter **Data Sources** for source, destination and IVS databases. When using any option in the Migration Tool you will be required to select a **Data Source** for migration operations. Data sources will not be available on the Main screen drop-down box for migration unless they were set-up via the **Manage Data Source** window.

IMPORTANT: If you are using Harvest or PVCS, you must select it from the **Manifest Source Control** selection in the **Options** menu prior to setting up a data source. Support and documentation are not available for either of these third party applications. Additional fields are required when setting up a Data Source for either of these applications.

Steps to Add a Data Source

1. Select **Manage Data Source** from the **File** menu.
2. Select **Add** from the **Data Source Management** window,
3. Enter the following information:
 - a. **Data Source Name:** You may enter any name you like to identify this particular database. It is the name that you will use in the Migration Tool when performing migrations and using tools.
 - b. **Environment:** If using IVS, this must be the IVS Environment information found in the SystemInformation.properties file found in the jboss folder in the path \server\default\conf.
 - c. **Track:** If using IVS, this must be IVS Track information found in the SystemInformation.properties file found in the jboss folder in the path \server\default\conf.
 - d. **Database Type:** Select whether the Data Source is for a **Base System** or for an **Internal Versioning System (IVS)**.
 - e. **Database Brand:** Select the type of database the data is stored with. The database brand will dictate the **Host Port**. The Command Center displays the commonly used host port in parenthesis next to the **Host Port** field according to the database brand selected here.



- f. **Host Address:** Enter the web server name, IP address or the DNS name (as long as you are on a network that resolves DNS for databases) that you want to connect to.
 - g. **Host Port:** The **Host Port** depends on what database is used and should be in parenthesis based on your selection for the **Database Brand** field. Generally, Oracle host port is 1521, DB2 uses port 50000, and Microsoft SQL Server uses the host port 1433, but there may be situations where the port is different.
 - h. **Database Name:** Enter the name of the database on the server you are connecting to.
 - i. **Database User:** Enter the user ID needed to connect to the database.
- IMPORTANT:** The user ID must have privileges to execute INSERT, UPDATE and DELETE statements in order to migrate configuration. Additionally the user ID will require CREATE and DROP privileges to migrate stored procedures.
- j. **Database Password:** Enter the database password associated with the **Database User** ID.
 - k. **Store Database Password:** Check this box to store the database password, so it does not have to be entered when using this data source.
 - l. **Database Schema:** Enter the name of the database schema you are connecting to.
 - i. Typically ASADMIN for PAS Base and IVS databases.
 - ii. An IVS database does not have a database schema, so leave this field blank.
 - m. **Application Host:** The server where the application that references the database resides. This is needed to copy report files across two different servers.
 - n. **App Host User:** A user ID on the application host server that has privileges to copy to and from the report file directory.
 - o. **App Host Password:** The password associated with the App Host User entered.
 - p. **Store App Host Password:** Check the box so the password to the application does not have to be entered every time running a migration.
 - q. **Manifest Path(local):** For source databases this is the place on your local machine where you want the manifest file to be stored for a migration. For destination databases this is the place on your local machine where you approved manifest files to be pulled from for a migration. Please see [Manifest File](#) section for more information.
 - r. **Report Path (app sever):** This is the path on the application server where the Crystal report files (.rpt) are uploaded. When a report is selected the migration tool will copy the given .rpt file from the source report path to the destination report path.
4. Select the **Test DataSource** button. You will receive a pop-up indicating whether or not you successfully connected to the database.
 - If you have issues connecting to the database verify that the information was entered correctly. Contact your DBA or individual who would be able to provide the database information.
 5. Select the **OK** button.

The **Data Source** is now listed in the Data Source Management window and can be used. Other operations you may run are:

- **Add** - Add another data source.
- **Modify** - Modify existing data source information.
- **Remove** - Remove a source data source.
- **Test DataSource** - Test a data source's connectivity.

Additional Fields for Harvest and PVCS

Harvest Additional Fields

Options	
Settings Manager	Ctrl-T
<input type="checkbox"/> Use IVS	Ctrl-I
<input type="checkbox"/> Show Differences Only	Ctrl-O
<input checked="" type="checkbox"/> Show Progress Bar	Ctrl-B
<input checked="" type="checkbox"/> Migrate RPTs	Ctrl-R
<input checked="" type="checkbox"/> Migrate Fund Groups	Ctrl-F
<input checked="" type="checkbox"/> Migrate Plan Groups	Ctrl-G
<input type="checkbox"/> Migrate Data Dictionary	Ctrl-X
Manifest Source Control	<input type="checkbox"/> None Ctrl-N <input checked="" type="checkbox"/> Harvest Ctrl-H <input type="checkbox"/> PVCS Ctrl-S
Plan Display Manager	Ctrl-P

Additional Harvest Fields added to Data Source setup window

Harvest Manifest Path:	<input type="text"/>
Harvest Broker:	<input type="text"/>
Harvest Project:	<input type="text"/>
Harvest State:	<input type="text"/>
Harvest Viewpath:	<input type="text"/>
Harvest User:	<input type="text"/>
Harvest Password:	<input type="text"/>

PVCS Additional Fields

Options	
Settings Manager	Ctrl-T
<input type="checkbox"/> Use IVS	Ctrl-I
<input type="checkbox"/> Show Differences Only	Ctrl-O
<input checked="" type="checkbox"/> Show Progress Bar	Ctrl-B
<input checked="" type="checkbox"/> Migrate RPTs	Ctrl-R
<input checked="" type="checkbox"/> Migrate Fund Groups	Ctrl-F
<input checked="" type="checkbox"/> Migrate Plan Groups	Ctrl-G
<input type="checkbox"/> Migrate Data Dictionary	Ctrl-X
Manifest Source Control	<input type="checkbox"/> None Ctrl-N <input type="checkbox"/> Harvest Ctrl-H <input checked="" type="checkbox"/> PVCS Ctrl-S
Plan Display Manager	Ctrl-P

Additional PVCS Fields added to the Data Source setup window

Project Database:	<input type="text"/>
Promotion Group:	<input type="text"/>
PVCS Path:	<input type="text"/>
Local Storage:	<input type="text"/>

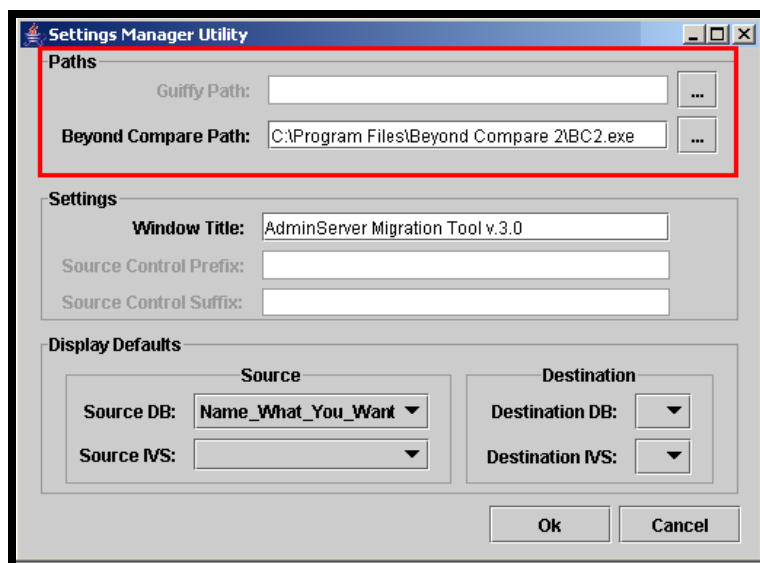
Step 2: Set-up Path to Diff Tool

You must set-up a path to the executable file for Guiffy or Beyond Compare. The Migration Tool requires one of these differ and merge tools in order to run.

- If you are using UNIX, Solaris, Linux or AIX you will enter a path to Guiffy in order to compare rules. This application will open with the compare in it. You must enter the file path to the program executable.
- If you are using Windows, you will enter a path to Beyond Compare in order to compare rules. This application will open with the compare in it. You must enter the file path to the program executable.

Steps to Set-up the Path

1. Select the **Options** Menu.
2. Select **Settings Manager**.
3. Enter the path for either Guiffy or Beyond Compare.
4. Select the **Ok** button.



Setting Manager Utility

Beyond Compare (Windows Environment)

Beyond Compare has been incorporated into the Migration Tool to offer a more detailed view when comparing data across environments. Beyond Compare can be downloaded from the web at www.scootersoftware.com.

GUIFFY Compare (Unix Environment)

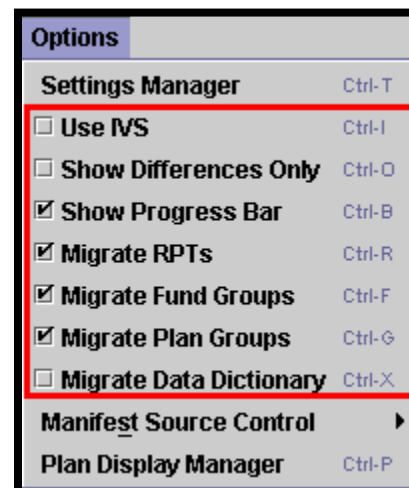
GUIFFY Compare has been incorporated into the migration utility to offer a more detailed view when comparing data across environments. GUIFFY Compare can be downloaded from the web at www.guiffy.com.

Step 3: Select any Options for the Migration

The **Options** menu contains options that can be performed during a migration. You may select an option for migration by checking the associated box next to that option. This should be done before selecting records for migration.

Option Descriptions

- **Use IVS:** This option gives you the ability to select an IVS database for compare and migration from the Main screen.
- **Show Differences Only:** This option displays only the differences when a comparison screen is loaded.
- **Show Progress Bar:** This option displays the progress bar during migration.
- **Migrate RPTs:** Migrates reports on the application server. From the main AdminServer Migration Tool v.3.0 window click the **Options** tab and select **Migrate RPTs**. It is currently only supported for migrating to and from application servers that support ssh sessions. It uses an ssh client to create an sftp session to pull the file from the source application server to the local machine. Another session writes it to the destination application server from the local machine. If you deselect this option, the AsUpload record will still be migrated, but the report file will not move.
- **Migrate Fund Groups:** Check this box if you want to migrate fund groups, which are stored in AsFundGroup. This is not used to migrate funds, but to migrate the tables that group funds into classes. FundGroup table records that store the classification of funds as parent and children are migrated. If fund groups are used this selection should be made. The fund group migration occurs after the funds are migrated.
- **Migrate Plan Groups:** Check this box if you want to migrate the table that stores the group a plan is associated with. The Plan Group table, AsPlanGroup, organizes plans into different groups. If plan groups are used this selection should be made. The plan group migration occurs after the plan is migrated.
- **Migrate Data Dictionary:** Check this box if you want to migrate all the Data Dictionary records from the AsDataDictionary tables. Migration of AsDataDictionary records are based on BusinessRuleGUID, TransactionGUID and SegmentGUID.

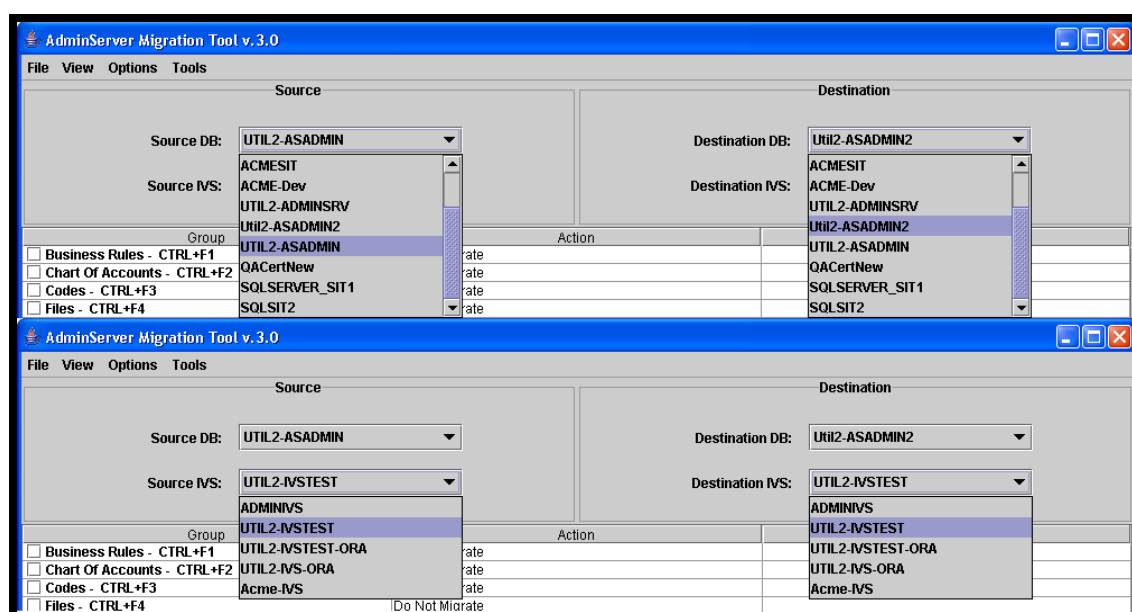


Step 4: Select Data Sources

Select the data sources needed for the migration. You will not be able to select an IVS data source if the **Use IVS** selection is not checked in the **Options** menu.

Make any applicable data source selections.

- **Source DB:** Database with records you want to migrate.
- **Source IVS:** IVS database with records you want to migrate.
- **Destination DB:** Database where you want the records migrated.
- **Destination IVS:** IVS database where you want the records migrated.



Select Data Sources

Step 5: Select Records to Migrate

You must select the records that you want to migrate. Records are organized into **Groups**. You must open each **Group** that contains records you want to migrate and make the proper selections. Once you check off the records you want to migrate in a group, you will select the **OK** button, which writes to the manifest file in memory. The manifest file in memory is appended with each of the selections you make from a Group.

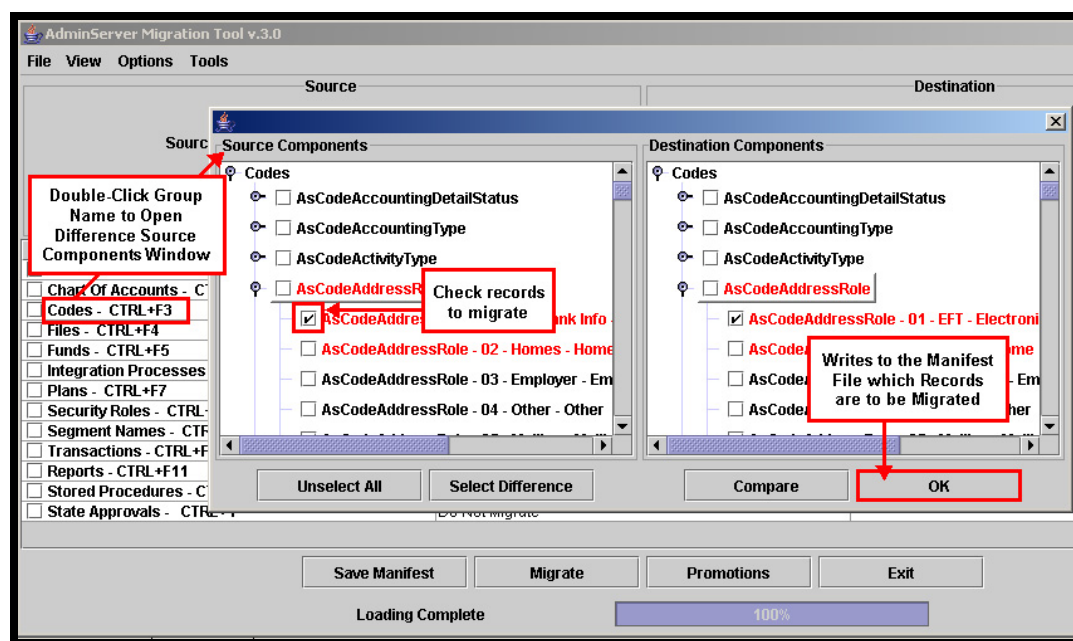
Groups are associated with tables found in the OIPA database with the exception of Stored Procedures. You can locate a group table in the OIPA database according to the name of the group. For example, Business Rules are located in AsBusinessRule, and Chart of Accounts is located in AsChartofAccounts. These tables are linked to other OIPA tables via shared GUIDs.

Stored procedures records are found at:

- **SQL:** The dbo.sysobjects table in the System Tables folder. This table joins the dbo.syscomments table.
- **Oracle:** Procedure file in the MySchema> Procedures folder.
- **DB2:** The system.subroutines table in the Schema>SYSIBM>Tables>SysRoutines folder.

Steps to Select Records for Migration

1. Double-click on a **Group** name from the Main screen or select from the **View** menu.
2. In the **Course Components** window select the difference you want to migrate by checking the appropriate check box. Please see the [Color Code Differences](#) table below for a description of the record color coding.
3. Select the **OK** button. This writes to the manifest file the records that were selected for migration.
4. Repeat steps 1 through 3 until all records from each group have been written to the manifest file in memory.



Selecting Records for Migration

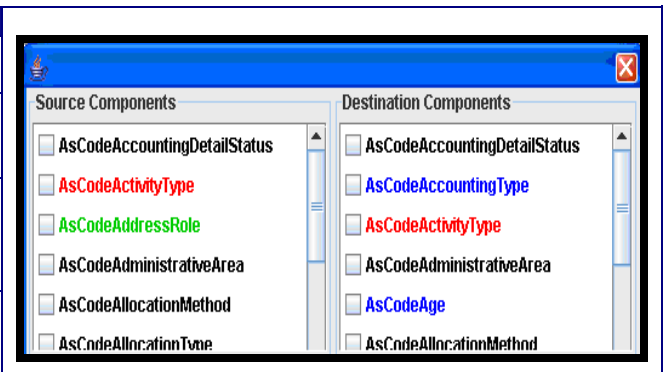
Once selections have been made for a Group, the Group will display a check mark. The Action is changed to pending and the status is changed to Migrate on the Main screen.

Group	Action	Status
<input type="checkbox"/> Business Rules - CTRL+F1	Do Not Migrate	
<input type="checkbox"/> Chart Of Accounts - CTRL+F2	Do Not Migrate	
<input checked="" type="checkbox"/> Codes - CTRL+F3	Pending	Migrate
<input type="checkbox"/> Files - CTRL+F4	Do Not Migrate	

Pending Migration Example

Color-Coded Differences

Color	Environmental Differences
Black	Source and destination items are identical. These items cannot be migrated
Red	Source and destination items differ. When checked and migrated, the destination item will be updated with the source item's data.
Green	The source item does not exist in destination. When checked and migrated, the source item will be inserted into the destination environment.
Blue	The destination item does not exist in source. When checked and migrated, the item will be deleted from the destination environment.



Note: Information in the AsCurrentVersion table is automatically moved, there is no option to not migrate these records. The AsCurrentVersion table is available in OIPA Release 8.1.

Group Button Descriptions

Button	Description
Unselect All	This will uncheck all source and destination items.
Select Difference	This will check all source and destination items that differ.
Compare	This will open Beyond Compare or GUIFFY to display a detailed view of the selected item differences. To use this feature highlight an item in the source and in the destination lists. This button is not present on the global view of the Business Rules or Codes. Beyond Compare or GUIFFY must be installed on the machine running the utility.
OK	Saves all checked data items in the manifest file in memory for migration and exits the screen.
Cancel	Exits the screen without saving any changes to checked items.

Step 6: Select Migration Actions

The action buttons process migration actions. You must select the buttons in the correct order, if you wish to be able to roll back a migration using a manifest file.

Steps to Create the Manifest File for Migration

1. Select the **Save Manifest** button. This creates an XML manifest file from all the group selections made. This serves as a record of the items migrated, or can be accessed later to migrate what was selected previously. The [manifest file](#) is saved to the path identified in the Manifest Path (local) field in the applicable Data Source window. The folder where the manifest file should be saved must exist on the drive. The Migration Tool will not create the folder for you.
2. Enter a name for the manifest file.
3. Perform your internal work flow to review and approve the manifest file before migration.
4. Move the approved manifest file from the path identified in the source database's Manifest Path in the Manage Data Source window (example - C:\ashome\manifestsource) to the path identified in the destination database's Manifest Path in the Manage Data Source window (example - C:\ashome\manifestdest). If no physical folders exist where the path identifies them you will need to manually create them.
5. Select the **Promotions** button.
6. Select the approved manifest file. You will not see the manifest file in the promotions window if the file wasn't moved to the destination folder AND the Manifest Path in the Manage Data Source doesn't indicate where the file was saved.
7. Select the **Migrate** button from the **Approved Manifests** window.

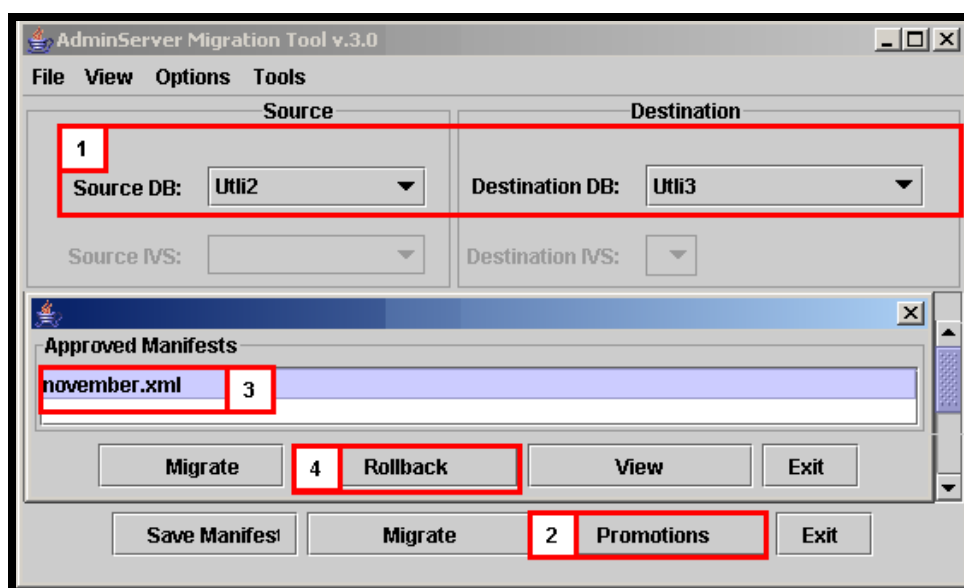


Rolling Back a Migration

In case the migration contains an error, you can roll back to a point before the error occurred using a manifest file.

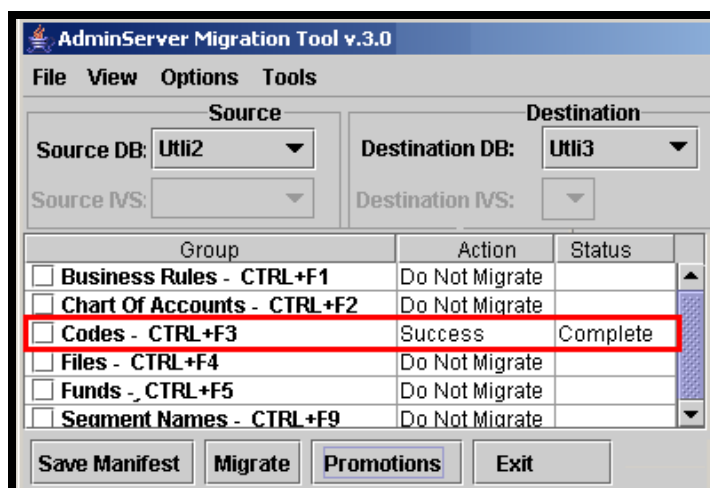
Steps to Perform a Roll Back

1. Select the source and destination data sources.
2. Select the **Promotions** button.
3. Select the manifest file that caused the error.
4. Select the **Roll back** button.



Steps to Roll Back

After the Roll back has been completed the Main screen will display the success of the roll back migration.



Successful Roll Back

Exclude Specific Plans from Migration Tasks

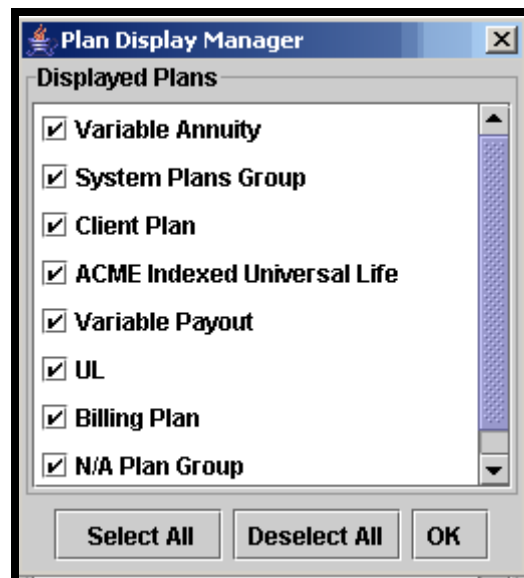
The **Plan Display Manager** allows you to exclude selected plans that you do not want to consider when performing migration tasks. This can reduce the amount of time it takes to load and migrate.

Steps to Use Plan Display Manager

- 1) Select the **Options** menu.
- 2) Select **Plan Display Manager**.
- 3) Deselect the checks in the box associated with the plan(s) you do not want to see when performing migration tasks.

In addition to manually selecting each plan, there are three buttons you can use.

- Select All – This button will allow you to select all Plans with one click.
- Deselect All – This button will allow you to un-select all Plans with one click.
- OK – This button should be used after you make your final decision on which plan/s you would like to display.



Plan Display Manager

Create Difference Reporting

You may generate an HTML difference report using anywhere from two to four databases. You may select the items you want to view on the difference report, whether you want to see only differences or not, and where you would like the report to be saved.

Difference Report Utility

Steps to Create a Difference Report

1. Select **Tools** from the menu bar.
2. Select **Difference Reporting**.
3. Check the **Display Items** you want to view on the report.
4. Select all the **Data Sources** you want to view on the reports. Selecting two data sources is required, but you have the option to add two more under the **Optional** section.
5. Enter or select the **File Path** where you want the reports to be saved.
6. Check **Open File on Generation** to view the report right after it has been created.
7. Check **Differences Only** to create a report that lists only the differences of items in the data sources selected.
8. Select the **OK** button.

Note: If **Open File on Generation** was not selected, you may open the report from the location where it is saved.

Example of a Difference Report

AdminServer Environmental Difference Report - Microsoft Inet

Address C:\ashome\migration\diff.html Go Links >>

Legend: NV="Not Versioned" DNE="Does Not Exist" UTIL1 status UTIL

Security Roles	UTIL1	status	UTIL
ACME Holding Corporation - Cash Controller	1	diff	DNE
ACME Holding Corporation - Commission Role	2	diff	1
ACME Holding Corporation - View Only	0	diff	DNE
ACME Holding Corporation - View Only with Plan	2	diff	1
ACME Holding Corporation - Death Claim	DNE	diff	3
ACME Holding Corporation - New Business + Suspense Refund	DNE	diff	NV

Plans	UTIL1	status	UTIL
ACME Holding Corporation - Client Plan	NV	diff	NV
Acme Life - BOLI	NV	diff	DNE
Acme Life - BOLI-copy	NV	diff	DNE

Done My Cc

Command Line Functionality

Due to the Sarbanes-Oxley Act you may need to use command line functionality to run a migration during production off hours. The Migration Tool supports a command line interface and the syntax is as follows:

```
java -Xmx512m -Xms512m -Djava.awt.headless=true -jar migration.jar {ACTION:
MIGRATE|ROLLBACK|SHOWGUI} {manifest_name} {source_datasource_name}
{destination_datasource_name} {ivs_datasource_name}
```

Command Line Description

- **Java:** Requires the JSDK be installed. Uses the JSDK to translate and run the compiled Java code within the .jar file.
- **-Xmx512m:** JVM parameter. Upper memory constraint.
- **-Xms512m:** JVM parameter. Lower memory constraint.
- **-Djava.awt.headless=true:** Removes any references to and swing components.

Note: DO NOT use this if you want to run the GUI. This should only be used for a command line migration or rollback

- **-jar:** Specifies the java code is in a .jar file.
- **migration.jar:** The name of the .jar file you are running.
- **{ACTION}:** The action you want the command line to perform.
 - MIGRATE – standard migration from a source to a destination.
 - ROLLBACK – rollback of a migration that already took place.

Note: Do not switch the source and the destination. The migration tool will handle that. The source and the destination must be the same for the rollback and the initial migration.

 - SHOWGUI – This will show the migration tool GUI. This is what happens when no parameters are passed to the command line.
- **{manifest_name}:** The name of the manifest on the file system. Make sure to include the suffix .xml since this is how the manifest is stored.
- **{datasource_names}:** These are the datasource names specified when the datasources are entered in the GUI. Because these names are used in command line, the migration tool will not allow you to add spaces to the datasource name. It is very important the source, destination, and IVS datasources are all correct and tested. If they are not the migration will fail.