

ACTIVE Governance™

Upgrade Guide

Software Version 7.1 to Version 7.2

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LogicalApps
15420 Laguna Canyon, Suite 150
Irvine, CA 92618
949.453.9101

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Upgrading ACTIVE Governance

ACTIVE Governance implements business controls, enabling users to demonstrate regulatory compliance and to promote operational efficiency. It consists of an ACTIVE Governance Platform, which documents controls and displays reports, and modules that enforce controls — ACTIVE Access Governor™ and ACTIVE Policy Governor™.

ACTIVE Governance works with Embedded Agents, a set of applications that run within the Oracle ERP environment and enable ACTIVE Governance to apply controls there. ACTIVE Governance may connect to multiple instances of Oracle Applications, each running its own instance of the Embedded Agents.

ACTIVE Governance also incorporates Business Objects Enterprise XI Release 2, a third-party software package that provides its reporting capability.

Thus, to upgrade from version 7.1 to version 7.2 of ACTIVE Governance, you must upgrade Embedded Agents and Business Objects components as well. Broadly, these upgrades constitute a two-phase process:

- First, for each instance of Oracle Applications that is to be subject to control by ACTIVE Governance, upgrade the “companion” instance of the Embedded Agents. Book 1 of this upgrade guide provides detailed procedures for doing so; it begins on page 3.

Each instance of the Embedded Agents has its own database — typically, a distinct schema in the Oracle database used by the companion Oracle Applications instance. To upgrade an instance of the Embedded Agents, you effectively install

the 7.2 version, but in addition run upgrade scripts to enable your 7.1 database to work with the 7.2 version.

- Second, upgrade ACTIVE Governance and Business Objects. Book 2 of this upgrade guide provides detailed procedures for doing so; it begins on page 37.

ACTIVE Governance and Business Objects each requires its own Oracle database. In version 7.1, the ACTIVE Governance database had to be Oracle, but the Business Objects database could be either Oracle or MySQL. In version 7.2, MySQL is no longer supported. Moreover, while version 7.1 of ACTIVE Governance worked with Business Objects Enterprise XI Release 1, version 7.2 works with Release 2.

Therefore, if you used MySQL for your Business Objects database in version 7.1, the upgrade involves replacing this database with Oracle. In any case, the upgrade involves installing a new version of Business Objects, and migrating version 7.1 report history to the 7.2 instance. It also involves installing upgraded ACTIVE Governance and Business Objects program files, and using Business Objects tools on a Windows client to deploy reports.

This guide is intended for readers qualified to perform system-administration operations such as configuration change at the operating-system level, the creation of users, the granting of permissions to users and directories, or the installation of operating system patches on the machines that host ACTIVE Governance and the Embedded Agents.

Embedded Agents Upgrade

Embedded Agents Upgrade Overview

Embedded Agents are a set of applications that run within the Oracle Applications ERP environment in support of ACTIVE Governance. They were developed from a set of applications known collectively as AppsRules, and to upgrade from version 7.1 to version 7.2 is to replace AppsRules applications with corresponding Embedded Agents.

One of these agents serves as an engine for ACTIVE Access Governor, and would not be used directly. Of the remainder:

- ACTIVE Data Governor™ applies change control to Oracle Applications fields. It can monitor change, require a reason for a change, or require approval for a change.
- A Form Rules application modifies the security, navigation, field, and data properties of Oracle Applications forms.
- A Flow Rules application works with Oracle Applications Workflows to define and implement business processes.
- An Audit Rules application tracks changes to the values of fields in database tables and displays reports that present information about changes to each field.

These applications reside on the database and forms servers on which Oracle Applications run. An instance implements the following architecture:

- Database Schema: As you upgrade to version 7.2, you will use the database schema created for AppsRules version 7.1, known as the “LogicalApps schema.” Its recommended user name is `XXLAAPPS`.

- **Tablespace:** The instance requires a tablespace for indexes used by Embedded Agents database objects. As you upgrade to version 7.2, you will use the tablespace created for AppsRules version 7.1.
- **Database Objects:** Embedded Agents make use of database tables, packages, sequences, and workflows, which are placed in the `XXLAAPPS` schema. All Embedded Agents table names begin with the prefix `LA`.
- **Application Server Objects:** Embedded Agents use custom forms, which are installed on the application server. Custom forms are located in the `$XXLAAPPS_TOP/forms/US` directory.
- **Program Executables:** Embedded Agents use program executables to report on, migrate, and compile business rules. Reports, programs, and Java files are installed on the concurrent manager server (typically the database server). Custom programs are located in the `$XXLAAPPS_TOP/forms/US` directory; some executable programs may also reside in the `$XXLAAPPS_TOP/bin` directory.

Two comprehensive Installer programs upgrade the Embedded Agents on the database and forms servers. (They also upgrade a rules engine that provides functionality to the applications.) Each Installer can run in any of three modes:

- **GUI:** The Installer programs present windows that prompt for upgrade information. Each window also provides access to a help window. As you work through the windows, you can return to windows you had completed earlier, to review or change the entries in them. (The Installers retain entries you don't change, even if you return to a step earlier than the one in which an entry was made.)
- **Console:** The Installer programs present a series of prompts in a command console, in response to which you provide information necessary for the upgrade. Console mode prompts for the same information as GUI mode, but does not enable you to return to earlier prompts and does not provide help screens.
- **Silent:** The Installer programs read parameters from properties files, and then run without user interaction.

To run each Installer program, you would type its name — `ladbinstall.bin` or `lafrminstall.bin` — at the command prompt. The name alone launches GUI mode if no properties files are present, or silent mode if properties files are present; the name along with the argument `-i console` launches the console mode.

Preparatory Procedures

Although the following preparatory procedures were most likely completed when version 7.1 was installed, you may wish to confirm that they have been completed as you upgrade to version 7.2:

- Grant the following APPS schema objects the execute privilege to the LogicalApps schema:
 - `FND_FILE` — Package Spec and Body
 - `FND_PROFILE` — Package Spec and Body

- Confirm that Java is in your path. Type the following at the command prompt:
which java
- Verify that you use Java version 1.3 or higher. Type the following at the command prompt:
java -version
If more than one copy of Java exists on your system, verify the version of the copy in the opt directory (for example, /usr/opt1.3/bin/java).
- Ensure that the Oracle Advanced Security product is installed. (DBMS_Obfuscation is used for encrypting the password.) Type the following at the command prompt:
adapters
Look for Oracle Security Server Authentication Adapter among the return values.
- Each of your database server, forms server, and concurrent manager server may run on its own host machine. If so, complete the following tasks to confirm that the host machines communicate properly:
 - Send a file via FTP from the database server to the concurrent manager server, and from the concurrent manager server to the forms server.
 - Perform a remote execution of the shell file, by any of the following methods: Enable rsh (remote shell), enable ssh (secured shell), have a common mount point, manual.

Sizing Considerations

Ensure that your forms server has 100 megabytes (MB) of disk space for Embedded Agents files, and that the database server has 100 MB of disk space for Embedded Agents executable files.

Moreover, the LogicalApps schema requires the following amounts of disk space:

- 100 MB for most Embedded Agents database tables.
- An additional 1 gigabyte (GB) for two temp tables used in Audit Rules processing — LAAD_AUDIT_KEYS and LAAD_AUDIT_VALUES.
- An additional amount for two tables that hold Access Governor “user conflicts.” The space requirement varies according to the number of conflicts a system may generate. The first table, LAA_USER_CONFLICT_ENTITIES, holds the most recent “snapshot,” or set of conflicts; the other, LAA_USER_CONFLICT_ENTITIES_H, is a history table that holds archived snapshots. So one would, in effect, want to allow for double the number of conflicts that may be generated. The largest LogicalApps clients generate approximately 5,000,000 conflicts and so need to allow for 10,000,000, and 2 GB of disk space meets this requirement.

The Embedded Agents schema (XXLAAPPS or user-specified) requires space to encompass shadow tables used by Audit Rules — one-third of the space taken by each audited table.

Software Requirements

Each instance of the Embedded Agents runs with an instance of Oracle Applications. For version 7.2, versions 11.5.9 and 11.5.10 of Oracle are preferred, but versions 11.5.7 (FND patch H) and 11.5.8 are also supported.

The following operating systems are preferred for version 7.2 of the Embedded Agents:

- Red Hat Linux AS/ES 3.0
- Red Hat Linux AS/ES 4.0
- Solaris 8/9/10

The following operating systems are also supported:

- Suse Linux Enterprise Server 9.0
- AIX
- HP-UX

Each version 7.2 instance of the Embedded Agents requires an Oracle 9i (or later) database.

Obtaining Installation and Upgrade Files

In your Oracle media pack, locate the Governance, Risk, and Compliance Controls Suite Disk 1. In its dist directory, locate the following files and copy them to a temporary directory on your local system:

- `ag_722_oracle_ebs_agent.zip`. From it, extract the two files — `ladbinstall.bin` and `lafrminstall.bin` — you will run for database and forms installation. If you intend to use the silent installation mode, also extract the two files from which the Installers will read parameters — `ladbinstall.properties` and `lafrminstall.properties`.
- `ag_oracle_ebs_agent_migration_710_to_721.zip`. From this file, extract the following three files: `la_ae_conv_pkg_spec.sql`, `la_ae_conv_pkg_body.sql`, and `LAA_SIM_MIGRATION_72.sql`.

Preparing Properties Files

If you intend to run the Installer programs in silent mode, you need first to edit the two properties files you extracted from `ag_722_oracle_ebs_agent.zip`, inserting information specific to your installation. (If you intend to use GUI or console mode, you don't need the properties files, and you can ignore this section.)

To insert values in the files, use a text editor such as `vi`. Each file consists of a series of name-value statements, each of which sets a parameter name equal to a value and each of which is preceded by an explanatory comment. (Each comment begins with

a # symbol.) In each statement, edit information to the right of an equals sign; do not (with one exception, discussed below) modify text to the left of the equals sign.

You insert into the files exactly the same information as you would supply in response to prompts if you were to run the Installers in GUI mode. For detailed descriptions of that information, see Chapter 2, “Upgrading Embedded Agents.”

The two properties files — `ladbinstall.properties` (database) and `lafrminstall.properties` (forms) — share many parameters, which correspond as follows to the GUI prompts discussed in Chapter 2:

- `CUST_NAME` and `LICENSE_KEY`: Prompts in the License Key window, step 1 on page 12 (database), or step 1 on page 16 (forms).
- `#STAGE_DIR`: Prompt in the Staging window, step 2 on page 13 (database), or step 2 on page 17 (forms).

This statement is the exception, noted above, to the rule that you should leave parameter names (to the left of the equals sign) intact. In the assumption you will want the Installers to set default staging directories, this statement is commented out in the properties file. To use the statement, you must not only supply a staging directory path to the right of the equals sign, but also delete the # symbol at the beginning of the statement.

- `DB_HOST_NAME`, `DB_SID`, and `DB_PORT`: Prompts in the Database Host window, step 3 on page 13 (database), or step 3 on page 17 (forms).
- `DB_XXLAAPPS_SCHEMA_NAME`, `DB_XXLAAPPS_PASS`, `DB_APPS_SCHEMA_NAME`, and `DB_APPS_PASS`: Prompts in the Database Schema window, step 4 on page 14 (database), or step 4 on page 17 (forms).

Another exception: The database-installation window does not prompt for the Oracle Applications schema name, although the forms-installation window does. Both properties files require it (typically `APPS`) as the value for the `DB_APPS_SCHEMA_NAME` parameter.

- `XXLAAPPS_SHORT_NAME` and `APPL_TOP`: Prompts in the Application TOP window, step 5 on page 14 (database), or step 5 on page 17 (forms).
- `ENVFILE` and `ADOVARS`: Prompts in the Environment window, step 6 on page 15 (database), or step 6 on page 18 (forms).

The `ladbinstall.properties` file contains one parameter — `INDEX_TABLESPACE` — that does not appear in `lafrminstall.properties`. This parameter corresponds to the Index Table Space prompt in step 4 on page 14.

The `lafrminstall.properties` file contains two parameters that do not appear in the `ladbinstall.properties` file. These two parameters correspond as follows to the GUI prompts discussed in Chapter 2:

- `APPSORA`: The final prompt in the Environment window, step 6 on page 18.
- `CUSTOM_CHOICE`: The prompt in the `CUSTOM.pll` window, step 7 on page 18. In the properties file, any value other than `No` (case-sensitive) is equivalent to `Yes`.

Finally, both files contain a parameter that does not correspond to any GUI prompt. For you to run the Installers in silent mode, an `INSTALLER_UI` parameter must be set to the value `silent`. This is the default; don't change it.

Upgrading Embedded Agents

In broad terms, the Embedded Agents upgrade involves five steps:

- 1** Determine the names of the tablespace for Embedded Agents indexes, the Embedded Agents database user/schema, and the database password established for version 7.1. (Conventionally, the database user name is XXLAPPS.) You will need to supply these as you upgrade to version 7.2.
- 2** Run the Installer that places Embedded Agent components on the database server. The database server installation must precede the forms server installation.
- 3** Run the Installer program that places Embedded Agent forms on the forms server.
- 4** Run a remote compilation feature, which makes libraries resident on the concurrent server available to the forms server.
- 5** Run database upgrade scripts.

Installing Database Server Components

To install Embedded Agents database server components, run the file `ladbinstall.bin`:

- 1** Transfer the `ladbinstall.bin` file to the database server, via FTP in binary mode. Use the `applmgr` account.
- 2** Use `applmgr` to log in to the database server. Ensure that the user (login ID) has write and read privileges on `$APPL_TOP`.
- 3** Execute the environment file, if it is not included in the profile:

```
$. $APPL_TOP/$APPLFENV
```

4 Set the execute permission on `ladbininstall`:

```
$ chmod +x ladbininstall.bin
```

5 Execute `ladbininstall.bin`:

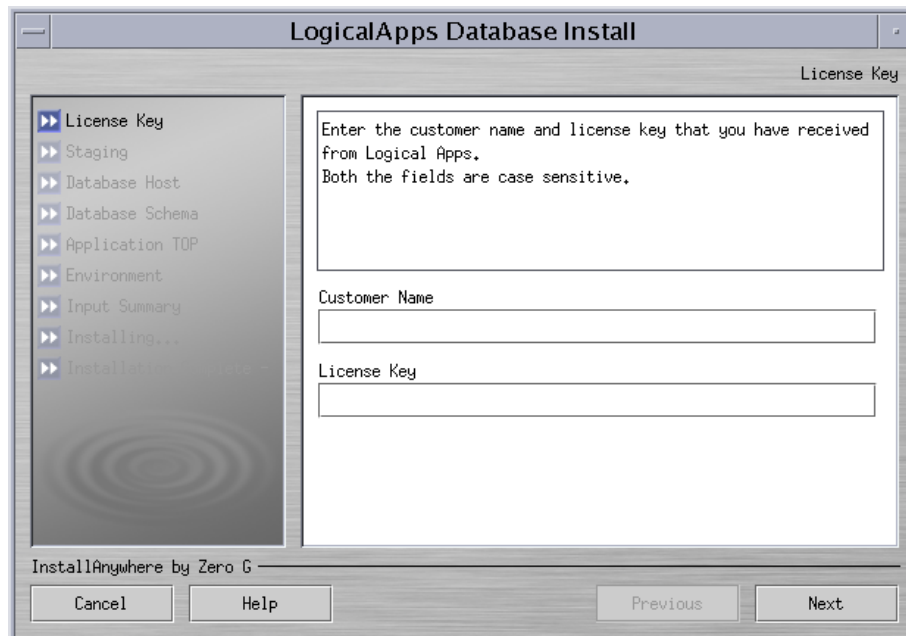
- To run in GUI or console mode, ensure that `ladbininstall.properties` is absent from the directory where `ladbininstall.bin` resides. To run in silent mode, be sure that both files are in the same directory.
- Use the name `ladbininstall.bin` as the command to run in GUI or silent mode. Add the argument `-i console` to run in console mode.

All three Installer modes require the same information; GUI and console prompt for it, and silent reads it from files. If you choose GUI mode (as shown in the following procedure), you can perform these operations in each of the windows:

- Review a brief description of the information you need to provide.
- Click on the Help button to open a window that provides a more expansive description of the information you need to provide. (After you review this information, click on the Close button to exit the Help window.)
- Type installation information in the labeled text boxes (or accept default values).
- When you complete one window, click on the Next button to move from it to the next window.
- Click the Previous button if you wish to return to a window you completed earlier.
- Note that titles of windows you have completed appear in black along the left of each window; those yet to be completed are shown in grey.

To complete the database server installation:

- 1** In the License Key window, enter *Oracle* as the Customer Name and the following case-sensitive value as License Key: `6MR6457YE5RJO1C8T3JhY2xl`. A message displays the applications you can install; click the OK button to clear it.

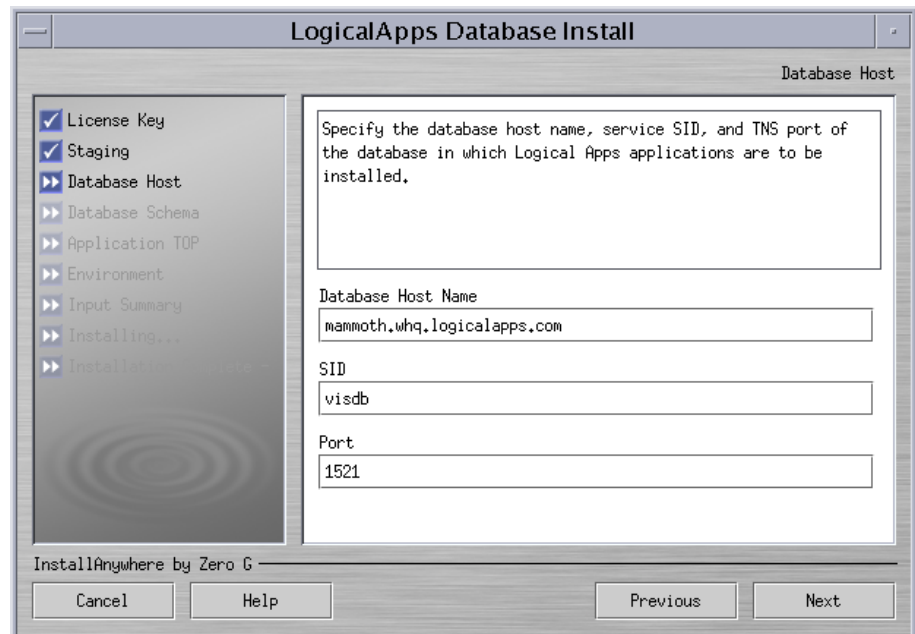


- 2 Specify a staging directory — a temporary location for source files:



The Installer suggests a default directory; its name is a timestamp for the moment you perform the upgrade, with *DB* (for database). You may select another directory: Click the Choose button and, in a Select a Folder window, navigate to the directory you want. If you specify a nonexistent directory, the Installer creates it. To return to the default directory, click on the Restore Default Folder button.

- 3 Verify the default values for the host name, SID (service identifier), and network port of the Oracle Applications database server, which the Installer takes from the shell environment. If the defaults are not correct, enter correct values.



4 Supply log-on values for the LogicalApps and Oracle Applications (APPS) schemas:

The screenshot shows the 'LogicalApps Database Install' wizard at the 'Database Schema' step. The left sidebar shows a tree view with 'Database Schema' selected. The main area contains the following text and fields:

Supply credentials for the Logical Apps schema and APPS schema.
It is strongly recommended that you use the name XXLAAPPS for the Logical Apps schema.

LogicalApps Schema:

Password:

Oracle APPS Schema Password:

Index Table Space:

Buttons: Cancel, Help, Previous, Next.

In the LogicalApps Schema, Password, and Index Table Space, you must enter the values established originally for the AppsRules database in version 7.1. Also enter the password for the Oracle APPS schema in its field.

- 5** Establish the LogicalApps TOP — the high-level directory for Embedded Agents files. You must enter the values that defined the LogicalApps TOP for version 7.1.
- In the LogicalApps Application TOP Directory Location field, specify a directory that is the parent of the LogicalApps TOP.
 - In the Custom Application Short Name field, specify a short name that is appended to the parent directory to form the LogicalApps TOP directory.

The screenshot shows the 'LogicalApps Database Install' wizard at the 'Application TOP' step. The left sidebar shows a tree view with 'Application TOP' selected. The main area contains the following text and fields:

LogicalApps TOP will be created based on the input given below.

It is strongly recommended that LogicalApps be installed as a new custom application XXLAAPPS

Custom Application Short Name:

LogicalApps Application TOP Directory Location:

Buttons: Restore Default, Choose...

Buttons: Cancel, Help, Previous, Next.

If you need to select a parent directory other than the default, click on the Choose button and, in a Select a Folder window, navigate to the directory you want. To return to the default directory, click the Restore Default button.

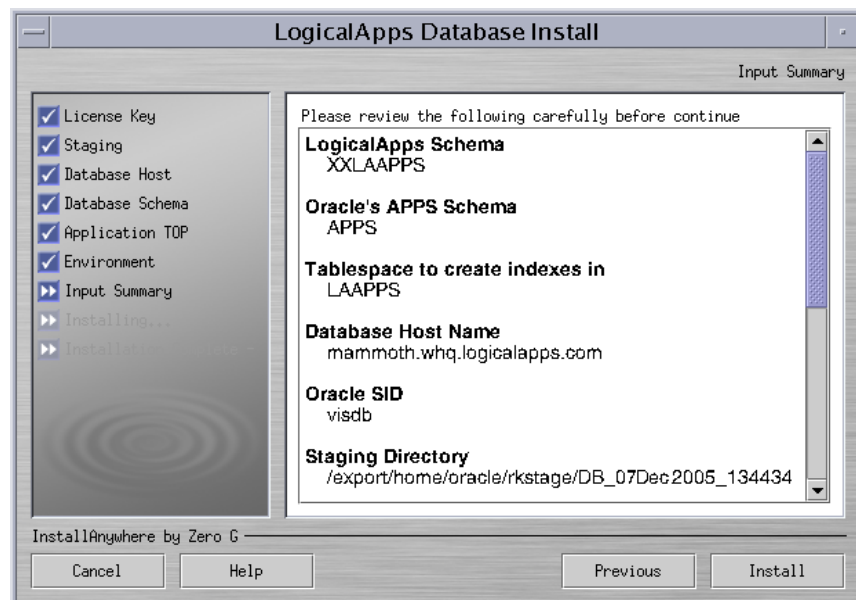
Because you are selecting an application short name that is already in use, the Installer displays a warning message when you click the Next button. You are presented with three options: Enter Again, Continue, and Abort. Select Continue.

- 6 Specify paths to files that contain environment variables for the Oracle Applications shell. (The installation adds Embedded Agent-specific entries to these files.)



Accept the defaults, or click a Choose button and, in a Select a Folder window, navigate to a directory you want. To return to a default directory, click the Restore Default button.

- 7 Review your selections in the Input Summary form:



If you determine that any entry is inappropriate, you can click on the Previous button until you reach the form in which you selected the entry, and change it. (The Installer retains any entries you don't change, even if you pass by them as you return to an earlier step in the installation process.)

- 8** In the Input Summary form, the label for the button at the lower right has changed from *Next* to *Install*. When you are satisfied with your selections in earlier forms, click on the Install button to complete the database server installation.

The Installer displays error messages (if warranted) upon completing the upgrade of each Embedded Agents application, and overall status upon completing the upgrade of all products. If the overall status is Success, the upgrade has finished with no errors.

Errors or overall status may be classified as Warning, Nonfatal, or Fatal. The Installer recovers (restores the system to its state prior to the upgrade) only for Fatal errors. For details about errors and the upgrade process, navigate to the directory from which the Installer ran and review two log files: `LADB_LOG_<timestamp>.log` and `LADB_ERROR_<timestamp>.log`, where *timestamp* is the date and time at which the Installer ran.

Installing Forms Server Components

To install Embedded Agents forms server components, run the file `lafrminstall.bin`:

- 1** If the database and forms servers run on the same host, re-source the environment by opening a new shell.
- 2** Transfer the `lafrminstall.bin` file to the forms server, via FTP in binary mode. Use the `applmgr` account.
- 3** Use `applmgr` to log in to the forms server. Ensure that the user (login ID) has write and read privileges on `$APPL_TOP`.
- 4** Execute the environment file, if it is not included in the profile:


```
$ . $APPL_TOP/$APPLFENV
```
- 5** Set the execute permission on `lafrminstall`:


```
$ chmod +x lafrminstall.bin
```
- 6** Execute `lafrminstall.bin`:
 - To run in GUI or console mode, ensure that `lafrminstall.properties` is absent from the directory where `lafrminstall.bin` resides. To run in silent mode, be sure both files are in the same directory.
 - Use the name `lafrminstall.bin` as the command to run in GUI or silent mode. Add the argument `-i console` to run in console mode.

Most windows (or console prompts) for the forms installation are identical to those for the database installation. If you select GUI mode, each window enables you to perform the same operations as you could in the database-server Installer (see page 11).

To complete the forms server installation:

- 1** In the License Key window, enter *Oracle* as the Customer Name and the following case-sensitive value as License Key: `6MR6457YE5RJO1C8T3JhY2xl`. (These

are the same as the values for database-server installation.) A message displays the applications you can install; click the OK button to clear it.

- 2 In the Staging form, once again select a directory for the temporary placement of source files. The Installer once again suggests a default — its name a timestamp for the moment you perform the installation, along with *FRM* (for forms).

If you wish to select another directory, click on the Choose button. In a Select a Folder window, navigate to the directory you want. If you specify a nonexistent directory, the Installer creates that directory. If you navigate away from the default directory and want to return to it, click on the Restore Default Folder button.

- 3 In the Database Host form, select the database host name used where the database installation has been run, and the appropriate SID and port values.
- 4 In the Database Schema window, there is no longer an Index Table Space field (as it would be inapplicable to forms installation), but where the database-server Installer requested only a password for the Oracle Applications schema, the forms-server Installer asks for a name as well:

For the Apps Schema field, accept the default value, APPS. (This needs to match the database-server value, which is hard-coded.) For each of the remaining fields, enter the same value as you entered for the database installation. Once again, for the LogicalApps Schema and Password fields, these must be the values established for the AppsRules database in version 7.1.

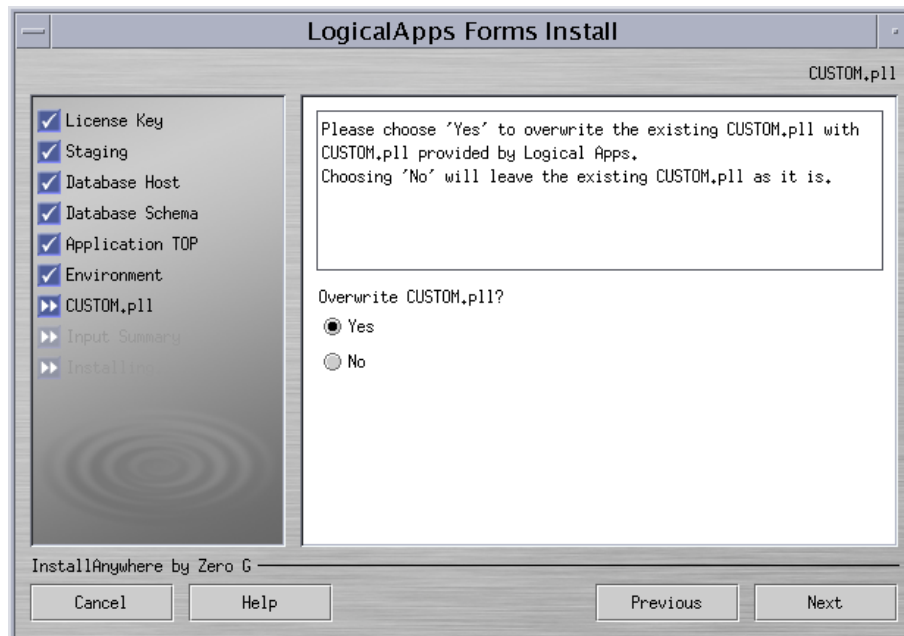
- 5 In the Application TOP form, establish the LogicalApps TOP for the forms server — the highest-level directory for the storage of Embedded Agents files. Again, you must enter the values that defined the LogicalApps TOP for version 7.1.
 - In the LogicalApps Application TOP Directory Location field, specify a directory that is the parent of the LogicalApps TOP.

- In the Custom Application Short Name field, specify a short name that is appended to the parent directory to form the LogicalApps TOP directory. The short name for the forms server must be the same as the short name for the database server.

If you need to select a parent directory other than the default, click on the Choose button and, in a Select a Folder window, navigate to the directory you want. To return to the default directory, click the Restore Default button.

Because you are selecting an application short name that is already in use, the Installer displays a warning message when you click the Next button. You are presented with three options: Enter Again, Continue, and Abort. Select Continue.

- 6 In the Environment form, specify paths to files that contain environment variables for the Oracle Applications shell (the first two prompts) and for forms paths (the APPSORA prompt). Accept the defaults, or click a Choose button and, in a Select a Folder window, navigate to a directory you want. To return to the default directory, click the Restore Default button. In any case select values that are appropriate for the forms server.
- 7 When you complete the Environment form, the forms server Installer presents a CUSTOM.pll form:



Forms server installation requires that an existing CUSTOM.pll file be modified so that it can link to an LACUSTOM.pll file. If you select Yes, the Installer backs up your existing CUSTOM.pll, and then overwrites the original with a modified copy that contains the necessary links to LACUSTOM.pll. (The backup copy has a timestamp appended to the .pll file extension.) If your existing CUSTOM.pll contained any customization, a Yes selection in this form would require you to copy your customizations manually from the backup file to the new version of CUSTOM.pll.

If you select No, the Installer retains your existing CUSTOM.pll. In this case, you need to edit the file to insert links to LACUSTOM.pll (see below).

- 8 In the Input Summary form, review the selections you have made. If you determine that any entry is inappropriate, you can click on the Previous button until you reach the form in which you selected the entry, and change it. (The Installer retains any entries you don't change, even if you pass by them as you return to an earlier step in the installation process.)
- 9 When you are satisfied with the selections you have made in preceding forms, click on the Install button in the Input Summary form to complete the forms server installation.

The Installer displays error messages (if any are warranted) upon completing the upgrade of each Embedded Agents application, and overall status upon completing the upgrade of all products. If the overall status is Success, the upgrade has finished with no errors.

Errors or overall status may be classified as Warning, Nonfatal, or Fatal. The Installer recovers (restores the system to its state prior to the upgrade) only for Fatal errors. For details about errors and the upgrade process, navigate to the directory from which the Installer ran and review two log files: `LAFRM_LOG_timestamp.log` and `LAFRM_ERROR_timestamp.log`, where *timestamp* is the date and time at which the Installer ran.

CUSTOM.pll Modifications

If you chose (in step 7) not to overwrite your `CUSTOM.pll` file, edit the new `CUSTOM.pll` file. (If you selected Yes in step 7, ignore this section and skip ahead to “Servlet Mode.”)

- 1 In place of the existing code for *Procedure Event(event_name varchar2)*, substitute the following:

```
PROCEDURE event(event_name varchar2) is
    form_name      varchar2(30) := name_in('system.current_form');
    block_name     varchar2(30) := name_in('system.cursor_block');
    field_name     varchar2(30) := name_in('system.current_item');
    function_name  varchar2(30);
    parameters     varchar2(2000);
begin
    if (event_name = 'ZOOM') then
        la_enhncmtmgr_pkg.la_zooms(form_name,block_name,
            function_name,parameters);
        if function_name is not NULL
        then
            if parameters is null then
                fnd_function.execute(function_name,'Y','N');
            elsif 'ZOOMSPECIAL' = substr(parameters,1,11) then
                lacustom.event('ZOOMSPECIAL'); -----new code 081903
            else
                parameters := lazooom.zoom_event(parameters);
                fnd_function.execute(function_name,'Y','N',parameters);
            end if;
        end if;
    end if;
```

```

-----WNF
  elsif (event_name='WHEN-NEW-FORM-INSTANCE') then
    lacustom.event('WNF');
-----WNB
  elsif (event_name = 'WHEN-NEW-BLOCK-INSTANCE') then
    lacustom.event('WNB');
-----WNI
  elsif (event_name = 'WHEN-NEW-ITEM-INSTANCE') then
    lacustom.event('WNI');
-----WNR
  elsif (event_name = 'WHEN-NEW-RECORD-INSTANCE') then
    lacustom.event('WNR');
-----WNV
  elsif (event_name = 'WHEN-VALIDATE-RECORD') then
    lacustom.event('WVR');
-----
  elsif (substr(event_name,1,7) = 'SPECIAL') then
    execute_menu(event_name);
-----
  else lacustom.event(event_name);  --put other events here
  end if;
end event;

```

- 2 In place of the code for *Function zoom_available*, substitute the following:

```

FUNCTION zoom_available return boolean is
  v_enabled varchar2(20);
begin  --x
  v_enabled := lazooom.zoom_enabled;
  IF v_enabled = 'TRUE' THEN
    return TRUE;
  else
    return FALSE;
  end if;
RETURN NULL;
end zoom_available;

```

- 3 Attach the following libraries. (Remove the path when attaching the libraries.)
 - LACUSTOM.pll
 - LABRSQL.pll
- 4 Compile the file and ensure there are no compilation errors.

Servlet Mode

If the forms server runs in servlet mode, confirm that a file has been edited to enable Oracle to recognize the LogicalApps TOP you selected during the upgrade (see step 5 on page 17).

To determine whether the forms server runs in servlet mode, identify the file set by the Oracle environment variable `$FORMS60_WEB_CONFIG_FILE`. Open that file and search for its serverURL entry. If that entry is set to the value `/forms/formervlet`, the forms server runs in servlet mode. If the entry is blank, the forms server runs in socket mode, in which case you need not complete the following procedure.

If the forms server runs in servlet mode:

- 1 Using a text editor, open a file called `formservlet.ini`. The file is located either in `$APACHE_TOP/Jserv/etc` or in `$IAS_ORACLE_HOME/Apache/Jserv/etc`.
- 2 In the `formservlet.ini` file, look for a block of entries bounded by the lines `#Begin Customization` and `#End Customization`.
- 3 Add the following entry anywhere between the Begin and End Customization lines:

```
XXLAAPPS_TOP=$APPL_TOP/xxlaapps/11.5.0
```

Note, however, that the value `XXLAAPPS` is correct in this entry only if you have accepted the default application short name during installation. If not, then in each of the two places that the value `XXLAAPPS` appears in this entry (whether in upper or lower case), substitute the short name you created in step 5 on page 17.

- 4 Save and close the file.

Configuring the Remote Compilation

To finish the installation, you must configure a remote compilation feature, which makes libraries resident on the concurrent sever available to the forms server.

- 1 Log on to the database server.
- 2 Source out the Oracle Applications shell environment.
- 3 Navigate to the `$XXLAAPPS_TOP/bin` directory (a subdirectory, called `bin`, of the LogicalApps TOP directory, which you established in step 5 of the database installation process).
- 4 Grant the execute permission on a file called `laconfig.sh`:

```
$ chmod +x laconfig.sh
```

- 5 Run the `laconfig.sh` file:

```
$ laconfig.sh
```

Running the `laconfig.sh` file produces a series of command-line prompts. Respond to them as follows:

- 1 You are prompted to enter the LogicalApps application short name. If that name is other than `XXLAAPPS`, type it and press the Enter key. (Case is not significant.) If the short name is `XXLAAPPS`, simply press the enter key in response to the prompt.
- 2 A prompt displays a path to a Java executable; you must confirm that this is the path to the Java executable used by Oracle Applications. It is, if you sourced out the Oracle Applications shell environment before running the `laconfig.sh` file (no matter how many Java executables reside on your system). It may not be, if you did not source out the Oracle Applications shell environment and have more than one Java executable on your system.

If the prompt displays the path to the Oracle Applications Java executable, type *Y* (for yes) and press the Enter key. If not, type *N* (for no) and press the Enter key, then type the full path to the Java executable used by Oracle Applications and press the Enter key again.

- 3** A prompt displays a path for a file that sets the Oracle Applications environment; you must confirm that it is correct. The default value is taken from the shell as `$APPL_TOP/$APPLFENV`, and this selection is always safe; to accept it, press *Y* (for yes) and press the Enter key. But what's really at issue is the file that sets the LogicalApps TOP, which is a subsidiary file of `$APPLFENV`. You may wish to specify it instead; if so, type *N* (for no), then type the full path to the appropriate file and press the Enter key.

- 4** The following prompt appears:

Choose your node configuration from below:

1. All servers (CM/Forms) share the same application top directory
2. Forms server has different application top file system than concurrent managers
3. Exit Program

Enter 1 if all database, forms, and concurrent servers exist under a single application TOP, or 2 if each exists under its own application TOP (regardless of whether they reside on a single machine or more than one).

- 5** You are prompted to enter the number of distinct application TOPs used by forms servers. Type the number and press the Enter key.
- 6** For each of the application TOPs you include in the count in step 5, you are prompted to select a method for transferring files to the application TOP directory. Enter one of the following and press the Enter key:
- 1 for secured shell (ssh)
 - 2 for remote execution (rexec)
 - 3 for telnet
 - 4 for local file system (copy)
 - 5 for manual
- 7** For each application TOP, you are prompted for supporting information if you have selected any of the first four access methods. (Method 5, manual, requires no supporting information.)
- Server host name if you selected option 1, 2, 3, or 4
 - Full path to Embedded Agents binary files if you selected option 1, 2, 3, or 4
 - User ID if you selected option 1, 2, or 3
 - Password if you selected option 3

Entries are validated, so that if you enter incorrect supporting information you are prompted to try again.

Once you have finished executing the `laconfig.sh` file, verify that the following files exist:

- Database server (under `$$XLAAPPS_TOP/bin`): `LAGENLIB.prog`, `LAMIGRATE.prog`, `LAIMPORT.prog`
- Forms server: `LAFORMSGEN.prog`

Finally, if you want to enable migration (the ability to port Embedded Agents configurations from one instance to another) with password security:

- 1 Navigate to `\\System Administrator Responsibility\Profile\System`.
- 2 Query for the `LAAPPS: Enable Migration Security` profile option.
- 3 Set the value to `Yes` at site level. (This can be controlled further at the responsibility and user levels.)

Upgrading from Version 7.1 to Version 7.2

Run the three upgrade scripts that you extracted from the `ag_oracle_ebs_agent_migration_710_to_721.zip` file (see page 8). Log on to any SQL editor as the `APPS` user and run the following:

- `la_ae_conv_pkg_spec.sql`
- `la_ae_conv_pkg_body.sql`
- `LAA_SIM_MIGRATION_72.sql`

Bouncing the Servers

When you finish the remote compilation and run the upgrade scripts, bounce both the forms server and the concurrent manager server.

Postinstallation Tasks

Once you've run the Installers, the remote compilation, and the upgrade scripts, you must perform additional tasks. Some are required in any case, and others if you run particular versions of Oracle Applications or if other special circumstances apply.

SQL Rule Compilation

From within Embedded Agents, you must run an option to compile SQL rules:

- 1** Log on to the LogicalApps responsibility in Oracle Applications. In that responsibility, select Form Rules.
- 2** A LogicalApps—Oracle Rules form opens. Ensure that its Form Rules tab is selected.
- 3** Click on Tools in the menu bar, and then Oracle Form Rules Compile All Active SQL Rules in the Tools menu.
- 4** A pop-up message informs you of an ID number for the concurrent request that executes the SQL rule compilation. Make a note of the number, and then click on the OK button to close the message.
- 5** Optionally, verify that the request has been completed successfully.
 - a** Click on View in the menu bar, then on Requests in the View menu.
 - b** A Find Requests form opens. In it, click on the Specific Request radio button. Type the ID number of your concurrent request in the Request ID field, and click on the Find button.

- c A Requests form opens. In the row displaying information about your request, ensure that the entry in the Phase field is *Completed* (you may need to click the Refresh Data button), and the entry in the Status field is *Normal*.
- d Click on the × symbol in the upper right corner of the Requests form to close it.

Associate a LogicalApps Function

ACTIVE Access Governor inserts an Activate Responsibilities option in the Actions menu of the Oracle Users form. (This option permits segregation-of-duties rules to be evaluated when a user’s responsibilities are modified in the Users form.)

To activate this option, associate a function called LogicalApps Activate Responsibilities with responsibilities or menus from which administrators will open the Users form:

- 1 In the LogicalApps—Oracle Rules form, select the Form Rules or Flow Rules tab.
- 2 Click on LogicalApps Utilities in the menu bar, and then on Mass Associate Function in the Utilities menu. A Mass Associate Function form appears.

Menu	Include	Exclude
Shop Floor Management	<input checked="" type="radio"/>	<input type="radio"/>
Shop Floor Super User	<input checked="" type="radio"/>	<input type="radio"/>
Spares Management Main Menu	<input checked="" type="radio"/>	<input type="radio"/>
Standard Report Submission and view report (privilege)	<input checked="" type="radio"/>	<input type="radio"/>
Student Recruiting	<input checked="" type="radio"/>	<input type="radio"/>
Supplier Drop Ship	<input checked="" type="radio"/>	<input type="radio"/>
Supplier Scheduling Superuser:	<input checked="" type="radio"/>	<input type="radio"/>
System Administration	<input checked="" type="radio"/>	<input type="radio"/>
System Administration Functions	<input checked="" type="radio"/>	<input type="radio"/>
TCA Main Menu	<input checked="" type="radio"/>	<input type="radio"/>

- 3 Click on the Menu or Responsibility radio button (to determine which type of item you will associate with the function).
- 4 In the Function Name field, select LogicalApps Activate Responsibilities.
- 5 Select the Include radio button for each menu or responsibility you want to associate with the function you’ve selected. By default, the Include radio button is selected for all items in the Associate Function list. You can:
 - Deselect or select all menus or responsibilities. Click on the Select All check box so that it changes to read “Deselect All.” Then click on it again; this selects all the Exclude radio buttons and clears all the Include radio buttons, and it changes the check box label back to “Select All.” Click on it once again; this selects all the Include radio buttons and clears all the Exclude radio buttons, and it changes the check box label back to “Deselect All.”

- Deselect individual included menus or responsibilities by clicking on the Exclude radio button for each.
 - Select individual excluded menus or responsibilities by clicking on the Include radio button for each.
- 6 When you are satisfied with your selection, click on the Submit button. Users with access to the newly associated menus or assigned the newly associated responsibilities then have access to the function.

ACTIVE Data Governor

In ACTIVE Data Governor, a Change Control Wizard enables users to write rules that impose change control on Oracle Applications fields. In order for the Wizard to be used, you must run a Create Audit Rules Objects option:

- 1 In the LogicalApps—Oracle Rules form, ensure that either the Form Rules or Audit Rules tab is selected.
- 2 Click on LogicalApps Utilities in the menu bar, and then Create Audit Rules Objects in the LogicalApps Utilities menu.
- 3 A pop-up message indicates that a concurrent request has been run. Make a note of its number, and then click on the OK button to close the message.
- 4 Optionally, verify that the request has been completed successfully. (See step 5 on page 25.)

Oracle Applications Version 11.5.8

If you run Oracle Applications version 11.5.8, you may regularly run a concurrent program called “Synchronize WF LOCAL Tables” to coordinate aspects of the Oracle workflow. If this is the case, you are advised to run this concurrent program immediately after upgrading Embedded Agents so that the Flow Rules application is properly synchronized with Oracle workflow.

This applies only to version 11.5.8 of Oracle Applications at certain patch levels; other versions are able to perform this synchronization automatically. If your Oracle configuration does not require you to run the Synchronize WF LOCAL Tables program regularly, then omit this step as you upgrade the Embedded Agents.

Oracle Applications Version 11.5.10.2

If you run Oracle Applications version 11.5.10.2, an .xml file known as a “context file” must be edited so that Oracle Applications can source the Embedded Agents environment correctly. Confirm that this has been done.

The sourcing is done through the use of a .env file, and the context file serves as a template for the generation of the .env file. In earlier versions, a shell script served as the template, and the Embedded Agents installer was able to work with the shell

script to set values automatically. Thus, complete the following procedure if you run Oracle Applications 11.5.10.2 or later; omit it if you run an earlier version.

- 1 Using an xml editor, open the file `$APPL_TOP/admin/sid_bost.xml`. In this file name, replace `sid` with the system identifier for the APPS database and `bost` with the host name of the machine on which the APPS database resides.
- 2 In the file, search for the value `ZX_TOP`.
- 3 Confirm that this line exists immediately beneath the `ZX_TOP` row (or, if not, add it).

```
<XXLAAPPS_TOP oa_var="s_xxlaappstop" oa_type="PROD_TOP"
oa_enabled="FALSE">$APPL_TOP/xxlaapps/11.5.0</XXLAAPPS_TOP>
```

Note the following:

- The value `XXLAAPPS` is correct in this line only if you accepted the default LogicalApps application short name during installation. If not, then in each of the four places that the value `XXLAAPPS` appears in this line (whether in upper or lower case), substitute the short name you created in step 5 on page 14.
- In place of the value `$APPL_TOP`, supply the actual full path to the Oracle Applications TOP directory.

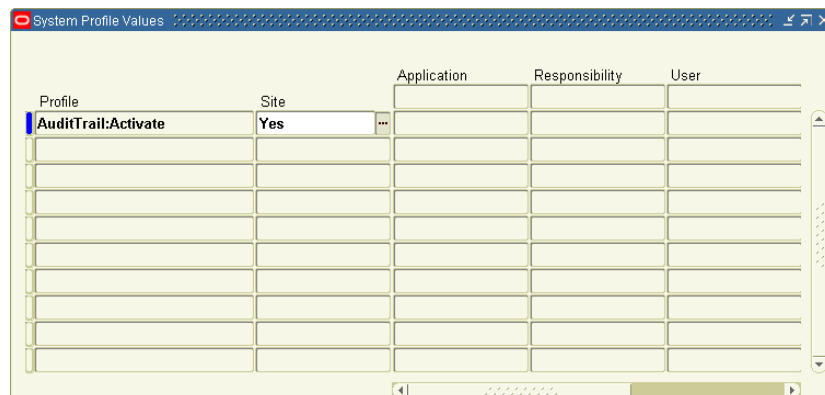
- 4 Save the file.

Audit Rules

Audit Rules provides database-auditing capability not only directly to users, but also to other applications that depend upon it. These include ACTIVE Data Governor, which provides Oracle field-level change control, and Access Monitoring, which audits the activities of users granted temporary access to duties they do not ordinarily fulfill. To prepare the auditing functionality for use, complete the following tasks.

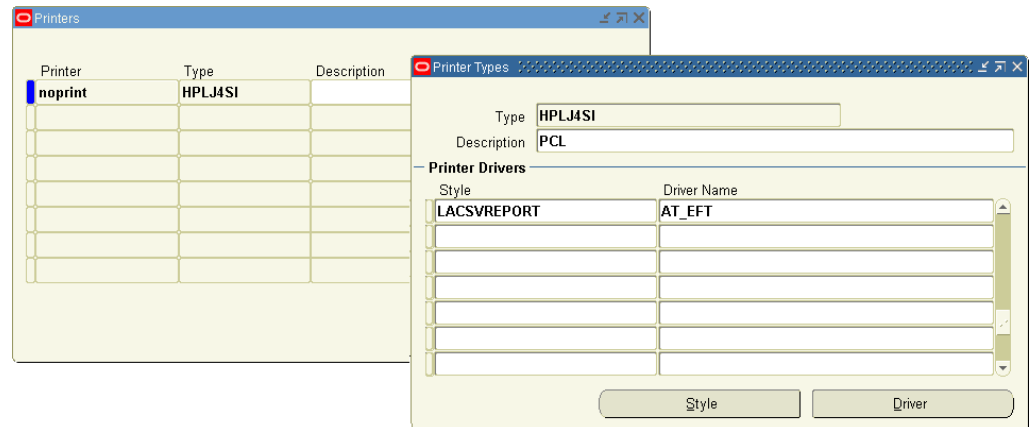
First, set the AuditTrail:Activate profile option to Yes:

- 1 Log on to the System Administrator responsibility in Oracle Applications.
- 2 In the Navigator, select Profile, then System.
- 3 In the Find System Profile Values form, select AuditTrail:Activate in the Profile list of values. Then click on the Find button.
- 4 Ensure that the AuditTrail:Activate option is set to Yes at the Site level:



Second, add the LACSVREPORT style to the printer you will use for Audit Rules:

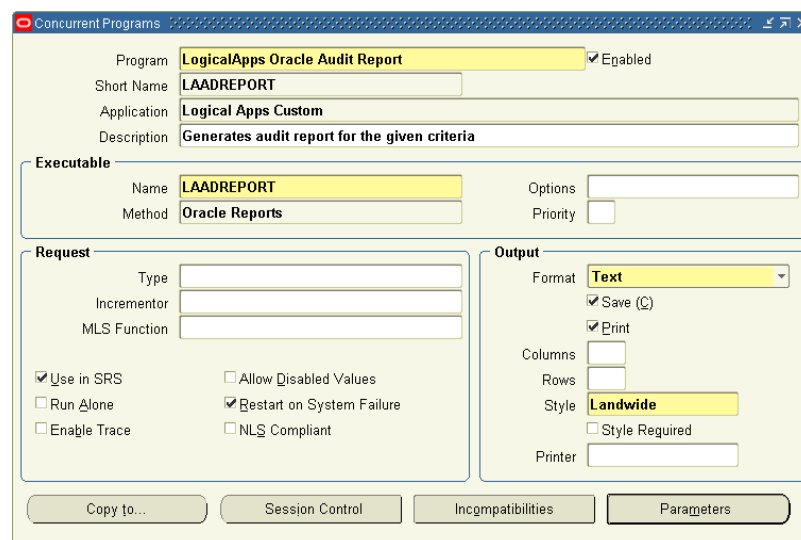
- 1 In the System Administrator responsibility, select Install, then Printer, then Register.
- 2 A Printers form appears. In its Printer list of values, select the printer you wish to use with Audit Rules. Note the value that appears in the Type field when you select the printer, and then click on the Printer Types button.
- 3 A Printer Types form appears. In its Type field, query for the Type you noted in step 2. (Press the F11 key; enter the Type value in the Type field; press Ctrl+F11.)
- 4 In the Style list of values, select LACSVREPORT; the software automatically supplies an associated value under Driver Name.



- 5 Click on File in the menu bar, then on Save in the File menu.

Third, modify the report style:

- 1 As System Administrator, select Concurrent, then Program, then Define.
- 2 A Concurrent Programs form appears. In its Program field, query for LogicalApps Oracle Audit Report. (Press the F11 key; select *LogicalApps Oracle Audit Report* in the Program field; press Ctrl+F11.)
- 3 The Style field displays the value *Landwide*. Change this to *Landscape*.



- 4 Click on File in the menu bar, then on Save in the File menu.

Last, schedule a concurrent-request program called Audit: Dequeue Process to be run periodically. This enables reports for the Audit Rules, ACTIVE Data Governor (change control), and Access Monitoring applications to display current data, so the period at which you schedule the running of this concurrent program depends upon the frequency with which you expect to run these reports. To schedule the program:

- 1 Switch to the LogicalApps responsibility. (Use the Switch Responsibility icon, sixth from the left on the tool bar.)
- 2 In the Navigator, select Requests: Run under the Administration heading.
- 3 In the Submit a New Request form, select Single Request and click the OK button.
- 4 In the Submit Request form, select Audit: Dequeue Process in the Name field (the program takes no parameters). Then click on the Schedule button.
- 5 In the Schedule form, select the Periodically radio button. In related fields, select values appropriate for the schedule you want to set. Click on the OK button.
- 6 In the Submit Request form, click on the Submit button.

Different Hosts

If the database server and concurrent manager server are on different hosts, make the following changes to the Tkprof script (LTKPROF.prog), which is located in the Embedded Agents binary directory on the concurrent manager server. (The changed lines are shown in boldface.) The value <db_login> is the database server name, and the value <db_hostname> is the user name to log on to the database server.

```
#!/bin/sh
oracle_login=$1
tempfile=$$latkprof.txt
temptrc=$$latkprof.trc
echo Temp file $tempfile
echo tkprof directory "$5"
pwd
tkfiles='ssh <db_login>@<db_hostname> ls $5'
for i in $tkfiles
do
echo processing $i
scp <db_login>@<db_hostname>:$i /tmp/$temptrc
tkprof /tmp/$temptrc /tmp/$tempfile explain=$1
cat /tmp/$tempfile
rm /tmp/$tempfile
rm /tmp/$temptrc
done
```

If you have multiple APPS schemas, the LA_ENHNCMTMGR_PKG must be created as a synonym under each schema. To perform this operation, run the following command:

```
create synonym LA_ENHNCMTMGR_PKG for apps.LA_ENHNCMTMGR_PKG
```

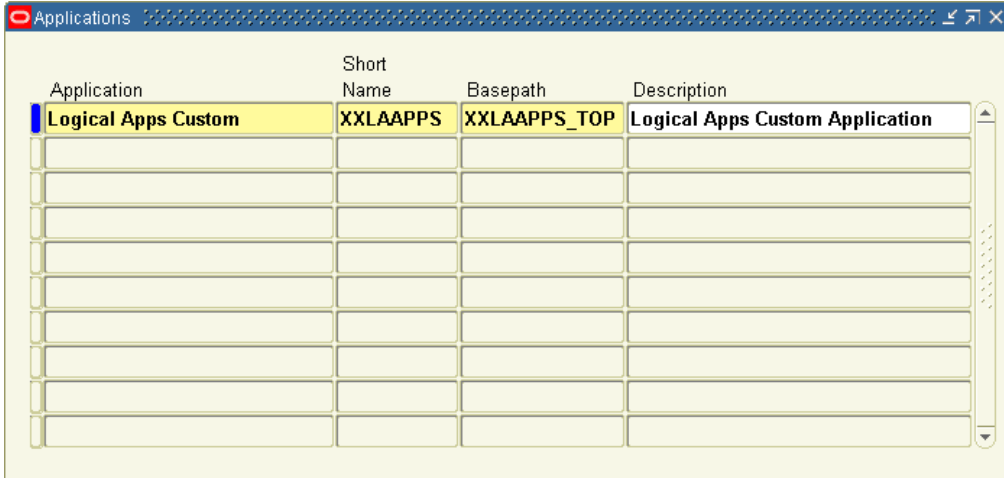
If this is not set, the following error message appears when a user attempts to log on to a read-only or MRC (multiple reporting currency) responsibility:

```
la_enhncmtmgr_pkg not declared
```

Validation

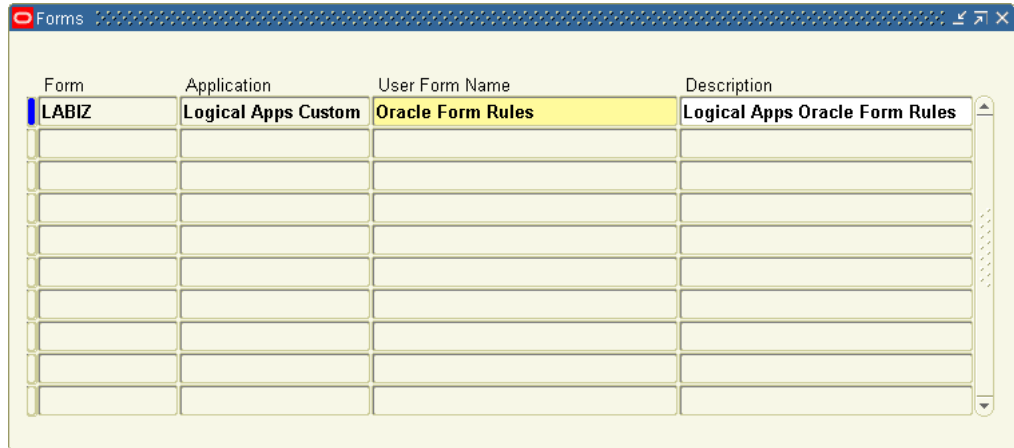
As a part of the installation process, the Installer programs complete several “behind-the-scenes” tasks. Open Oracle Applications forms to confirm that these tasks have been completed. (As you perform these validation steps, you may be instructed to “query for” a value. If so, press the F11 key, type the specified value in a specified field, and then press Ctrl+F11.)

- 1 Log on to the System Administrator responsibility in Oracle Applications.
- 2 Select Application, then Register.
- 3 In the Application field, query for Logical Apps Custom. The form should contain the following values:



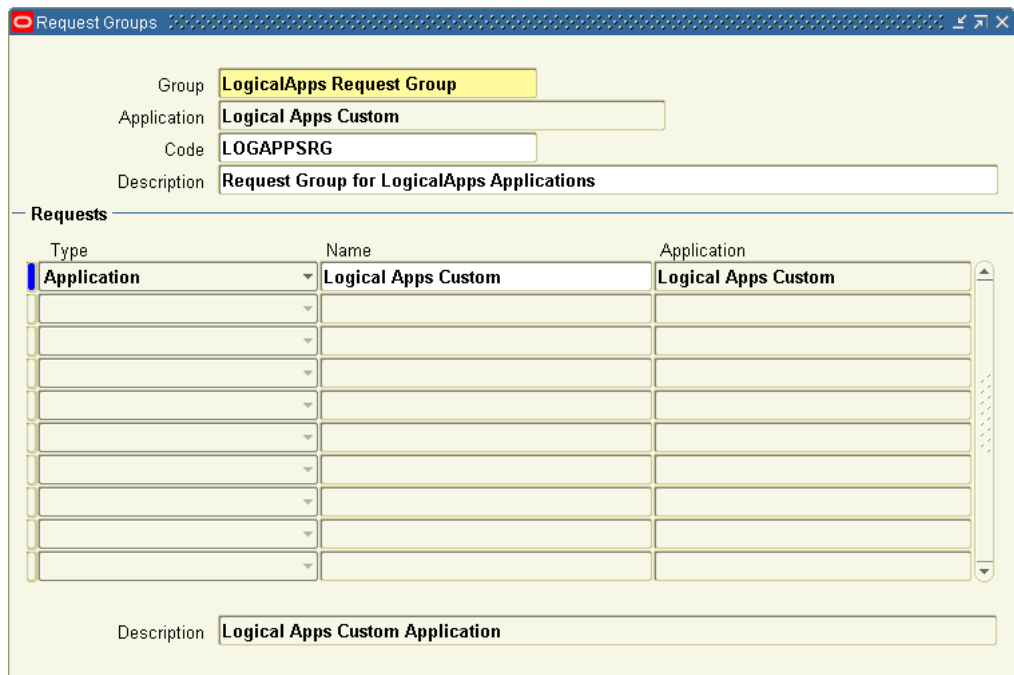
Application	Short Name	Basepath	Description
Logical Apps Custom	XXLAAPPS	XXLAAPPS_TOP	Logical Apps Custom Application

- 4 Switch to the Application Developer responsibility. (Select File in the menu bar, then Switch Responsibility in the File menu. A Responsibilities list appears; in it, select Application Developer.) In the Application Developer Navigator, double-click on Application, then Form. In the Form field, query on LABIZ. The form should contain the following values:



Form	Application	User Form Name	Description
LABIZ	Logical Apps Custom	Oracle Form Rules	Logical Apps Oracle Form Rules

- 5 Switch back to the System Administrator responsibility. In its Navigator, select Security, then Responsibility, then Request. In the Request Groups form, query for the LogicalApps Request Group. The form should contain the following values:



Group: LogicalApps Request Group

Application: Logical Apps Custom

Code: LOGAPPSRG

Description: Request Group for LogicalApps Applications

Type	Name	Application
Application	Logical Apps Custom	Logical Apps Custom

Description: Logical Apps Custom Application

- 6 Still in the System Administrator responsibility, select Application, then Menu in the Navigator. In the Menus form, query for LAAR_NAVIGATE and confirm the values shown in the following illustration. (The illustration is a composite, showing all the entries in the Menu form. Use the scroll bar to view the last few.)

The screenshot shows the Oracle Menus form with the following configuration:

- Menu: LAAR_NAVIGATE
- User Menu Name: LogicalApps AppsRules
- Menu Type: Standard
- Description: Menu for LogicalApps Applications

The table below lists the menu items:

Seq	Prompt	Submenu	Function	Description	Grant
10	Oracle Embedd	LogicalApps: Oracle En		LogicalApps :Oracle Embedded A	<input checked="" type="checkbox"/>
85			Flexfield Values	FND Flexfields	<input checked="" type="checkbox"/>
150			Oracle Audit	AppsAudit form function	<input checked="" type="checkbox"/>
160			LogicalApps Online Auc	AppsAudit Online form function	<input checked="" type="checkbox"/>
170			Oracle Audit Report	AppsAudit Report form function	<input checked="" type="checkbox"/>
205	Access Govern	LogicalApps: Access Gc		LogicalApps : Access Governor	<input checked="" type="checkbox"/>
890	Change Control	LogicalApps: Change C		LogicalApps : Change Control	<input checked="" type="checkbox"/>
900	Administration	LogicalApps: Administr		Logical Apps Administration men	<input checked="" type="checkbox"/>
1100	LogicalApps For		LogicalApps MLS Form	LogicalApps MLS Form Prompts	<input checked="" type="checkbox"/>
1200			Oracle Form Extend Va		<input checked="" type="checkbox"/>
1300			LogicalApps Activate R		<input checked="" type="checkbox"/>
1400			Oracle Change Control		<input checked="" type="checkbox"/>
1500			LogicalApps Responsibi		<input checked="" type="checkbox"/>

- 7 In the System Administrator Navigator, select Security, then Responsibility, then Define. In the Responsibilities form, query for Logical Apps. (This is the responsibility you would assign to Oracle Applications users so that they can use Embedded Agents Applications.)

The screenshot shows the Oracle Responsibilities form with the following configuration:

- Responsibility Name: Logical Apps
- Application: Logical Apps Custom
- Responsibility Key: LAAPSRULES
- Description: LogicalApps Applications Responsibi
- Effective Dates: From 02-FEB-2007
- Available From: Oracle Applications
- Data Group: Name Standard, Application Logical Apps Custom
- Request Group: Name LogicalApps Request Group, Application Logical Apps Custom
- Menu: LogicalApps AppsRules
- Web Host Name:
- Web Agent Name:

The Menu Exclusions table is currently empty:

Type	Name	Description
Function		

Switch to the LogicalApps responsibility and, in the LogicalApps Navigator, select Oracle Embedded Agents, and then Form Rules. Then do the following:

- 1 Select Tools in the menu bar, then Oracle Rules Configurations in the Tools menu.
- 2 An Oracle Rules Configuration form appears. Confirm that a value is displayed in the UTL Path field:

Oracle Rules Configurations

UTL Path: /usr/tmp

Library Version: 6.0.0.0

Form Version: 6.5.0.0.0

Package Version: 6.1.0.0

Refresh Cache

Done

- 3 The UTL Path field value should match the name of one of the directories set for UTL_PATH in your environment. To confirm that it does, run the following SQL Query to generate a list of those directories:

```
select value from gv$parameter where name='utl_file_dir'
```

Finally, confirm that appropriate values have been set for LogicalApps libraries:

- 1 With Form Rules open, click on LogicalApps Utilities in the menu bar, then on Oracle Rules Library in the LogicalApps Utilities menu.
- 2 With a LogicalApps Libraries form open, click on Tools in the menu bar, then on Value Sets in the Tools menu.
- 3 In the Name field of the Find Value Set form, enter the value *LA%* and click on the Find button.
- 4 Select (one at a time) the LAAC_CATEGORY, LAAR_LIBRARY_MODULES, and LAAR_LIBRARY_THEME entries. For each, confirm that a Segment Values form displays *ALL* in the Values field for the Values, Effective tab. For example:

Segment Values

Value Set Key Flexfield Descriptive Flexfield Concurrent Program

Name: LAAR_LIBRARY_MODULES Library Modules

Dependent Value Set:

Independent Value:

Values (LAAR_LIBRARY_MODULES)

Values, Effective | Values, Hierarchy, Qualifiers

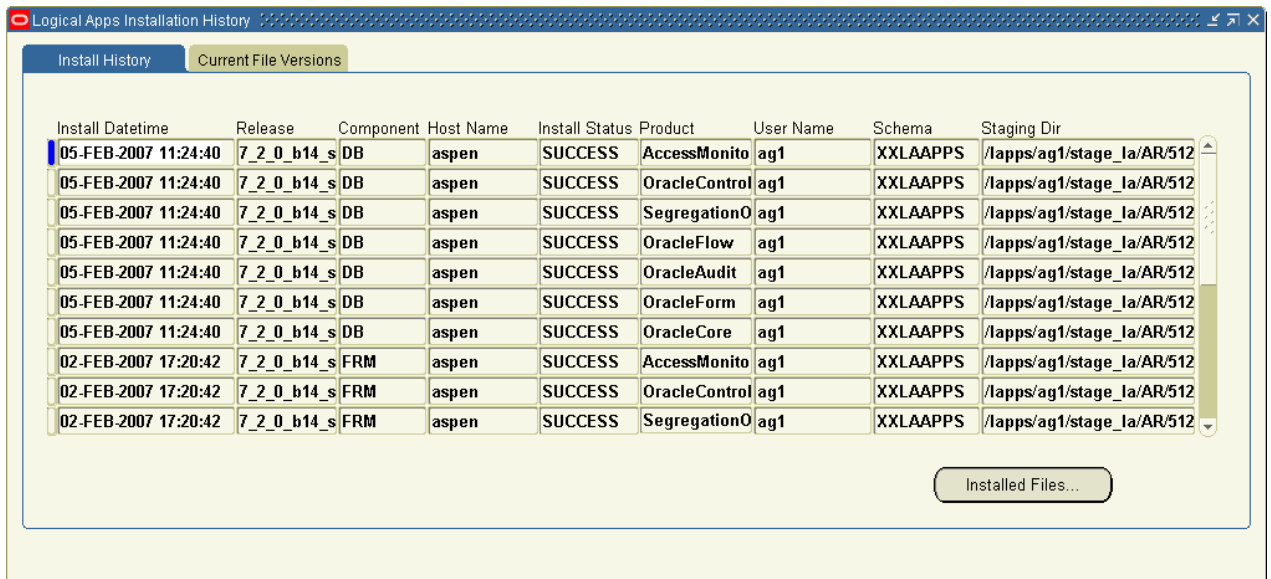
Value	Translated Value	Description	Enabled			
			From	To		
ALL	ALL	Module to include all rules	<input checked="" type="checkbox"/>			
			<input type="checkbox"/>			
			<input type="checkbox"/>			
			<input type="checkbox"/>			
			<input type="checkbox"/>			

Define Child Ranges | Move Child Ranges | View Hierarchies

Installation History

You can review information about the installation of files for your Embedded Agents implementation. To do so:

- 1 Log on to the LogicalApps responsibility in Oracle Applications.
- 2 In the Navigator, select Administration, and then Install History. The Installation History form appears:



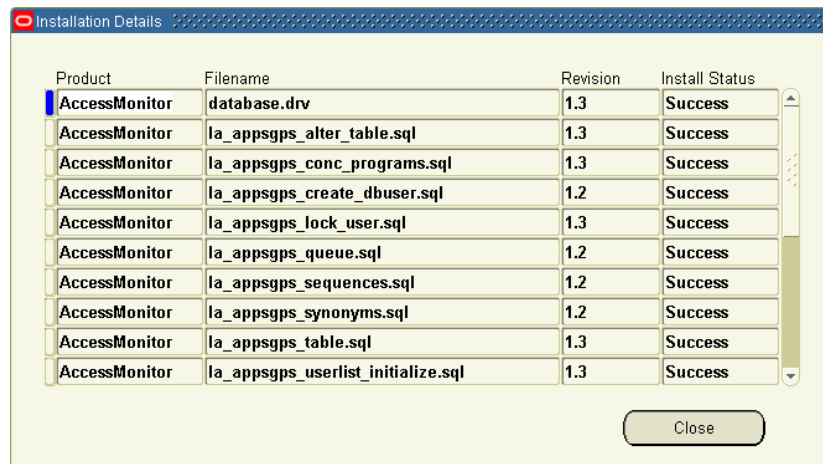
The screenshot shows the 'Logical Apps Installation History' window with two tabs: 'Install History' (selected) and 'Current File Versions'. The table below lists the installation details for various components.

Install Datetime	Release	Component	Host Name	Install Status	Product	User Name	Schema	Staging Dir
05-FEB-2007 11:24:40	7_2_0_b14_s	DB	aspen	SUCCESS	AccessMonito	ag1	XXLAAPPS	/lapps/ag1/stage_la/AR/512
05-FEB-2007 11:24:40	7_2_0_b14_s	DB	aspen	SUCCESS	OracleControl	ag1	XXLAAPPS	/lapps/ag1/stage_la/AR/512
05-FEB-2007 11:24:40	7_2_0_b14_s	DB	aspen	SUCCESS	Segregation0	ag1	XXLAAPPS	/lapps/ag1/stage_la/AR/512
05-FEB-2007 11:24:40	7_2_0_b14_s	DB	aspen	SUCCESS	OracleFlow	ag1	XXLAAPPS	/lapps/ag1/stage_la/AR/512
05-FEB-2007 11:24:40	7_2_0_b14_s	DB	aspen	SUCCESS	OracleAudit	ag1	XXLAAPPS	/lapps/ag1/stage_la/AR/512
05-FEB-2007 11:24:40	7_2_0_b14_s	DB	aspen	SUCCESS	OracleForm	ag1	XXLAAPPS	/lapps/ag1/stage_la/AR/512
05-FEB-2007 11:24:40	7_2_0_b14_s	DB	aspen	SUCCESS	OracleCore	ag1	XXLAAPPS	/lapps/ag1/stage_la/AR/512
02-FEB-2007 17:20:42	7_2_0_b14_s	FRM	aspen	SUCCESS	AccessMonito	ag1	XXLAAPPS	/lapps/ag1/stage_la/AR/512
02-FEB-2007 17:20:42	7_2_0_b14_s	FRM	aspen	SUCCESS	OracleControl	ag1	XXLAAPPS	/lapps/ag1/stage_la/AR/512
02-FEB-2007 17:20:42	7_2_0_b14_s	FRM	aspen	SUCCESS	Segregation0	ag1	XXLAAPPS	/lapps/ag1/stage_la/AR/512

At the bottom right of the table area, there is a button labeled 'Installed Files...'.

Each row provides information about the installation of a program element — for example, the top row in this illustration shows that the Access Monitoring element for version 7.2 of the database server was successfully installed. Because there are several elements for each of the forms and database servers, a single installation fills multiple rows in the grid— for example, the top seven rows in this figure pertain to an installation performed on February 5.

- 3 To view a list of the files installed for a given element, click on the row for that element and then on the Installed Files button. The following form appears:



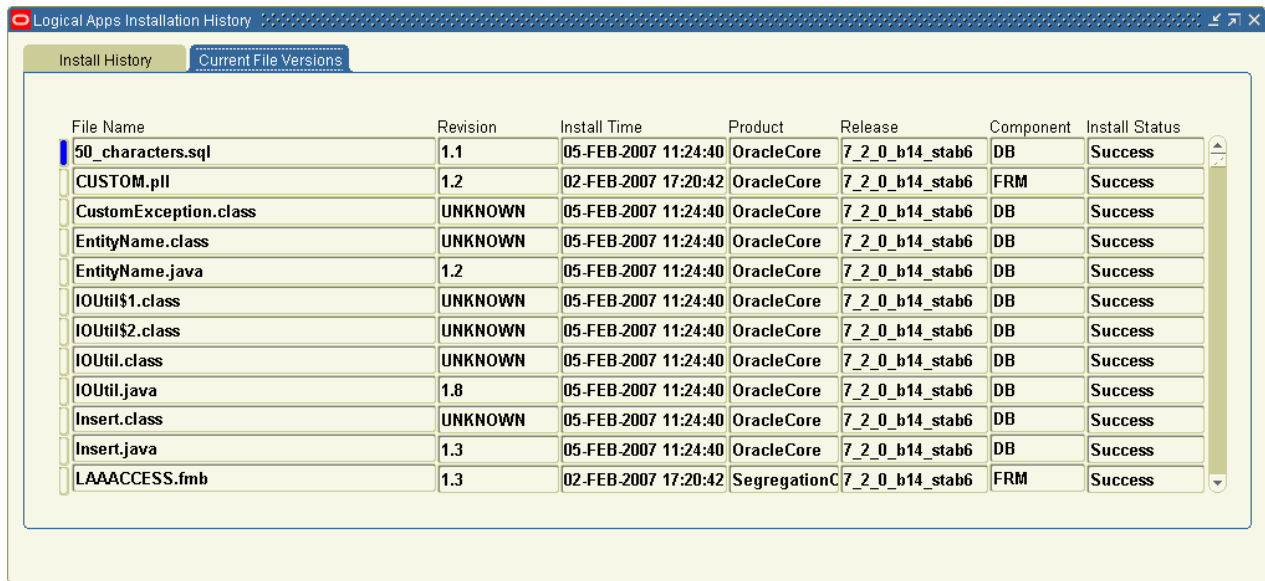
The screenshot shows the 'Installation Details' window. It displays a table with the following data:

Product	Filename	Revision	Install Status
AccessMonitor	database.drv	1.3	Success
AccessMonitor	la_appsgps_alter_table.sql	1.3	Success
AccessMonitor	la_appsgps_conc_programs.sql	1.3	Success
AccessMonitor	la_appsgps_create_dbuser.sql	1.2	Success
AccessMonitor	la_appsgps_lock_user.sql	1.3	Success
AccessMonitor	la_appsgps_queue.sql	1.2	Success
AccessMonitor	la_appsgps_sequences.sql	1.2	Success
AccessMonitor	la_appsgps_synonyms.sql	1.2	Success
AccessMonitor	la_appsgps_table.sql	1.3	Success
AccessMonitor	la_appsgps_userlist_initialize.sql	1.3	Success

At the bottom right of the form, there is a button labeled 'Close'.

Click on the Close button to clear this form.

- 4 Finally, to review information about all currently installed files (regardless of whether they were added in the most recent installation), click on the Current File Versions tab:



File Name	Revision	Install Time	Product	Release	Component	Install Status
50_characters.sql	1.1	05-FEB-2007 11:24:40	OracleCore	7_2_0_b14_stab6	DB	Success
CUSTOM.pll	1.2	02-FEB-2007 17:20:42	OracleCore	7_2_0_b14_stab6	FRM	Success
CustomException.class	UNKNOWN	05-FEB-2007 11:24:40	OracleCore	7_2_0_b14_stab6	DB	Success
EntityName.class	UNKNOWN	05-FEB-2007 11:24:40	OracleCore	7_2_0_b14_stab6	DB	Success
EntityName.java	1.2	05-FEB-2007 11:24:40	OracleCore	7_2_0_b14_stab6	DB	Success
IOUtil\$1.class	UNKNOWN	05-FEB-2007 11:24:40	OracleCore	7_2_0_b14_stab6	DB	Success
IOUtil\$2.class	UNKNOWN	05-FEB-2007 11:24:40	OracleCore	7_2_0_b14_stab6	DB	Success
IOUtil.class	UNKNOWN	05-FEB-2007 11:24:40	OracleCore	7_2_0_b14_stab6	DB	Success
IOUtil.java	1.8	05-FEB-2007 11:24:40	OracleCore	7_2_0_b14_stab6	DB	Success
Insert.class	UNKNOWN	05-FEB-2007 11:24:40	OracleCore	7_2_0_b14_stab6	DB	Success
Insert.java	1.3	05-FEB-2007 11:24:40	OracleCore	7_2_0_b14_stab6	DB	Success
LAAACCESS.fmb	1.3	02-FEB-2007 17:20:42	SegregationC	7_2_0_b14_stab6	FRM	Success

- 5 To close the Installation History form, click on its × symbol.

ACTIVE Governance Upgrade

ACTIVE Governance Upgrade Overview

You may have installed ACTIVE Governance 7.1 on a Linux, UNIX, or Windows server (see “Supported Operating Systems,” below). The procedure for upgrading to version 7.2 varies somewhat depending upon the operating system you chose.

You begin by preparing your system for the upgrade, loading files to a staging directory, and completing tasks on the server — migrating 7.1 report history to the 7.2 instance and upgrading Business Objects, Tomcat application server, and ACTIVE Governance components. If you use Linux or UNIX, follow directions in Chapter 6 to complete these tasks, and skip Chapter 7. If you use Windows, follow directions in Chapter 7 and skip Chapter 6.

No matter what operating system you use, you continue the upgrade by “publishing” reports; see Chapter 8. The upgraded instance of ACTIVE Governance inherits configuration settings from the prior instance, but you may wish to modify them; if so, see Chapter 9. Finally, Chapter 10 describes a diagnostics program that tests the connectivity of the ACTIVE Governance web application to its supporting components.

Supported Operating Systems

ACTIVE Governance can run under any of the following operating systems:

Windows 2000 Server with Service Pack 4.

Windows 2003 Server with Service Pack 1.

Red Hat Enterprise Linux 4.0. Minimum operating system installation.

Red Hat Advanced Server 4.0. Minimum operating system installation.

SUSE Linux Enterprise Server 9.0. Minimum operating system installation plus XFree86-4.3.99.902-43.22.i586.rpm, XFree86-libs-4.3.99.902-43.22.i586.rpm. Higher patches are supported.

Solaris 8. Minimum operating system installation plus the following packages:

- SUNWgzip
- SUNWzlib
- SUNWscpu
- SUNWbash
- SUNWbcp
- SUNWxcu4 (XCU4 Utilities)
- SUNWxwfont
- SUNWxwpl
- SUNWlibC
- SUNWEuluf (UTF-8 L10N For Language Environment User Files)
- SUNWuiu8 (Iconv modules for UTF-8 Locale)
- SUNWulcf (UTF-8 Locale Environment Common Files)
- SUNWmfrun
- SUNWxwice
- Solaris 8 Recommended Patch Cluster including:
 - kernel patch, 108528-24 or higher
 - C++ run-time, 108434-13 or higher
 - linker patch, 109147-26 or higher
 - Misc loc have errors in CTYPE and lv colln monetary, 109778-13 or higher
 - gzip patch, 112668-01 or higher
 - libz patch, 112611-02 or higher
 - tar patch, 110951-04 or higher
 - sh family patch, 109324-05 or higher
 - en_UTF-8 patch, 114059-02 or higher
- Additionally, thread, c and other library patch, 108993-32 or higher. Note that patch 108993-32 require the following to be installed first:
 - mntfs patch 111023-03
 - init patch 111317-05
 - mount patch 113648-03
 - netstrategy patch 115827-01
 - uadmin patch 116602-01

Solaris 9. Minimum operating system installation plus the following packages:

- SUNWgzip
- SUNWzlib
- SUNWscpu
- SUNWbash
- SUNWbcp
- SUNWxcu4(XCU4 Utilities)
- SUNWxwfont
- SUNWxwplt
- SUNWlibC
- SUNWeu8os (American English/UTF-8 L10N For OS User Files)
- SUNWeuluf (UTF-8 L10N For Language Environment User Files)
- SUNWuiu8 (Iconv modules for UTF-8 Locale)
- SUNWulcf (UTF-8 Locale Environment Common Files)
- SUNWmfrun
- SUNWxwice
- Solaris 9 Recommended Patch Cluster including:
 - kernel patch, 112233-11 or higher
 - libc, 112874-16 or higher
 - C++ run-time, 111711-06 or higher
 - linker patch, 112963-10 or higher
 - zlib patch, 115754-02 or higher
 - Higher patches are supported.
 - November 2003 C++ Runtime PTF => x1C.aix50.rte 6.0.0.10 (Note that this PTF requires Runtime of Level 6.0.0.0 to be installed prior to installing the PTF)
 - Higher patches are supported

Solaris 10. Minimum operating system installation plus the following packages.
(Higher patches are also supported.)

- SUNWgzip
- SUNWzlib
- SUNWscpu
- SUNWbash
- SUNWbcp
- SUNWxcu4 XCU4 Utilities
- SUNWxwfont

- SUNWxwplt
- SUNWlibC
- SUNWeu8os American English/UTF-8 L10N For OS Environment User Files
- SUNWculuf UTF-8 L10N For Language Environment User Files
- SUNWuiu8 Iconv modules for UTF-8 Locale
- SUNWulcf UTF-8 Locale Environment Common Files
- SUNWmfrun
- SUNWxwice

Hardware Requirements

A Solaris, Linux, or Windows server should meet the following requirements to run ACTIVE Governance and Business Objects:

- Random-access memory (RAM): 3 gigabytes (GB)
- Hard-disk space: For a single-node installation, 40 GB of space on mirrored SCSI disks — 8 GB for a staging directory, 4 GB for an ACTIVE Governance web tier, 26 GB for a Business Objects reports tier, and 2 GB for database metadata.

If you use Red Hat Enterprise Linux 4.0 or SUSE Linux Enterprise Server 9.0, your system must have at least Dual CPU (Xeon preferred), 2.5 GHz or faster.

If you use Solaris 8, 9, or 10, your system must have at least SPARC v8plus.

Requirements for the ACTIVE Governance application server and database include:

- Database: At least 1.5 GB of storage for tables for the ACTIVE Governance schema.
- 2 GB of disk space reserved for temporary data generated by segregation-of-duties analytics. (This is in addition to the 40 GB of space noted above. It is space shared by all databases that run on a server, so you may already have allowed for it.)

Software Requirements

Oracle Applications versions 11.5.9 and 11.5.10 are preferred. Versions 11.5.7 (FND Patch H) and 11.5.8 are also supported.

Oracle Client version 9.2.0.1 or greater is required for connectivity among various Oracle databases.

Each of ACTIVE Governance and Business Objects requires an Oracle 9i (or later) database.

Apache Tomcat 5.0 is the only supported application server. It is bundled with the Business Objects installation.

Internet Explorer 5.5, 6.0, or 7.0 may be used to display the ACTIVE Governance client.

Upgrading Linux/UNIX Server Components

If you are upgrading ACTIVE Governance on a Linux or UNIX server, complete the procedures in this chapter, and omit Chapter 7. (If you are upgrading on Windows, omit this chapter and skip ahead to Chapter 7.) Once server components are upgraded, proceed to Chapter 8.

Ensure that the Embedded Agents are upgraded in at least one instance of Oracle Applications. Then, begin to upgrade ACTIVE Governance:

- Complete preparatory steps, then load upgrade files to a staging directory.
- Back up Business Objects report history for version 7.1.
- Use the upgrade files to install “infrastructure,” which consists of Business Objects components and the Tomcat application server.
- Migrate the Business Objects 7.1 report history from your backup location to your 7.2 instance.
- Configure the Business Objects server.
- Upgrade the ACTIVE Governance program files and schema.

Preparing to Upgrade

Before upgrading ACTIVE Governance, complete the following steps:

- 1 For ACTIVE Governance, you will use the Oracle database created for version 7.1, for which the recommended database user name is `XXLAAPPS_AG`. For Busi-

ness Objects, ensure that an Oracle database exists and create a database user for it. Even if you used Oracle for version 7.1, you cannot use the same schema for 7.2, so if you have used the conventional recommended user name, `XXLAAPPS_BO`, you will need to use a variant of this, such as `XXLAAPPS_BOR2`. Ensure that both the ACTIVE Governance and Business Objects database users have the `CONNECT` and `RESOURCE` roles, and that these roles are set to `DEFAULT`. Ensure also that the ACTIVE Governance user has access privileges to the `v$instance` table.

- 2** Determine the following values, which you will need during the upgrade:
 - The host name of the SMTP server your company uses for sending email.
 - The host name, port number, SID, user (schema) name, and password for each of the ACTIVE Governance and 7.2 Business Objects databases, and for the database used by an Oracle Applications instance in which the version 7.2 Embedded Agents have been installed to run.
 - Logon information for your 7.1 Business Objects database. For Oracle, this includes `tnsname`, user name, and password; for MySQL, the MySQL port (3306 by default), database name, user name, and password.
- 3** Oracle Client 9.2.0.1 or greater must be installed on the server that hosts ACTIVE Governance; you are assumed to have completed this installation, as it was needed for version 7.1 as well. The file `ORACLE_HOME/network/admin/tnsnames.ora` contains an entry for each of the ACTIVE Governance, Embedded Agent, and Business Objects databases, specifying the host, `dbport`, and `dbsid`. Edit the entry for the Business Objects database to provide correct values for its 7.2 instance, and confirm that other entries remain correct.
- 4** Ensure that a LogicalApps user exists on the host Linux or UNIX operating system. (This user should have been created during version 7.1 installation.) The recommended name is `lapps`. The user need not belong to any group. To perform the upgrade procedures described in this manual, log on as the `lapps` user.
- 5** For the version 7.1 installation, certain standard directories were created. Of them, reuse the following for version 7.2:
 - A base directory. In this document, `$LAPPS_BASE` represents the full path to this directory (for example, `/opt/lapps7`).
 - A home directory, which is an immediate subdirectory of `$LAPPS_BASE`. ACTIVE Governance and Business Objects are installed in, and run from, this directory and subdirectories of it. In this document, `$LAPPS_AG_HOME` represents the full path to this directory (for example, `/opt/lapps7/ag`).
 - Temporary directories: `$LAPPS_BASE/tmp` and `$LAPPS_BASE/tmpdir`. These could be links to any designated temporary directory on the host.

Create a new version of a staging directory, which should be an immediate subdirectory of `$LAPPS_BASE`. In this document, `$LAPPS_STAGE` represents the full path to this directory (for example, `/opt/lapps7/stage72`).

Loading Files in the Staging Directory

To prepare the files you will use to upgrade ACTIVE Governance:

- 1** Locate the Governance, Risk, and Compliance Controls Suite Disk 1 in your Oracle media pack. In its dist directory, locate the file `ag_722_server.zip`, copy the file to your `$LAPPS_STAGE` directory, and extract its contents there. (This creates several subdirectories of `$LAPPS_STAGE`, among them `lib_STAGE` and `ags_infrastructure/bobje`.)
- 2** Locate the Governance, Risk, and Compliance Controls Suite Disk 3 in your Oracle media pack. Copy its contents — two zip files — to your `$LAPPS_STAGE/ags_infrastructure/bobje` directory, and extract their contents there. This creates four subdirectories of `$LAPPS_STAGE/ags_infrastructure/bobje` — `DISK_1`, `DISK_2`, `DISK_3`, and `cd` — and populates them with files.
- 3** ACTIVE Governance requires certain open-architecture files. To acquire them, download files from the following sites to the `lib_stage` subdirectory of your version 7.2 `$LAPPS_STAGE` directory.

```
http://downloads.sourceforge.net/hibernate/hibernate-3.0.5.zip?modtime=1117034763&big_mirror=1
```

```
http://team.andromda.org/maven2/org/jbpm/jbpm/3.0/jbpm-3.0.jar
```

```
http://team.andromda.org/maven2/org/jbpm/jbpm-identity/3.0/jbpm-identity-3.0.jar
```

```
http://downloads.sourceforge.net/junit/junit3.8.1.zip?modtime=1031097600&big_mirror=0
```

```
http://www.ibiblio.org/maven/mule/dependencies/xpp3/1.1.3.4d_b4_min/xpp3-1.1.3.4d_b4_min.jar
```

- 4** After downloading these files, run the script `preinstall.sh` from your version 7.2 `$LAPPS_STAGE` directory.

Backing Up Version 7.1 Report History

To back up the history of reports generated in version 7.1, complete the following steps. (You will use the backup copies to migrate report history to the 7.2 instance.)

- 1** It is assumed that during 7.1 installation, an `ag.env` file was edited so that entries defined environment variables for your 7.1 directories. Navigate to the version 7.1 `$LAPPS_AG_HOME` directory and run the file:

```
. ag.env
```

- 2** Disable and stop all Business Objects Enterprise XI Release 1 servers, and stop the Tomcat application server. Execute the following commands:

```
cd $LAPPS_AG_HOME/bobje/
./ccm.sh -disable all
./ccm.sh -stop all
./tomcatshutdown.sh
```

- 3** Ensure that the database hosting the Business Objects Release 1 schema is running.

- 4 Navigate to your version 7.2 `$LAPPS_STAGE` directory and use the `mkdir` command to create a subdirectory called `bo_backups`.
- 5 Back up the root directories of the Business Objects Release 1 input and output repository servers. In the following commands, you may use the `$LAPPS_AG_HOME` environment variable (as it correctly points to the 7.1 home directory), but replace the `$LAPPS_STAGE` environment variable with the actual path to your version 7.2 staging directory:

```
cd $LAPPS_AG_HOME/bobje/data/
tar cvf $LAPPS_STAGE/bo_backups/frsinput.tar frsinput
tar cvf $LAPPS_STAGE/bo_backups/frsoutput.tar frsoutput
```

Sourcing the Environment for Version 7.2

When version 7.1 of ACTIVE Governance was installed, an environment file, `ag.env`, was edited and copied to the `$LAPPS_AG_HOME` directory. Re-edit the file so that one of its entries points to the newly created staging directory for version 7.2, and then run the file:

- 1 Navigate to home directory:

```
cd $LAPPS_AG_HOME
```

- 2 Using a text editor, open `ag.env`. In it, locate the `LAPPS_STAGE` entry and set it to the full path to the newly created staging directory for version 7.2. The path ends in a semicolon, which is followed by a phrase consisting of the word *export*, the environment-variable name, and another semicolon. Be sure to retain these elements. For example, if the staging directory is `/opt/lapps7/stage72`, the staging directory entry in the `ag.env` file would read:

```
LAPPS_STAGE=/opt/lapps7/stage72; export LAPPS_STAGE;
```

You may wish to confirm that entries for `LAPPS_BASE` and `LAPPS_HOME` point correctly to the base and home directories, and that an `ORACLE_HOME` entry points to the directory in which Oracle Client is installed. Because these entries carry over from ACTIVE Governance 7.1, they should not need to be changed.

- 3 Locate two entries that begin “. \$BOBJEDIR.” Comment out these entries (type a `#` symbol, followed by a space, at the beginning of each).
- 4 Locate two entries that set aliases; one begins “alias start” and the other “alias stop.” Ensure that these entries are commented out as well. (This should have been done for version 7.1.)
- 5 Save and close the file.
- 6 Run the file:


```
. ag.env
```

Installing Infrastructure

Installing “infrastructure” involves placing Business Objects and Tomcat files on the server, configured so that they will connect to databases and other components.

- 1 Navigate to the following directory and run the installation program:

```
cd $LAPPS_STAGE/ags_infrastructure/bobje/DISK_1
./install.sh
```

- 2 A language-selection screen appears. Choose the language in which you want to work. (English is the default.) Press Enter.
- 3 An Install Type screen appears. Press Enter to accept the default, New Installation.
- 4 A license-agreement screen appears. Press *Y* to accept its terms.
- 5 When prompted for an installation directory, enter the full actual path to the \$LAPPS_AG_HOME directory for version 7.2.
- 6 Press Enter to accept the default installation type, User.
- 7 Press Enter to accept the default installation type, New.
- 8 A database-selection prompt appears. Choose 1 (Use an existing database). A list of databases then appears; select 2 (Oracle).

New prompts appear; at them, provide the host name, port number, SID, database user name, and password for the Oracle database used by Business Objects. (The user is the one you created in step 1 on page 43.) Press Enter.

- 9 In an application-server screen, press Enter to install Tomcat. (This is the default; Tomcat is the only supported application server.)
- 10 Review default port assignments for Tomcat. These should match the following values; change only those (if any) already used by other applications. (These are, however, the same port values as those used by the Business Objects instance installed for version 7.1. This presents no conflict, and you can accept the defaults as long as no *other* applications use these ports.)
 - CMS_PORT, 6400
 - TOMCAT_PORT, 8080
 - TOMCAT_REDIRECT_PORT, 8443
 - TOMCAT_SHUTDOWN_PORT, 8005
- 11 Press Enter to complete the installation.

- 12 Stop the servers and update Business Objects with a required patch. To do so, enter the following commands. (The servers restart when the patch is installed.)

```
cd $LAPPS_AG_HOME/bobje
./ccm.sh -stop all
./tomcatshutdown.sh
cd $LAPPS_STAGE/ags_infrastructure/bobje/cd/DISK_1
./install.sh -i $LAPPS_AG_HOME/bobje -g en
```

Setting the Business Objects Rowcount

As users run ACTIVE Governance reports, they may select parameters to focus the report results. The maximum number of parameters that Business Objects displays by default may be insufficient. Complete these steps to increase the value by setting a `MaxRowcountRecords` property to 100,000:

- 1 Copy a file called `LOVKey.tar.gz` from your staging directory to a Business Objects subdirectory:

```
cp $LAPPS_STAGE/ags_infrastructure/post-install/LOVKey.tar.gz
$LAPPS_AG_HOME/bobje/data/.bobj/registry/software/business_objects/
suite_11.5/
```

- 2 Navigate to the directory into which you've copied the `LOVKey.tar.gz` file.
- 3 Untar the file:

```
tar -xvzf LOVKey.tar.gz
```

Checking the Business Objects Servers

With infrastructure upgraded, use the Business Objects Central Management Console (CMC) to ensure that Business Objects servers run properly:

- 1 Open a web browser and enter the following URL:

```
http://host:8080/businessobjects/enterprise115/admin/en/admin.cwr
```

Replace *host* with the name of the host on which you installed the ACTIVE Governance infrastructure. If you chose a substitute for port 8080, change the value *8080* in the URL to the port number you selected for `TOMCAT_PORT`.

- 2 A log-in form appears. Type *Administrator* in the User Name field. During version 7.1 installation, you set a password for the Administrator user, and the new Business Objects instance recognizes this password; type it in the Password field. (A read-only System field is set to the host name you specified in step 1. Accept the default value, *Enterprise*, for Authentication Type.) Click the Log On button.
- 3 In an Organize section on the Home panel, click Servers. A Servers panel opens:

Server Name	Machine Name	Type	Server Group	Protocol
aspen.cacheserver	aspen	Crystal Reports Cache Server	Member of...	Default
aspen.cms	ASPEN	Central Management Server	Member of...	Default
aspen.ConnectionServer	aspen	ConnectionServer	Member of...	Default
aspen.Desktop_IntelligenceCacheServer	aspen	Desktop Intelligence Cache Server	Member of...	Default
aspen.Desktop_IntelligenceJobServer	aspen	Desktop Intelligence Job Server	Member of...	Default
aspen.Desktop_IntelligenceReportServer	aspen	Desktop Intelligence Report Server	Member of...	Default
aspen.destjobserver	aspen	Destination Job Server	Member of...	Default
aspen.eventserver	aspen	Event Server	Member of...	Default
aspen.ListOfValuesJobServer	aspen	List of Values Job Server	Member of...	Default
aspen.pageserver	aspen	Crystal Reports Page Server	Member of...	Default
aspen.programjobserver	aspen	Program Job Server	Member of...	Default
aspen.ras	aspen	Report Application Server	Member of...	Default
aspen.reportjobserver	aspen	Crystal Reports Job Server	Member of...	Default
aspen.Web_IntelligenceJobServer	aspen	Web Intelligence Job Server	Member of...	Default
aspen.Web_IntelligenceReportServer	aspen	Web Intelligence Report Server	Member of...	Default
input.aspen	aspen	File Repository Server	Member of...	Default
Output.aspen	aspen	File Repository Server	Member of...	Default

- 4 In the list of servers, see whether any icon shows a red, downward-pointing arrow. If so, close the CMC. Navigate to `$LAPPS_AG_HOME/bobje/logging` and check log files — `boe-cmsd*.log` and `ccm*.log` — for errors; call Customer Support. But if all display upward-pointing green arrows, proceed.

Migrating Version 7.1 Report History

You will use backup copies of version 7.1 report history files (see page 45) to migrate the report history to the version 7.2 instance. Complete the following steps:

- 1 Stop Business Objects servers and the Tomcat application server. Enter these commands in the shell in which you sourced the ACTIVE Governance 7.2 environment:

```
cd $LAPPS_AG_HOME/bobje
./ccm.sh -stop all
./tomcatshutdown.sh
```

- 2 Run a Business Objects migration script. Still at the command prompt for the `$LAPPS_AG_HOME/bobje` directory, enter the following command:

```
./cmsdbsetup.sh
```

At this point, the console displays a series of prompts. Respond to them as follows:

- 1 You are prompted to enter the “friendly name of the CMS.” This is the host name of the server on which you are installing, followed by the extension `.cms`. This should be the default, and typically you need only press the Enter key.
- 2 You are prompted to select among six options for the action you want to perform. Select 4 (copy data from another data source).
- 3 You are asked whether you want to continue. Select 3 (yes).
- 4 You are prompted to select the Business Objects version from which you want to migrate. Select 4 (version 11.0).
- 5 You are asked whether you want to use the current CMS data source as the destination database. Select 3 (yes).
- 6 You are prompted to select the type of the source database. Choose 5 (Oracle) or 2 (MySQL), whichever is appropriate for your Business Objects Release 1 instance.
- 7 Subsequent prompts ask you to specify connection information for the source database.
 - If you selected Oracle in step 6, supply values for `tnsname` (the name of the entry for the database configured in the `tnsnames` file for Oracle Client), the user name (conventionally `XXLAAPPS_BO`), and the password.
 - If you selected MySQL in step 6, supply the MySQL port (conventionally 3306), the database name, the user name, and the password.

The script copies files and prompts you when it is complete.

After running the Business Objects migration script, complete the following steps:

- 1** Rename the root directories for the Business Objects Release 2 input and output repository servers. Execute the following commands:

```
cd $LAPPS_AG_HOME/bobje/data
mv frsinput frsinputR2
mv frsoutput frsoutputR2
```

- 2** Restore the root directories of the Business Objects Release 1 input and output repository servers in the Release 2 instance. Still at the command prompt for the \$LAPPS_AG_HOME/bobje/data directory, execute the following commands:

```
tar xvf $LAPPS_STAGE/bo_backups/frsinput.tar
tar xvf $LAPPS_STAGE/bo_backups/frsoutput.tar
```

- 3** Start the Tomcat application server:

```
cd $LAPPS_AG_HOME/bobje/
./tomcatstartup.sh
```

- 4** Start the Release 2 central management server (CMS) and input and output repository servers. Still at the command prompt for the \$LAPPS_AG_HOME/bobje directory, execute the following commands:

```
./ccm.sh -start cms
./ccm.sh -start input
./ccm.sh -start output
```

- 5** Enable the Release 2 input and output repository servers. In the console window in which the command prompt is set to the \$LAPPS_AG_HOME/bobje directory, execute the following commands:

```
./ccm.sh -enable input
./ccm.sh -enable output
```

- 6** Verify that the root directories of the input and output repository servers are set:

- a** Go to the Servers panel of the CMC (see “Checking the Business Objects Servers” on page 48).
- b** Click on the server named Input.*hostname*, in which *hostname* is the name of the host system to which you’ve logged on. A File Repository Server panel opens; in its Properties tab, verify that the entry in a Root Directory field is \$LAPPS_AG_HOME/bobje/data/frsinput (in which the actual path to your home directory replaces the environment variable).
- c** Return to the Servers panel (click on *Servers* in the light blue band above the Properties and other tabs), and click the server named Output.*hostname*. In the Properties tab of its File Repository Server panel, verify that the Root Directory field entry is \$LAPPS_AG_HOME/bobje/data/frsoutput (in which, again, the actual path to your home directory replaces the environment variable).

- 7** Update the objects in the Business Objects Release 2 schema. Then start all Business Objects Release 2 servers. In the console window in which the command prompt is set to the \$LAPPS_AG_HOME/bobje directory, execute the commands displayed at the top of the next page:

```
./ccm.sh -updateobjects
./ccm.sh -start all
./ccm.sh -enable all
```

- 8 Go to the Servers panel of the CMC to verify that all servers are running. (See “Checking the Business Objects Servers” on page 48.)

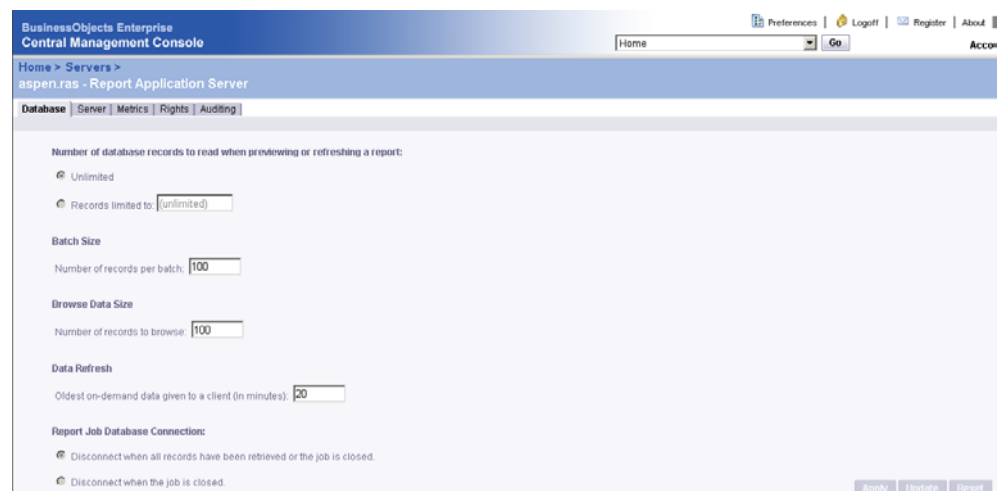
Finally, use the CMC to rename the existing Report Center folder:

- 1 Go to the Home panel of the Central Management Console. (Assuming you are at its Servers panel, click on *Home* in the light blue band above the list of servers.)
- 2 In the Home panel, in a section labeled Organize, click on Folders.
- 3 A Top Level Folders panel appears. Click on its entry for Report Center. A Report Center panel opens; click on its Properties tab.
- 4 A Folder Name field contains the entry “Report Center.” Edit this to read “7.1 Report Center History.”
- 5 Click on the Update button.

Configuring the Business Objects Server

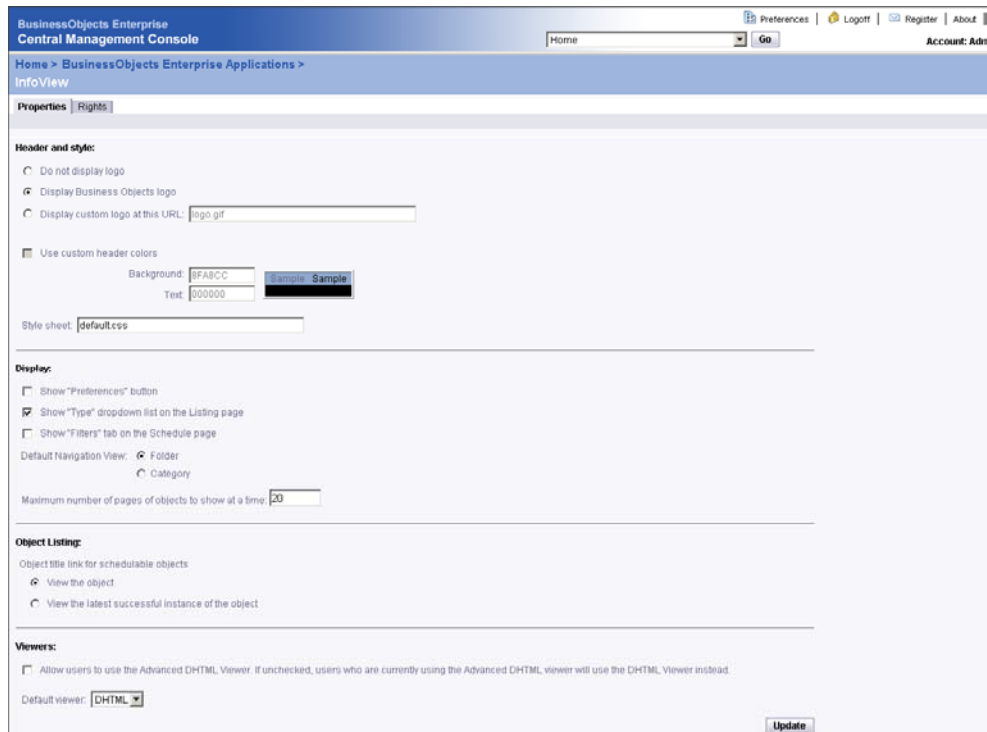
Continue to use the Central Management Console to configure the Business Objects components you’ve installed. (The assumption is that after completing the preceding section, you are already logged on to the CMC. If not, see “Checking the Business Objects Servers” on page 48.)

- 1 In the Servers panel, locate the server named *hostname.ras*, in which *hostname* is the name of the host system to which you’ve logged on. Single-click on the name.
- 2 A Report Application Server panel opens for the server you’ve selected, with a Database tab active. Under the heading “Number of database records to read when previewing or refreshing a report,” select the Unlimited radio button. Accept default values for the remaining fields. Click on the Update button.



- 3 In the “breadcrumb trail” (*Home > Servers >* in the preceding figure), click on *Home*. In the Home panel, click on Business Objects Enterprise Applications in

the Manage section. In a list of applications, click on InfoView. The following panel opens:



- 4 In the Viewers section, ensure that the check box labeled “Allow users to use the Advanced DHTML Viewer...” is cleared. Then, in the Default Viewer list box, select DHTML.

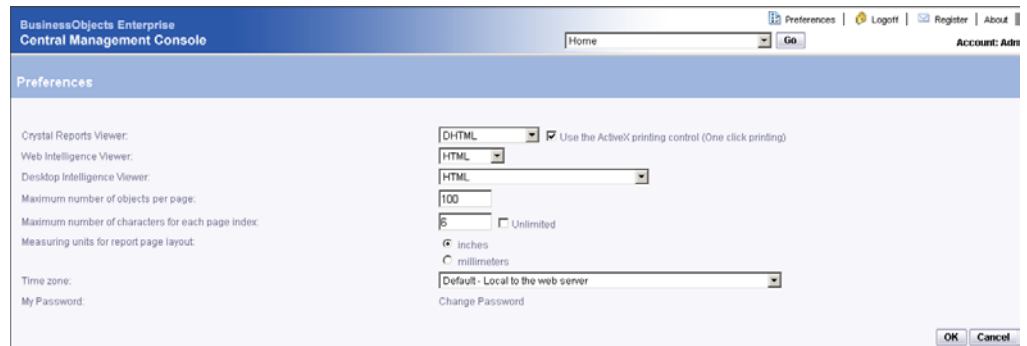
In the Display section, clear the check boxes labeled “Show ‘Preferences’ button” and “Show ‘Filters’ tab on the Schedule page.”

Accept default values for the remaining fields and click on the Update button.

- 5 Click on BusinessObjects Enterprise Applications in the breadcrumbs trail and then, in the list of applications, click on Central Management Console.
- 6 In a Central Management Console panel, click on the Rights tab. It presents a list of users. Locate the Everyone user and click on its Advanced entry.
- 7 An Advanced Rights panel opens. In it, select the Not Specified radio button for the “Log on to the CMC and view this object in the CMC” row. Then click on the OK button.



- 8 The Central Management Console panel returns. Click on Home in the breadcrumb trail, and then on Preferences in a line of links along the upper right edge of the CMC.

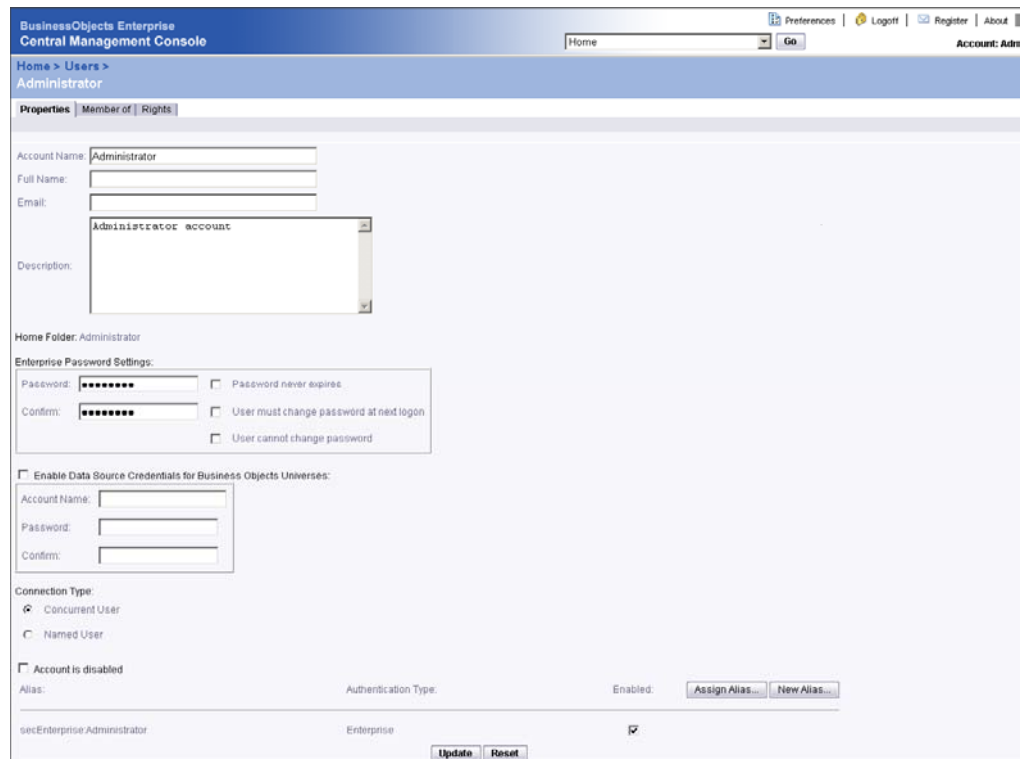


- 9 Make these edits:

- In the Crystal Reports Viewer list box, select DHTML.
- Select the check box labeled “Use the ActiveX printing control.”

Accept default values for the remaining fields and click on the OK button. The CMC returns to its Home panel.

- 10 This instance of Business Objects recognizes the Administrator password set during installation of ACTIVE Governance version 7.1. It’s recommended that you retain this password; if you choose to, skip ahead to step 12. If you prefer to change it, click on Users in the Organize section of the Home panel. An All Users panel presents a list of users; click on Administrator.



- 11** In the Enterprise Password Settings area, enter a new password in both the Password and Confirm fields, and click on the Update button. Later, you will also need to enter this password value as the setting for a `businessObjects.password` property in the ACTIVE Governance platform (see “Setting Properties” on page 88).
- 12** Click on the Logoff link along the upper right edge of the CMC.
- 13** To apply the updates, stop and then restart Business Objects services. To stop the services, execute the following commands on the host server:

```
$LAPPS_AG_HOME/bobje/tomcatshutdown.sh  
$LAPPS_AG_HOME/bobje/stopservers
```

At this point, pause a few minutes to allow Business Objects services to stop. Then run the following command to ensure that they have:

```
ps -ef | grep bobje
```

The `grep` process should be the only one with “bobje” in it. If any other processes are returned, rerun the `stopservers` command, pause again, and rerun the `ps` command to ensure that servers have stopped.

To restart the services, execute the following commands:

```
$LAPPS_AG_HOME/bobje/startservers  
$LAPPS_AG_HOME/bobje/tomcatstartup.sh
```

Accommodating Firewalls

If your company has a firewall that blocks internal traffic, complete these steps:

- 1** Open two new ports on the machine that hosts the ACTIVE Governance server. Typically these ports are dynamically assigned, but because the firewall blocks dynamically assigned ports, they must be assigned statically.
- 2** Shut down the services, using the shutdown procedure described in step 13 above on this page.
- 3** Navigate to the `bobje` directory:

```
cd $LAPPS_AG_HOME/bobje
```
- 4** Using a text editor, open the file `ccm.config`. Perform the following edits:
 - Locate the line that starts with the phrase `cmsLAUNCH=`. After the equals sign, insert the phrase `-requestport xxxx`, replacing the `xxxx` with one of the port numbers from step 1.
 - Locate the line that starts with the phrase `inputLAUNCH=`. After the equals sign, insert the phrase `-requestport yyyy`, replacing the `yyyy` with the other of the port numbers from step 1. (This port number must differ from the `cmsLAUNCH` port.)
- 5** Save the file and exit from it.
- 6** Restart the services, using the startup procedure described in step 13 above on this page.

Re-sourcing the Environment for Version 7.2

At this point, you must edit `ag.env` to set environment variables involving directories that did not exist before infrastructure was installed.

- 1 Navigate to your home directory:

```
cd $LAPPS_AG_HOME
```

- 2 The home directory contains the copy of `ag.env` that you previously edited for version 7.2. Use a text editor to open it.
- 3 Locate the two entries that begin “. \$BOBJEDIR.” Activate them by deleting from each the comment symbol (`#`) you added earlier (page 46).
- 4 Save and close the file.
- 5 Execute the following command:

```
. ag.env
```

Upgrading the ACTIVE Governance Schema

To create ACTIVE Governance schema objects and seeded data, complete some additional Business Objects setup. Copy and edit ACTIVE Governance files. Extract and configure ACTIVE Governance schema-installation files, and then actually execute the schema installation.

Setting Up Business Objects

To configure Business Objects setup properties:

- 1 Navigate to a `bo_setup` subdirectory of your staging directory:

```
cd $LAPPS_STAGE/bo_setup
```

- 2 Using a text editor, open the file `BusinessObjectsConfiguration.properties`. The file contains the following prompts; set each to the indicated value.
 - `businessObjects.server`: Supply the ACTIVE Governance server host name.
 - `businessObjects.serverPort`: Use 6400 if you accepted default port values during installation. Otherwise, supply the value you set for `CMS_PORT` (page 47).
 - `businessObjects.username`: Always use the value *Administrator*.
 - `businessObjects.password`: Supply the password for the Business Objects Administrator user (see steps 10 and 11 on pages 53–54).
 - `businessObjects.home`: Supply the directory in which Business Objects is installed, which is `$LAPPS_AG_HOME/bobje/enterprise115`. As you enter this value, replace the environment variable with the full path to the directory you created as `$LAPPS_AG_HOME` (see page 44).
 - `businessObjects.commit`: For the time being, set this value to *false*.

Save and close the file.

- 3 Set execution permissions on, and run, a `removeAuthenticationRestrictions.sh` file:


```
chmod +x removeAuthenticationRestrictions.sh
./removeAuthenticationRestrictions.sh
```
- 4 If there are no exceptions, reopen the `BusinessObjectsConfiguration.properties` file and reset the `businessObjects.commit` property to `true`. Save and close that file, and then rerun `removeAuthenticationRestrictions.sh`.

Copying and Editing ACTIVE Governance Files

Complete these steps to put ACTIVE Governance files in place and prepare them:

- 1 Shut down the Tomcat application server:

```
$LAPPS_AG_HOME/bobje/tomcatshutdown.sh
```

- 2 Copy ACTIVE Governance files from subdirectories of the staging directory to subdirectories of the home directory. Execute the following commands. (In the second command, a `.war` file name contains italicized placeholders that stand for version, schema, and build numbers. Replace these with the actual numbers, which you can determine by viewing a directory listing for the staging directory.)

```
rm -rf $LAPPS_AG_HOME/bobje/tomcat/webapps/ags
cp $LAPPS_STAGE/ags_7_2_n_snn_bnn_ga.war
$LAPPS_AG_HOME/bobje/tomcat/webapps/ags.war
cp $LAPPS_STAGE/ags_infrastructure/post-install/ags.xml
$LAPPS_AG_HOME/bobje/tomcat/conf/Catalina/localhost
cp $LAPPS_STAGE/ags_infrastructure/post-install/*.jar
$LAPPS_AG_HOME/bobje/tomcat/common/lib/
cp $LAPPS_STAGE/ags_infrastructure/post-install/tomcats*.sh
$LAPPS_AG_HOME/bobje
```

- 3 Navigate to the directory containing the `ags.xml` file:

```
cd $LAPPS_AG_HOME/bobje/tomcat/conf/Catalina/localhost
```

- 4 Using an xml editor, open `ags.xml` and perform the following edits. Each entry goes between `<value>` and `</value>` tags corresponding to each parameter.

- Locate the section headed `<ResourceParams name="mail/Session">`. In it, locate the `mail.smtp.host` parameter and, for its value, insert the host name of the SMTP server your company uses for sending email.
- Locate the section headed `<ResourceParams name="jdbc/onecenterDS">`. In it, locate the following parameters and supply these values for them:

`driverClassName` parameter. Insert the following string:
`oracle.jdbc.driver.OracleDriver`

`url` parameter. Insert the following string, with actual values for the ACTIVE Governance database in place of the *Hostname*, *Port*, and *SID* placeholders:
`jdbc:oracle:thin:@Hostname:Port:SID`

`username` parameter. Supply the user name for the ACTIVE Governance database. It must match the name you created in step 1 on page 43.

`password` parameter. Supply the password for the ACTIVE Governance database user identified by the `username` parameter.

- Locate the section headed `<ResourceParams name="jdbc/appsaccessDS">`. In it, locate the following parameters and supply these values for them:

`driverClassName` parameter. Insert the following string:
`oracle.jdbc.driver.OracleDriver`

`url` parameter. Insert the following string. In place of the *Hostname*, *Port*, and *SID* placeholders, insert actual values for the database used by an Oracle Applications instance in which Embedded Agents have been installed to run:
`jdbc:oracle:thin:@Hostname:Port:SID`

`username` parameter. Supply the user name for the database used by the Oracle Applications instance in which Embedded Agents have been installed to run. (Conventionally, this is APPS.)

`password` parameter. Supply the password for the database used by the Oracle Applications instance in which Embedded Agents have been installed to run.

Save and close the file.

Preparing Schema Installation Files

To configure ACTIVE Governance schema installation properties:

- 1 Navigate to an installation subdirectory of your `$LAPPS_STAGE` directory, and set permissions within it:

```
cd $LAPPS_STAGE/ags_install
chmod +x permissions.sh
./permissions.sh
```

- 2 Navigate to the ACTIVE Governance installation configuration directory and, in it, create a copy of a generic properties file so that the copy can be customized. (In the second command, replace the value *host* with the host name for your ACTIVE Governance server.)

```
cd config
cp filters-bundle-oracle.properties filters-host.properties
```

- 3 Using a text editor, open the `filters-host.properties` file and edit the following. (Accept default values for all properties not listed here.)
 - `hibernate.connection.url`: Supply the connect string that ACTIVE Governance will use to connect to its database. Use the following, but provide actual values for the *Host*, *Port*, and *SID* placeholders.
`jdbc:oracle:thin:@Host:Port:SID`
 - `hibernate.connection.username`: Supply the user name for the ACTIVE Governance database. It must match the name you created in step 1 on page 43.
 - `hibernate.connection.password`: Supply the password for the ACTIVE Governance database.
 - `businessObjects.server`: Supply the ACTIVE Governance server host name.

- `businessObjects.serverPort`: Use 6400 if you accepted default port values during installation. Otherwise, supply the value you set for `CMS_PORT` (see page 47).
- `businessObjects.username`: Enter the value *Administrator*.
- `businessObjects.password`: Supply the password for the Business Objects Administrator user (see steps 10 and 11 on pages 53–54.)
- `log4j.filepath`: Supply the value *ags.log*, with no path. This is a log file that records errors in processing during upgrade of the ACTIVE Governance schema.
- `appserver.hostname`: Enter the host name and port number for the ACTIVE Governance server, separated by a colon. If you accepted default port values, this value is 8080; if not, use the value you set for `TOMCAT_PORT` (see page 47).
- `callbackhost`: Enter the following value. In place of the *host* and *port* placeholders, substitute the same host name and port values as you used for the `appserver.hostname` value:

```
http://host:port/ags
```

Save and close the file.

- 4 Navigate back to the ACTIVE Governance installation directory:

```
cd $LAPPS_STAGE/ags_install
```
- 5 Using a text editor, open the `build.properties` file. In its first line — `config=bundle` — replace *bundle* with the same host name you used when you edited the `filters-host.properties` file (step 3). Save and close the file.
- 6 Navigate to a migration subdirectory of `$LAPPS_STAGE`:

```
cd $LAPPS_STAGE/ags_migration
```
- 7 Using a text editor, open the file `hibernate.cfg.xml` and edit the following entries:
 - `connection.url`: Supply the connect string that ACTIVE Governance will use to connect to its database. Use the following, but provide actual values for the *Host*, *Port*, and *SID* placeholders.

```
jdbc:oracle:thin:@Host:Port:SID
```
 - `connection.username`: Supply the user name for the ACTIVE Governance database. It must match the name you created in step 1 on page 43.
 - `connection.password`: Supply the ACTIVE Governance database password.

Completing the Schema Upgrade

To complete the ACTIVE Governance schema-upgrade process:

- 1 If you have not yet shut down the Tomcat application server, do so:

```
$LAPPS_AG_HOME/bobje/tomcatshutdown.sh
```

Even if you have, you should confirm that Tomcat is not running. Execute the following command; Tomcat is not running if it produces no results:

```
ps -ef | grep tomcat
```

- 2 Execute the schema upgrade script without COMMIT to uncover potential errors. Execute the following commands:

```
cd $LAPPS_STAGE
chmod +x run.sh
./run.sh | tee run.log
```

- 3 Review run.log for any errors. Assuming there are none, proceed to step 4.
- 4 Execute the schema upgrade script with COMMIT to upgrade the schema. Still at the \$LAPPS_STAGE command prompt, execute the following commands:

```
./run.sh COMMIT | tee run_commit.log
```

- 5 Review run_commit.log for any errors. Assuming there are none, proceed to step 6.

- 6 Populate schema objects. Execute the following commands:

```
cd $LAPPS_STAGE/ags_install
./populateAccessObjects.sh
./populateEmailTemplate.sh
```

- 7 When the scripts finish running, restart the Tomcat application server. Execute the following command:

```
$LAPPS_AG_HOME/bobje/tomcatstartup.sh
```

Setting Up the ACTIVE Governance Log

Finally, create a log, maintained by Tomcat, that records errors in ACTIVE Governance processing:

- 1 Copy a logging properties file from your staging directory to a directory on your ACTIVE Governance server. Execute this command:

```
cp $LAPPS_STAGE/ags_infrastructure/post-install/log4j.properties
$LAPPS_AG_HOME/bobje/tomcat/webapps/ags/WEB-INF/classes
```

- 2 Navigate to the directory containing the log4j.properties file:

```
cd $LAPPS_AG_HOME/bobje/tomcat/webapps/ags/WEB-INF/classes
```

- 3 Using a text editor, open log4j.properties. In it, locate a property called log4j.appender.file.File. Set it equal to the following path and file name:

```
$LAPPS_AG_HOME/bobje/tomcat/logs/ags.log
```

- 4 Optionally, also set a series of log4j.logger.com.logicalapps.onecenter properties to values that determine the level of detail in log entries. From least to greatest, options are ERROR, WARN, INFO, and DEBUG (the default).

At any time, you can execute the following command to look for errors in the ags.log file:

```
grep -i ERR $LAPPS_AG_HOME/bobje/tomcat/logs/ags.log
```


Upgrading Windows Server Components

If you are upgrading ACTIVE Governance on a Windows server, complete the procedures in this chapter and then proceed to Chapter 8; you should have omitted Chapter 6. (If you are upgrading on Linux or UNIX, this chapter does not apply to you; use procedures in Chapter 6 instead, and then proceed to Chapter 8.)

Ensure that the Embedded Agents are upgraded in at least one instance of Oracle Applications. Then, begin to upgrade ACTIVE Governance:

- Complete preparatory steps and load files to a staging directory.
- Use the upgrade files to upgrade “infrastructure” — Business Objects components and the Tomcat application server — and to migrate Business Objects 7.1 report history to your 7.2 instance.
- Configure the Business Objects server.
- Upgrade the ACTIVE Governance program files and schema.

Preparing to Upgrade

Before upgrading ACTIVE Governance, complete the following steps:

- 1 For ACTIVE Governance, you will use the Oracle database created for version 7.1, for which the recommended database user name is `XXLAAPPS_AG`. For Business Objects, ensure that an Oracle database exists and create a database user for it. Even if you used Oracle for version 7.1, you cannot use the same schema for 7.2, so if you have used the traditional recommended name, `XXLAAPPS_BO`, you

need to use a variant of this, such as `XXLAAPPS_BOR2`. Ensure that both database users have the `CONNECT` and `RESOURCE` roles, set to `DEFAULT`. Ensure also that the `ACTIVE Governance` user has access privileges to the `v$instance` table.

- 2** Determine the following values, which you will need during the upgrade:
 - The host name of the SMTP server your company uses for sending email.
 - The host name, port number, SID, user name, and password for each of the `ACTIVE Governance` and `7.2 Business Objects` databases, and for the database used by an Oracle Applications instance in which the `7.2 Embedded Agents` have been installed to run.
 - Information about your version-7.1 `Business Objects` database. For Oracle, this includes `tnsname`, user name, and password; for MySQL, the MySQL port (3306 by default), database name, user name, and password.
- 3** Oracle Client 9.2.0.1 or greater is assumed to be installed on the server that hosts `ACTIVE Governance`, as it was needed for version 7.1. The file `ORACLE_HOME\network\admin\tnsnames.ora` contains an entry for each of the `ACTIVE Governance`, `Embedded Agent`, and `Business Objects` databases, specifying the host, `dbport`, and `dbsid`. Edit the entry for the `Business Objects` database to provide values for its `7.2` instance, and confirm that other entries remain correct.
- 4** Create a `LogicalApps` user with Administrator privileges on the host Windows operating system (if one does not exist already). The recommended name is `lapps`. To perform the procedures described in this chapter, log on as the `lapps` user.
- 5** For the version 7.1 installation, a `LogicalApps` home folder and a staging folder were created.
 - The version 7.2 upgrade reuses the `LogicalApps` home folder; `ACTIVE Governance` and `Business Objects` are installed in, and run from, this folder and subfolders of it. Determine the actual path to this folder (a typical choice is `C:\Program Files\LogicalApps`). In command lines displayed in this chapter, the phrase *LaHome* represents the path to the `LogicalApps` home folder.
 - For the version 7.2 upgrade, create a new instance of the staging folder, into which you will download files to be used in the upgrade. Specify any folder you wish (a typical choice is `C:\LappsStage72`). In command lines displayed in this chapter, *LaStage72* stands for the actual path to your `7.2` staging folder.

Loading Files in the Staging Folder

To prepare the files you will use to upgrade `ACTIVE Governance`:

- 1** Locate the `Governance, Risk, and Compliance Controls Suite Disk 1` in your Oracle media pack. In its `dist` folder, locate the file `ag_722_server.zip`, copy the file to your staging folder, and extract its contents there. (This creates several subdirectories of the staging folder, among them `lib_stage` and `ags_infrastructure\bobjc`.)

- 2 Locate the Governance, Risk, and Compliance Controls Suite Disk 2 in your Oracle media pack. Copy its contents — two zip files — to the ags_infrastructure\boobje subfolder of your staging folder, and extract their contents there. This creates four subfolders — DISK_1, DISK_2, DISK_3, and cd — and populates them with files.
- 3 ACTIVE Governance requires certain open-architecture files. To acquire them, download files from the following sites to lib_stage subfolder of your staging folder.


```
http://downloads.sourceforge.net/hibernate/hibernate-3.0.5.zip?modtime=1117034763&big_mirror=1
```

```
http://team.andromda.org/maven2/org/jbpm/jbpm/3.0/jbpm-3.0.jar
```

```
http://team.andromda.org/maven2/org/jbpm/jbpm-identity/3.0/jbpm-identity-3.0.jar
```

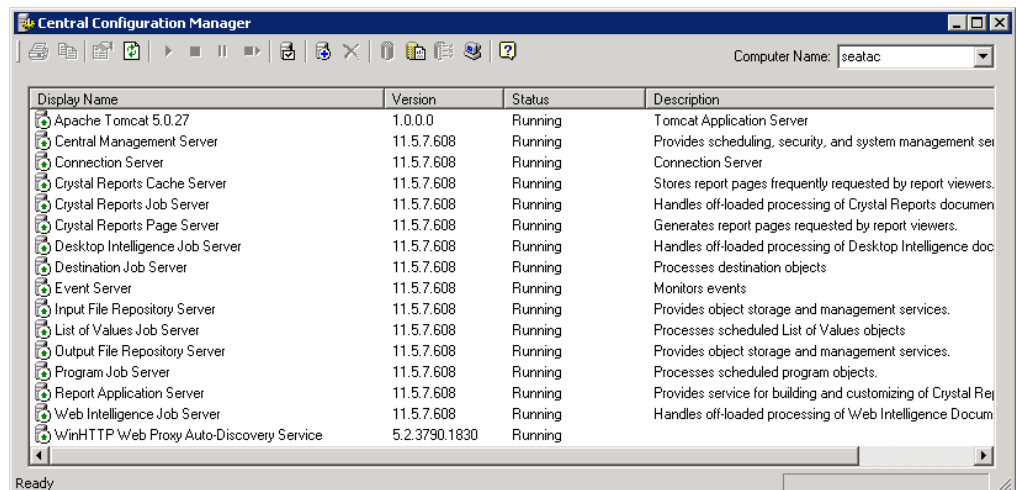
```
http://downloads.sourceforge.net/junit/junit3.8.1.zip?modtime=1031097600&big_mirror=0
```

```
http://www.ibiblio.org/maven/mule/dependencies/xpp3/1.1.3.4d_b4_min/xpp3-1.1.3.4d_b4_min.jar
```
- 4 After downloading these files, run the file preinstall.bat from your staging folder.

Stopping and Starting Servers

Before installing version 7.2-components, stop the servers used by Business Objects for your version-7.1 ACTIVE Governance installation. To do so, use the Central Configuration Manager (CCM), which can be opened from the Business Objects folder on the Windows Start menu.

The CCM presents a list of servers, in which the entry for each server displays an icon. A server is running if its icon displays an upward-pointing green arrow, is stopped if its icon displays a downward-pointing red arrow, or is disabled (regardless of whether it is running or stopped) if its icon displays a red circle containing a white dash.



To stop servers:

- 1 Select all the servers whose icons display upward-pointing green arrows. Typically, all do, and to select them you click on the first, hold down the shift key, and click on the last.
- 2 Click on the stop icon, a square located sixth from the left in the tool bar near the top of the window. After a moment, all the servers stop — the arrows in the icons that accompany them turn red and point downward.

As you complete upgrade procedures, you will need to stop or start servers at several moments. At each such moment, use this procedure to stop them (you will by then have installed a Central Configuration Manager that controls version-7.2 servers).

To restart the servers, select them all again and then click on the start icon, a rightward-pointing triangle located fifth from the left in the tool bar. After a moment, all the services start running, and their icons once again display upward-pointing green arrows.

Installing Infrastructure

Installing “infrastructure” involves placing Business Objects and Tomcat files on the server, configured so that they will connect to databases and other components.

- 1 Navigate to the `ags_infrastructure\bobje\DISK_1` subfolder of your staging folder. In it, run the `Setup.exe` file
- 2 A language-selection window appears. In its list box, choose the language in which you want to work. (English is the default.) Click on the OK button.
- 3 A Welcome window appears. Click on its Next button.
- 4 A license-agreement window appears. Click on its acceptance radio button, and then on the Next button.
- 5 A User Information window appears. Its Full Name and Organization fields display values for the user who is currently logged on — in this case, the `lapps` user. Leave the Install Performance Management check box cleared. Click the Next button.
- 6 An Upgrade Install window appears. In it, accept the default folder (which is the *LaHome* folder).
- 7 A CMS Database Information window appears. Select the Oracle radio button. In the CMS Database column, set the following values for the Oracle database that will store Business Objects data for your 7.2 ACTIVE Governance instance:
 - In the Server field, enter the alias for the Business Objects database instance as it is configured in the `tnsnames.ora` file.
 - In the Username and Password fields, enter the user name and password for the Business Objects database. (This is the user created in step 1 on page 61.)
 - Make no entries in the Auditing Database column. Click on the Next button.

- 8** A Choose Web Component Adapter Type window appears. Select the check box labeled “Java application server,” and beneath it select the radio button labeled “Install Tomcat application server.” Ensure that the “IIS ASP.NET” check box is cleared. Click on the Next button.
- 9** A Configure Tomcat window appears:
 - Review the default installation folder for the Java application server (a subfolder, called Tomcat, of your *LaHome* folder).
 - Review default port assignments: 8080 for connection port, 8005 for shutdown port, and 8443 for redirect port. A CMS port, set in the background to 6400, cannot be changed here. Of the others, change only those (if any) already used by other applications. (These are, however, the same port values as those used by the Business Objects instance installed for version 7.1. This presents no conflict, and you can accept the defaults as long as no *other* applications use these ports.)
 - Click on the Next button.
- 10** A Start Installation window appears. Click on its Next button. As files are installed, the window displays the status of the installation. When installation is complete, the window displays a Finish button. Click on it.

At this point, the Business Objects installer prompts you to migrate report history from the R1 instance (installed for version 7.1 of ACTIVE Governance) to the R2 instance (for version 7.2 of ACTIVE Governance):

- 1** A CMS Database Setup window appears. Select the “Copy data from another data source” option and click on the OK button.
- 2** A Specify Data Source dialog appears.
 - In the field labeled “Source contains data from version,” select Autodetect.
 - Click on the Specify button next to the “Get data from” field. Subordinate dialog boxes open. In the first, select “Oracle native driver” and then click OK. In the second, in Server Name, Login ID, and Password fields, enter the following values for your Business Objects R1 database: its alias, ID, and password, all as configured in the *tnsnames.ora* file. Click on OK.
 - Click on the Browse button next to the “Copy to the following data source” field, and provide the *tnsnames* alias, ID, and password for your Business Objects R2 database. Click on OK.
 - Click the OK button in the Specify Data Source dialog.
- 3** A warning message informs you that all tables in the database to which you are migrating will be deleted. Click on Yes.
- 4** A SvcMgr dialog box notifies you when the database setup is complete. Click its OK button to clear it.

At this point, the *LaHome* folder contains several subfolders. The following steps involve the use of two of these, which are named Business Objects Enterprise 11 and Business Objects Enterprise 11.5.

- 1** Copy the contents of the Business Objects Enterprise 11\FileStore\Input folder into the Business Objects Enterprise 11.5\FileStore\Input folder
- 2** Copy the contents of the Business Objects Enterprise 11\FileStore\Output folder into the Business Objects Enterprise 11.5\FileStore\Output folder.
- 3** Start the Central Configuration Manager, and locate the Central Management Server in the list of servers. Start the Central Management Server (see “Stopping and Starting Servers” on page 63).
- 4** Still in the Central Configuration Manager, locate the entry for the Tomcat application server and ensure that it is running. Leave the Central Configuration Manager running.
- 5** In a web browser, log on to the Central Management Console. Use this URL:
`http://host:8080/businessobjects/enterprise115/admin/en/admin.cwr`

Replace *host* with the name of the host on which you installed the ACTIVE Governance infrastructure. If, during installation, you chose a substitute for port 8080, change the value *8080* in the URL to the correct number for your substitute port.

A log-in form appears. Type *Administrator* in the User Name field. During version 7.1 installation, a password was set for the Administrator user, and the new Business Objects instance recognizes this password; type it in the Password field. (A read-only System field is set to the host name you specified in step 1. Accept the default value, *Enterprise*, for Authentication Type.) Then click on the Log On button.

- 6** In the Home panel, click on License Keys in the Manage section, and ensure that your Business Objects Enterprise license keys are entered correctly. Return to the Home panel (click on *Home* in the light blue band near the top of the screen) and allow the Central Management Console to remain running in your web browser.
- 7** Switch to the window displaying the Central Configuration Manager and select the entries for the Input File Repository Server and Output File Repository Server. Start them (see “Stopping and Starting Servers” on page 63).

Then enable them: Click on the tool-bar icon with a check mark (ninth from the left). A log-on dialog appears; enter the same log-on information as you did for the Central Management Console in step 5. An Enable/Disable Servers window opens; in it, select the entries for the Input File Repository Server and Output File Repository Server and click on the OK button.

- 8** Switch to the window displaying the Central Management Console. In the Organize section of the Home panel, click Servers. Verify that both the Input and Output file repository servers are started and enabled (their icons display

upward-pointing green arrows). Then verify that their root directories are set correctly:

- a Click on the server named Input.*hostname*, in which *hostname* is the name of the host system to which you've logged on. A File Repository Server panel opens; in its Properties tab, verify that the entry in a Root Directory field is *LaHome/bobje/data/frsinput* (in which the actual path to your home folder replaces *LaHome*).
 - b Return to the Servers panel (click on *Servers* in the light blue band above the Properties and other tabs), and click the server named Output.*hostname*. In the Properties tab of its File Repository Server panel, verify that the Root Directory field entry is *LaHome/bobje/data/frsoutput* (in which, again, the actual path to your home folder replaces *LaHome*).
- 9 Switch back to the window displaying the Central Configuration Manager. An Update Objects icon on the toolbar displays a flashing red exclamation point. Click on the icon. A log-on dialog appears; supply the same values as you did in steps 5 and 7. An Update Objects dialog appears, telling you the number of objects that require updating; click on its Update button.
 - 10 When the update operation is complete, stop all servers (see “Stopping and Starting Servers” on page 63) and then close the Central Configuration Manager and the Central Management Console.

Installing a Business Objects Patch

Update Business Objects with a required patch:

- 1 Navigate to the C:\LappsStage\ags_infrastructure\bobje\cd folder.
- 2 Run the Setup.exe file. Respond to its prompts.

The completion of this procedure installs the patch and restarts Business Objects services; on this occasion you do not need to restart them manually.

Modifying Tomcat Settings

Default memory allocations for the Tomcat application server on Windows are not adequate for ACTIVE Governance reporting functions. To adjust these allocations:

- 1 From the Windows Start menu, click on Programs, then Tomcat, and then Tomcat Configuration.
- 2 An Apache Tomcat Properties window opens. In it, select the Java tab.

- 3 A Java Options field displays several lines of text that define parameters. Add the following three lines. (You may insert them anywhere among the lines that are already present.)

```
-XX:MaxPermSize=256m
-Xms512m
-Xmx1024m
```

- 4 Set the Initial Memory Pool field to 512.
- 5 Set the Maximum Memory Pool field to 1024.
- 6 Click on the OK button.

Setting the Business Objects Rowcount

As users run ACTIVE Governance reports, they may select parameters to focus the report results. The maximum number of parameters that Business Objects displays by default may be insufficient. It's recommended that you reset this value to at least 100,000. To do so, create a registry key:

- 1 Click on the Start button, and then on Run in the Start menu. In the Run dialog, type *regedit* in the Open field, and click the OK button. The Registry Editor opens.
- 2 The left column of the Registry Editor displays a list of “keys,” in a tree format. Here, you will create HKEY_LOCAL_MACHINE\SOFTWARE\Business Objects\Suite 11.5\Crystal Reports\DatabaseOptions\LOV.

Elements of this key exist already on your system. Navigate along this path as far as it exists, and click on its last child object. Then create the remaining child keys: select Edit in the menu bar, then New in the Edit menu, and then Key in the New submenu. A write-enable value, *New Key #1*, appears; overwrite this value with the name of the new key you want to create.

Suppose, for example, that to begin with the key HKEY_LOCAL_MACHINE\SOFTWARE\Business Objects\Suite 11.5 exists. You would click on the Suite 11.5 key and from it, create the Crystal Reports key; you would then click on the Crystal Reports key and from it, create the DatabaseOptions key; and you would then click on the DatabaseOptions key and from it, create the LOV key.

- 3 Click on the LOV key. Then select Edit in the menu bar, New in the Edit menu, and String Value in the New submenu. A new field appears in the right panel of the Registry Editor, labeled *New Value #1*. This entry is write-enabled; change the name to *MaxRowsetRecords*.
- 4 Double-click on the MaxRowsetRecords entry. An Edit String dialog box appears. In its Value Data field, enter 100000 (or a larger value). Then close the dialog box; click on its OK button. The value you entered now appears in the Data column for the MaxRowsetRecords entry in the right panel of the Registry Editor.
- 5 Close the Registry Editor: Click on the × symbol in its upper right corner.

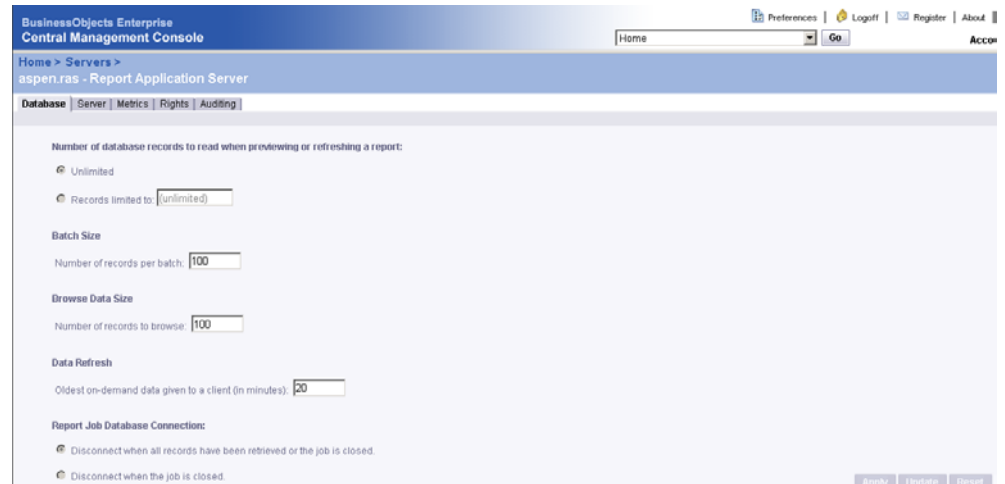
Configuring the Business Objects Server

Use the Central Management Console (CMC) to configure Business Objects components you've installed. Log on, using the method described in step 5 on page 66. Then:

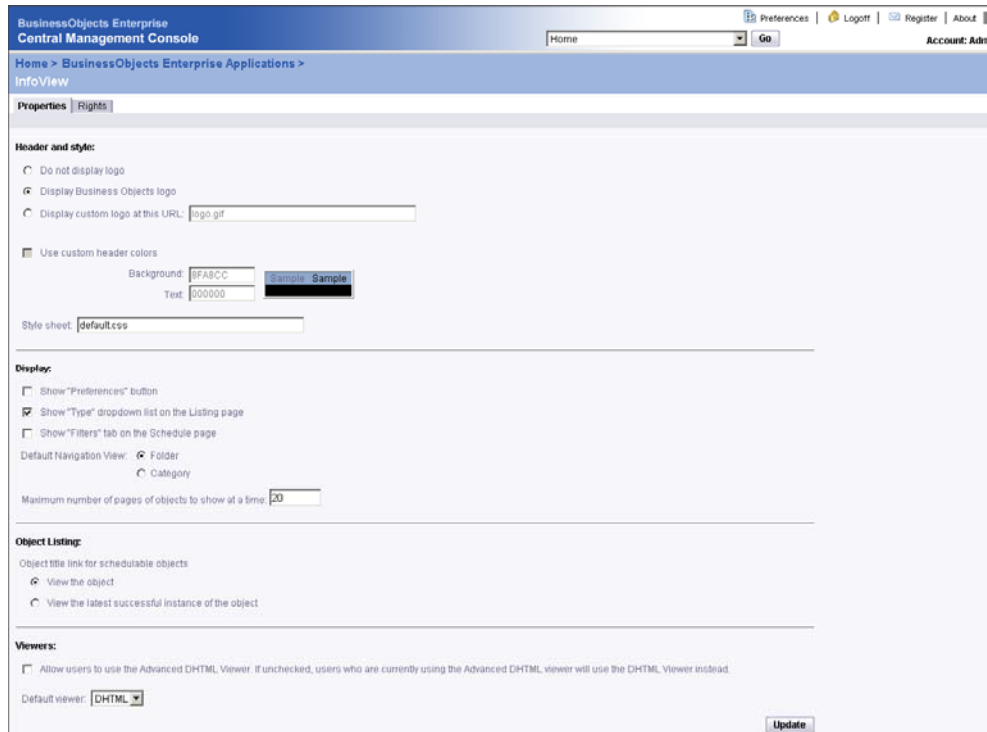
- 1 In the Home panel, click on Servers in the Organize section. A Servers panel opens:



- 2 In the list of servers, see whether any icon shows a red, downward-pointing arrow. If so, close the CMC. Navigate to *LaHome/boje/logging* and check log files — *boe-cmsd*.log* and *ccm*.log* — for errors; call Customer Support. But if all display upward-pointing green arrows, proceed.
- 3 In the Servers panel, locate the server named *hostname.ras*, in which *hostname* is the name of the host system to which you've logged on. Single-click on the name.
- 4 A Report Application Server panel opens for the server you've selected, with a Database tab active. Under the heading "Number of database records to read when previewing or refreshing a report," select the Unlimited radio button. Accept default values for the remaining fields. Click on the Update button.



- In the “breadcrumb trail” (*Home > Servers >* in the figure above), click on *Home*. In the Home panel, click on Business Objects Enterprise Applications in the Manage section. In a list of applications, click on InfoView. The following panel opens:

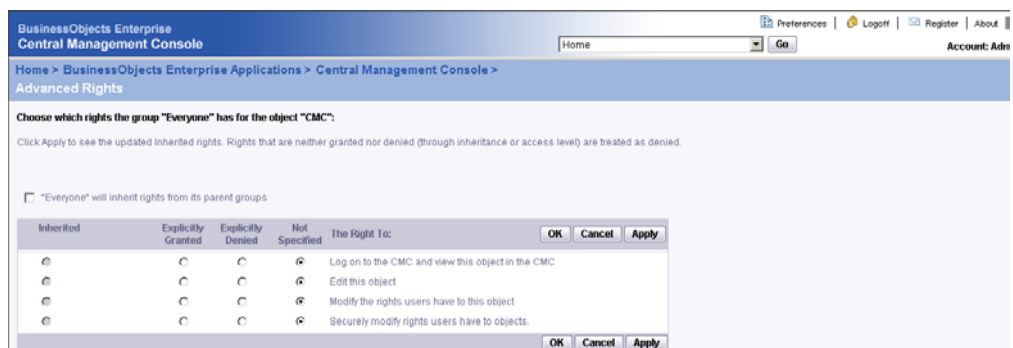


- In the Viewers section, ensure that the check box labeled “Allow users to use the Advanced DHTML Viewer...” is cleared. Then, in the Default Viewer list box, select DHTML.

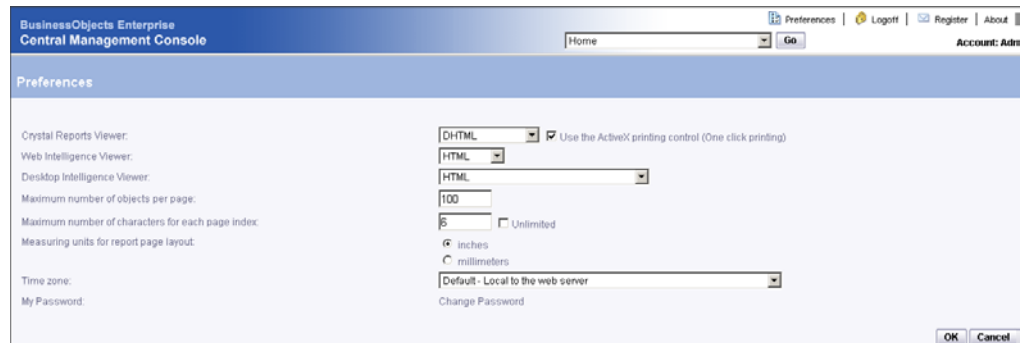
In the Display section, clear the check boxes labeled “Show ‘Preferences’ button” and “Show ‘Filters’ tab on the Schedule page.”

Accept default values for the remaining fields and click on the Update button.

- Click on BusinessObjects Enterprise Applications in the breadcrumbs trail and then, in the list of applications, click on Central Management Console.
- In a Central Management Console panel, click on the Rights tab. It presents a list of users. Locate the Everyone user and click on its Advanced entry.
- An Advanced Rights panel opens. In its “Log on to the CMC and view this object in the CMC” row, select the Not Specified radio button. Click on the OK button.



- 10** The Central Management Console panel returns. Click on Home in the breadcrumb trail, and then on Preferences in a line of links along the upper right edge of the CMC.

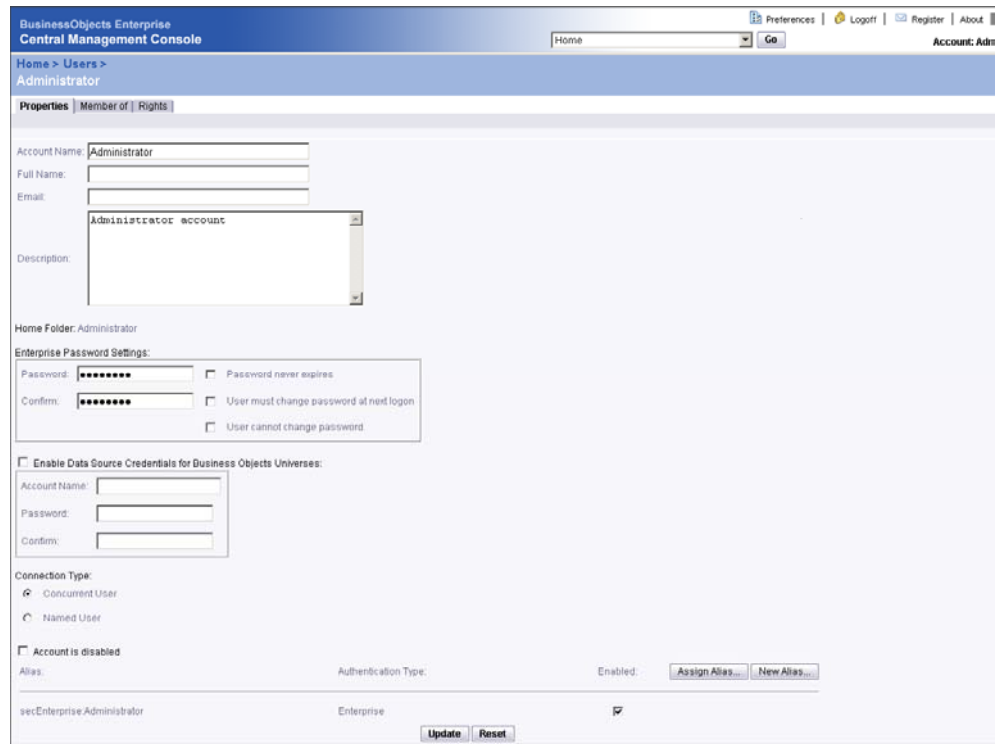


- 11** Make these edits:

- In the Crystal Reports Viewer list box, select DHTML.
- Select the check box labeled “Use the ActiveX printing control.”

Accept default values for the remaining fields and click on the OK button. The CMC returns to its Home panel.

- 12** This instance of Business Objects recognizes the Administrator password set during installation of ACTIVE Governance version 7.1. It’s recommended that you retain this password; if you choose to, skip ahead to step 14. If you prefer to change it, click on Users in the Organize section of the Home panel. An All Users panel presents a list of users; click on Administrator.



- 13** In the Enterprise Password Settings area, enter a new password in both the Password and Confirm fields, and click on the Update button. Later, you will also need to enter this password value as the setting for a `businessObjects.password` property in the ACTIVE Governance platform (see “Setting Properties” on page 88).
- 14** Click on the Logoff link along the upper right edge of the CMC.
- 15** To apply these updates, stop and restart Business Objects servers (see page 63.)

Accommodating Firewalls

If your company has a firewall that blocks internal traffic, complete these steps:

- 1** Open two new ports on the machine that hosts the ACTIVE Governance server. Typically these ports are dynamically assigned, but because the firewall blocks dynamically assigned ports, they must be assigned statically.
- 2** Shut down the servers. (See page 63.)
- 3** Using a text editor such as Notepad, open the file `ccm.config`, which is located in the `\bobje` subfolder of your LogicalApps home folder. Make the following edits:
 - Locate the line that starts with the phrase `cmsLAUNCH=`. After the equals sign, insert the phrase `-requestport xxxx`, replacing the `xxxx` with one of the port numbers from step 1.
 - Locate the line that starts with the phrase `inputLAUNCH=`. After the equals sign, insert the phrase `-requestport yyyy`, replacing the `yyyy` with the other of the port numbers from step 1. (This port number must differ from the `cmsLAUNCH` port.)
- 4** Save the file and exit from it.
- 5** Restart the servers. (See the procedure described on page 63.)

Upgrading the ACTIVE Governance Schema

To create ACTIVE Governance schema objects and seeded data, complete some additional Business Objects setup. Then copy and edit ACTIVE Governance files. Next extract and configure ACTIVE Governance schema-installation files, and then actually execute the schema installation. Note the following as you complete the next several sections:

- Replace the term *LaHome* in commands with the full path to your LogicalApps home folder, for example `C:\Program Files\LogicalApps`.
- Replace the term *LaStage72* in commands with the full path to your LogicalApps staging folder, for example `C:\LappsStage`.
- Recognize that although commands are written to be executed in the Command Prompt window, you can use Windows Explorer instead to complete tasks.

Setting Up Business Objects

To configure Business Objects setup properties:

- 1 Navigate to a `bo_setup` subfolder of your staging folder:

```
cd LaStage72x/bo_setup
```

- 2 Using a text editor, open the file `BusinessObjectsConfiguration.properties`. The file contains the following prompts; set each to the indicated value.

- `businessObjects.server`: Supply the ACTIVE Governance server host name.
- `businessObjects.serverPort`: Assuming you have accepted default port values during installation, use 6400.
- `businessObjects.username`: Use the value *Administrator*.
- `businessObjects.password`: Supply the password for the Business Objects Administrator user (see steps 12 and 13 on pages 71–72).
- `businessObjects.home`: Supply the folder in which Business Objects is installed, which is a `\bobje\enterprise` subfolder of your LogicalApps home folder. As you enter this value, supply the full path to the folder, and use two backslashes wherever a Windows path would ordinarily use one. For example:

```
C:\\Program Files\\LogicalApps\\bobje\\enterprise\\
```

- `businessObjects.commit`: For the time being, set this value to *false*.

Save and close the file.

- 3 From the `\bo_setup` subfolder of your staging folder, run a file called `removeAuthenticationRestrictions.bat` — type its name in the Command Prompt window and press the Enter key.
- 4 If there are no exceptions (if the Command Prompt window displays “Authentication restrictions removed”), reopen the `BusinessObjectsConfiguration.properties` file and reset the `businessObjects.commit` property to *true*. Save and close the file, and then rerun `removeAuthenticationRestrictions.bat`.

Copying and Editing ACTIVE Governance Files

Complete these steps to put ACTIVE Governance files in place and prepare them.

- 1 Shut down the Tomcat application server:

```
LaHome\bobje\tomcat\bin\shutdown.bat
```

- 2 An `ags` subfolder may be located several levels below your LogicalApps home folder. If so, remove it and its contents.

```
rmdir /s "LaHome\bobje\tomcat\webapps\ags"
```

- 3** Copy ACTIVE Governance files from subfolders of the staging folder to subfolders of the home folder.

```
copy LaStage72\ags_7_2_n_snn_bnn_ga.war
LaHome\bobje\tomcat\webapps\ags.war
copy LaStage72\ags_infrastructure\post-install\ags.xml
LaHome\bobje\tomcat\conf\Catalina\localhost
copy LaStage72\ags_infrastructure\post-install\*.jar
LaHome\bobje\tomcat\common\lib\
```

- 4** Navigate to the folder containing the ags.xml file:

```
cd LaHome/bobje/tomcat/conf/Catalina/localhost
```

- 5** Using an xml editor, open ags.xml and perform the following edits. Each entry goes between <value> and </value> tags corresponding to each parameter.

- Locate the section headed <ResourceParams name="mail/Session">. In it, locate the mail.smtp.host parameter and, for its value, insert the host name of the SMTP server your company uses for sending email.
- Locate the section headed <ResourceParams name="jdbc/onecenterDS">. In it, locate the following parameters and supply these values for them:

driverClassName parameter. Insert the following string:
oracle.jdbc.driver.OracleDriver

url parameter. Insert the following string, with actual values for the ACTIVE Governance database in place of the *Hostname*, *Port*, and *SID* placeholders:
jdbc:oracle:thin:@*Hostname*:*Port*:*SID*

username parameter. Supply the user name for the ACTIVE Governance database. It must match the name you created in step 1 on page 61.

password parameter. Supply the password for the ACTIVE Governance database user identified by the username parameter.

- Locate the section headed <ResourceParams name="jdbc/appsaccessDS">. In it, locate the following parameters and supply these values for them:

driverClassName parameter. Insert the following string:
oracle.jdbc.driver.OracleDriver

url parameter. Insert the following string. In place of the *Hostname*, *Port*, and *SID* placeholders, insert actual values for the database used by an Oracle Applications instance in which Embedded Agents have been installed to run:
jdbc:oracle:thin:@*Hostname*:*Port*:*SID*

username parameter. Supply the user name for the database used by the Oracle Applications instance in which Embedded Agents have been installed to run. (Conventionally, this is APPS.)

password parameter. Supply the password for the database used by the Oracle Applications instance in which Embedded Agents have been installed to run.

Save and close the file.

Preparing Schema Installation Files

To configure ACTIVE Governance schema installation properties:

- 1 Navigate to an installation configuration subfolder of your staging folder:

```
cd LaStage72x\ags_install\config
```

- 2 Make a copy of a generic properties file, called `filters-bundle-oracle.properties`. Call the copy `filters-host.properties`, replacing the value `host` with the host name for your ACTIVE Governance server.

- 3 Using a text editor, open the `filters-host.properties` file and edit the following. (Accept default values for all properties not listed here.)

- `hibernate.connection.url`: Supply the connect string that ACTIVE Governance will use to connect to its database. Use the following, but provide actual values for the `Host`, `Port`, and `SID` placeholders.

```
jdbc:oracle:thin:@Host:Port:SID
```
- `hibernate.connection.username`: Supply the user name for the ACTIVE Governance database. It must match the name you created in step 1 on page 61.
- `hibernate.connection.password`: Supply the password for the ACTIVE Governance database.
- `businessObjects.server`: Supply the ACTIVE Governance server host name.
- `businessObjects.serverPort`: Assuming you have accepted default port values during installation, use 6400.
- `businessObjects.username`: Always use the value *Administrator*.
- `businessObjects.password`: Supply the password for the Business Objects Administrator user (see steps 12 and 13 on pages 71–72).
- `log4j.filepath`: Supply the value *ags.log*, with no path. This is a log file that records errors in processing during installation of the ACTIVE Governance schema.
- `appserver.hostname`: Enter the host name and port number for the ACTIVE Governance server, separated by a colon. If you accepted default port values during installation, the port value here is 8080; if not, supply the value you set for the connection port (see step 9 on page 65).
- `callbackhost`: Enter the following value. In place of the *host* and *port* placeholders, substitute the same host name and port values as you used for the `appserver.hostname` value:

```
http://host:port/ags
```

Save and close the file.

- 4 Navigate back to the `ags_install` folder (the parent of the folder in which you are currently working):

```
cd..
```

- 5 Using a text editor, open the `build.properties` file. In its first line — `config=bundle` — replace `bundle` with the same host name you used when you edited the `filters-host.properties` file (step 3). Save and close the file.

- 6 Navigate to a migration subdirectory of your staging directory.

```
cd C:\LaStage72x\ags_migration
```

- 7 Using a text editor, open the file `hibernate.cfg.xml` and edit the following entries:

- `connection.url`: Supply the connect string that ACTIVE Governance will use to connect to its database. Use the following, but provide actual values for the `Host`, `Port`, and `SID` placeholders.

```
jdbc:oracle:thin:@Host:Port:SID
```

- `connection.username`: Supply the user name for the ACTIVE Governance database. It must match the name you created in step 1 on page 61.

- `connection.password`: Supply the ACTIVE Governance database password.

Save and close the file.

Completing the Schema Installation

To complete the ACTIVE Governance schema-upgrade process:

- 1 If you have not yet shut down the Tomcat application server, do so:

```
LaHome\bobje\tomcat\bin\shutdown.bat
```

- 2 Execute the schema upgrade script without `COMMIT` to uncover potential errors. Use the Command Prompt window to execute the following command:

```
LaStage72\run.bat
```

- 3 Review text generated in the Command Prompt window for errors. Assuming there are none, proceed to step 4.

- 4 Execute the schema upgrade script with `COMMIT` to upgrade the schema. Use the Command Prompt window to execute the following command:

```
LaStage72\run.bat COMMIT
```

- 5 Review text generated in the Command Prompt window for errors. Assuming there are none, proceed to step 6.

- 6 Populate schema objects. Execute the following commands:

```
cd LaStage72/ags_install  
post-migrate.bat
```

- 7 When the batch files finish running, restart the Tomcat application server. Execute the following command:

```
LaHome\bobje\tomcat\bin\startup.bat
```

Setting Up the ACTIVE Governance Log

Finally, create a log, maintained by Tomcat, that records errors in ACTIVE Governance processing:

- 1 Copy a logging properties file from your staging directory to a directory on your ACTIVE Governance server. Execute this command:

```
copy LaStage72\ags_infrastructure\post-install\log4j.properties  
LaHome\bobje\tomcat\webapps\ags\WEB-INF\classes
```

- 2 Navigate to a folder containing the log4j.properties file:

```
cd LaHome\bobje\tomcat\webapps\ags\WEB-INF\classes
```

- 3 Using a text editor, open log4j.properties. In it, locate a log4j.appender.file.File property, and set it equal to the following path and file name. (Be sure to replace the term *LaHome* with the full path to your LogicalApps home folder, and to include two backslashes wherever a Windows path would ordinarily require one.)

```
LaHome\\bobje\\tomcat\\logs\\ags.log
```

- 4 Optionally, also set a series of log4j.logger.com.logicalapps.onecenter properties to values that determine the level of detail in log entries. From least to greatest, options are ERROR, WARN, INFO, and DEBUG (the default).

At any time, you can open the ags.log file to look for errors or other information. The log is located at a path you established earlier:

```
LaHome\bobje\tomcat\logs\ags.log
```


Deploying Reports

To deploy ACTIVE Governance reports and “business views” that support them, use Business Objects tools run from a Windows client system.

Setting Up

Even if you installed Business Objects Release 1 components on a Windows client for ACTIVE Governance 7.1, install Release 2 components for this 7.2 upgrade:

- 1** Create a staging folder on the Windows client.
- 2** Obtain installation files. These are the same as the files one would use for Business Objects installation on a Windows server. Thus, as before, locate the Governance, Risk, and Compliance Controls Suite Disk 2 in your Oracle media pack. Copy its contents — two zip files — to your client staging folder. This creates four subfolders — DISK_1, DISK_2, DISK_3, and cd — and populates them with files.
- 3** Navigate to the disk_1 subfolder of your staging folder and, in it, run the Setup.exe file.
- 4** A language-selection window appears. In its list box, choose the language in which you want to work. (English is the default.) Click on the OK button.
- 5** A Welcome window appears. Click on its Next button.
- 6** A license-agreement window appears. Click on its acceptance radio button, and then on the Next button.

- 7 A Select Client or Server Installation window appears. Select its Perform Client Installation radio button and click on the Next button.
- 8 Accept default values for all remaining issues.
- 9 Install a required Business Objects patch on the client system: Navigate to the cd subfolder of the client staging folder and, in it, run the Setup.exe file. Respond to its prompts.

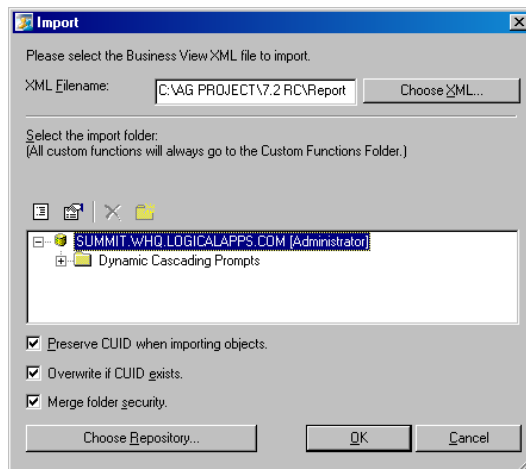
In your Oracle media pack, locate the Governance, Risk, and Compliance Controls Suite Disk 1. From its dist directory, copy the file `ag_722_report_center.zip` to your staging directory. Extract the contents of the file. This creates a Reports Center folder and, beneath it, a Business Views folder and other folders containing reports.

Finally, ensure that Oracle Client is installed on the Windows machine, and that aliases in the `tnsnames.ora` file for this instance of Oracle Client match those configured for the Oracle Client instance on the ACTIVE Governance server.

Importing Business Views

Use a Business View Manager to import “business views” — a set of .xml files:

- 1 Open Business View Manager from a Business Objects folder under Windows Start. As you log on, supply these values, and then click the OK button:
 - System: The host name and CMS_PORT number of the ACTIVE Governance server, separated by a colon. Omit the port number (and delimiting colon) if you accepted the default value, 6400, for CMS_PORT (see page 47 or 65).
 - User Name: The value *Administrator*.
 - Password: The password for the Administrator user (see page 53 or 71).
 - Authentication: The value *Enterprise*.
- 2 In the Repository Explorer pane, delete the existing Report Center folder.
- 3 Click on Tools in the Business View Manager menu bar, and then on Import in the Tools menu. The following Import dialog appears.

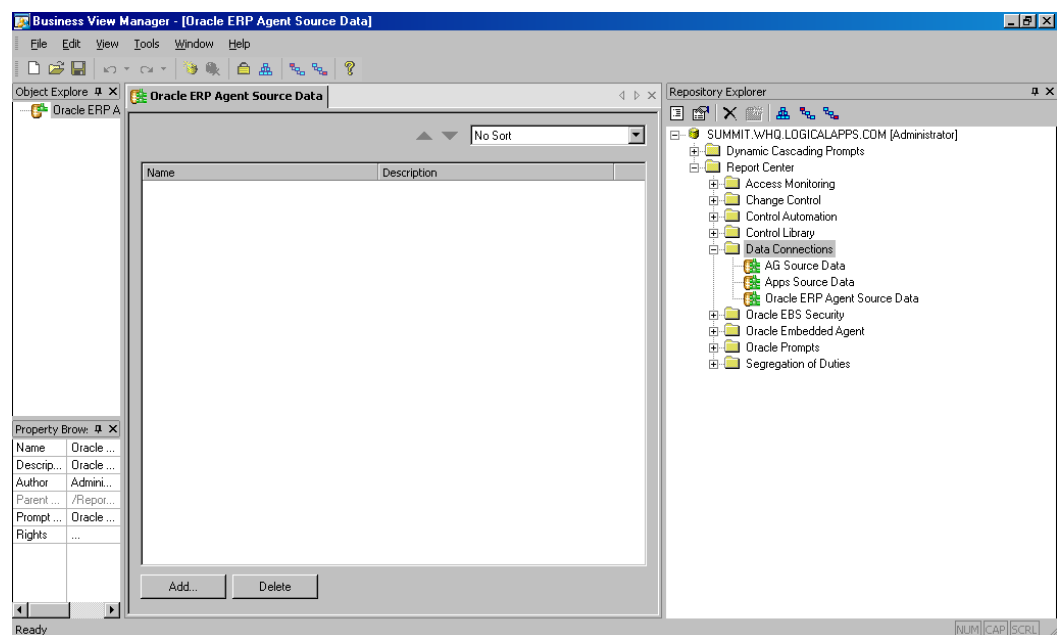


- 4 In the large white field, ensure that the line displaying the server host and domain name is selected.
- 5 Click on the Choose XML button. A navigation dialog opens; in it, navigate to the Report Center/Business Views subdirectory in your staging directory. Select any of the business views and click on the Open button in the navigation dialog. The path to the business-view xml file you selected should appear in the XML Filename field of the Import dialog.
- 6 Ensure that the three checkboxes near the bottom of the form are selected. These are labeled “Preserve CUID when importing objects,” “Overwrite if CUID exists,” and “Merge folder security.”
- 7 Click on the OK button. Choose to overwrite if there is any existing content. Business View Manager creates a Report Center directory, imports the business-view xml file into it, and displays the result in the large white field of the Import dialog.
- 8 Repeat steps 5–7 for each of the .xml files remaining in the Report Center/Business Views subdirectory of your staging directory.

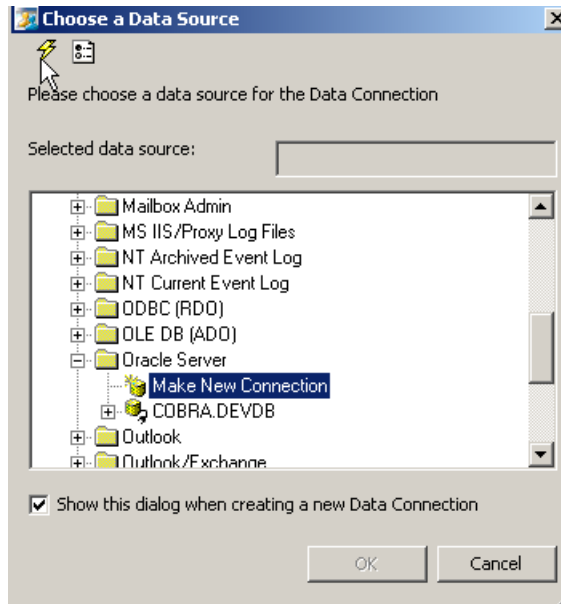
Establishing Data Connections

Next, set up static data connections to the databases for ACTIVE Governance and Embedded Agents instances, and then include each in one of two dynamic data connections.

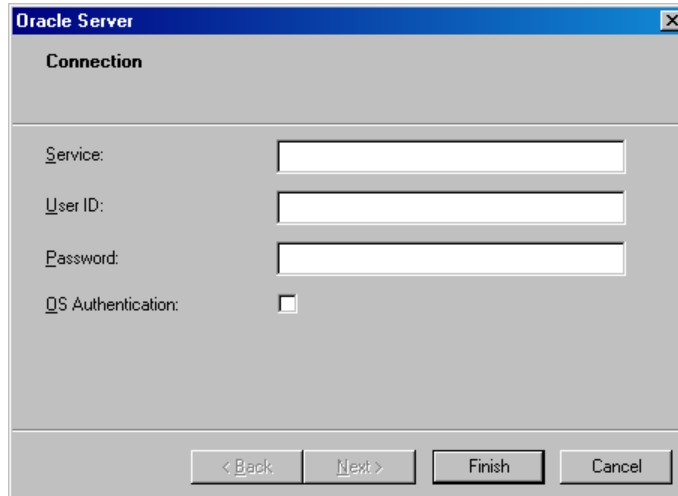
- 1 In the Repository Explorer, click on the Data Connections folder under Report Center. Descending from its entry, you should see dynamic data connections, among them AG Source Data and Oracle ERP Agent Source Data.



- 2 Click on File in the menu bar, then on New in the File menu, and then on Data Connection in the New submenu. A Choose a Data Source dialog opens:

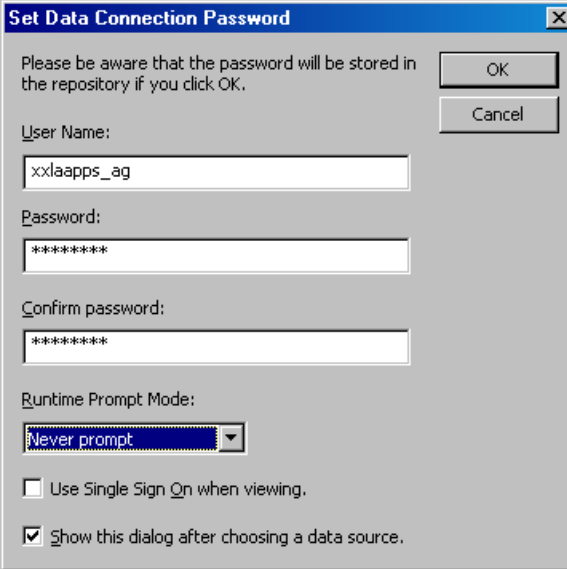


- 3 In its list, click on Oracle Server. If no data connections yet exist, a Connection dialog opens. If connections exist, they are listed beneath the Oracle Server entry, along with a Make New Connection option. Click on that option to open the Connection dialog.



- 4 Fill in the Connection fields with values for your ACTIVE Governance database. For Service, supply the alias for the database instance as it is configured in the tnsnames.ora file. For User ID, supply the database user (schema) name; for Password, supply the database password. Leave the OS Authentication check box cleared.

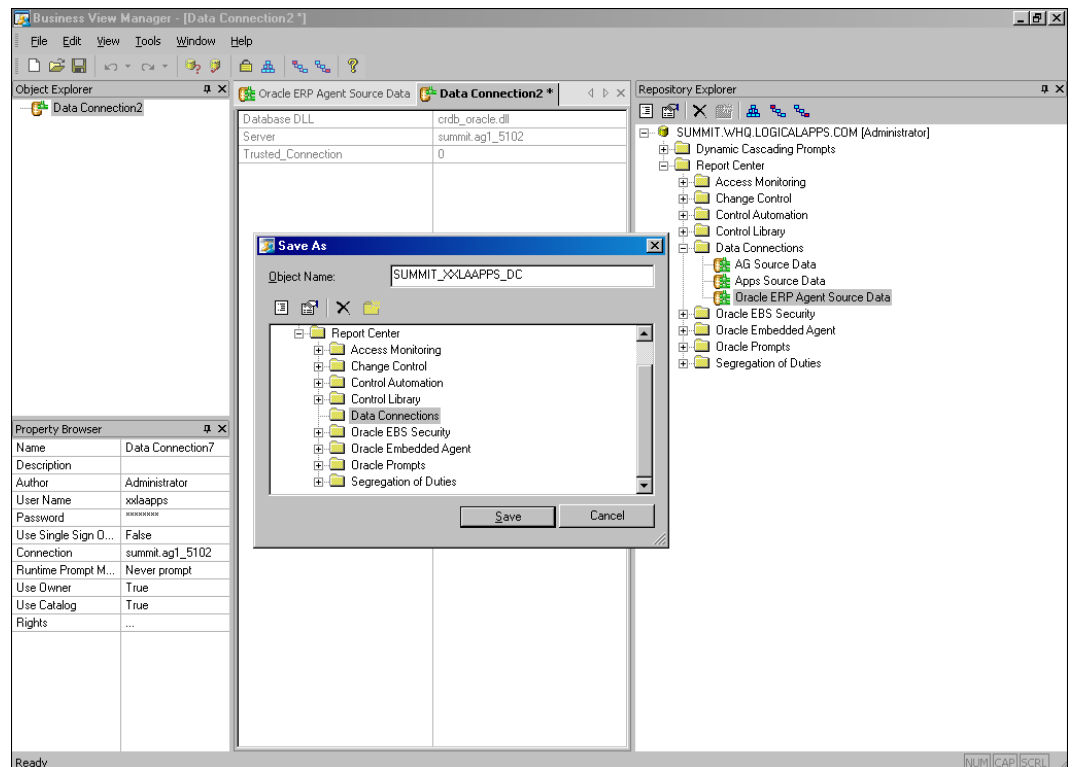
- 5 Click on the Finish button. A Set Data Connection Password dialog opens:



The dialog box titled "Set Data Connection Password" contains the following fields and options:

- A warning message: "Please be aware that the password will be stored in the repository if you click OK." with "OK" and "Cancel" buttons.
- User Name:
- Password:
- Confirm password:
- Runtime Prompt Mode:
- Use Single Sign On when viewing.
- Show this dialog after choosing a data source.

- 6 In the User Name field, type the same database user (schema) name as you did in step 4; in the Password and Confirm Password fields, type the same password. In the Runtime Prompt Mode list box, select the value *Never Prompt*. Ensure that the "Use Single Sign On when viewing" check box is cleared. Click on the OK button.
- 7 The Business View Manager once again becomes active, displaying values you've set for the data connection both in the central panel and in Property Browser area along the left column.



- 8** Save the data connection: Click on File in the menu bar and then Save in the file menu. A Save As dialog appears. In it, enter a name for the data connection in the Object Name field, and in the larger white field click on the Data Connections folder beneath the Report Center folder. Click on the Save button.

The Repository Explorer displays an entry for the static data connection you've configured, descending from the Data Connections folder. (To distinguish a static connection from a dynamic one, look at their icons. One green pipe symbol indicates a static connection, and two indicate a dynamic connection.)

- 9** Repeat steps 2–8 to create static data connections for Embedded Agent data sources. There should be one connection for each of the Embedded Agent instances with which ACTIVE Governance is to work.
- 10** Associate the static data connections with the appropriate dynamic data connections.

Under Data Connections in the Repository Explorer, double click on the AG Source Data dynamic connection. A window for that connection opens in the central panel of the Business View Manager. Drag the ACTIVE Governance data connection you configured from the Repository Explorer to the central panel. Click on File in the menu bar and then on Save in the File menu.

Then, under Data Connections in the Repository Explorer, double click on the Oracle ERP Agent Source Data dynamic connection. A window for that connection opens in the central panel of the Business View Manager. Drag each of the Embedded Agents data connections you configured from the Repository Explorer to the central panel. Click on File in the menu bar and then on Save in the File menu.

Publishing Reports

To publish the version 7.2 reports, use a Publishing Wizard, which is accessible from the Business Objects folder under Windows Start.

- 1** From the initial Publishing Wizard screen, click on the Next button.
- 2** Enter the following logon values, then click on the OK button.
 - System: The host name and CMS_PORT number of the ACTIVE Governance server, separated by a colon. Omit the port number (and delimiting colon) if you accepted the default value, 6400, for CMS_PORT (see page 47 or 65).
 - User Name: The value *Administrator*.
 - Password: The password for the Administrator user (see page 53 or 71).
 - Authentication: The value *Enterprise*.
- 3** A Select Files panel of the Publishing Wizard opens. Click on its Add Folder button.

This opens a Browse for Folder dialog; in its “Choose folder...” field, navigate to and click on the Report Center directory, which is a subdirectory of your staging directory. Select the Include Subfolders check box (click on it so that a check

mark appears). Confirm that the list box near the bottom of the dialog displays the value *Report (*.rpt)*, which should be the default. Click on the OK button.

This closes the Browse for Folder dialog, and the Select Files panel once again becomes active, displaying a list of reports from the folders you've selected. Click on its Next button.

- 4 A Specify Location panel of the Publishing Wizard opens. In it, a large field displays the name of your ACTIVE Governance instance. (The Publishing Wizard uses the values you entered in step 2 to point to this instance.) Click on this value, and then on the New Folder icon (the leftmost of three above the large field; it looks like a folder). A New Folder entry appears, in editable mode, below the entry for your ACTIVE Governance instance; change its name to *Report Center*. Click on the Next button.
- 5 A Specify Folder Hierarchy panel of the Publishing Wizard opens. In it ensure that the radio button labeled *Duplicate the folder hierarchy* is selected. In the list box near the bottom of the panel, select the value *include none*. Click on the Next button.
- 6 A Confirm Location panel of the Publishing Wizard opens. It displays the file names below the folder in which they will be published. Confirm that the values are correct, and click on the Next button.
- 7 In the next several Publishing Wizard panels, you need do nothing. Click on the Next button in each until you reach the Specify Repository Refresh panel. That panel lists the reports you are publishing; in it, click on the Enable All button. Then click on the Next button.
- 8 In the next several Publishing Wizard panels, you need do nothing. Click on the Next button in each until you reach the Reading Files panel. When the Wizard finishes reading files, another panel lists the reports you are publishing. Click on the Next button. This commits the objects; finally, click on the Finish button.

Configuring Access to Reports

Within ACTIVE Governance, each user is assigned a “primary application role” and any number of “reporting roles.” Each of the reporting roles specifies a selection of reports the user is able to open and review. After publishing a new set of reports, you must correlate each report to its reporting roles by completing the following steps on the ACTIVE Governance server:

- 1 If you have a Linux or UNIX server, source the ACTIVE Governance environment. Navigate to the home directory, which contains the *ag.env* file. Ensure the file has been edited correctly (see pages 46 and 55), and then run it. (If you have a Windows server, this step does not apply.)
- 2 Navigate to the *bo_setup* subdirectory of the staging directory on your ACTIVE Governance server.

- 3** Using a text editor, open the `BusinessObjectsConfiguration.properties` file. In it, ensure that the `businessObjects.commit` property is set to `true`. Save the file and close it.
- 4** Execute a file called `loadAccessRights.sh` (on a Linux or UNIX server) or `loadAccessRights.bat` (on a Windows server). The file is also located in the `bo_setup` subdirectory. If you have a Linux or UNIX server, first use the `chmod` command with the `+x` switch to set execute permissions on the file.

Restarting Services

To activate the newly installed ACTIVE Governance and Business Objects components, you must stop and then restart the ACTIVE Governance and Business objects services. Use the stop- and start-services procedures appropriate for your operating system. For Linux or UNIX, see page 54; for Windows, see page 63.

Configuring ACTIVE Governance

Because you are performing an upgrade, your ACTIVE Governance 7.2 instance inherits most configuration settings from your 7.1 instance.

One exception is report schedules. If, in version 7.1, you set schedules on which reports would run, those schedules have been wiped out and must be reset in version 7.2.

A second potential exception: If you changed the Business Objects Administrator password, you must set a password property in the ACTIVE Governance Platform (see page 88). If you retained the Administrator password set during ACTIVE Governance 7.1 installation, the property is already set correctly.

Generally, however, the following procedures do *not* need to be performed as a part of your upgrade from version 7.1 to version 7.2. They are included here for reference, to allow for the possibility that you will want to change settings over time.

Configuring Licenses

To run ACTIVE Governance components, you need to install license files. These include not only an ACTIVE Governance Platform license, but also individual licenses for ACTIVE Access Governor, ACTIVE Data Governor, and ACTIVE Policy Governor.

To implement the ACTIVE Governance licenses:

- 1 Log on to the ACTIVE Governance Platform. Use the following URL:

`http://Host:Port/ags`

Replace *Host* with the host name of your ACTIVE Governance server. Replace *Port* with the value *8080* if you accepted default port values during installation. Otherwise, supply the value you set for `TOMCAT_PORT` on a Linux or UNIX server (page 47) or connection port on a Windows server (page 65).

- 2** Log on as a System Administrator, for which the user name and password are both *admin*.
- 3** Click on the Administration Tab and, in the Administration Home page, the Manage Licenses link.
- 4** In the Organization Name field, type *Oracle*.
- 5** In your Oracle media pack, locate the Governance, Risk, and Compliance Controls Suite Disk 1. Insert it in the drive of the computer from which you are working.
- 6** For each license you choose to implement, enter the path and name for the license file in the appropriate License Information field. License files are located in the licenses directory of the Governance, Risk, and Compliance Controls Suite disk. Their names are as follows:
 - `platform.lic` for the ACTIVE Governance Platform
 - `accessGovernor.lic` for ACTIVE Access Governor
 - `dataGovernor.lic` for ACTIVE Data Governor
 - `policyGovernor.lic` for ACTIVE Policy GovernorYou can either type the path and name for each license file, or select the Browse button and navigate to the file.
- 7** Click on the Save button.

Setting Properties

From the Administration Home of the ACTIVE Governance Platform, you can also select a Manage Configuration Properties link to view or set properties for the application. Generally, you can accept default values, but you may choose to confirm that values are set correctly, or reset some values.

The first several properties are set automatically during sever installation. You need not change them. These include the following:

- `adminUser`
- `appserver.hostname`
- `businessObjects.enterpriseDirectoryName`
- `businessObjects.InfoViewPath`
- `businessObjects.reportSecurity`
- `businessObjects.server`
- `businessObjects.serverPort`

- `businessObjects.username`
- `callbackhost`

The following properties can take the following values:

- `businessObjects.password`: This property defaults to the Business Objects Administrator password created during ACTIVE Governance version 7.1 installation. If you retained that password (see page 53 or 71), do not change the setting of this property. If you changed the password, set this property to the new value.
- `datasources.connection.pool.min.size` and `datasources.connection.pool.size`: These two properties combine to designate the number of simultaneous connections that ACTIVE Governance opens to its database. The number of connections is always at least the number set by the “min.size” property. Additional connections open on demand, up to the number set by the “size” property (and so it must always be set to a larger number than the “min.size” value).

In effect, these properties set the number of users who retrieve data from or save data to the ACTIVE Governance database at once, each using a connection only for the brief time required to complete one of those operations. The number of users employing connections at a given moment is much smaller than the number logged on to ACTIVE Governance. The default values — 3 for the “min.size” property and 10 for the “size” property — typically need not be changed.

- `email.returnAddress`: This sets the “from” address used in email messages sent by the ACTIVE Governance workflow system to users notifying them that approval tasks have been assigned to them.
- `exception.link.show`: This determines whether error messages contain a link that activates a display of detailed information about database errors. Valid values are *true* (the default) and *false*.
- `Licensee`: This must be set to the same value as the Organization Name field on the Manage Licenses panel. (See the preceding section, “Configuring Licenses.”)
- `pagination.show.all`: In ACTIVE Governance, lists of items are presented in grids, the footer row of which contains a Show Results list box that determines how many rows a grid displays at once. (The grid entries are divided into pages, each of which consists of the number of rows chosen for display.) In the Show Results list box, one can choose the value *All*. Because an attempt to display all records, no matter how many, in a single page can harm performance, the `pagination.show.all` parameter sets a limit on the number of records returned when a user selects the Show All Results option in a list. The default value is 1,000.
- `suspect.query.timeout`: This property sets the amount of time a control monitor may run before it times out. If control monitors fail to return suspects, try setting a larger value for `suspect.query.timeout` (its unit of measurement is seconds, and its default value is 3600).

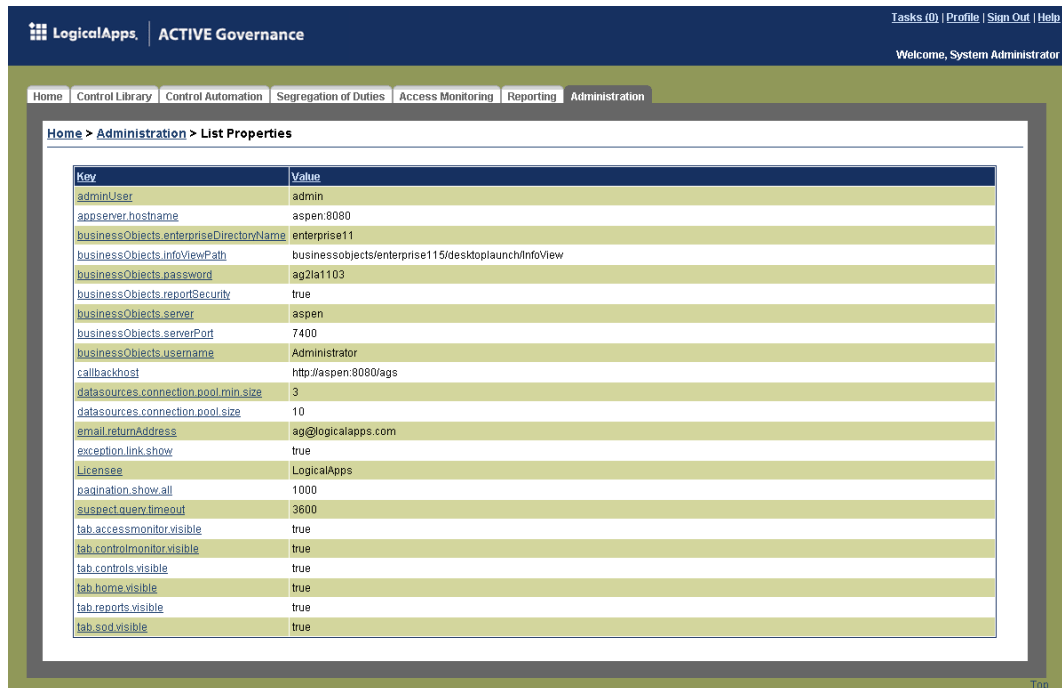
The ACTIVE Governance Platform contains tabs that activate panels in which one works with various features. The remaining properties determine which tabs are available for selection. Valid values are *true* (the default for each), which presents the tab

to all users, and *false*, which hides the tab from all users. Property names correspond to tab names as follows:

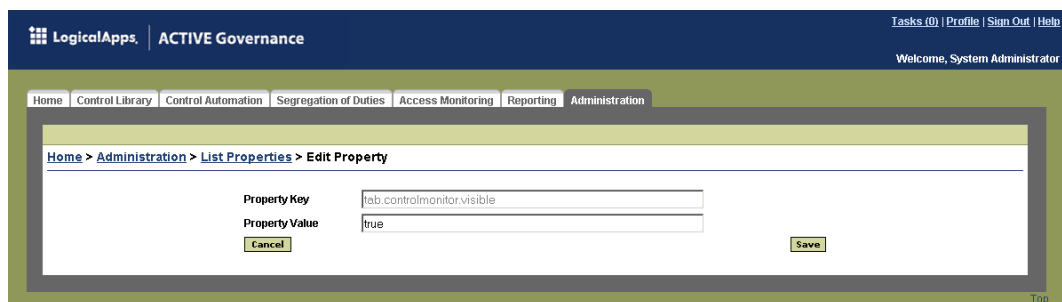
- `tab.accessmonitor.visible`: Access Monitoring
- `tab.controlmonitor.visible`: Control Automation
- `tab.controls.visible`: Control Library
- `tab.home.visible`: Home
- `tab.reports.visible`: Reporting
- `tab.sod.visible`: Segregation of Duties

To set properties:

- 1 In the ACTIVE Governance Platform, click on the Administration tab.
- 2 In the Administration home, click on the Manage Configuration Properties link. A List Properties panel opens:



- 3 Locate the property you want to set, and click on its name in the Key column. An Edit Property panel opens.



- 4 Enter a new value in the Property Value field, and click on the Save button. The focus returns to the List Properties panel, with the new setting displayed.

Configuring Data Sources

During server installation, you supplied information required for ACTIVE Governance to connect to an APPS database for an instance of Oracle Applications in which the Embedded Agents run. You need now to use a Data Sources feature of the ACTIVE Governance Platform to supply the information again. You can also use this feature to set up additional Oracle Applications/ Embedded Agents data sources. The information you enter in the Data Sources panels is used by the Segregation of Duties and Access Monitoring features.

- 1 In the ACTIVE Governance Platform, click on the Administration tab.
- 2 In the Administration home, click on the Manage Data Sources link.
- 3 A Data Sources panel opens. To create a new data source, click on the Add Data Source button; an Add Data Source panel (shown below) opens. To edit an existing data source, click on its name; a View Data Source panel opens, in which you would click on an Edit Data Source button. An Edit Data Source panel opens; it's identical to the Add Data Source panel, except that it displays current values for the selected data source.

- 4 Supply these values:
 - Label and Description. Provide entries that name and describe the data source. The label will appear in a list box from which users can select data sources when they use the Segregation of Duties and Access Monitoring features.
 - Type of Provider. Accept the default:
JDBC Provider (for relational databases)
 - JDBC Driver. Always supply the following value:
oracle.jdbc.driver.OracleDriver

- **Default Schema.** Provide the schema name of the APPS database for the instance of Oracle Applications in which the Embedded Agents run. Because this would be an Oracle database, this value should be the same as the value you will supply in the Username field (see below), and is conventionally *APPS*.
- **Database URL.** Provide the JDBC connect string that ACTIVE Governance will use to connect to the APPS database for an instance of Oracle Applications in which the Embedded Agents run. This entry takes the following form, with actual values replacing the *Hostname*, *Port*, and *SID* placeholders:

```
jdbc:oracle:thin:@Hostname:Port:SID
```
- **Username.** Supply the user name for the APPS database cited in the Database URL field. Conventionally, this value is *APPS*.
- **Password and Confirm Password.** Supply the password configured for the database user identified by the Username entry.

- 5** Click on the Save button. The focus shifts to the View Data Source panel, which displays the values you've saved. In that panel, click on the Test Data Source button. A message either reports that the test is successful or reports errors; in the latter case, click on the Edit Data Source button to correct the errors.

Diagnostics

A Diagnostics program tests the connectivity of the ACTIVE Governance web application to its supporting components:

AGS Diagnosis		
Version: 7.2.0 s80 Build: 15		
AGS Web Application Modules		
Diagnostic Test Description	Status	Message
Database Connectivity Test	Pass	
Email Server Connectivity Test	Pass	
Business Objects Server Connectivity Test	Pass	Business Objects CMS Server
Web Service Connectivity Test	Pass	
ERP Systems Connectivity Tests		
ERP System Name	Status	Exception Message
aspen_ag1_5102	Pass	
aspen_ag2_5102	Pass	
aspen_ag3_5102	Pass	
scottsdale_10G	Pass	
olympia_1158_9i	Pass	
Newport	Fail	Failed to connect to ERP system. jdbc:oracle:thin:@newport.whq.logicalapps.com:1521:visdb
Lajolla_Eng	Fail	Failed to connect to ERP system. jdbc:oracle:thin:@lajolla.whq.logicalapps.com:1521:visdb
saltlake_ag_5102	Pass	

To run the program, enter the following URL in the Address field of a web browser:

`http://host:8080/ags/diagnosis`

Replace *host* with the name of the host on which you installed ACTIVE Governance. Retain the value *8080* if you accepted default port values during installation. Other-

wise, supply the value you set for `TOMCAT_PORT` on a Linux or UNIX server (page 47) or connection port on a Windows server (page 65).

If you are already logged on to ACTIVE Governance, the Diagnosis panel opens immediately. If not, an ACTIVE Governance logon dialog appears; enter your username and password, then click on the Sign In button to open the Diagnosis panel.

Each row of both grids displays the result of a test to determine whether the ACTIVE Governance web application communicates properly with one of the following components. In each case, the Status field displays either Pass or Fail. For each test, the Message field displays information about a failure, and for all but one is blank when a test is passed.

The upper grid reports the results of the following tests:

- Database Connectivity Test indicates whether the web application is connected to the ACTIVE Governance database.
- Email Server Connectivity Test indicates whether the web application is connected to the SMTP server your company uses for sending email, and which you specified in the `ags.xml` file (see page 56 or 74).
- Business Objects Server Connectivity Test reports whether the web application is connected to the Business Objects server.
- For this test only, the Message field displays an entry when the test is passed: A link to the Business Objects Central Management Console. If you select this link, the CMC opens in a distinct web browser instance. You will need to log on to the CMC; you can use the Administrator username and the password for that user (page 53 or 71.)
- Web Service Connectivity Test reports whether the web application communicates with a Web Services application program interface (API). Through this API, a client user-provisioning system can make use of segregation-of-duties features provided by ACTIVE Access Governor. (See the *Technical Note: LogicalApps Web Services*.)

In the lower grid, each row reports on the connectivity between the ACTIVE Governance web application and the database for one of the Oracle Applications instances in which the LogicalApps Embedded Agents have been installed, and which has been configured as a data source in ACTIVE Governance (see page 91).