

## **R12.x Install/Patch/Maintain Oracle E-Business Suite**

**Volume 2 - Student Guide**

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## Preface

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### Profile

#### Before You Begin This Course

- Thorough knowledge of your operating environment and software.
- Working experience with database software.

#### Prerequisites

- There are no formal prerequisites for this course.

#### How This Course Is Organized

This is an instructor-led course featuring lecture and hands-on exercises. Online demonstrations and written practice sessions reinforce the concepts and skills introduced.

## Related Publications

### Oracle Publications

Title	Part Number
Oracle E-Business Suite Concepts	E12841
Oracle E-Business Suite Installation Guide: Using Rapid Install	E12842
Oracle E-Business Suite Maintenance Procedures	E13675
Oracle E-Business Suite Maintenance Utilities	E13676
Oracle E-Business Suite Patching Procedures	E12148

### Additional Publications

- System release bulletins
- Installation and user's guides
- Read-me files
- International Oracle User's Group (IOUG) articles
- *Oracle Magazine*

# Typographic Conventions

---

## Typographic Conventions in Text

Convention	Element	Example
Bold italic	Glossary term (if there is a glossary)	The <b>algorithm</b> inserts the new key.
Caps and lowercase	Buttons, check boxes, triggers, windows	Click the Executable button. Select the Can't Delete Card check box. Assign a When-Validate-Item trigger to the ORD block. Open the Master Schedule window.
Courier new, case sensitive (default is lowercase)	Code output, directory names, filenames, passwords, pathnames, URLs, user input, usernames	Code output: debug.set ('I', 300); Directory: bin (DOS), \$FMHOME (UNIX) Filename: Locate the init.ora file. Password: User tiger as your password. Pathname: Open c:\my_docs\projects URL: Go to http://www.oracle.com User input: Enter 300 Username: Log on as scott
Initial cap	Graphics labels (unless the term is a proper noun)	Customer address ( <i>but</i> Oracle Payables)
Italic	Emphasized words and phrases, titles of books and courses, variables	Do <i>not</i> save changes to the database. For further information, see <i>Oracle7 Server SQL Language Reference Manual</i> . Enter user_id@us.oracle.com, where <i>user_id</i> is the name of the user.
Quotation marks	Interface elements with long names that have only initial caps; lesson and chapter titles in cross-references	Select "Include a reusable module component" and click Finish.  This subject is covered in Unit II, Lesson 3, "Working with Objects."
Uppercase	SQL column names, commands, functions, schemas, table names	Use the SELECT command to view information stored in the LAST_NAME column of the EMP table.
Arrow	Menu paths	Select File > Save.
Brackets	Key names	Press [Enter].
Commas	Key sequences	Press and release keys one at a time: [Alternate], [F], [D]
Plus signs	Key combinations	Press and hold these keys simultaneously: [Ctrl]+[Alt]+[Del]

## Typographic Conventions in Code

Convention	Element	Example
Caps and lowercase	Oracle Forms triggers	When-Validate-Item
Lowercase	Column names, table names	SELECT last_name FROM s_emp;
	Passwords	DROP USER scott IDENTIFIED BY tiger;
	PL/SQL objects	OG_ACTIVATE_LAYER (OG_GET_LAYER ('prod_pie_layer'))
Lowercase italic	Syntax variables	CREATE ROLE <i>role</i>
Uppercase	SQL commands and functions	SELECT userid FROM emp;

## Typographic Conventions in Oracle Applications Navigation Paths

This course uses simplified navigation paths, such as the following example, to direct you through Oracle Applications.

(N) Invoice > Entry > Invoice Batches Summary (M) Query > Find (B) Approve

This simplified path translates to the following:

1. (N) From the Navigator window, select **Invoice** then **Entry** then **Invoice Batches Summary**.
2. (M) From the menu, select **Query** then **Find**.
3. (B) Click the **Approve** button.

### Notations:

(N) = Navigator

(M) = Menu

(T) = Tab

(B) = Button

(I) = Icon

(H) = Hyperlink

(ST) = Sub Tab

## Typographical Conventions in Oracle Applications Help System Paths

This course uses a “navigation path” convention to represent actions you perform to find pertinent information in the Oracle Applications Help System.

The following help navigation path, for example—

(Help) General Ledger > Journals > Enter Journals

—represents the following sequence of actions:

1. In the navigation frame of the help system window, expand the General Ledger entry.
2. Under the General Ledger entry, expand Journals.
3. Under Journals, select Enter Journals.
4. Review the Enter Journals topic that appears in the document frame of the help system window.



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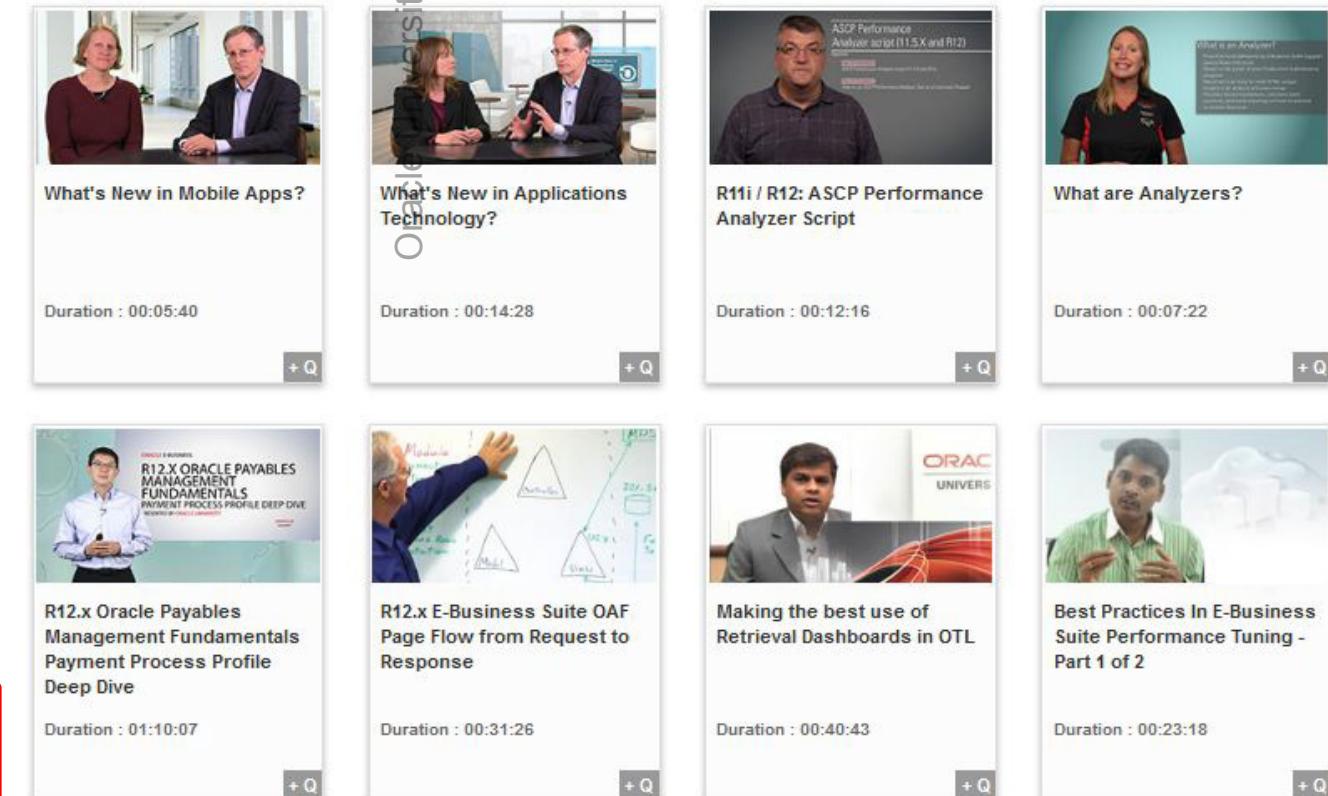
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# **Using the AD Utilities**

## **Chapter 10**



## Using the AD Utilities

### **Using the AD Utilities**

#### **AD Utilities Topics**

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## Objectives

### Objectives

At the end of this module, you should be able to do the following:

- List the AD utilities and describe their functions
- Understand the usage of command line arguments and flags
- Describe parallel processing
- Identify the location and usage of log and restart files

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## Module Overview

### Module Overview

This module consists of the following topics:

- Configuration and environment files
- Setting the environment
- The AD utilities
- Command line arguments and flags
- Version matching
- AD prompts
- Parallel processing
- Distributed AD
- Log and restart files
- Maintenance Mode

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## AD Utilities: Overview

### AD Utilities: Overview

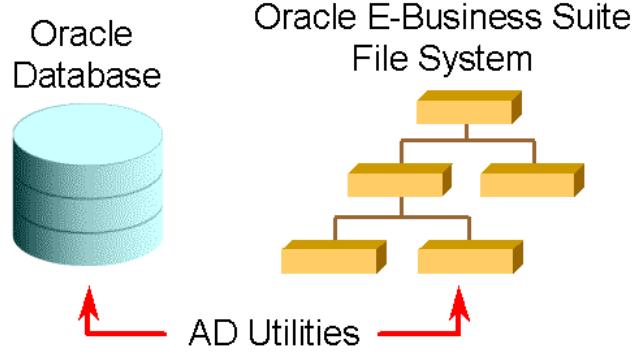
The AD (Applications DBA) utilities are used for maintenance operations, and most are run from the command line

The command line tools have similar:

- Interfaces
- Operation
- Input format
- Report format

A few of the tools are GUI-based

- These include the AutoConfig utility



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### AD Utilities: Overview

The AD (Applications DBA) utilities are a group of tools used to install, upgrade, patch, and maintain the Oracle E-Business Suite database and file system. Most of these utilities are run from the command line, and have similar interfaces, operation, input and report formats. Much of the discussion applies to all the command line utilities.

A few AD utilities are GUI-based. These included AutoConfig (which has both command line and GUI interfaces), License Manager, Patch Wizard, and Applied Patches.

This section of the course introduces the key AD utilities, covering some of them in detail and providing a high level overview of others.

## AD Utilities: Configuration and Environment Files

### AD Utilities: Configuration and Environment Files

Name	Location
adconfig.txt	APPL_TOP/admin
adalldefaults.txt	APPL_TOP/admin
applprod.txt	APPL_TOP/admin
applterr.txt	APPL_TOP/admin

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### AD Utilities: Configuration and Environment Files

The following configuration and environment files are pertinent to, and used by, most of the AD utilities.

**adconfig.txt:** Contains environment information used by all AD utilities. Do not update this file manually.

**adalldefaults.txt:** A template defaults file that contains entries for all defaults-enabled prompts in AD utilities. Can be copied to APPL\_TOP/admin/<SID>/<new\_name>.txt and edited. Used for AD utilities run in non-interactive mode.

**applprod.txt:** The AD utilities product description file, which is used to identify all products and product dependencies.

**applterr.txt:** The AD utilities territory description file. It contains information on all supported territories and localizations.

## AD Utilities: Configuration and Environment Files

### AD Utilities: Configuration and Environment Files

Name	Location
applora.txt	APPL_TOP/admin
applorau.txt	APPL_TOP/admin
APPS<context name>.env/cmd	APPL_TOP
<context name>.env/cmd	APPL_TOP
adovars.env/cmd	APPL_TOP/admin

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### AD Utilities: Configuration and Environment Files

**applora.txt:** Contains information about required init.ora parameters for runtime.

**applorau.txt:** Contains information about required init.ora parameters for install and upgrade.

**APPS<CONTEXT\_NAME>.env (UNIX) or APPS<CONTEXT\_NAME>.cmd**

**(Windows):** Calls the appropriate <CONTEXT\_NAME>.env (UNIX) or

<CONTEXT\_NAME>.cmd (Windows) file to set up the Oracle E-Business Suite

(APPL\_TOP) and the Oracle E-Business Suite technology stack (10.1.2). (Was called APPSORA.env in Release 11i.)

**<CONTEXT\_NAME>.env (UNIX) or <CONTEXT\_NAME>.cmd (Windows):** The APPL\_TOP environment file used to configure the environment to run and maintain Oracle E-Business Suite. It is created by AutoConfig.

**adovars.env (UNIX) or adovars.cmd (Windows):** Called by <CONTEXT\_NAME>.env (UNIX) or <CONTEXT\_NAME>.cmd (Windows) and is used to set environment variables for Java and HTML.

## AD Utilities: Setting the Environment

### AD Utilities: Setting the Environment

1. Log in as applmgr
2. Run the environment or command file for the current APPL\_TOP and database
3. If you have made any changes to the environment, check that they are correctly set
4. Ensure that there is sufficient temporary disk space
5. Shut down all concurrent managers if you plan to relink Oracle E-Business Suite product files or modify Oracle E-Business Suite database objects

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### AD Utilities: Setting the Environment

Before you start any AD utility, you must first set the Oracle E-Business Suite environment:

1. Log in as applmgr (Oracle E-Business Suite file system owner).
2. Run the environment or command file for the current APPL\_TOP and database:  
**UNIX:** The environment file is typically APPS<CONTEXT\_NAME>.env, and is located under APPL\_TOP. From a Bourne or Korn shell, enter:  
\$ . APPS<CONTEXT\_NAME>.env  
**Windows:** Run %APPL\_TOP%\envshell<CONTEXT\_NAME>.cmd using the Run command from the Start menu. This creates a Command Prompt window that contains the required environment settings for Oracle E-Business Suite. Run all subsequent commands in this Command Prompt window.

See *Oracle E-Business Suite Installation Update Notes* for any additional steps.

3. Check that any environment changes are correct by entering the following commands:

**UNIX:**

```
$ echo $TWO_TASK
$ echo $ORACLE_HOME
$ echo $PATH
```

**Windows:**

```
C:\>echo %LOCAL%
C:\>echo %ORACLE_HOME%
C:\>echo %PATH%
C:\>echo %APPL_CONFIG%
```

ORACLE\_HOME must be set to the OracleAS 10.1.2 Oracle home, and TWO\_TASK or LOCAL must identify the correct database. On Windows, APPL\_CONFIG must be set to <CONTEXT\_NAME>.

4. Ensure that there is sufficient temporary disk space. You should have at least 50 MB in the temporary directories denoted by \$APPLTMP, \$APPLPTMP, and \$REPORTS\_TMP (UNIX) or %APPLTMP%, %APPLPTMP%, and %REPORTS\_TMP% (Windows). You should also have space in the operating system's default temporary directory, which is usually /tmp or /usr/tmp (UNIX) or C:\temp (Windows).
5. Shut down all concurrent managers if you plan to relink Oracle E-Business Suite product files or modify Oracle E-Business Suite database objects.

## Command Line AD Utilities

### Command Line AD Utilities

AD Utility	Description
AD Administration	Performs maintenance tasks on the Oracle E-Business Suite file system and database.
AutoPatch	Applies patches and adds new languages and products.
AD Controller	Manages parallel workers in AD Administration, and AutoPatch.

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#### AD Utilities: Introduction

The AD utilities perform a variety of tasks, including generating files, updating your system, merging and applying patches, and installing off-cycle products. As one AD utility runs, it may automatically call one of the other utilities. However, you can also run most utilities directly. The following list of AD utilities and their program names is continued on the next few slides.

- **AD Administration:** adadmin
- **AutoPatch:** adpatch
- **AD Controller:** adctrl

## Command Line AD Utilities

### Command Line AD Utilities

AD Utility	Description
AD Relink	Relinks Oracle E-Business Suite executable programs with the Oracle server product libraries.
AD Merge Patch	Merges multiple patches into a single, integrated patch.
AD Splicer	Registers off-cycle products.

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#### AD Utilities: Introduction

- **AD Relink:** adrelink
- **AD Merge Patch:** admrgpch
- **AD Splicer:** adslice

## Command Line AD Utilities

### Command Line AD Utilities

AD Utility	Description
File Character Set Converter	Converts a file from one character set to another.
AD Configuration	Reports standard information about the installed configuration of Oracle E-Business Suite.
AD File Identification	Identifies the version of an Oracle E-Business Suite file.
AD Job Timing Report	Provides timing summary reports for jobs run by parallel workers.

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#### AD Utilities: Introduction

- **File Character Set Converter:** adncnv
- **AD Configuration:** adutconf.sql
- **AD File Identification:** adident
- **AD Timing Report:** adtimrpt.sql

## GUI-Based AD Utilities

### GUI-Based AD Utilities

Utility	Description
AutoConfig	Updates the Applications context with new system configuration and helps manage the system configuration files.
License Manager	Licenses products, country-specific functionalities, or languages.

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### GUI-Based AD Utilities

- **AutoConfig:** Accessed through Oracle Applications Manager and command line (adautocfg.sh or adaautocfg.cmd)
- **License Manager:** Accessed through Oracle Applications Manager

## GUI-Based AD Utilities

### GUI-Based AD Utilities

Utility	Description
Patch Wizard	Determines patches that have not been applied, but should be applied to keep the system current. Downloads and merges patches from My Oracle Support.
Applied Patches	Stores patch history information and allows you to query patch and file history information.

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### GUI-Based AD Utilities

- **Patch Wizard:** Accessed through Oracle Applications Manager
- **Applied Patches:** Accessed through Oracle Applications Manager

## Running the Command Line AD Utilities

### Running the Command Line AD Utilities

To run an AD utility from the command line:

1. Enter the utility's program name
2. Answer the prompts
3. Exit by entering "abort" at any prompt
4. Restart by entering the utility's program name again

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### Running the AD Utilities

To run an AD utility, type the utility's start command (such as adpatch, adadmin or adaimgr) and answer the prompts.

You can exit most utilities by entering abort at any prompt. You can restart by typing the start command for that utility. When you restart, you can enter a new log file name or specify the log file from the previous session. When you reuse a log file, the utility adds the message "Start of <utility name> session" to the end of the file and appends messages from the continued session as it generates them.

You can then do one of the following:

- **Continue session** - the utility restarts at the point where your last session stopped. This is the default and recommended option.
- **Start new session** - the utility asks you to confirm this choice. It then starts again from the beginning.

## Command Line Arguments: Overview

### Command Line Arguments: Overview

- AD utilities accept arguments on the start command line that modify the actions performed by the utility.
- Arguments may be either options or flags
- Some AD command line arguments may be required for normal operation of an AD utility
- Command line arguments are in the <token>=<value> format
- AD command line arguments are entered in lowercase

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### Command Line Arguments: Overview

AD command line arguments should be entered in lower case, with no embedded whitespace characters. The token portion of the command is converted to lower case, but the value is not. In some cases, the value will be a comma-separated list.

Not all AD command line arguments are covered in this module, and some should only be used on the advice of Oracle Support.

## Command Line Arguments: Overview

### Command Line Arguments: Overview

Examples of valid command line arguments:

```
$ adpatch options=nocopyportion,nogenerateportion  
$ adpatch printdebug=y
```

Examples of invalid command line arguments:

```
$ adpatch options=nocopyportion, nogenerateportion  
$ adpatch OPTIONS=NOCOPYPORTION, NOGENERATEPORTION
```

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## Command Line Arguments: Overview

The first line with invalid syntax contains a space between the arguments. On the second line with invalid syntax, the token (OPTIONS) will be converted to lowercase, but the values (NOCOPYPORTION,NOGENERATEPORTION) will not be recognized in uppercase.

Example of using multiple command line arguments:

```
adpatch printdebug=y options=validate flags=hidew
```

## Command Line Arguments: abandon

### Command Line Arguments: abandon

Abandon	
Used by	AD Administration, AutoPatch
Purpose	Tells AD utilities to abandon an existing non-interactive session. Can be used only when interactive=n is also specified.
Values	y or n
Default	n
Example	adpatch interactive=n abandon=y

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### Command Line Arguments: abandon

The default is n, meaning that the last utility run non-interactively did not successfully complete the processing and the incomplete session will not be abandoned. Use abandon=y after a failed non-interactive session, or when you have aborted a prior session and want to skip the incomplete non-interactive session and start a new one.

## Command Line Arguments: defaultsfile

### Command Line Arguments: defaultsfile

#### defaultsfile

Used by	AD Administration, AutoPatch
Purpose	Specifies the defaults file, which stores answers to interactive AD utility questions. Normally used in non-interactive mode.
Values	A fully-qualified filename. Must be under the APPL_TOP/admin/<SID> directory.
Default	None, meaning that no defaults file is used.
Example	adpatch defaultsfile=/d1/apps/prodappl/admin/prod1/prod_def.txt

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## Command Line Arguments: help

### Command Line Arguments: help

help	
Used by	All AD Utilities
Purpose	Summarizes available command line options.
Values	y
Default	n
Example	adpatch help=y

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### Command Line Arguments: help

Using the help argument does not actually run the utility.

## Command Line Arguments: interactive

### Command Line Arguments: interactive

interactive	
Used by	AD Administration, AutoPatch
Purpose	Tells AD utilities whether to run in interactive mode or non-interactive mode.
Values	y or n
Default	y, meaning that the utility runs in interactive mode
Example	adpatch interactive=n

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## Command Line Arguments: localworkers

### Command Line Arguments: localworkers

localworkers	
Used by	AD Administration, AutoPatch
Purpose	Specifies the number of workers to run on the primary node in a Distributed AD environment.
Values	1 to the maximum supported by your database, but not more than 999, Inclusive
Default	Defaults to the value of the workers argument, which means all workers run on the primary node.
Example	adpatch workers=8 localworkers=3

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## Command Line Arguments: logfile

### Command Line Arguments: logfile

logfile	
Used by	All AD Utilities
Purpose	Tells AD utilities what log file to use. Normally used in non-interactive mode.
Values	A file name (not a fully-qualified path name)
Default	None, meaning that the utility will prompt for the log file name.
Example	adpatch logfile=test.log

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## Command Line Arguments: menu\_option

### Command Line Arguments: menu\_option

#### menu\_option

Used by	AD Administration, AD Controller
Purpose	When running one of these utilities non-interactively, used to connect the actions in a defaults file with a specific menu item.
Values	Varies. See utility specific section for details
Default	n/a
Example	<code>adctrl interactive=n defaultsfile=\$APPL_TOP/admin/prod/defs.txt menu_option=SHOW_STATUS</code>

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## Command Line Arguments: parallel\_index\_threshold

### Command Line Arguments: parallel\_index\_threshold

#### parallel\_index\_threshold

Used by	AD Administration, AutoPatch
Purpose	Specifies the number of blocks in a table.
Values	0 to 2147483647; if set to 0, indexes are created with parallel workers and serial DML
Default	20000; meaning a threshold of 20,000 blocks.
Example	adpatch parallel_index_threshold=15000

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#### Command Line Arguments: parallel\_index\_threshold

If a table contains fewer blocks than the threshold setting, indexes are created with parallel workers and serial DML. If the table contains more blocks than the threshold setting, indexes are created with one worker and parallel DML.

## Command Line Arguments: printdebug

### Command Line Arguments: printdebug

#### printdebug

Used by	All AD Utilities
Purpose	Tells AD programs to display extra debugging information. In some cases, the amount of extra debugging information is substantial.
Values	y or n
Default	n
Example	adpatch printdebug=y

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## Command Line Arguments: restart

### Command Line Arguments: restart

restart	
Used by	AD Administration, AutoPatch
Purpose	Tells AD utilities to restart an existing session in non-interactive mode. Only valid when interactive=n is also specified.
Values	y or n
Default	n, meaning that the utility run in non-interactive mode will expect to run a completely new session.
Example	adpatch interactive=n restart=y

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## Command Line Arguments: wait\_on\_failed\_job

### Command Line Arguments: wait\_on\_failed\_job

#### wait\_on\_failed\_job

Used by	AD Administration, AutoPatch
Purpose	Directs the utilities to wait for user input in a non-interactive session when a job fails.
Values	y or n
Default	n
Example	adpatch wait_on_failed_job=yes

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## Command Line Arguments: workers

### Command Line Arguments: workers

workers	
Used by	AD Administration, AutoPatch
Purpose	Specifies the number of workers to run. Normally used in non-interactive mode.
Values	1 to 999, inclusive
Default	None, meaning that the program will prompt for the number of workers to run.
Example	adpatch workers=6

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## Command Line Arguments: flags

### Command Line Arguments: flags

flags	
Used by	All AD Utilities
Purpose	Generic flags passed to AD utilities. Information about specific flags are covered on the following pages.
Values	Information about specific flags are covered on the following pages.
Default	None, meaning that no flags have been passed.
Example	adpatch flags=hiddepw

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## AD Utilities Flags: hidepw

### AD Utilities Flags: hidepw

flags=hidepw

Purpose	Directs the utilities to either hide or show passwords in AD Utility log files.
Default	hidepw
Comments	By default, lines in an AD utility log file containing passwords are modified to hide the passwords

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### AD Utilities Flags: hidepw

Lines in an AD utility log file containing passwords are masked to not display the passwords. When nohidepw is specified, each line containing masked passwords is followed by a corresponding line prefixed with HIDEPEW. The HIDEPEW line shows the original line with passwords. When hidepw is specified, the HIDEPEW: line is not displayed. The hide password functionality now also masks the password on the screen.

## AD Utilities Flags: logging

### AD Utilities Flags: logging

flags=logging

Purpose	Tells the AD utility whether to create indexes using the logging or nologging mode.
Default	logging
Comments	Use of nologging may increase performance when creating indexes. However, it also makes database media recovery incomplete, and does not work with standby databases.

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### AD Utilities Flags: logging

LOGGING is the default in AutoPatch to support database media recovery and standby databases. Use of using flags=nologging is not recommended for production systems unless you make a complete backup both before and after running AutoPatch.

## AD Utilities Flags: trace

### AD Utilities Flags: trace

#### flags=trace

Purpose	Tells the AD utility whether to log all database operations to a trace file.
Default	notrace
Comments	Database trace files created while running an AD utility may aid debugging.

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### AD Utilities Flags: trace

The flags=trace option creates multiple trace files for the AD utility and the AD workers. There is a new trace file each time the utility connects to the database.

Note that flags=trace only traces database operations internal to the AD utility itself. Database operations in SQL scripts or external programs run by the AD utility are not recorded by flags=trace.

## AD Utilities: Common Features

### AD Utilities: Common Features

- AD Feature Versions
- AD Prompts
- Parallel Processing
- Log and Restart Files
- Manager and Worker Log Messages

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### AD Utilities: Common Features

AutoPatch, AD Administration, and some other utilities employ certain common features. For example, they perform processing tasks in parallel, create log files, and make extensive use of prompts to gather the values for system-specific information.

## Version Matching

### Version Matching

- AD requires that the files on the file system and the tables in the database match
- Each major feature now has both a file system and database version
- AD only enables the feature if the file system and database versions match

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### Version Matching

AD has several major features that require the files on the file system and the tables in the database to match. To ensure this, each major feature now has both a file system and database version, and AD only enables the feature if the file system and database versions match.

## Version Matching

### Version Matching

```
The status of various features in this run of AD  
Administration is:
```

Feature	<-- Feature version in -->		
	Active?	APPLTOP	Data model
CHECKFILE	Yes	1	1
PREREQ	Yes	6	6
CONCURRENT_SESSIONS	No	2	2
PATCH_TIMING	Yes	2	2
PATCH_HIST_IN_DB	Yes	5	5
SCHEMA_SWAP	Yes	1	1

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### Version Matching

During the initial startup of some AD utilities, the Feature Versions information will scroll across your screen. This example shows that the file system and database versions of key AD features are synchronized. The Active column states whether the feature is implemented.

## AD Utilities: Prompts

### AD Utilities: Prompts

Prompts for AD Utilities typically:

- Ask for information needed to complete a task
- Include a description of the information needed
- May include a default answer

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### AD Utilities: Prompts

Many of the AD utilities prompt for the information needed to complete a task. Prompts typically include a description of the information needed, and may include a default answer (in square brackets). For example:

The ORACLE username specified below for Application Object Library uniquely identifies your existing product group:  
APPLSYS

Enter the ORACLE password of Application Object Library [APPS] :  
Press Return to accept the default value, or type a new value after the colon and press Return.  
Always read the prompts carefully to ensure you supply the correct information.

## Parallel Processing: Introduction

### Parallel Processing: Introduction

- AutoPatch and AD Administration can perform some tasks using parallel processing
- Parallel processing provides better throughput, better use of available resources, and overall reduction in the time it takes to complete tasks
- Parallel processing is typically used to:
  - Run database driver tasks, such as SQL scripts
  - Generate various types of files, such as forms, reports, and messages

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### Parallel Processing: Introduction

Parallel processing is controlled by job *managers*, which, in turn, direct the actions of *worker* processes. The workers complete processing tasks assigned to them by the manager. Utilities that use parallel processing determine the list of tasks to be performed and prioritize them for execution. The utility also prompts for the number of workers you want to perform the tasks. For example, when AutoPatch is executing a database driver, it creates a list of database tasks and prompts for the number of workers that should run concurrently to execute these tasks.

AutoPatch and AD Administration are the manager processes in this model. The worker processes are instances of the adworker program. The adworker program can only be called by the manager processes and cannot be run stand-alone.

The manager creates the FND\_INSTALL\_PROCESSES table, assigns each worker a unique ID, and inserts a row for each worker. This table serves as a staging area for the job information, and as a way for the manager and the worker to communicate. Communication is accomplished using two columns: CONTROL\_CODE and STATUS.

## Parallel Processing: Managers

### Parallel Processing: Managers

The manager:

- Updates the FND\_INSTALL\_PROCESSES table with a subset of the list of jobs, one job per worker
- Starts the workers and assigns tasks
- Polls the FND\_INSTALL\_PROCESSES table, looking for updates from the workers
- Updates each row with the next task in the list, and leaves messages for the worker
- Tells the workers to shut down
- Drops the FND\_INSTALL\_PROCESSES table

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### Parallel Processing: Managers

The manager updates the table with a subset of the list of jobs, one job per worker. For example, if there are five workers, then the table holds five jobs (even though there may be 100 or more jobs involved in the complete action). The manager starts the workers and uses the CONTROL\_CODE and STATUS columns to assign tasks. It polls these two columns continuously, looking for updates from the workers. As a worker finishes its assignment, the manager updates each row with the next task in the list, and leaves another message for the worker.

Once all jobs are complete, the manager tells the workers to shut down, and then drops the FND\_INSTALL\_PROCESSES table (after it is sure all workers have actually shut down).

## Parallel Processing: Workers

### Parallel Processing: Workers

Each worker:

- Updates the STATUS column of the FND\_INSTALL\_PROCESSES table, giving the manager a report on its progress
- Starts processing when instructed by the manager
- Reports a failed status, if there is a failure
- May spawn other child processes that do the actual work

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### Parallel Processing: Workers

Each worker updates the STATUS column, giving the manager a report on its progress. As the jobs are completed, the manager updates the table with the next job in the queue, and updates the CONTROL\_CODE and STATUS columns telling the worker to start processing. If there is a failure, the worker reports a failed status.

For certain tasks, worker processes spawn other child processes that do the actual work. The spawned child process returns a status code to the worker that spawned it. The worker interprets the code to determine if the job completed successfully. Examples of child processes are SQL\*Plus and FNDLOAD. Use AD Controller to determine the status of workers and to control their operation.

## Parallel Processing: Deferred Jobs

### Parallel Processing: Deferred Jobs

- The first time a job fails, the manager automatically defers it to the end of the current phase and assigns a new job to the worker
- If the deferred job fails the second time it is run and the total runtime of the job is less than approximately ten minutes, the manager defers it again
- If the deferred job fails a third time (or if the job's total runtime is not less than about ten minutes the second time it is run) the job stays at failed status and the worker waits
  - At this point, you must address the cause of the failure, and then restart the job using AD Controller

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### Parallel Processing: Deferred Jobs

The deferred job feature uses the AD\_DEFERRED\_JOBS table. This table is created when the FND\_INSTALL\_PROCESSES table is created, and is dropped when this table is dropped.

## Database Processing Phases

### Database Processing Phases

- Database maintenance tasks take a phased approach
- All phases use parallel processing
- Each phase must complete successfully before the next one begins
- Phases are ordered to minimize object dependency issues (for example, all package specifications are created before any package bodies)
  - This maximizes concurrency of the worker processes

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## Database Processing Phases

### Database Processing Phases

While the utility runs, the manager will display text showing the current status of workers and jobs and the current phase:

**There are now 16217 jobs remaining (current phase=con):  
4 running, 42 ready to run, and 16171 waiting.**

**Completed: file hrobsakw.sql on worker 2 for product per  
username HR.**

**Time is: Tue Jan 05 2010 18:24:30**

**Assigned: file pjmcon1.drv on worker 2 on product pjm  
username PJM.**

**Time is: Tue Jan 05 2010 18:24:30**

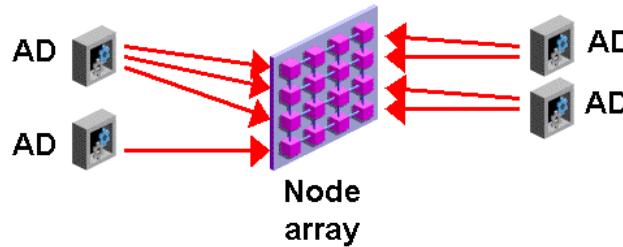
This example shows that the AD utility has 16,217 jobs remaining, and that it is in the con phase (disable constraints and foreign keys)

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## Distributed AD: Introduction

### Distributed AD: Introduction

- Jobs are assigned to multiple workers on different nodes, improving scalability and performance
- Useful where low cost systems are deployed as multiple, smaller application tier machines
- Workers for the same AD session can be started on multiple nodes



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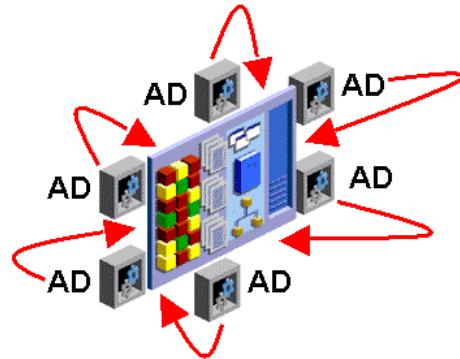
### Distributed AD: Introduction

Many deployments utilize large database servers and multiple, smaller application (middle) tier systems. With the increasing deployment of low cost Linux-based systems, this configuration is becoming more common. A feature that facilitates distribution of work across such a system is therefore useful.

Historically, AD has always utilized a job system, where multiple workers are assigned jobs. Information for the job system is stored in the database, and workers receive their assignments based on the contents of the relevant tables. The *Distributed AD* feature offers improved scalability, performance, and resource utilization, by allowing workers of the same AD session to be started on multiple application tier nodes, utilizing available resources to complete their assigned jobs more efficiently.

## Distributed AD: Requirements

- The AD workers create and update file system objects as well as database objects
- A shared APPL\_TOP must therefore be used to ensure the files are created in a single, centralized location



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## Distributed AD: Requirements

Because the AD workers create and update file system objects as well as database objects, a shared APPL\_TOP must be used to ensure the files are created in a single, centralized location.

## Distributed AD: Usage

### Distributed AD: Usage

Key points to using Distributed AD are as follows:

- You can start an AutoPatch or AD Administration session on any shared APPL\_TOP node, specifying:
  - The number of local workers
  - The total number of workers (local + remote)
- You can start an AD Controller session from any shared APPL\_TOP node
  - Both local and non-local workers can be specified

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### Distributed AD: Usage

On one of the shared APPL\_TOP nodes, you start an AutoPatch or AD Administration session, specifying the number of local workers and the total number of workers.

While using AutoPatch or AD Administration, you can start a normal AD Controller session from any of the nodes in the shared APPL\_TOP environment to perform any standard AD Controller operations, using both local and non-local workers.

## Log Files

### Log Files

AD Administration records your AD Administration session in a text file you specify. Enter your AD Administration log file name or press [Return] to accept the default name shown in brackets.

**Filename [adadmin.log] :**

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## Log Files

All AD utilities record their processing actions and any errors in log files. Many utilities prompt you for the name of the log file that will record the processing session. The default file name is <utility name>.log. For example, for AD Administration, the default log file is adadmin.log.

The three primary AD utilities place the log file in \$APPL\_TOP/admin/<SID>/log, where <SID> is the value of your ORACLE\_SID or TWO\_TASK variable (UNIX), or in %APPL\_TOP%\admin\<SID>\log, where <SID> is the value of the LOCAL variable (Windows).

Some utilities may not prompt you for a log file name, and they may write their log file in the directory from which the utility was run.

## Worker Log Files

### Worker Log Files

Worker log files are:

- Called adwork<number>.log
- Written to the APPL\_TOP/admin/<SID>/log directory

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## Worker Log Files

In addition to the information recorded in the <utility name>.log file, utilities that process jobs in parallel mode write details about any errors to worker log files. Review these adwork<number>.log files (adwork001.log, adwork002.log, and so on) for information about any errors. These files are written to the \$APPL\_TOP/admin/<SID>/log directory, where <SID> is the value of the ORACLE\_SID or TWO\_TASK variable (UNIX), or in %APPL\_TOP%\admin\<SID>\log, where <SID> is the value of ORACLE\_SID or LOCAL (Windows).

Concurrent requests submitted during an AutoPatch or AD Administration session have their own log files, typically with a file extension of .req.

## Restart Files

### Restart Files

Restart files:

- Are used by an AD utility to continue processing at the point where it stopped
- Reside in the APPL\_TOP/admin/<SID>/restart directory
- Contain information about what processing has already been completed, so that the utility can pick up where it left off

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### Restart Files

By default, AD utilities delete their restart files when processing completes, but leave backup versions with the extensions .bak, .bk2, or .bk3.

Each worker may also have a restart file called adworkxxx.rf9. These files are stored in \$APPL\_TOP/admin/<SID>/restart or in %APPL\_TOP%\admin\<SID>\restart on Windows. The worker creates the restart file when the manager assigns it a job, and deletes the restart file when it finishes the job.

Do not modify or delete any manager or worker restart files unless specifically instructed to do so by Oracle Support.

## Manager and Worker Log Messages

### Manager and Worker Log Messages

When AD utilities are running, messages of various types are displayed on the screen

- For example:

```
Assigned: file ad_wait1sec.sql on worker 1 for product  
ad username APPLSYS.  
FAILED: file ad_wait1sec.sql on worker 1 for product  
ad username APPLSYS.  
  
ATTENTION: All workers either have failed or are  
waiting:
```

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### Manager and Worker Log Messages

AutoPatch and AD Administration act as managers that coordinate a number of workers and assign them jobs to run during the task. When these utilities are running, you see messages like the following on the screen:

Starting phase 0 (A0): first

There are now 2 jobs remaining (current phase=A0):  
0 running, 2 ready to run and 0 waiting.

```
Assigned: file ad_wait1sec.sql on worker 1 for product ad username  
APPLSYS.  
Assigned: file ad_wait2sec.sql on worker 2 for product ad username  
APPLSYS.  
FAILED: file ad_wait1sec.sql on worker 1 for product ad username  
APPLSYS.  
Deferred: file ad_wait1sec.sql on worker 1 for product ad username  
APPLSYS.  
(Defer number 1 for this job)
```

```
Assigned: file ad_wait1sec.sql on worker 1 for product ad username
APPLSYS.  
Completed: file ad_wait2sec.sql on worker 2 for product ad username
APPLSYS.  
FAILED: file ad_wait1sec.sql on worker 1 for product ad username
APPLSYS.  
Deferred: file ad_wait1sec.sql on worker 1 for product ad username
APPLSYS.  
          (Defer number 2 for this job)  
Assigned: file ad_wait1sec.sql on worker 1 for product ad username
APPLSYS.  
FAILED: file ad_wait1sec.sql on worker 1 for product ad username
APPLSYS.
```

ATTENTION: All workers either have failed or are waiting:

FAILED: file ad\_wait1sec.sql on worker 1.

ATTENTION: Please fix the above failed worker(s) so the manager can continue.

Restarted: file ad\_wait1sec.sql on worker 1 for product ad username  
APPLSYS.

Completed: file ad\_wait1sec.sql on worker 1 for product ad username  
APPLSYS.

These messages indicate what each worker is doing. The example shows two workers running SQL scripts for one product, which is identified by its abbreviation (ad).

## Manager and Worker Log Messages

### Manager and Worker Log Messages

The manager displays a message if a worker cannot complete its job

- For example:

```
FAILED: file adcjmtd.sql on worker 1 for product ad  
username APPLSYS .
```

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### Manager and Worker Log Messages

In this example, worker 1 failed on the file adcjmtd.sql for Applications DBA (ad). If the job can be deferred, the manager displays a message that the job is deferred and assigns another job to the worker. If the job cannot be deferred, the worker, the failed job, and all jobs that depend on the failed job are idle after a worker fails. The manager continues to assign jobs that are not dependent on the failed job to the other workers.

The AutoPatch, or AD Administration session is not complete until all jobs run successfully. When a job fails, determine the cause of failure, fix the problem, and restart the job.

## Maintenance Mode: Introduction

### Maintenance Mode: Introduction

- Maintenance Mode is a mode of operation that:
  - Makes an Oracle E-Business Suite system accessible only for AutoPatch sessions
  - Enables AutoPatch operations to proceed more quickly, and thereby minimizes patching downtime
  - Enables system administrators to schedule downtime and notify users via Oracle Applications Manager

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### Maintenance Mode: Introduction

Maintenance Mode is a mode of operation in which the Oracle E-Business Suite system is made accessible only for patching activities. This enables AutoPatch to carry out its tasks more quickly, and minimizes the downtime needed for patching.

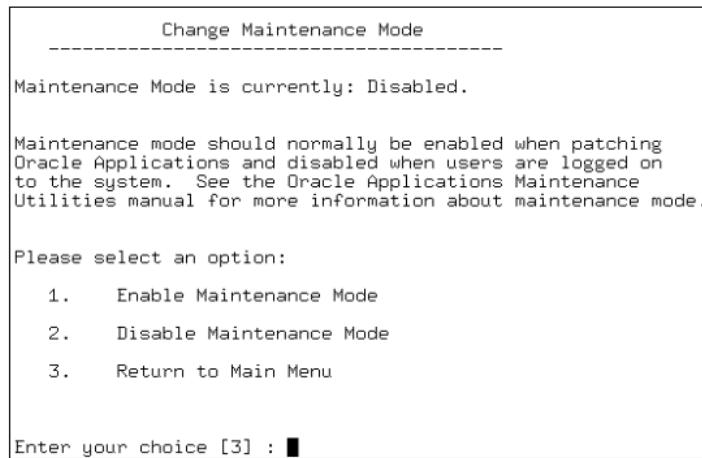
Administrators can schedule system downtime using Oracle Applications Manager (OAM), and send alert messages to users about the impending downtime. When Maintenance Mode is enabled, users attempting to log on to Oracle E-Business Suite are redirected to a system downtime URL. Maintenance downtimes are scheduled through OAM.

Of the various AD utilities, only AutoPatch requires Maintenance Mode to be enabled.

## Maintenance Mode: Enabling and Disabling

### Maintenance Mode: Enabling and Disabling

- Maintenance Mode can be enabled or disabled via the Change Maintenance Mode menu in AD Administration



- Alternatively, you can use Oracle Applications Manager

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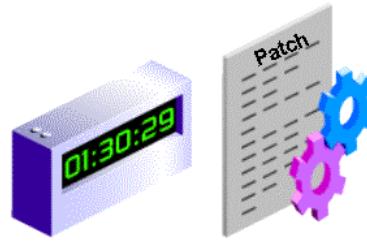
### Maintenance Mode: Enabling and Disabling

You can toggle Maintenance Mode between enabled and disabled using the *Change Maintenance Mode* menu in AD Administration, or the equivalent function in Oracle Applications Manager.

## Restricted Mode

### Restricted Mode

- Restricted Mode allows administrators access to specific privileged functionality
  - There is a special logon page for Restricted Mode access while the system is in Maintenance Mode
- You can view the timing report that shows the progress of a patching session



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## Module Summary

### Module Summary

In this module, you should have learned how to do the following:

- List the AD utilities and describe their functions
- Understand the usage of command line arguments and flags
- Describe parallel processing
- Identify the location and usage of log and restart files

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## Module Discussion

### Module Discussion

- Name some of the primary uses for AD utilities
- Describe the advantage of AD feature versions
- How are failed jobs handled during parallel processing?

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# **AD Administration: Generate Applications Files Tasks**

**Chapter 11**



## AD Administration: Generate Applications Files Tasks

### **AD Administration: Generate Applications Files Tasks**

AD Utilities Topics

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## Objectives

### Objectives

At the end of this module, you should be able to do the following:

- Describe AD Administration
- View log files
- List file generation tasks you can perform with AD Administration
- Generate message, form, report and product JAR files

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## Module Overview

### Module Overview

This module consists of the following topics:

- Describe AD Administration
- Perform preliminary steps
- Respond to prompts
- Describe the Generate Applications Files menu tasks

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### Overview

This module introduces one of the primary AD utilities, AD Administration.

The initial sections:

- Describe AD Administration
- Perform the AD Administration preliminary steps
- Respond to AD Administration prompts

Subsequent sections cover the following tasks on the Generate Applications Files menu:

- Relink Oracle E-Business Suite programs
- Generate message files
- Generate form files
- Generate report files
- Generate product JAR files

## AD Administration

### AD Administration

AD Administration is divided into the following categories:

- File generation tasks
- File system maintenance tasks
- Database maintenance tasks
- Database entities compilation and reloading tasks

These tasks are performed by:

- Database administrators
- System administrators
- Technical specialists

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### AD Administration

The database tasks are performed on the Oracle E-Business Suite database. Some tasks, such as converting to a Multiple Organization architecture, are performed once. Some tasks, such as Validate APPS schema should be run periodically. Others tasks, such as Recreate grants and synonyms are run when trying to solve a problem.

The file system tasks are performed on the Oracle E-Business Suite file system. File system tasks include creating an Oracle E-Business Suite environment file, relinking programs and generating files.

## Preliminary Tasks

### Preliminary Tasks

AD Administration preliminary tasks include:

- Logging on as applmgr
- Running the environment file
- Verifying that \$ORACLE\_HOME is set properly
- Verifying that \$TWO\_TASK identifies the correct database
- Ensuring that \$ORACLE\_HOME/bin and \$AD\_TOP/bin are in your PATH
- Shutting down concurrent managers when relinking certain files or performing certain database tasks
- Ensuring there is sufficient temporary disk space

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### Preliminary Tasks

There are some preparatory steps you need to perform before using AD Administration. They were covered in detail in the previous topic and are shown on the slide.

Once these preliminary tasks are complete, you can start AD Administration at the operating system prompt by entering the command "adadmin".

The temporary directories APPLTMP, APPLPTMP, REPORTS\_TMP, and the operating system temporary directory (/tmp, /usr/tmp, or C:\temp) must each have at least 50 MB of free space.

## AD Administration Prompts

### AD Administration Prompts

AD Administration asks you for:

- The correct APPL\_TOP
- The name of the log file
- Your preference on whether to notify you by email if an error occurs during parallel worker execution
- The batchsize or default number of rows to process and commit during certain SQL operations
- The correct Oracle E-Business Suite database
- The password for the SYSTEM schema
- The password for the APPLSYS schema

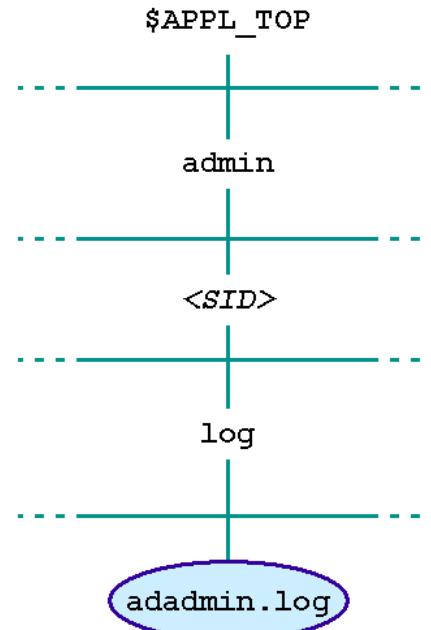
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### AD Administration Prompts

Upon starting AD Administration, the utility prompts you for some key information. Once you provide AD Administration with this information, it will verify the configuration of your file system and connect to the database. You will then see the AD Administration main menu.

## AD Administration Log Files

### AD Administration Log Files



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### AD Administration Log Files

The main AD Administration log file is called adadmin.log by default. This name can be changed when starting up AD Administration. This file is located in \$APPL\_TOP/admin/<SID>/log, Where <SID> is the value of your ORACLE\_SID or TWO\_TASK variable (UNIX) or LOCAL variable (Windows).

## AD Administration Log Files

### AD Administration Log Files

- If an error occurs or if you are unsure of messages returned by AD Administration, review the main AD Administration log file adadmin.log
- This log file is located in the \$APPL\_TOP/admin/<SID>/log directory
- If errors exist in the main log file, check the appropriate log file listed in the next slide to determine the cause of the error

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### AD Administration Log Files

When AD Administration completes, you should always review the log file to verify that there are no errors.

## AD Administration Log Files

### AD Administration Log Files

In addition to the main AD Administration log file, other log files include:

- `adrelink.log` - stores information on relinking tasks
- `adworkXXX.log` - these are the worker log files where XXX is the number of the worker (for example, 007)
  - For database and generation tasks run in parallel, check these log files for details

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## AD Administration Main Menu

### AD Administration Main Menu

#### AD Administration Main Menu

- 
- 1. Generate Applications Files menu
  - 2. Maintain Applications Files menu
  - 3. Compile/Reload Applications Database Entities menu
  - 4. Maintain Applications Database Entities menu
  - 5. Change Maintenance Mode
  - 6. Exit AD Administration

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## AD Administration Main Menu

The slide shows the AD Administration main menu. It has the following options:

- 1. Generate Applications Files menu
- 2. Maintain Applications Files menu
- 3. Compile/Reload Applications Database Entities menu
- 4. Maintain Applications Database Entities menu
- 5. Change Maintenance Mode
- 6. Exit AD Administration

The following topics will cover these in more detail.

## Generate Applications Files Menu

### Generate Applications Files Menu

#### Generate Applications Files

- 
- 1. Generate message files
  - 2. Generate form files
  - 3. Generate report files
  - 4. Generate product jar files
  - 5. Return to Main Menu

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### Generate Applications Files Menu

There are four functional choices in the Generate Applications Files menu, and a fifth one that returns you to the Main menu.

## Generate Message Files

### Generate Message Files

#### Generate Applications Files

- 
- 1. Generate message files
- 2. Generate form files
- 3. Generate report files
- 4. Generate product jar files
- 5. Return to Main Menu

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## Generate Message Files

### Generate Message Files

- This task generates message binary files (extension .msb) from Oracle Application Object Library tables
- Oracle E-Business Suite uses the message binary files to display messages

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### Generate Message Files

This task generates message binary files (<LANG>.msb) in the <PROD>\_TOP/mesg directory from Oracle Application Object Library tables. You generally perform this task only when instructed to do so by a patch README file.

## Generate Message Files

### Generate Message Files

```
Do you want to generate Oracle Message files
using this character set [Yes] ?
Enter list of products ('all' for all products) [all]
: QA CS CE
...
Setting up environment...
Generating message files...
Creating the AD_UTIL_PARAMS table...
...
There are now 33 jobs remaining (current
phase=admin):0 running, 33 ready to run and 0
waiting.
...
Starting worker processes.
Worker process 1 started.
...
AD Worker version: 12.0.0
AD Worker started at: Tue Jan 05 2010 03:28:05 ..
```

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## Generate Message Files

The slide shows an example of the output from a generate message files operation. The message files are generated product by product.

## Generate Form Files

### Generate Form Files

#### Generate Applications Files

- 
- 1. Generate message files
  - 2. **Generate form files**
  - 3. Generate report files
  - 4. Generate product jar files
  - 5. Return to Main Menu

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## Generate Form Files

### Generate Form Files

- This task generates binary Oracle Forms files (extension .fmx) for all installed languages from the form definition files (extension .fmb)
- Oracle E-Business Suite uses the binary form files to display data entry forms
- You may need to perform this task when you have issues with a form or set of forms

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## Generate Form Files

### Generate Form Files

When generating forms, AD Administration:

- Prompts for the number of parallel workers
- Displays the current character set (from NLS\_LANG)
- Asks whether you want to generate Oracle Forms objects in this character set
- Asks whether you want to regenerate Oracle Forms PL/SQL library files
- Asks whether you want to regenerate Oracle Forms menu files

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## Generate Form Files

### Generate Form Files

AD Administration also:

- Asks whether you want to regenerate Oracle Forms executable files
- Asks for which products to generate Oracle Forms objects
- Asks whether you want to generate specific forms objects for each selected product

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## Generate Form Files

### Generate Form Files

- If you did not choose to generate all forms objects, it displays a list of Oracle Forms objects and allows you to select specific objects
- It then generates all selected Oracle Forms objects for all selected products in parallel

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## Generate Form Files

### Generate Form Files

```
Your current character set is 'WE8ISO8859P1'.  
.  
Do you want to regenerate Oracle Forms executable  
files [Yes] ?  
  
Enter list of products ('all' for all products)  
[all]:  
  
Generate specific form objects for each selected  
product [No] ?  
  
reading product form information...  
Selecting Oracle Forms PL/SQL library files and menu  
files to generate...  
  
Selecting library and menu files for Applications  
Object Library...
```

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### Generate Form Files

In this example, the user has chosen to generate all forms files for all products, by accepting the default response of [all] at the "Enter list of products" prompt.

## Generate Report Files

### Generate Report Files

#### Generate Applications Files

- 1. Generate message files
- 2. Generate form files
- 3. Generate report files**
- 4. Generate product jar files
- 5. Return to Main Menu

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## Generate Report Files

### Generate Report Files

This task generates the binary Oracle Reports report files (extension .rdf) for all installed languages. It performs the following actions:

- Displays the current character set (from NLS\_LANG)
- Asks whether you want to generate Oracle Reports objects using the current character set
- Asks whether you want to regenerate Oracle Reports PL/SQL library files
- Asks whether you want to regenerate Oracle Reports executable files
- Asks for which products you want to generate Oracle Reports objects

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### Generate Report Files

The series of prompts and the actions performed in this task are very similar to the prompts and actions in the Generate Forms files task.

## Generate Report Files

### Generate Report Files

This task performs the following actions:

- It asks whether you want to generate specific Oracle Reports objects for each selected product
- If you did not choose to generate all Oracle Reports objects, it displays the list of Oracle Reports objects and allows you to select specific objects
- Generates all selected Oracle Reports objects for all selected products

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## Generate Product JAR Files

### Generate Product JAR Files

#### Generate Applications Files

- 1. Generate message files
- 2. Generate form files
- 3. Generate report files
- 4. Generate product jar files
- 5. Return to Main Menu



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## Generate Product JAR Files

This task generates product Java Archive (JAR) files, which may on occasion be required. Other functions include signing JAR files and recreating Java libraries.

If any Oracle product JAR files do not generate successfully, review the AD Administration log file to determine the cause of the problem. After resolving any issues, restart the failed AD Administration session to generate only those Oracle product JAR files that did not generate successfully earlier.

## Generate Product JAR Files

### Generate Product JAR Files

- The Generate Product JAR files task prompts:
  - Do you wish to force generation of all jar files? [No]
- If you choose No, it only generates JAR files that are missing or out-of-date
- Choose Yes for this option:
  - When generating JAR files after upgrading the Oracle Developer technology stack
  - After changing your digital signature
  - Updating your Java version

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## Module Summary

### Module Summary

In this module, you should have learned how to do the following:

- Describe AD Administration
- View log files
- Generate message, form, report, and product JAR files

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## Module Discussion

### Module Discussion

- Describe the key features of AD Administration
- Describe the flexibility of the generate files options

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# **AD Administration: Maintain Applications Files Tasks**

**Chapter 12**



## **AD Administration: Maintain Applications Files Tasks**

### **AD Administration: Maintain Applications Files Tasks**

**AD Utilities Topics**

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## Objectives

### Objectives

At the end of this module, you should be able to do the following:

- Relink Oracle E-Business Suite programs
- Carry out other AD Administration tasks
- Identify the application tier services with which file system administration tasks are associated

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## Module Overview

### Module Overview

This module consists of the following topics:

- Copying files to destinations
- Converting the character set
- Maintaining snapshot information
- Checking for missing files
- Performing file system tasks on multi-node systems

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### Overview

This module describes the Oracle E-Business Suite file system tasks, showing the various menus and options available. Occasionally, these are updated as features change.

## Maintain Applications Files

### Maintain Applications Files

AD Administration Main Menu

- 
- 1. Generate Applications Files menu
  - 2. **Maintain Applications Files menu**
  - 3. Compile/Reload Applications Database Entities menu
  - 4. Maintain Applications Database Entities menu
  - 5. Change Maintenance Mode
  - 6. Exit AD Administration

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### Maintain Applications Files

Choosing this option opens a sub-menu that allows you to carry out various tasks. These are described on the next few slides.

## Relink Applications Programs

### Relink Applications Programs

#### Maintain Applications Files

- 1. Relink Applications programs
- 2. Copy files to destinations
- 3. Convert character set
- 4. Maintain snapshot information
- 5. Check for missing files
- 6. Return to Main Menu

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## Relink Applications Programs

The Relink Applications programs option allows you to relink executable programs that are used by Oracle E-Business Suite.

## Relink Oracle E-Business Suite Programs

### Relink Oracle E-Business Suite Programs

This task relinks Oracle E-Business Suite binary executables, which needs to be done after you:

- Install a new version of the database or a technology stack component
- Install an underlying technology component used with Oracle E-Business Suite
- Apply a patch to the E-Business Suite technology stack
- Apply a patch to the operating system
- Include new or changed third party or custom code into Oracle E-Business Suite programs

This task is used for all products except AD, where the AD Relink utility must be used

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### Relinking Oracle E-Business Suite Programs

This task is used to relink Oracle E-Business Suite binary executables for for any product except AD. You can choose to relink all executables, or individual executables.

The Relink Applications Programs task executes the AD Relink utility, which is described later. There is an important distinction here:

- Always use AD Administration, not the AD Relink utility directly, to relink non-AD executables.
- Use the AD Relink utility directly if you are relinking AD executables, if instructed by Oracle Support, or if specified in the README for a patch.

## Relink Applications Programs

### Relink Applications Programs

```
AD Administration uses your Oracle Applications  
environment file  
to set up the environment for relinking Applications.  
...  
Do you wish to proceed with the relink [Yes]:  
  
Enter the name of your Oracle Applications  
environment file below.  
File Name [PROD.env]:  
  
Reading product executable information ...  
  
Enter list of products to link ('all' for all  
products) [all]:  
  
Generate specific executables for each selected  
product [No]?
```

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## Relink Applications Programs

This is a sample output of the various prompts for this task. This output prompts for the name of the Oracle E-Business Suite environment file (half-way down the screen shown on the slide). Then it asks which products' executables you would like to relink. Either accept the default of 'all', or enter a list of Oracle E-Business Suite product abbreviations in lower case, separated by spaces: for example, "fnd gl ap" (do not enter the quotes). If you choose to relink specific executables, AD Administration lists the candidates available.

Oracle Forms or Reports patches typically require only a few Oracle Application Object Library executables to be relinked. However, if you upgrade the Oracle E-Business Suite technology stack or the operating system, all product executables should be relinked.

## Copy Files to Destinations

### Copy Files to Destinations

#### Maintain Applications Files

- 1. Relink Applications programs
- 2. **Copy files to destinations**
- 3. Convert character set
- 4. Maintain snapshot information
- 5. Check for missing files
- 6. Return to Main Menu

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### Copy Files to Destinations

This task copies files from each product area to central locations where they can easily be referenced by Oracle E-Business Suite. Revision-based copy logic ensures that the destination file versions are the same as, or higher than, the source file versions.

This option can be used to update the Java, HTML, and media files in the common directories if users have issues accessing them.

## Copy Files to Destinations

### Copy Files to Destinations

This task reads the product file driver files to determine the set of files to copy from the product tree to the common directories (such as AU\_TOP or JAVA\_TOP).

- Java files are copied to JAVA\_TOP
- HTML files are copied to OAH\_TOP
- Media files are copied to OAM\_TOP

The directories for each of these variables are specified in the adovars.env file located in APPL\_TOP/admin

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### Copy Files to Destinations

The directories for the variables are specified in the adovars.env file (UNIX) or the adovars.cmd file (Windows).

You should avoid using the ‘force’ option to overwrite existing files, unless instructed to do so by Oracle Support. Copying files with this option updates all JAR files, resulting in unnecessary runtime performance degradation as the JAR files are downloaded to each client again.

## Convert Character Set

### Convert Character Set

#### Maintain Applications Files

- 1. Relink Applications programs
- 2. Copy files to destinations
- 3. Convert character set**
- 4. Maintain snapshot information
- 5. Check for missing files
- 6. Return to Main Menu

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## Convert Character Set

The next task on the Maintain Applications Files menu is the Convert Character Set task. This task converts the character set of all translatable files in the APPL\_TOP. You should select this task when changing the base language or adding additional languages to Oracle E-Business Suite, as you may need to convert the database character set and the file system character set to one that will support the additional languages.

When converting the character set of Oracle E-Business Suite, follow the conversion path documented in My Oracle Support Knowledge Document 124721.1, *Migrating an Applications Installation to a New Character Set*.

## Convert Character Set

### Convert Character Set

1. Scan the APPL\_TOP for exceptions
2. Scan a CUSTOM directory for exceptions
3. Convert character set
4. Return to previous menu

Enter your choice [1]:

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#### Convert Character Set - Scan the APPLTOP for exceptions

In the Convert Character Set menu, select task 1 (Scan the APPL\_TOP for exceptions) to identify the files that can and cannot be converted properly.

## Convert Character Set

### Convert Character Set

```
UTF8 is the character set in NLS_LANG  
Please enter the source character set [JA16EUC]:JA16EUC  
Please enter the target character set : UTF8  
You are about to check your APPL_TOP for lossy  
conversion of files when converting from JA16EUC to  
UTF8.  
Run the check [Y] ? Y  
Converting from character set 'JA16EUC' to character  
set 'UTF8'.
```

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### Convert Character Set - Scan the APPLTOP for exceptions

Before scanning the APPL\_TOP, AD Administration prompts for:

- Source character set
- Target character set
- Validation to scan the APPL\_TOP

## Convert Character Set

### Convert Character Set

```
AD Administration will create a manifest file under  
"/d02/prodappl/admin/prod/out"  
with the list of convertible files.  
If a file with that name already exists, it will be  
overwritten.  
  
You should use this manifest file later for character  
set conversion.  
  
Please enter a name for the manifest file  
[admanifest.lst]:
```

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### Convert Character Set - Scan the APPLTOP for exceptions

AD Administration also prompts for the manifest file name. The default is admanifest.lst.

Once the scan completes, AD Administration creates three files in the APPL\_TOP/admin/<SID>/out directory:

- **admanifest\_excp.lst**: Lists files that will not be converted because of lossy conversion. These files must be fixed before running the convert character set task (task 3).
- **admanifest.lst**: Lists files that can be converted.
- **admanifest\_lossy.lst**: Lists files that have lossy conversion along with details of those lines which are lossy.

The file names may differ, depending on the the manifest file name you entered at the prompt. You must fix any files that report lossy conversion. Run this task until there are no entries in the admanifest\_excp.lst report before running the conversion (task 3).

For additional information about lossy conversions, see My Oracle Support Knowledge Document 124721.1, *Migrating an Applications Installation to a New Character Set*.

## Convert Character Set

### Convert Character Set

Scan a CUSTOM directory for exceptions task:

- Is similar to the Scan the APPL\_TOP for exceptions task
- Scans custom Oracle E-Business Suite directories rather than the APPL\_TOP directory

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## Convert Character Set

### Convert Character Set

- To avoid lossy conversions, run task 3 (Convert character set) only if admanifest\_excp.lst has no entries
  - The task prompts you for the manifest file, created by either task 1 or task 2
- Before the conversion, the utility backs up the product source files and the APPL\_TOP/admin source files
  - It saves product files in the <PROD>\_TOP directories in the format <prod>\_s\_<char\_set>.zip
  - It saves admin source files in the APPL\_TOP/admin directory in the format admin\_s\_<char\_set>.zip

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## Maintain Snapshot Information

### Maintain Snapshot Information

#### Maintain Applications Files

- 1. Relink Applications programs
- 2. Copy files to destinations
- 3. Convert character set
-  4. Maintain snapshot information
- 5. Check for missing files
- 6. Return to Main Menu

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### Maintain Snapshot Information

Snapshots give a picture of selected APPS-related files in a given APPL\_TOP. They record details for each file in the APPL\_TOP (such as file name and file version). They also record summary information about patches that have been applied to the APPL\_TOP. The Maintain snapshot information task stores information about files, file versions, and bug fixes present in an APPL\_TOP. Choose this option to record the current set of files and file versions in your APPL\_TOP.

You must run the Maintain Snapshot Information option once for each APPL\_TOP before you apply any patch that contains a “compatible feature prereq” line on that APPL\_TOP.

## Maintain Snapshot Information

### Maintain Snapshot Information

There are two types of APPL\_TOP snapshots:

- Current view snapshots are created once and updated when appropriate to maintain a consistent view of the APPL\_TOP contents
- Named snapshots are the copies of current view snapshots at a particular time (not necessarily the latest current view snapshot) and are not updated

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### Maintain Snapshot Information

You can create as many named snapshots of each APPL\_TOP as you wish, or you can create or update the current view snapshot only. Creating a named snapshot for an APPL\_TOP automatically creates or updates the current view snapshot for that APPL\_TOP. The bug fix information for a named snapshot is copied from the current view snapshot for that APPL\_TOP.

## Maintain Snapshot Information

### Maintain Snapshot Information

- You must run this task once for each APPL\_TOP before you can apply any patch that contains a “compatible feature prereq” line on that APPL\_TOP
- A complete snapshot is required for the automatic prerequisite patch checking feature to operate
- APPL\_TOP snapshot information is stored in the AD\_SNAPSHOTS, AD\_SNAPSHOT\_FILES, and AD\_SNAPSHOT\_BUGFIXES tables

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## Maintain Snapshot Information

As patches are applied to an APPL\_TOP, AutoPatch automatically updates the list of file versions and bug fixes in the current view snapshot for that APPL\_TOP. Running the AD Administration 'Maintain snapshot information' task once for an APPL\_TOP combines with AutoPatch's incremental updates to ensure that the current view snapshot for a given APPL\_TOP contains an accurate picture of the current set of files and bug fixes present in that APPL\_TOP.

## Maintain Snapshot Information

### Maintain Snapshot Information

#### Maintain Snapshot Information

- 
- 1. List snapshots
  - 2. Update current view snapshot
  - 3. Create named snapshot
  - 4. Export snapshot to file
  - 5. Import snapshot from file
  - 6. Delete named snapshot(s)
  - 7. Return to Maintain Applications Files menu

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## Maintain Snapshot Information

**List snapshots** - Lists all the current view and named snapshots stored in your system.

**Update current view snapshot** - Updates the current view snapshot with any changes to the file system since the snapshot was last updated.

**Create named snapshot** - Creates a copy of an existing snapshot. You are prompted for a name to assign to it.

**Export snapshot to file** - Allows you to export an existing snapshot to a file for storage or to import into another system.

**Import snapshot from file** - Allows you to import an existing snapshot. You are prompted for the path and file name.

**Delete named snapshot(s)** - Allows you to delete an existing named snapshot. You cannot delete the current view snapshot.

## Check for Missing Files

### Check for Missing Files

#### Maintain Applications Files

- 1. Relink Applications programs
- 2. Copy files to destinations
- 3. Convert character set
- 4. Maintain snapshot information
-  5. Check for missing files
- 6. Return to Main Menu

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### Check for Missing Files

The Check for Missing Files task verifies that all files needed to install, upgrade, or run Oracle E-Business Suite for the current configuration are in the current APPL\_TOP. Choose this task if you suspect there are files missing from your APPL\_TOP.

## Check for Missing Files

### Check for Missing Files

```
Checking files needed in Oracle Profitability Manager...
All needed files present.
```

```
Checking files needed in Approvals Management...
All needed files present.
```

```
...
```

```
Missing files or directories needed in Development
```

```
-----
/u01/app/ebiz/gsiax/apps/apps_st/appl/dna/12.0.0/html/do
wnload/KO
/u01/app/ebiz/gsiax/apps/apps_st/appl/dna/12.0.0/html/do
wnload/KO/dnastrings.xlf
Checking files needed in Imaging Process Management...
All needed files present.
```

```
Review the messages above, then press [Return] to
continue.
```

```
Backing up restart files, if any...Done.
```

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## Check for Missing Files

The slide shows an example of output from this task, as it checks each product for the files needed to run Oracle E-Business Suite.

## File System Tasks and Services

### File System Tasks and Services

	Forms Services	Web Services	Concurrent Processing Server
Create environment file	✓	✓	✓
Relink applications programs	✓	✓	✓
Copy files to destinations	✓	✓	✓
Check for missing files	✓	✓	✓
Convert character set	✓	✓	✓
Maintain snapshot information	✓	✓	✓
Generate message files	✓	✓	✓
Generate form files	✓	✗	✗
Generate report files	✗	✗	✓
Generate product jar files	✓	✓	✗

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### File System Tasks and Services

This table illustrates the file system tasks and the services and servers (and hence application tier nodes) to which they apply.

## Module Summary

### Module Summary

In this module, you should have learned how to do the following:

- Relink Oracle E-Business Suite programs
- Create the main Oracle E-Business Suite environment file
- Correlate application tier services with file system administration tasks

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## Module Discussion

### Module Discussion

- Name two file system maintenance tasks you can perform with AD Administration and describe them
- List the application tier services and servers in an Oracle E-Business Suite system
- When would you run the Relink Applications programs task?

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# **AD Administration: Maintain Database Entities Tasks**

**Chapter 13**



## AD Administration: Maintain Database Entities Tasks

### **AD Administration: Maintain Database Entities Tasks**

AD Utilities Topics

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## Objectives

### Objectives

At the end of this module, you should be able to do the following:

- List maintain database entities tasks you can perform with AD Administration
- Validate APPS schemas
- Recreate grants and synonyms for APPS schemas
- Maintain multilingual tables

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## Module Overview

### Module Overview

This module includes the following topics:

- The Maintain Database Entities menu tasks
- Validating the APPS schema
- Recreating grants and synonyms for APPS schemas
- Maintaining multilingual tables

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## Maintain Database Entities

### Maintain Applications Database Entities

- 1. Validate APPS schema
- 2. Re-create grants and synonyms for APPS schema
- 3. Maintain multi-lingual tables
- 4. Check DUAL table
- 5. Return to Main Menu

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## Validate APPS Schema

### Validate APPS Schema

#### Maintain Applications Database Entities

- 
1. Validate APPS schema
  2. Recreate grants and synonyms for APPS schema
  3. Maintain multi-lingual tables
  4. Check DUAL table
  5. Return to Main Menu

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## Validate APPS Schema

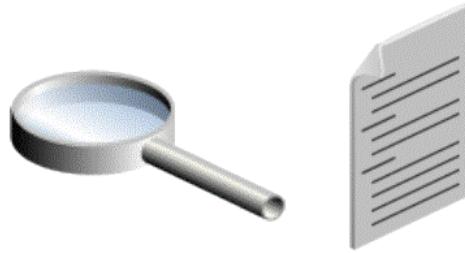
The Validate APPS schema task runs a SQL script (adrvfapp.sql) against the APPS schema to verify the integrity of the schema. It determines:

- Problems you must fix (not specific to the APPS schema)
- Problems you must fix (specific to the APPS schema)
- Issues you may want to address (specific to the APPS schema)

## Validate APPS Schema

### Validate APPS Schema

- A report called <APPS schema name>.lst, is produced in APPL\_TOP/admin/<SID>/out
- Review the report and fix every issue to avoid potential problems while running or maintaining Oracle E-Business Suite
- The report contains information about how to fix each issue



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### Validate APPS Schema

The Validate Apps schema task produces a report, called <APPS schema name>.lst, where <APPS schema name> is the name of your APPS schema (for example, APPS.lst).

Issues this task may find include:

- Missing or invalid packages
- Missing or invalid synonyms
- Invalid objects in APPS

## Validate APPS Schema

### Validate APPS Schema

This task is most effective if run:

- Immediately after an upgrade or applying a maintenance pack
- After a patch is applied (for multiple patches, run it once after you apply all the patches)
- After performing an export/import (migration)
- When doing custom development in the APPS schema
- Whenever you receive a runtime error that suggests a problem is coming from the AD\_DDL package

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### Validate APPS Schema

You can also run this task with SQL\*Plus:

#### UNIX:

```
$ cd $APPL_TOP/admin/<SID>/out  
$ sqlplus <SYSTEM username>/<SYSTEM password> \  
@$AD_TOP/admin/sql/advrfapp.sql \  
<APPS schema name> <AOI schema name>
```

#### Windows:

```
C:\>cd %APPL_TOP%\admin\<SID>\out  
C:\>sqlplus <SYSTEM username>/<SYSTEM password>  
@%AD_TOP%\admin\sql\advrfapp.sql <APPS schema name> <AOI  
schema name>
```

On UNIX, you can enter the backslash character to indicate that the command being entered is to be continued on the next screen line. This is not available on Windows, where the command line must be entered in a continuous string that wraps to the next screen line if needed.

## Recreate Grants and Synonyms

### Recreate Grants and Synonyms

#### Maintain Applications Database Entities

- 1. Validate APPS schema
- 2. Recreate grants and synonyms for APPS schema
- 3. Maintain multi-lingual tables
- 4. Check DUAL table
- 5. Return to Main Menu

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## Recreate Grants and Synonyms

### Recreate Grants and Synonyms

This option:

- Recreates the grants and synonyms for the Oracle E-Business Suite public schema (APPLSYS PUB)
- Recreates grants on some packages from SYSTEM to APPS
- Then spawns parallel workers to recreate grants and synonyms linking sequences and tables in the base product schemas to the APPS schema

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### Recreate Grants and Synonyms

Each product's data objects are created in its own schema (such as the GL schema) but the product code objects are created in the APPS schema. The APPS schema must have the appropriate grants and synonyms for product schema objects so that code objects compile and Oracle E-Business Suite can access data at runtime.

## Recreate Grants and Synonyms

### Recreate Grants and Synonyms

Run this task when grants or synonyms are missing from the database. This may occur as a result of:

- Custom development
- Incomplete database migrations (exports/imports)
- Patch and administrative sessions that failed to run successfully to completion
- Installing or maintaining underlying database components or options such as Replication

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## Maintain Multi-lingual Tables

### Maintain Multi-lingual Tables

#### Maintain Applications Database Entities

- 1. Validate APPS schema
- 2. Recreate grants and synonyms for APPS schema
-  3. Maintain multi-lingual tables
- 4. Check DUAL table
- 5. Return to Main Menu

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## Maintain Multi-lingual Tables

As discussed in the Oracle E-Business Suite Architecture section, MLS or multilingual support is the ability of Oracle E-Business Suite to operate in multiple languages simultaneously.

When running the Maintain multi-lingual task you can select the number of parallel workers.

## Maintain Multi-lingual Tables

### Maintain Multi-lingual Tables

Maintain Multi-lingual tables:

- Invokes PL/SQL routines to maintain multi-lingual tables by adding any missing, untranslated rows
- Is generally run during the NLS install and maintenance processes

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### Maintain Multi-lingual Tables

The Maintain Multi-lingual tables task calls PL/SQL routines that maintain multilingual tables for Oracle E-Business Suite by adding any missing, untranslated rows. This task runs the <PROD>NLINS.sql script for every product.

## Check DUAL Table

### Check DUAL Table

#### Maintain Applications Database Entities

- 
- 1. Validate APPS schema
- 2. Recreate grants and synonyms for APPS schema
- 3. Maintain multi-lingual tables
- 4. Check DUAL table
- 5. Return to Main Menu

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## Check DUAL Table

### Check DUAL Table

The DUAL table:

- Is created automatically by ORACLE along with the data dictionary
- Is in the SYS schema
- Has one column, DUMMY, of type VARCHAR2(1), and contains one row with a value 'X'
- Is useful for evaluating expressions with the SELECT statement, such as SELECT 7/8 from DUAL;

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## Check DUAL Table

### Check DUAL Table

```
Enter your choice : 7
Reading init.ora information from applora.txt ...

Connecting to SYSTEM.....Connected successfully

SYS.DUAL has the correct number of rows.
Granting privileges on SYS.DUAL...

Review the messages above, then press [Return] to
continue.
```

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## Check DUAL Table

This task looks for a DUAL table accessible by Oracle E-Business Suite and ensures the correct grants are set up. If no such table exists, or if an existing DUAL table has more than one row, AD Administration displays an error. If a DUAL table containing only one row exists, AD Administration completes successfully.

This slide shows a typical output for the Check DUAL table task. It connects to the database then verifies the DUAL table. If the DUAL table does not exist, or if it does not contain exactly one row, Oracle E-Business Suite will not run correctly.

## Module Summary

### Module Summary

In this module, you should have learned how to do the following:

- List database tasks you can perform with AD Administration
- Validate APPS schemas
- Recreate grants and synonyms for APPS schemas
- Maintain multilingual tables

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## Module Discussion

### Module Discussion

- Describe two database maintenance tasks you can perform with AD Administration
- What are the Oracle E-Business Suite configurations that may change the task options in the Maintain Applications Database Objects menu?

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# **AD Administration: Compile/Reload Database Entities Tasks**

**Chapter 14**



## AD Administration: Compile/Reload Database Entities Tasks

### **AD Administration: Compile/Reload Database Entities Tasks**

AD Utilities Topics

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## Objectives

### Objectives

At the end of this module, you should be able to do the following:

- List the compile/reload database entities tasks you can perform with AD Administration
- Compile APPS schemas
- Compile menu information
- Compile flexfield data
- Reload JAR files to the database

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## Module Overview

### Module Overview

This module includes the following topics:

- Compiling APPS schemas
- Compiling menu information
- Compiling flexfield data
- Reloading JAR files to the database

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## Compile/Reload Database Entities

### Compile/Reload Database Entities

#### Compile/Reload Applications Database Entities

- 1. Compile APPS schema
- 2. Compile menu information
- 3. Compile flexfield data
- 4. Reload JAR files to database
- 5. Return to Main Menu

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## Compile/Reload Database Entities

Database entities are database objects or data in the database related to Oracle E-Business Suite. The tasks for compiling and reloading database entities are grouped on the Compile/Reload Applications Database Entities menu. You run the tasks on this menu any time you need to compile or reload database objects. Examples would be after you upload new menu entries, or apply a patch that changes the setup of flexfields.

## Compile APPS Schema

### Compile APPS Schema

Compile/Reload Applications Database Entities

- 
- 1. Compile APPS schema
- 2. Compile menu information
- 3. Compile flexfield data
- 4. Reload JAR files to database
- 5. Return to Main Menu

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## Compile APPS Schema

### Compile APPS Schema

- For one reason or another you may have invalid objects within your APPS schema
- When this occurs, running the Compile APPS schema task spawns parallel workers to compile invalid database objects in the APPS schema
- The output from the Validate APPS schema task mentioned earlier will provide you with a list of invalid objects
- You may perform this task with multiple workers

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### Compile APPS Schema

This task compiles uncompiled program units (PL/SQL and Java) in the APPS schema. Uncompiled objects in other schemas such as SYS and SYSTEM are not necessarily compiled. Normally the database will compile these objects *lazily* (only when accessed). However, you can compile them before users access them, in order to:

- Find truly invalid objects before users get a runtime error
- Increase runtime performance

## Compile APPS Schema

### Compile APPS Schema

This task is most effective if run:

- When custom packages are moved to the APPS schema and need to be compiled
- During the upgrade process

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### Compile APPS Schema

AutoPatch compiles invalid objects automatically after applying a patch.

## Compile Menu Information

### Compile Menu Information

Compile/Reload Applications Database Entities

- 
- 1. Compile APPS schema
  - 2. **Compile menu information**
  - 3. Compile flexfield data
  - 4. Reload JAR files to database
  - 5. Return to Main Menu

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## Compile Menu Information

### Compile Menu Information

- This option compiles menu data structures
- Run this task:
  - After uploading menu entries
  - If Compile Security concurrent requests submitted from the Menus form (after changing menu entries) fail
- AD Administration asks if you want to force compilation of all menus
  - If you choose the default of No, only menus with changes are compiled
  - If you enter Yes, all menus are compiled (this is generally not needed)

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## Compile Flexfield Data in Oracle AOL Tables

### Compile Flexfield Data in Oracle AOL Tables

#### Compile/Reload Applications Database Entities

- 
- 1. Compile APPS schema
- 2. Compile menu information
- 3. **Compile flexfield data**
- 4. Reload JAR files to database
- 5. Return to Main Menu

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## Compile Flexfield Data in Oracle AOL Tables

### Compile Flexfield Data in Oracle AOL Tables

This task:

- Compiles flexfield data structures in Oracle Application Object Library (AOL) tables
- Is not generally required, as flexfields automatically compile the first time they are accessed
- Can be run:
  - To avoid the one-time (minimal) performance impact on first access
  - To validate that flexfield data have no referential integrity issues
- May also need to be run if specified by a patch README

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## Compile Flexfield Data in Oracle AOL Tables

### Compile Flexfield Data in Oracle AOL Tables

```
Enter your choice [5] : 3
Deleting existing compiled flexfield information.
Compiling all application flexfields.
/u01/app/ebiz/gsiak/apps/apps_st/appl/fnd/12.0.0/bin/
fdfcmp APPS/***** O Y
Done.
Review the messages above, then press [Return] to
continue.
```

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### Compile Flexfield Data in Oracle AOL Tables

This slide shows an example of what you will see when running this task.

Details of the task with a list of compilation status of every flexfield are written to a log file. The name of the log file is in the format <session #>.req. The main AD Administration log file contains the full name of this log file.

## Reload JAR Files to Database

### Reload JAR Files to Database

#### Compile/Reload Applications Database Entities

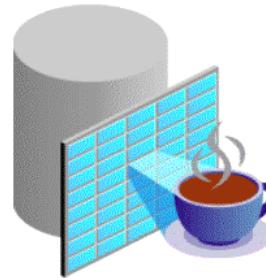
- 1. Compile APPS schema
- 2. Compile menu information
- 3. Compile flexfields
- 4. Reload JAR files to database
- 5. Return to Main Menu

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## Reload JAR Files to Database

### Reload JAR Files to Database

- This option runs the loadjava utility to reload all appropriate Oracle E-Business Suite JAR files into the database
- Use this option if all Oracle E-Business Suite Java classes have been removed from your database
  - This can happen if your database becomes corrupt and the database Java Virtual Machine is reloaded



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## Module Summary

### Module Summary

In this module, you should have learned how to do the following:

- List the compile/reload database entities tasks you can perform with AD Administration
- Compile APPS schemas
- Compile menu information
- Compile flexfield data
- Reload JAR files to the database

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## Module Discussion

### Module Discussion

- Name two database compile/reload tasks you can perform with AD Administration and describe them.
- When is it necessary to compile flexfields?

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# **AD Administration: Non-Interactive Operation and Maintenance Mode**

**Chapter 15**



## AD Administration: Non-Interactive Operation and Maintenance Mode

### **AD Administration: Non-Interactive Operation and Maintenance Mode**

AD Utilities Topics

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## Objectives

### Objectives

At the end of this module, you should be able to do the following:

- Create a defaults file
- Run AD Administration in non-interactive mode
- Enable and disable Maintenance Mode

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## Module Overview

### Module Overview

This module consists of the following topics:

- Creating the AD Administration defaults file
- Running AD Administration in non-interactive mode
- Changing Maintenance Mode

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## Creating AD Administration Defaults File

### Creating AD Administration Defaults File

- Specify defaultsfile=<Defaults file name> on the AD Administration command line
  - The defaults file must be located under \$APPL\_TOP/admin/<SID>
- Run AD Administration through the maintenance task that you would like to run non-interactively in the future
- Verify that your defaults file exists

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### Creating an AD Administration Defaults File

To create a defaults file, specify defaultsfile= <filename> at the AD Administration command line. The defaults file must be located under APPL\_TOP/admin/<SID>. For example, enter:

```
$ adadmin defaultsfile=APPL_TOP/admin/<SID>/defs.txt
```

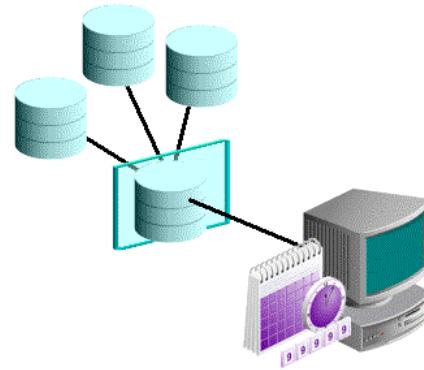
Next, run AD Administration for the task that you want to run non-interactively in the future, for example, “Validate APPS schema(s).”

Once you complete the task, verify that AD Administration created the defaults file. Now you are ready to use the non-interactive mode of AD Administration.

## Running AD Administration in Non-Interactive Mode

### Running AD Administration in Non-Interactive Mode

Non-interactive mode allows you to schedule AD Administration tasks to run at a convenient time



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### Running AD Administration in Non-Interactive Mode

The non-interactive mode of AD Administration is a feature that allows the administrator to schedule AD Administration tasks to run at a convenient time.

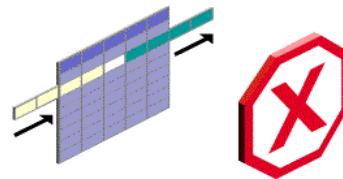
To allow AD Administration to run in non-interactive mode, you must first perform the required maintenance task in interactive mode, and create a defaults file. You can then perform the task in non-interactive mode using this file.

## Running AD Administration in Non-Interactive Mode

### Running AD Administration in Non-Interactive Mode

Tasks that are not supported in non-interactive mode include:

- Convert character set



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## Running AD Administration in Non-Interactive Mode

### Running AD Administration in Non-Interactive Mode

The command line argument to run AD Administration in non-interactive mode is `interactive=n`

This example command shows a non-interactive session of AD Administration running the "Check DUAL table" task non-interactively:

```
$ adadmin defaultsfile=$APPL_TOP/admin/t1/defs.txt \
logfile=adadmin_noninteractive.log \
workers=5 \
interactive=n \
menu_option=CHECK_DUAL
```

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### Running AD Administration in Non-Interactive Mode

This command causes AD Administration to use the defaults file called `adadmindef.txt`; write to a log file called `adadmin_noninteractive.log`; use 5 workers for the tasks running in parallel; and run in non-interactive mode.

## Menu Options

### Menu Options

Menu Options	AD Administration Task Option
GEN_MESSAGES	Generate message files
GEN_FORMS	Generate form files
GEN_REPORTS	Generate reports files
GEN_JARS	Generate product JAR files
RELINK	Relink Applications programs
COPY_FILES	Copy files to destinations

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### Menu Options - Specifying a Menu Option in the AD Administration Defaults File

A single defaults file can be used to run different AD Administration tasks. This file can contain all your choices for the different menu options. In order to choose which task the defaults file will run, you add menu\_option= <menu choice> to the utility start command. This overrides any menu-specific key stroke information stored in the defaults file initially, and allows you to use the defaults file for any of the AD Administration menu items. It also ensures that the menu option you intended for the defaults file is always valid, even if the menu items are renumbered or relocated in subsequent releases.

adalldefaults.txt (located in APPL\_TOP/admin) can be used with the menu options.

## Menu Options

### Menu Options

Menu Options	AD Administration Task Option
SCAN_APPLTOP	Scan the APPL_TOP for exceptions
SCAN_CUSTOM_DIR	Scan a CUSTOM directory for exceptions
LIST_SNAPSHOTS	List snapshots
UPDATE_CURRENT_VIEW	Update current view snapshot
CREATE_SNAPSHOT	Create named snapshot
EXPORT_SNAPSHOT	Export snapshot to file
IMPORT_SNAPSHOT	Import snapshot from file

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## Menu Options

### Menu Options

Menu Options	AD Administration Task Option
DELETE_SNAPSHOT	Delete named snapshot
CHECK_FILES	Check for missing files
CMP_INVALID	Compile APPS schema
CMP_MENU	Compile menu information
CMP_FLEXFIELDS	Compile flexfield data in AOL tables
RELOAD_JARS	Reload JAR files to database
VALIDATE_APPS	Validate APPS schema
CREATE_GRANTS	Recreate grants and synonyms for APPS schema

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## Menu Options

### Menu Options

Menu Options	AD Administration Task Option
MAINTAIN_MLS	Maintain multi-lingual tables
CHECK_DUAL	Check DUAL table
ENABLE_MAINT_MODE	Enable Maintenance Mode
DISABLE_MAINT_MODE	Disable Maintenance Mode

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## Maintenance Mode: Introduction

### Maintenance Mode: Introduction

#### Maintenance Mode:

- Must be enabled before patching Oracle E-Business Suite
- Improves patching performance
- Restricts users access to system
- Is enabled and disabled using AD Administration



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#### Maintenance Mode

Maintenance Mode affects the process of maintaining Oracle E-Business Suite and must be enabled to optimize performance and reduce downtime of AutoPatch sessions. You toggle Maintenance Mode from enabled to disabled by using the Change Maintenance Mode menu of AD Administration

Before you initiate an AutoPatch session, you need to shut down the Workflow Business Events System and set up function security so that no Oracle E-Business Suite functions are available to users. This ensures optimal performance and reduces downtime when applying a patch. Maintenance Mode (which was added in 11.5.10), provides a clear separation between normal runtime operation of Oracle E-Business Suite and system downtime for maintenance.

During a Maintenance Mode downtime, user login is restricted. Users are redirected to a system downtime URL, which informs them that the maintenance session is in progress. The Oracle Applications Manager (OAM) Maintenance Mode page allows you to schedule system downtime and send alert messages to notify users of the downtime schedule.

## Accessing Maintenance Mode

### Accessing Maintenance Mode

#### AD Administration Main Menu

- 
- 1. Generate Applications Files menu
  - 2. Maintain Applications Files menu
  - 3. Compile/Reload Applications Database Entities menu
  - 4. Maintain Applications Database Entities menu
  - 5. Change Maintenance Mode**
  - 6. Exit AD Administration

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### Maintenance Mode

Selecting menu option 5 on the the AD Administration main menu opens the Change Maintenance Mode menu.

## Changing Maintenance Mode

### Changing Maintenance Mode

Change Maintenance Mode

Maintenance Mode is currently: Disabled.

Maintenance mode should normally be enabled when patching Oracle Applications and disabled when users are logged on to the system. See the Oracle Applications Maintenance Utilities manual for more information about maintenance mode.

Please select an option:

1. Enable Maintenance Mode
2. Disable Maintenance Mode
3. Return to Main Menu

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### Change Maintenance Mode

The status of Maintenance Mode is displayed at the top of the Change Maintenance Mode menu. Use this menu to enable or disable Maintenance Mode.

## Module Summary

### Module Summary

In this module, you should have learned how to do the following:

- Create a defaults file
- Run AD Administration in non-interactive mode
- Change the status of Maintenance Mode

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## Module Discussion

### Module Discussion

- What are the benefits of running AD Administration in non-interactive mode?
- What is the purpose of Maintenance Mode?

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# **Special Utilities**

## **Chapter 16**



## Special Utilities

### **Special Utilities**

AD Utilities Topics

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## Objectives

### Objectives

At the end of this module, you should be able to do the following:

- Monitor worker processes
- Restart and shut down a worker
- Troubleshoot worker processes
- Relink AD programs
- Describe the upgrade process

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## Module Overview

### Module Overview

This module consists of the following topics:

- AD Controller
- Review worker status
- Restart a failed worker
- AD Relink
- Upgrade paths

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## AD Controller

### AD Controller

With AD Controller you can:

- Review worker status
- Restart a failed worker
- Restart a terminated worker
- Shut down a worker

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### AD Controller

AD Controller is a general maintenance utility you use to determine the status of AD Administration or AutoPatch workers, and to control worker operation. AD Controller is run in its own window, not in the same window as AD Administration or AutoPatch.

The command to start AD Controller is ‘adctrl’. AD Controller prompts you for standard items such as the Oracle Application Object Library username and password, and the log file name. AD Controller writes its log file to the current working directory.

## AD Controller

### AD Controller

#### AD Controller Menu

- 
- 1. Show worker status
  - 2. Tell worker to restart a failed job
  - 3. Tell worker to quit
  - 4. Tell manager that a worker failed its job
  - 5. Tell manager that a worker acknowledges quit
  - 6. Restart a worker on the current machine
  - 7. Exit

Enter your choice [1] :

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## AD Controller

The slide shows the AD Controller main menu.

AD Controller gathers worker status information from the FND\_INSTALL\_PROCESSES table. This table is created by the AD utility when jobs are run in parallel and dropped once the task is complete.

## Reviewing Worker Status

### Reviewing Worker Status

Worker	Code	Context	Filename	Status
-				
1	Run	Generic R120	E.msb	Completed
2	Run	Generic R120	ESA.msb	Failed
3	Run	Generic R120	EL.msb	Running
4	Run	Generic R120	PTB.msb	Running
5	Run	Generic R120	D.msb	Wait
6	Run	Generic R120	US.msb	Wait



### Reviewing Worker Status

The slide shows what you might see after selecting the “Show worker status” option.

This screen shows 6 workers. All workers have Code=Run, but not all are currently running jobs. Workers 3 and 4 are running jobs, workers 5 and 6 are in Wait status, and worker 2 has failed.

The ‘Context’ column displays the current context of each job. Examples of context include “Installing at R120” and “Parallel AutoPatch at R120”.

The “Filename” column lists the file currently being run.

## Reviewing Worker Status

### Reviewing Worker Status

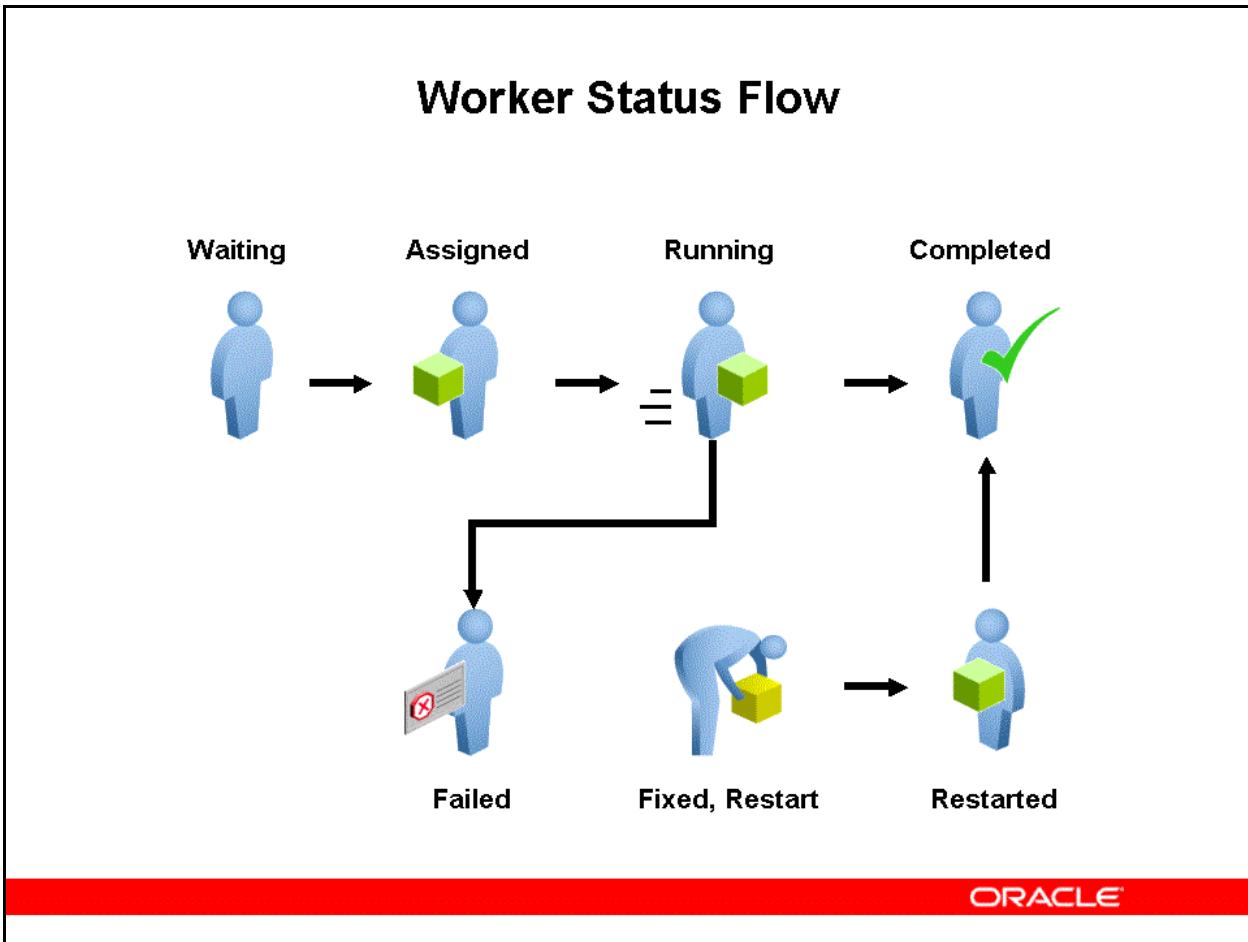
Status	Description
Assigned	The manager assigned a job to the worker and the worker has not started.
Completed	The worker completed the job and the manager has not yet assigned it a new job.
Failed	The worker encountered a problem.
Fixed, Restart	You fixed the problem and the worker should retry whatever failed.
Restarted	The worker is retrying a job or has successfully restarted a job. (Note that the status does not change to Running.)
Running	The worker is running a job.
Wait	The worker is idle.

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### Reviewing Worker Status

The table shows the possible worker statuses.

## Worker Status Flow



### Worker Status Flow

The status of a worker flows from Waiting to Assigned to Running to Completed, then back to Waiting to repeat the process. When there is an issue while processing, the worker status changes to Failed. After the issue is fixed and you restart the worker, the status changes to Fixed, Restart, to Restarted, then Completed.

Note that when restarting a failed worker, the status never returns to Running: it will go directly from Restarted to Completed.

## Resolving a Failed Worker

### Resolving a Failed Worker

Worker	Code	Context	Filename	Status
-				
1	Run	Generic R120	E.msb	Completed
2	Run	Generic R120	ESA.msb	Failed
3	Run	Generic R120	EL.msb	Running
4	Run	Generic R120	PTB.msb	Running
5	Run	Generic R120	D.msb	Wait
6	Run	Generic R120	US.msb	Wait

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### Resolving a Failed Worker

The example on the slide shows that worker 2 has failed.

The first time a job fails, the manager automatically defers it to the end of the current phase and assigns a new job to the worker. If the deferred job fails the second time it is run, the manager defers it again only if the total runtime of the job is less than ten minutes. If the deferred job fails a third time (or if the job's total runtime is not less than ten minutes the second time it is run) the job stays at failed status and the worker waits. At this point, you must address the cause of the failure, and then restart the job using AD Controller. If you enabled the email feature when starting the AD utility that started the workers, you automatically receive an email when a worker fails.

## Determining Why a Worker Failed

### Determining Why a Worker Failed

Perform the following steps to investigate the problem that caused the failure and restart a failed worker:

- 1.** Review worker status and confirm the Failed status of the worker
  - The Filename column lists the name of the file that failed to run
- 2.** Review the worker log file adworkXXX.log under \$APPL\_TOP/admin/<SID>/log to determine the source of the error
- 3.** Resolve the error

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## Restarting a Failed Worker

### Restarting a Failed Worker

After you have resolved the error:

1. Tell the worker to restart a failed job (AD Controller menu option 2)
2. When prompted, enter the number of the worker that failed
  - If all workers failed, and the problem has been fixed, enter 'all' (without the quotes)
3. Review worker status again
  - The Status column for the worker that failed should now say Fixed, Restart, or Restarted

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## Restarting a Failed Patch Process

### Restarting a Failed Patch Process

If a worker fails and cannot be restarted:

1. Tell the worker to shut down or quit
2. Tell the manager that a worker failed its job
3. Tell the manager that a worker acknowledges quit
4. Restart the patch process

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### Restarting a Failed Patch Process

There may be cases where a worker fails and cannot be restarted, for example, a worker process may dump core. In this case the worker is listed as running, but there is actually no worker process present. If this occurs, the only alternative may be to stop the patch and restart. In such a case, you must first shut down all workers manually. After you shut down the workers, the manager must be told that the non-running worker has failed its job and acknowledges quit.

The progression of AD Controller commands is:

- Option 3: Tell worker to shut down/quit (all workers)
- Option 4: Tell manager that a worker failed its job
- Option 5: Tell manager that a worker acknowledges quit

Once AutoPatch shuts down, restart the patch process.

## Terminating a Hanging Worker Process

### Terminating a Hanging Worker Process

If a worker process is hanging, follow these steps:

1. Determine what the worker process is doing
2. Get the worker's process ID
3. Determine what processes the worker has started, if any
4. Stop the hanging process, using the command that is appropriate for your operating system
5. Make necessary changes. Fix the issue that caused the worker to hang
6. Restart the job or the worker

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### Terminating a Hanging Worker Process

When running the AD utilities, there may be situations when a worker process appears to hang, or stop processing. If this occurs, and you are satisfied that the process is not simply carrying out a long-running job, you may need to terminate the process manually. Once you do, you must also manually restart that process.

In such a case:

1. Determine what the worker process is doing. Use the AD Controller worker status screen to determine the file being processed and check the worker log file to see what it is doing:
  - Verify whether the process is consuming CPU.
  - Review the file to see what actions are being taken.
  - Check for correct indexes on the tables (if the problem appears to be performance-related).
  - Check for an entry for this process in the V\$SESSION table. This may provide clues to what the process is doing in the database.
2. Get the worker's process ID.  
If the job is identified as hanging, determine the worker's process ID.

- UNIX: \$ ps -a | grep adworker
  - Windows: Run Task Manager (for example, using Ctrl-Alt-Delete) to view processes.
3. Determine what processes the worker has started, if any. If there are child processes, obtain their process IDs. Examples of child processes include SQL\*Plus and FNDLOAD.
  4. Stop the hanging process, using the command that is appropriate for your operating system.
  5. Make necessary changes. Fix the issue that caused the worker to hang. Contact Oracle Support Services if you do not understand how to proceed.
  6. Restart the job or the worker.

## Restarting a Terminated Worker

### Restarting a Terminated Worker

To restart a terminated worker process, follow these steps:

1. Start AD Controller
2. Review worker status
3. Take the appropriate action for each worker status:
  - If the worker shows Failed, restart the failed job
  - If the worker shows Running or Restarted status, but the process is not really running, tell the manager that a worker has failed its job, then tell the manager to start the worker

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### Restarting a Terminated Worker

To restart a terminated worker process, complete these steps:

1. Start AD Controller.
2. Review worker status.
3. Take the appropriate action for each worker status:

If the worker shows Failed, restart the failed job. When prompted, enter the number of the worker that failed.

If the worker shows Running or Restarted status, but the process is not really running, select the following options:

  - Option 4: Tell the manager that a worker has failed its job. When prompted, enter the number of the hanging worker.
  - Option 6: Restart a worker on the current machine. When prompted, enter the number of the worker that failed.

Do not tell the manager to start a worker that has shut down if the worker process is running. Doing so will create duplicate worker processes with the same worker ID, which will give unpredictable results.

## Restarting a Terminated Child Process

### Restarting a Terminated Child Process

- Some worker processes spawn other processes, called child processes
- If you terminate a child process that is hanging, the worker that spawned the process shows Failed as the status
- After you fix the problem, choose to restart the failed job
- Once the worker is restarted, the associated child processes are started as well

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## Restarting an AD Utility After a Machine Crash

### Restarting an AD Utility After a Machine Crash

If your system crashes while running an AD utility, you should:

1. Start AD Controller
2. Select the following options:
  1. Option 4: Tell manager that a worker has failed its job (specify all workers)
  2. Option 2: Tell worker to restart a failed job (specify all workers)
3. Restart the AD utility that was running when the machine crashed

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### Restarting an AD Utility After a Machine Crash

Because the AD utilities cannot automatically detect a machine crash, you must manually notify the manager that all jobs have failed and manually restart the workers using AD Controller. If you restart the utility without doing this, the utility status and the system status will not be synchronized.

## Shutting Down Managers

### Shutting Down Managers

To shut down an AD utility (the manager), follow these steps:

1. Tell worker to shut down or quit, entering 'all' for the worker number
2. Each worker stops once it completes or fails its current job
3. Verify that no worker processes are still running:
  - UNIX:  
`$ ps -a | grep adworker`
  - Windows:  
Run Task Manager (via Ctrl-Alt-Delete, Ctrl-Shift-Esc, or Start > Run > taskmgr) and choose Processes tab
4. When all workers have shut down, the manager (AD utility) quits in an orderly manner

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## Shutting Down Managers

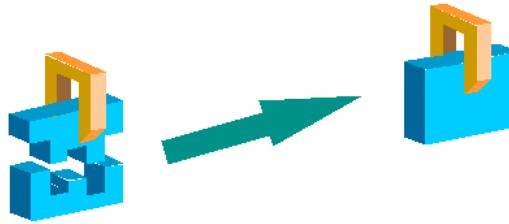
There may be situations when you need to shut down an AD utility (the manager) while it is running. For example, you may need to shut down your database while you are running AutoPatch or AD Administration.

You should perform this shutdown in an orderly fashion so that it does not affect your data. The best way to do this is to shut down the workers manually, which also causes the AD utility to quit in an orderly manner.

## AD Relink Overview

### AD Relink Overview

- AD Relink is used to relink Oracle E-Business Suite AD executable programs
- Relinking may be necessary when executable programs are accidentally deleted, become corrupt, or need to be updated after the libraries are updated
- Non-AD programs should be relinked using the Relink Applications programs task in AD Administration



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### AD Relink Overview

AD Relink is used to relink Oracle E-Business Suite AD executable programs with the relevant product libraries. Relinking may be necessary when executable programs are accidentally deleted, become corrupt, or need to be updated after the libraries are updated.

AD Relink should only be used to relink AD executables. Other Oracle E-Business Suite programs should be relinked using the Relink Applications programs task in AD Administration. Normally, any program that needs to be updated after a patch is automatically relinked by AutoPatch.

## Running AD Relink

### Running AD Relink

To run AD Relink:

- Log on as applmgr and run the appropriate environment file
- If you are relinking files on a concurrent processing server, shut down the affected concurrent managers
- If you are relinking files on a forms services node, have all Oracle E-Business Suite users log off before proceeding

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### Running AD Relink

On Windows, verify that the following additional software is installed:

- Visual C++ 8.0, included in Microsoft Visual Studio 2005 (Standard or Professional Editions)
- MKS Toolkit Version 9 (Patch 3) or higher
- GNU Make Version 3.81

## AD Relink Syntax

### AD Relink Syntax

You can relink executable programs by running adrelink.sh

- Programs can be relinked individually:  
`$ adrelink.sh force={y|n} [<optional args>] <targets>`
- For example, to relink the adpatch executable:  
`$ adrelink.sh force=y "ad adpatch"`
- Alternatively, you can facilitate relinking of multiple files by specifying a file that lists the programs you want to relink:  
`$ adrelink.sh force={y|n} [<optional args>] filelist=<file>`

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### AD Relink Syntax

The format of the file list and a full list of optional arguments are available in the *Maintaining Oracle E-Business Suite* documentation set.

## AD Relink Syntax

### AD Relink Syntax

- To obtain instructions on the AD Relink utility syntax, enter:  
`$ adrelink.sh`
- To see examples of running the AD Relink utility, enter:  
`$ adrelink.sh examples`

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## Upgrade Paths

### Upgrade Paths

- Upgrading directly to Release 12.1.1 of Oracle E-Business Suite is only supported from Release 11.5.9 and higher
- Lower releases than 11.5.9 must first be upgraded to Release 11.5.10 CU2

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### Upgrade Paths

Oracle E-Business Suite Release 12 does not use the AutoUpgrade utility that was used in Release 11*i*.

## Module Summary

### Module Summary

In this module, you should have learned how to do the following:

- Monitor worker processes
- Restart and shut down a worker
- Troubleshoot worker processes
- Relink AD programs

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## Module Discussion

### Module Discussion

- Describe some of the functionalities of AD Controller
- In what types of situations might AD Controller be useful?
- How would you stop an AD utility gracefully?
- What is the preferred method of relinking multiple Oracle E-Business Suite programs?

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# **AutoConfig**

## **Chapter 17**



## AutoConfig

---

### AutoConfig

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## Objectives

### Objectives

At the end of this module, you should be able to do the following:

- Describe the Applications context
- Describe AutoConfig and its key features
- Identify the scripts used by AutoConfig
- Run AutoConfig to configure an Oracle E-Business Suite system
- Update Applications context parameters
- Restore Applications context parameters
- Roll back an AutoConfig session
- Run AutoConfig in test mode

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## Module Overview

### Module Overview

This module introduces the AutoConfig utility and the process of configuring an Oracle E-Business Suite system

This module consists of the following topics:

- Context Files
- Introduction to AutoConfig
- AutoConfig Features
- AutoConfig Operation
- Running AutoConfig from Oracle Applications Manager
- Using the Support Cart
- Restoring a Previous Configuration
- Comparing Configurations

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## Context Files

### Context Files

- Rapid Install captures all the configuration parameters associated with your installation in two context files
  - Parameters for the application tier (APPL\_TOP and Oracle E-Business Suite technology stack) are stored in the Applications context file
  - Parameters for the database tier are stored in the database context file

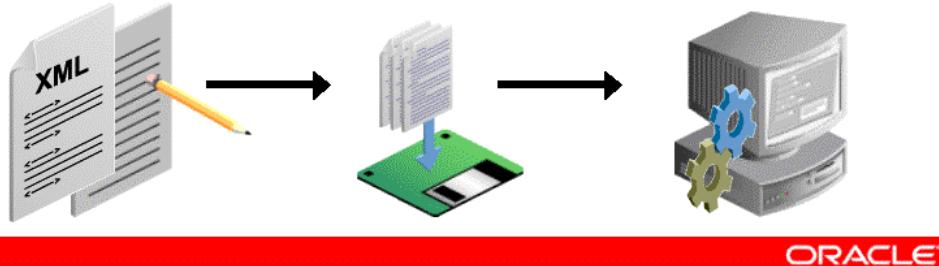


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## Context Files

### Context Files

- You can modify existing configuration parameters using the AutoConfig editor in Oracle Applications Manager (OAM)
- When you save the new parameters, OAM stores them in the OAM schema and automatically updates (synchronizes) the context files
- You must then run the AutoConfig script to update the system configuration files and database profiles with the new parameters

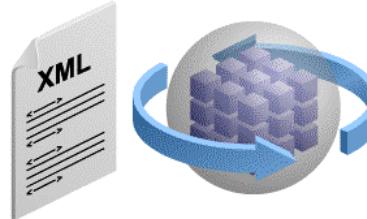


## Applications Context File

### Applications Context File

The Applications context file:

- Is called <CONTEXT\_NAME>.xml
- Is located in \$INST\_TOP/appl/admin on each node of the application tier
- Contains configuration information for the application tier of a specific Oracle E-Business Suite system
- Is used to configure all the other files necessary to set up and make available a particular Oracle E-Business Suite system



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## Database Context File

### Database Context File

The database context file:

- Is called <CONTEXT\_NAME>.xml
- Is in <RDBMS\_ORACLE\_HOME>/appsutil/ for the database tier
- Contains configuration information for the database tier of a particular Oracle E-Business Suite system



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## Benefits of the Context Files

### Benefits of the Context Files

- By describing all the services for a particular APPL\_TOP in a single Applications context, services can be started up and shut down easily
- Use of a single Applications context allows services to be added or removed without having to modify the core startup/shutdown mechanism
- There are fewer files for Oracle Development to maintain and support, improving robustness and reliability across Oracle E-Business Suite

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## Benefits of the Context Files

### Benefits of the Context Files

All instance-specific configuration information is stored in the two context files, instead of in numerous files located in directories distributed across the system

Advantages of this strategy include:

- Avoids the need for repeated configuration information
- The APPL\_TOP environment is described in a single file
- The database environment is described in a single file
- Easier to integrate into the process of cloning new systems, as opposed to editing numerous files

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## Benefits of the Context Files

### Benefits of the Context Files

- The XML format is easier to read and use than a variety of formats in individual configuration files
- Configuration information is represented in a platform-independent format
- The context file is able to handle Windows registry information

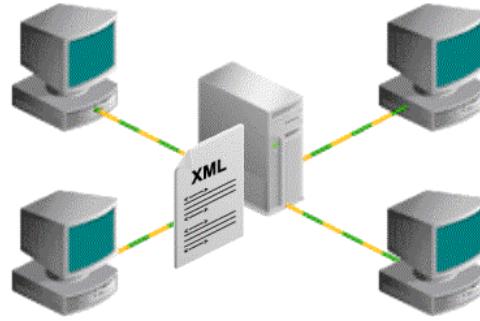


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## Benefits of the Context Files

### Benefits of the Context Files

- Supports shared application tier file system
- Allows you to synchronize multiple nodes



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## Introduction to AutoConfig

### Introduction to AutoConfig

The main AutoConfig script:

- Is a tool that centralizes and simplifies Oracle E-Business Suite configuration management
- Removes the need to make manual updates to configuration files, which can be tedious and prone to error if multiple files are involved
- Works in conjunction with OAM to edit and update system configuration
- Works in the same way on all platforms

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### AutoConfig

A fresh installation of Oracle E-Business Suite Release 12.1.1 includes AutoConfig as a standard (and required) configuration management tool.

## AutoConfig and the Applications Context

### AutoConfig and the Applications Context

- All the information required for configuring an Oracle E-Business Suite instance is stored in a repository called the context file
- AutoConfig maintains the context file
- Details stored in the context file include hostname, domain name, directory structure, and port numbers used
- The OAM AutoConfig editor is used to make changes to the context file

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## AutoConfig and the Applications Context

### AutoConfig and the Applications Context

- The AutoConfig script uses information from the context file to generate all Oracle E-Business Suite configuration files and update database profiles
- By supplying the configuration information in a standard location, AutoConfig simplifies procedures such as:
  - Upgrading an Oracle E-Business Suite technology stack component
  - Starting and stopping Oracle E-Business Suite services

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## AutoConfig Template Files

### AutoConfig Template Files

- The AutoConfig script uses template files to determine the basic settings that are needed
- There is one template file for each configuration file
- Different versions of the template files exist for UNIX and Windows
- The template files are located in the <PROD\_TOP>/admin/template directories
- For example:
  - <AD\_TOP>/admin/template
  - <FND\_TOP>/admin/template

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## AutoConfig Tasks

### AutoConfig Tasks

AutoConfig instantiation (creation) activities include:

- Instantiation of a configuration file to be used at runtime
- Instantiation of a SQL script that will set profile option values that can be either site or instance-specific
- Instantiation of a shell script or Windows command file that will run the just created SQL script via SQL\*Plus, and then execute the shell script
- Instantiation of scripts to start up and shut down services such as Java server processes

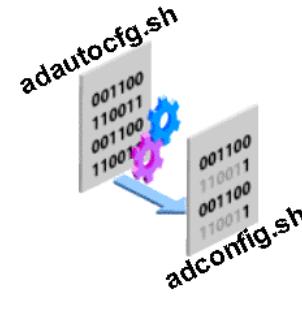


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## AutoConfig Operation

### AutoConfig Operation

- The main AutoConfig script is `adautocfg.sh` (UNIX) or `adautocfg.cmd` (Windows)
- This script is located in:
  - `<INST_TOP>/admin/scripts`  
(Application tier)
  - `<RDBMS ORACLE_HOME>/appsutil/scripts/<CONTEXT_NAME>`  
(Database tier)
- The main script calls another script
  - `<AD_TOP>/bin/adconfig.sh` (UNIX)  
`<AD_TOP>\bin\adconfig.cmd` (Windows)

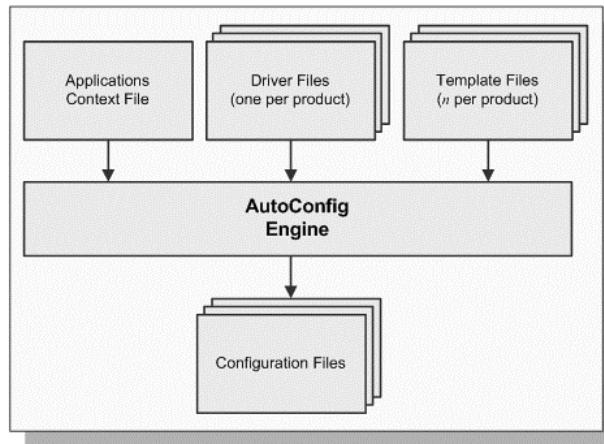


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## AutoConfig Operation

### AutoConfig Operation

- AutoConfig creates configuration files by reading several different types of file from various locations:



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### AutoConfig Operation

AutoConfig template files are used as the starting point for creating site-specific configuration files. AutoConfig evaluates the context variables in a template file, determines the actual values required, and creates a configuration file with these values substituted. This process, described in more detail later in this chapter, is called instantiation. There is one template file for each configuration file. Template files are located in the various <PROD>\_TOP/admin/template directories on the application tier, and in the <RDBMS\_ORACLE\_HOME>/apputil/template directory on the database tier.

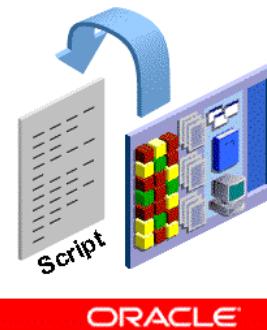
AutoConfig driver files are used to list the corresponding template files and locations, and specify the commands to be executed. For example, the commands might update profile options. Driver files are located in each <PROD>\_TOP/admin/driver directory on the application tier, and in the <RDBMS\_ORACLE\_HOME>/apputil/template directory on the database tier.

AutoConfig configuration files, such as httpd.conf, are created as a result of AutoConfig instantiating the corresponding template files. Configuration files contain values corresponding to the settings specified for a particular site. After AutoConfig has been run, numerous configuration files will have been created in various directories.

## Running AutoConfig: Overview

### Running AutoConfig: Overview

- You must run AutoConfig for your system to make any context file updates to your system
- Doing so generates the new configuration files for the associated technology stack
- AutoConfig uses the parameters stored in the context file and system configuration templates to create new process control scripts and update system profiles



## Running AutoConfig: Overview

### Running AutoConfig: Overview

1. Log on as the appropriate user and set the environment
2. Stop all server processes
3. Run AutoConfig on the application tier to update configuration and profiles on the application tier
4. Run AutoConfig on the database tier to update configuration and profiles on the database tier
5. Start all server processes

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## Running AutoConfig: Application Tier

### Running AutoConfig: Application Tier

To start AutoConfig on the application tier:

- UNIX:
  - AutoConfig prompts for the APPS password

```
$ <INST_TOP>/admin/scripts/adautocfg.sh
```

- Windows:
  - AutoConfig does not prompt for the APPS password; you must supply it on the command line

```
C:\><INST_TOP>\admin\scripts\adautocfg.cmd  
<APPS password>
```

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## Running AutoConfig: Database Tier

### Running AutoConfig: Database Tier

To Start AutoConfig on the database tier:

- **UNIX:**

- AutoConfig prompts for the APPS password

```
$ <RDBMS_ORACLE_HOME>/appsutil/scripts/ \
<CONTEXT_NAME>/adautocfg.sh
```

- **Windows:**

- AutoConfig does not prompt for the APPS password;  
you must supply it on the initial command line

```
C:\><RDBMS_ORACLE_HOME>\appsutil\scripts\
<CONTEXT_NAME>\adautocfg.cmd <APPS password>
```

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## AutoConfig Log Files

### AutoConfig Log Files

AutoConfig log files are named <MMDDhhmm>, according to the month, day, hour, and minute of the AutoConfig run, and stored under:

- Application tier:  
<INST\_TOP>/admin/log/<MMDDhhmm>/
- Database tier:  
<RDBMS\_ORACLE\_HOME>/appsutil/log/<CONTEXT\_NAME>/  
<MMDDhhmm>

There is one log file per AutoConfig session, which contains detailed information about every action that AutoConfig performed in that run



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## Rolling Back an AutoConfig Session

### **Rolling Back an AutoConfig Session**

In case you need to revert to the previous configuration settings, each AutoConfig run creates a rollback script and backup configuration files located in:

- Application Tier:  
`<INST_TOP>/admin/out/<MMDDhhmm>`
- Database Tier:  
`<RDBMS_ORACLE_HOME>/appsutil/out/<CONTEXT_NAME>/<MMDDhhmm>`

Where `<MMDDhhmm>` = month, day, hour, minute of the AutoConfig run

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## Rolling Back an AutoConfig Session

### **Rolling Back an AutoConfig Session**

To roll back the effects of an AutoConfig run, go to the relevant directory and run the appropriate restore script:

UNIX:

```
$ restore.sh
```

Windows:

```
D:\>restore.cmd
```

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## Editing AutoConfig-Managed Configuration Files

### Editing AutoConfig-Managed Configuration Files

- All AutoConfig generated configuration files contain the following header information
- You should not manually edit these files
- Use OAM AutoConfig to edit parameters in the Applications context, then run AutoConfig to regenerate the configuration files with the updated parameters

```
<!-- ##### -->
```

This file is automatically generated by AutoConfig. It will be read and overwritten. If you were instructed to edit this file, or if you are not able to use the settings created by AutoConfig, refer to Metalink Note 387859.1 for assistance.

```
##### -->
```

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## Running AutoConfig In Test Mode: Overview

### Running AutoConfig In Test Mode: Overview

- Running the AutoConfig script to propagate changes overwrites the existing configuration files
- This process may overwrite any customizations you made to the configuration files
- To prevent any unwanted changes, use the test (check) mode to determine the impact of running AutoConfig, without actually making any updates

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### Running AutoConfig in Test Mode: Overview

The AutoConfig test mode script, adchkcfg.sh (UNIX) or adchkcfg.cmd (Windows), is located in <AD\_TOP>/bin on the application tier and in <RDBMS ORACLE\_HOME>/appsutil/bin on the database tier.

This utility generates a report that highlights differences between existing configuration files and the new ones that AutoConfig will generate. The report is called cfgcheck.html.

Running adchkcfg.sh is useful both in carrying out a test run before a planned environment change is made, and when investigating problems.

## Running AutoConfig in Test Mode: Application Tier

To run AutoConfig in test mode on the application tier:

- UNIX:

```
$ <AD_TOP>/bin/adchkcfg.sh
```

- Windows:

```
C:\><AD_TOP>\bin\adchkcfg.cmd
```

AutoConfig prompts for the location of the Applications context file and the APPS password

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## Running AutoConfig in Test Mode: Database Tier

### Running AutoConfig in Test Mode: Database Tier

To run AutoConfig in test mode on the database tier:

- UNIX:

```
$ <RDBMS_ORACLE_HOME>/appsutil/bin/adchkcfg.sh
```

- Windows:

```
C:\><RDBMS_ORACLE_HOME>\appsutil\bin\adchkcfg.cmd
```

AutoConfig prompts for the location of the database context file and the APPS password

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## Running AutoConfig in Test Mode: Configuration Report

### Running AutoConfig in Test Mode: Configuration Report

- The AutoConfig test mode script produces a configuration report that shows the changes the AutoConfig script would have made
- The configuration report, cfgcheck.html, is written to:
  - On the application tier:  
`<INST_TOP>/admin/out/<MMDDhhmm>`
  - On the database tier:  
`<RDBMS_ORACLE_HOME>/appsutil/log/  
<CONTEXT_NAME>/<MMDDhhmm>`

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### Running AutoConfig in Test Mode: Configuration Report

`<MMDDhhmm>` represents the month, day, hour, and minute of the AutoConfig test mode script session.

## Running AutoConfig in Test Mode: Configuration Report

### Running AutoConfig in Test Mode: Configuration Report

- AutoConfig test mode script example output (tail):

```
Differences text report is located at: /u01/oracle/VIS/inst/apps/VIS_jfarring-pc  
/admin/out/06072235/cfgcheck.txt
```

```
Generating Profile Option differences report...COMPLETED  
Generating File System differences report.....COMPLETED
```

```
Differences html report is located at: /u01/oracle/VIS/inst/apps/VIS_jfarring-pc  
/admin/out/06072235/cfgcheck.html
```

```
Differences Zip report is located at: /u01/oracle/VIS/inst/apps/VIS_jfarring-pc/  
admin/out/06072235/ADXcfgcheck.zip
```

```
AutoConfig completed successfully.  
The log file for this session is located at: /u01/oracle/VIS/inst/apps/VIS_jfarring-pc/admin/log/06072234/adconfig.log  
bash-3.00$
```

- An example of cfgcheck.html report contents is shown on the next slides

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## AutoConfig Configuration Report: Example

**AutoConfig Configuration Report: Example**

**ORACLE® ADX Config Report**

File System Database

This report was generated by the AutoConfig utility on Thu Jun 7 22:36:32 BST 2007

This report provides information on changes and updates which will be made during the next normal execution of AutoConfig. Follow each of the links below to find changes to the file system which will be made by AutoConfig. Information on AutoConfig can be found in [document 387859.1](#) on OracleMetaLink. An AutoConfig FAQ is also available in [document 218089.1](#) on OracleMetaLink.

**Installed Node Types on jfarring-pc.uk.oracle.com**

Admin node	Web node	Forms Node	Concurrent Node
------------	----------	------------	-----------------

**Section 1: AutoConfig Context File Changes**  
Displays the current AutoConfig Context File, the changed AutoConfig Context File, and a difference report.  
▼ Hide

Context File Name	Location	Current Version	Changed Version	View Diff
VIS_jfarring-pc.xml	/u01/oracle/VIS/inst/apps/VIS_jfarring-pc/appl/admin	120.217	120.217	No Difference

**Section 2: Changed Configuration Files**  
Displays a list of files which will be changed during an AutoConfig execution and the difference report for each file.  
► Show

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## AutoConfig Configuration Report: Example

### AutoConfig Configuration Report: Example

- AutoConfig test mode script example:

#### **Section 1: AutoConfig Context File Changes**

Displays the current AutoConfig Context File, the changed AutoConfig Context File, and a difference report.

[▶ Show](#)

#### **Section 2: Changed Configuration Files**

Displays a list of files which will be changed during an AutoConfig execution and the difference report for each file.

[▶ Show](#)

#### **Section 3: New Configuration Files**

Displays a list of new files which will be created during an AutoConfig execution.

[▶ Show](#)

#### **Section 4: Legend**

Legend and syntax translations

[▶ Show](#)

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## Running AutoConfig from Oracle Applications Manager

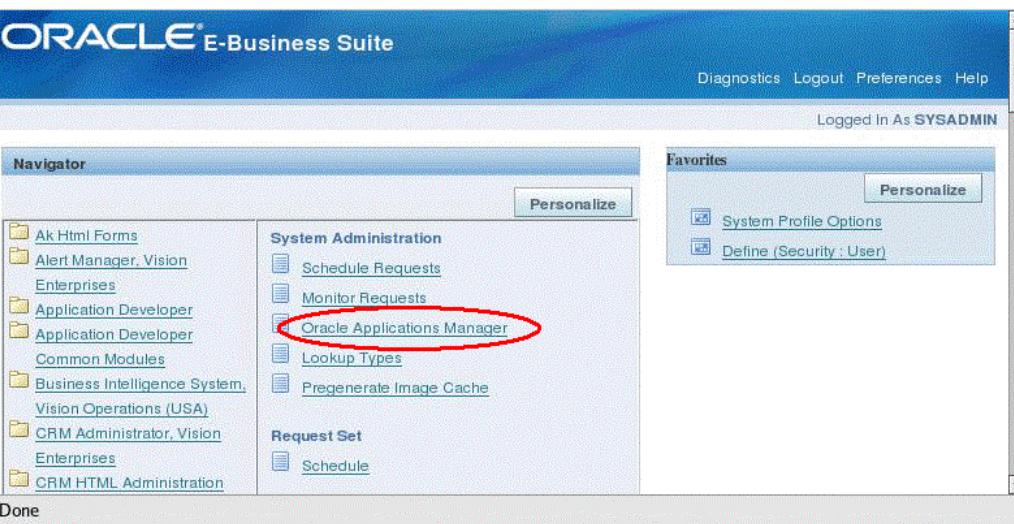


### Running AutoConfig from Oracle Applications Manager

The AutoConfig feature of Oracle Applications Manager (OAM) is used to update and manage the context files.

Log in to Oracle E-Business Suite from a suitable account.

## Running AutoConfig from Oracle Applications Manager



### Running AutoConfig from Oracle Applications Manager

Click on Oracle Applications Manager (OAM).

## Running AutoConfig from Oracle Applications Manager

### Running AutoConfig from Oracle Applications Manager

The screenshot shows the Oracle Applications Manager (OAM) interface. The top navigation bar includes 'Support Cart', 'Setup', 'Home', 'Logout', and 'Help'. Below the navigation bar, the 'Site Map' tab is selected. The main content area is divided into several sections: 'System Configuration' (with 'Hosts' expanded, showing 'AutoConfig' (circled in red), 'Generic Services', 'Request Processing Managers', 'Transaction Managers', and 'Parallel Concurrent Programming Setup'), 'Application Services' (with 'Workflow' expanded, showing 'Home', 'Work Item Metrics', 'Agent Activity', 'Background Engines', 'Notification Mailer', 'Service Components', and 'Purge'), and 'Others' (with 'Concurrent Requests' (showing 'Submit New' and 'Pending'), 'Service Fulfillment Manager' (showing 'Service Fulfillment Manager'), and 'Applications Manager Log' and 'Knowledge Base'). A 'Done' button is located at the bottom left of the main content area.

### Running AutoConfig from Oracle Applications Manager

The OAM Dashboard appears. Click the Site Map tab. OAM displays a list of available links in the site.

The AutoConfig link is located under the System Configuration heading of the Administration tab. Click on AutoConfig.

## AutoConfig Main Screens

The screenshot shows the Oracle Applications Manager interface for AutoConfig. The main title is "AutoConfig Main Screens". Below it, the Oracle Applications Manager logo is visible. The navigation bar includes "Support Cart", "Setup", "Home", "Logout", and "Help". The breadcrumb path is "Applications Dashboard > Site Map > Applications System:VIS > AutoConfig: VIS". The page title is "Context Files". A message at the top indicates the last update was on "06-Jun-2007 22:01:54". A filter dropdown is set to "Name" and a "Go" button is present. A link to "Compare" two selected files is available. A table lists context files for two nodes:

Select Details	Name	Host	Last Synchronized Date	Last Update Date	Tier	Synchronized	Node	Show	Edit	View	History	Parameters
<input type="checkbox"/>	<a href="#">VIS_jfarring-pc</a>	jfarring-pc	24-Apr-2007 22:25:46	24-Apr-2007 22:25:46	Database	✓	Online					
<input type="checkbox"/>	<a href="#">VIS_jfarring-pc</a>	jfarring-pc	20-Apr-2007 19:11:05	20-Apr-2007 19:11:05	Applications	✓	Online					

Two TIP messages are displayed at the bottom:

- TIP** Only two context files of the same tier can be selected to compare.
- TIP** Context file on the file system is not synchronized to match changes done here. The file will be synchronized automatically when you run autoconfig on this node.

## AutoConfig Main Screens

OAM displays the main AutoConfig page.

For each node, the following information is shown:

- Name – shows the nodename
- Host – shows the hostname
- Last Synchronized Date – indicates when the database values and file values were last synchronized.
- Last Updated Date – indicates when the values in the database was last updated.
- Tier – shows the tier (database or application) for which the context file contains parameters.
- Synchronized – indicates whether the file and the system have been synchronized
- Node status – indicates whether the node is online.
- View – displays the context file
- Show History – displays history of changes made to the context file
- Edit Parameters – opens the Edit Parameters page

## AutoConfig Main Screens

Select Details	Name	Host	Last Synchronized Date	Last Update Date	Tier	Synchronized	Node	Status	Show	Edit	History	Parameters
<input type="checkbox"/>	VIS_jfarring-pc	jfarring-pc	24-Apr-2007 22:25:46	24-Apr-2007 22:25:46	Database		Online					
				Version 120.27	Path /u01/oracle/VIS/db/tech_st/10.2.0/appsutil/VIS_jfarring-pc.xml							
				Creation Date 19-Apr-2007 02:18:16	Last Updated By ANONYMOUS							
				Status Write succeeded	Comments							
<input type="checkbox"/>		VIS_jfarring-pc	jfarring-pc	20-Apr-2007 19:11:05	20-Apr-2007 19:11:05	Applications		Online				

Done

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## AutoConfig Main Screens

Click on the name of the node or the name of the host to filter the list of information. Expand the Details column for your selection by clicking on the plus (+) sign.

AutoConfig displays information about the version, creation date, path of the file, and name of the user who last made updates. The Status information corresponds to the Synchronized column value. ‘Write succeeded’ indicates that the synchronization between the OAM database and the context file was successful.

Click on Edit Parameters to see the existing configuration parameters grouped by these categories: Global, System, Local, Environments, OA\_Ports, OA\_Services, and Custom.

## Editing Parameters

The screenshot shows the Oracle Applications Dashboard with the title 'Editing Parameters'. The URL in the address bar is 'Context File Parameters:/u01/oracle/VIS/db/tech\_st/10.2.0/apputil/VIS\_jfarring-pc.xml:VIS\_jfarring-pc'. The page displays a table of parameters under the 'Global' category. The parameters listed are:

Focus Title	OA_VAR	Status	Value	Description
Context Name	s_contextname	Not Changed	VIS_jfarring-pc	Name of the context, which is of the form <DB_SID>_<HOSTNAME>.
Context Type	s_contexttype	Not Changed	Database Context	Type of the context - whether it is an Applications context or a Database context.
Location of the Database context file	s_contextfile	Not Changed	/u01/oracle/VIS/db/tech_st/10.2.0/apputil/VIS_jfarring-pc	Location of the Database context file

A 'Done' button is located at the bottom left of the table area. The Oracle logo is visible at the bottom right of the page.

## Editing Parameters

The initial Parameters page displays existing Global parameters. Information shown on all parameters pages includes: variable title, internal name (OA\_VAR), change status indicator, value, and a short description. Clicking a category link displays the parameters associated with that category.

## Editing Parameters

### Editing Parameters

Focus Title	OA_VAR	Status	Value	Description
System	s_systemname	Not Changed	VIS	Name of the Oracle Applications system pointed to by the context.
	s_dbSid	Not Changed	VIS	The Database SID for the system.
	s_dbSidLower (lower case)	Not Changed	vis	The Database SID in lower case for the system.
	Database Name	Not Changed	VIS	Database name to be used

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## Editing Parameters

For example, click the System tab to see the parameters associated with the Oracle E-Business Suite system.

You can also search for a specific parameter by entering its title (name), OA\_VAR (internal name), value, or description in the Search field. Choose the appropriate group of parameters and make necessary changes in the Value field. Click Save.

## Confirming Changes

The screenshot shows the Oracle Applications Manager interface. At the top, it says "Confirming Changes". Below that is the "ORACLE Applications Manager" header with links for Support Cart, Setup, Home, Logout, and Help. Underneath is the "Applications Dashboard" and "Site Map". A search bar with dropdown menus for "Search" and "Title" is followed by a "Go" button. A large text area prompts the user to "Enter comments below and click OK button to save Applications Configuration. Click Cancel button if you do not want to save it." Below this is a table titled "Context File Parameters:/u01/oracle/VIS inst/apps/VIS\_jfarring-pc/app/admin/VIS\_jfarring-pc.xml:VIS\_jfarring-pc". The table has columns for Title, OA\_VAR, Status, Value, and Description. One row is shown: "OSD Slash" with OA\_VAR value "/", Status "Not Changed", and Value "/". The Description column states: "OS-specific File Separator. On UNIX, the value of this variable should be '/' and on Windows, the value should be '\'.  
Done" is at the bottom left of the table. Navigation arrows for "Previous" and "Next 25" are at the top right of the table. The Oracle logo is at the bottom right.

### Confirming Changes

AutoConfig displays a confirmation page and provides a space for comments. It also displays the entire contents of the context file, including the changed values. Notice that values are displayed in groups of 25. Click the arrows to move forward and back through the pages. Click *OK* to save the changes. Oracle Applications Manager automatically stores the new values and updates the context file.

After updating the context file, run the AutoConfig script to generate new system configuration files that are propagated with the new values.

## Confirming Changes

The screenshot shows a web interface for Oracle Applications Manager. At the top, it says "Confirming Changes". Below that is the Oracle Applications Manager logo. A blue header bar contains "Support Cart", "Setup", "Home", "Logout", and "Help". Underneath is a navigation bar with "Applications Dashboard" and "Site Map". A central message box has an "Information" icon and the text: "The configuration options have been saved to the Context File. Now you can run AutoConfig and restart services to make sure these settings take effect." It includes an "OK" button and an "Add to Support Cart" link. At the bottom of the page is a red footer bar with the Oracle logo.

### Confirming Changes

AutoConfig reminds you to run the AutoConfig script to instantiate new configuration files and update the database profiles.

## Using the Support Cart

**Using the Support Cart**

ORA User	s_dbuser	Not Changed	oracle	OS user for installing the DB tier components
ORA Group	s_dbgroup	Not Changed	dba	Default OS group for the Oracle OS user.
APPS User	s_appsuser	Not Changed	applmgr	OS user for installing the middle tier components
APPS Group	s_appsgroup	Not Changed	dba	Default OS group for the Apps OS user.
OS specific library extension	s_lib_ext	Not Changed	so	Library extension for the current OS. By default the extension is 'so' for Linux, Solaris, IBM_AIX and HP_UX_IA64, 'sl' for HP_UX and 'dll' for Windows.

[Global](#) [System](#) [Local](#) [Environments](#) [Oa\\_ports](#) [Oa\\_services](#) [Custom](#)

[Support Cart](#) [Setup](#) [Home](#) [Logout](#) [Help](#)

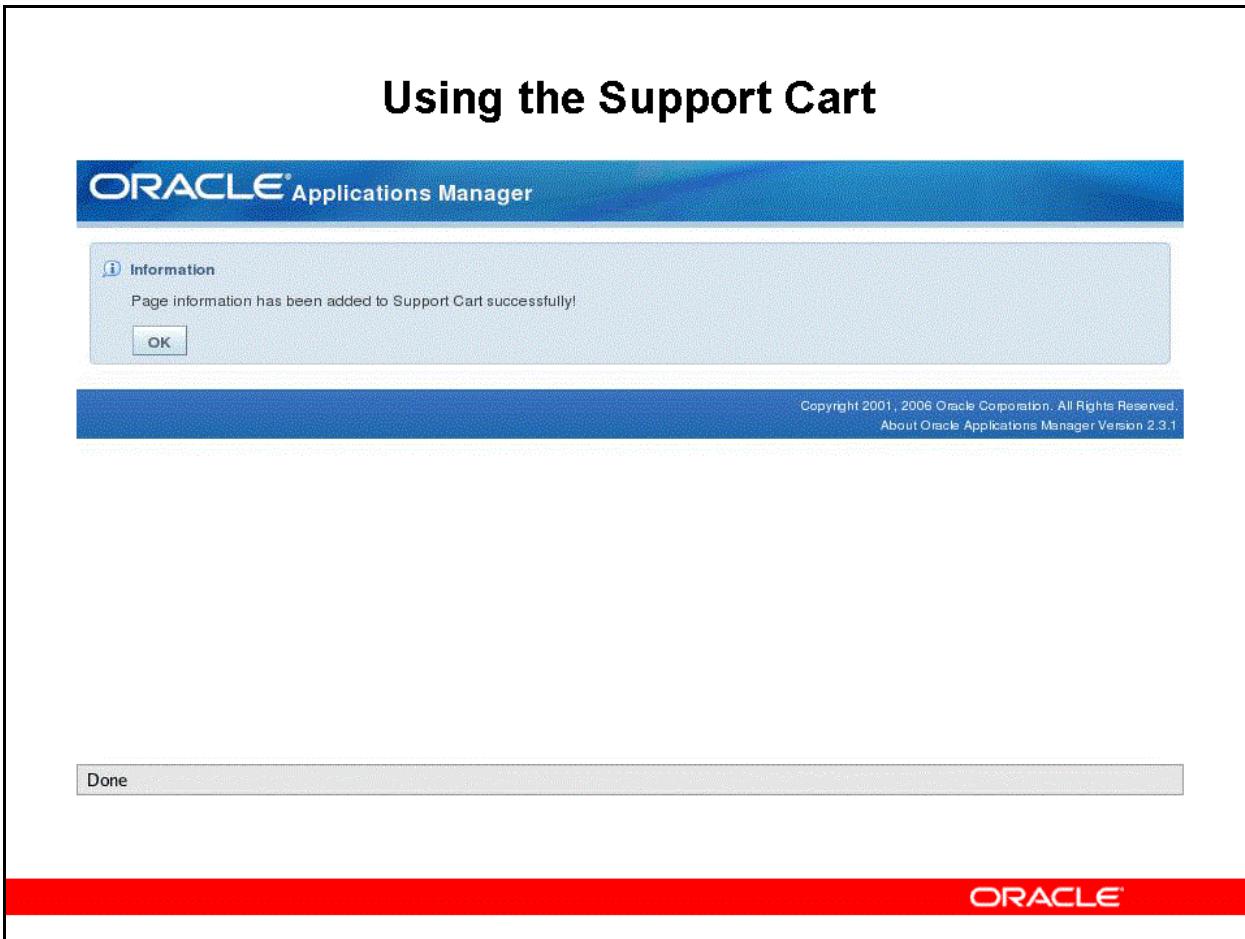
Copyright 2001, 2006 Oracle Corporation. All Rights Reserved.  
About Oracle Applications Manager Version 2.3.1

Done

### Using the Support Cart

Many pages throughout OAM have an Add to Support Cart button. The Support Cart feature allows you to save Oracle Applications Manager pages with their data, and then zip them into a file to send to Oracle Support, who can then view your pages in the Oracle Applications Manager display format.

## Using the Support Cart



### Using the Support Cart

When you click the Add to Support Cart button, the page is added to the Support Cart. If you have filtered or sorted the data, your manipulated view is submitted.

## Using the Support Cart

The screenshot shows the 'Support Cart' page of the Oracle Applications Manager. At the top, there's a blue header bar with the 'ORACLE' logo, a search bar, and navigation links for 'Support Cart', 'Setup', 'Home', 'Logout', and 'Help'. The 'Support Cart' link is circled in red. Below the header is a toolbar with buttons for 'Select Items And...', 'Delete', 'Select All', and 'Select None'. A filter dropdown is set to 'Page'. The main content area is a table with three columns: 'Page', 'Application Name', and 'Description'. One row is visible, showing 'oam/adconfig/adAppsCtxFileTable' under 'Page', 'VIS' under 'Application Name', and 'Applications tier details' under 'Description'. There's a 'View' button next to the row. At the bottom of the page are 'Save Cart' and 'Restore Cart' buttons, and a footer with copyright information.

### Using the Support Cart

To view the contents of the Support Cart, click on the Support Cart icon from any page.

The Support Cart Contents page lists each page placed in the cart and its Application Name. You can filter the list by Page or Application Name. Click the View icon to view a page in a separate window.

Click on Save Cart to save the contents to a zip file that you can send to Oracle Support. Any contents of the cart that have not been saved are automatically deleted when you log out of Oracle Applications Manager.

To restore a saved cart, click Restore Cart to browse your directory for the saved cart. Select a cart file from the list displayed, or use the Browse button to select a file from the directory. Click *Restore*.

## Restoring a Previous Configuration

### Restoring a Previous Configuration

To view configuration history and restore a previous configuration:

1. Access AutoConfig via OAM
2. View configuration history
3. Select the configuration parameters
4. Restore configuration

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### Restoring a Previous Configuration

With OAM AutoConfig, you can view a history of system configuration parameters stored by OAM. You can display the current configuration or previous ones, and request a comparison between the current configuration and a previous one. If necessary, AutoConfig can restore a previous set of configuration parameters, if an update was made in error, or did not suit your business requirements.

## Restoring a Previous Configuration

### Restoring a Previous Configuration

The screenshot shows the Oracle Applications Manager interface for AutoConfig: VIS. The title bar reads "Restoring a Previous Configuration". The main content area is titled "Context Files". A table lists two context files:

Select Details	Name	Host	Last Synchronized Date	Last Update Date	Tier	Synchronized	Node	Status	Show	Edit
<input type="checkbox"/>	<a href="#">VIS_jfarring-pc</a>	jfarring-pc	24-Apr-2007 22:25:46	24-Apr-2007 22:25:46	Database	✓	Online			
<input type="checkbox"/>	<a href="#">VIS_jfarring-pc</a>	jfarring-pc	20-Apr-2007 19:11:05	20-Apr-2007 19:11:05	Applications	✓	Online			

Below the table, there are two tips:

- TIP** Only two context files of the same tier can be selected to compare
- TIP** Context file on the file system is not synchronized to match changes done here. The file will be synchronized automatically when you run autoconfig on this node.

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## Restoring a Previous Configuration

Click Show History in the AutoConfig initial page to access the Context File History page.

## Restoring a Previous Configuration

The screenshot shows the Oracle Application Management (OAM) Context File History page. At the top, it displays the current configuration details:

Name	VIS_jfarring-pc	Path	/u01/oracle/VIS/inst/apps/VIS_jfarring-pc/app/admin/VIS_jfarring-pc.xml
Host	jfarring-pc	Creation Date	19-Apr-2007 02:48:05
		Last Update Date	
Version	120.217	Update Date	19-Apr-2007 02:48:05
		Last Updated By	
Status	Write succeeded	Updated By	APPSMGR
Type	Apps Tier	Comments	Changed Apache mode to RESTRICTED.

Below this is a section titled "Previous Configurations" which lists previous versions of the configuration:

Select Version	Last Synchronized Date	Last Update Date	Last Updated By	Comments
120.217	07-Jun-2007 01:36:23	07-Jun-2007 01:36:23	SYSADMIN	
120.217	06-Jun-2007 22:46:53	06-Jun-2007 22:46:53	SYSADMIN	
120.217	06-Jun-2007 22:45:15	06-Jun-2007 22:45:14	SYSADMIN	
120.217	20-Apr-2007 19:11:05	20-Apr-2007 19:11:05	APPSMGR	

A red oval highlights the "Show Differences from Current Configuration" link in the header of the previous configurations table.

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### Restoring a Previous Configuration

The Context File History page lists other configurations stored in OAM. It shows the version number, last synchronized date, last update date, the user who last updated the configuration, and any comments for each configuration.

You can delete a previous configuration from the database by selecting it and clicking the Delete button.

To see a contrast between the current configuration and one that you have used in the past, select a previous version from the list and click Show Differences from Current Configuration.

## Comparing Configurations

### Comparing Configurations

Title	OA_VAR	Current	History	Description
Apache s_apache_mode	<input checked="" type="radio"/> Use Current Value <input type="radio"/> Restore Previous Value	RESTRICTED	NORMAL	This variable is used to specify whether Apache should be run in the 'Normal' mode or in the 'Restricted' mode. Apache Restricted

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## Comparing Configurations

The Show Differences from Current Configuration page lists the parameters that differ in value between the previous configuration and the current one. To restore an individual value, select Restore Previous Value. This action replaces the value in the current configuration. On the next page you can enter comments regarding your change.

## Other AutoConfig Features: Search Utility

### Other AutoConfig Features: Search Utility

- The AutoConfig Search Utility, GenCtxinfRep, can be used to obtain detailed information about:
  - Context variables
  - The templates that use them
- The utility accepts all or part of a context variable name, and generates a report containing detailed information about the relevant context variables

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### Other AutoConfig Features: Search Utility

The AutoConfig Search Utility is run from the command line, and generates an HTML or text report that includes descriptions, default values, and current values of matched context variables. The variable description contains recommended settings, range of allowed values, and links to documents that give detailed usage information.

## Other AutoConfig Features: Parallel Run Option

### Other AutoConfig Features: Parallel Run Option

- The Parallel Run feature enables AutoConfig to be run simultaneously across multiple nodes of an Oracle E-Business Suite system
  - This is needed because certain AutoConfig configurations of one node depend on the configurations of other nodes
- When running in parallel mode, AutoConfig uses the dbms\_locks package to ensure that configuration of one node does not interfere with configuration of other nodes
- The slide notes page shows the commands used to run AutoConfig in parallel mode

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### Other AutoConfig Features: Parallel Run Option

The Parallel Run feature enables AutoConfig to be run simultaneously across multiple nodes of an Oracle E-Business Suite system. This is needed because certain AutoConfig configurations of one node depend on the configurations of other nodes. When running in parallel mode, AutoConfig uses the dbms\_locks package to ensure that configuration of one node does not interfere with configuration of other nodes. During the instantiation (INST) phase, locking is done at the script level. During the execution (EXEC) phase, locking is done at the product\_top level.

AutoConfig can be run in parallel mode on the application tier with the following command:  
`perl $AD_TOP/bin/adconfig.pl contextfile=<CtxFile> [product=<product_top>] -parallel`  
Where <CtxFile> is the absolute path of the application tier context file and <product\_top> is the short name of the product to be configured.

AutoConfig can be run in parallel mode on the database tier with the following command:  
`perl $ORACLE_HOME/appsutil/bin/adconfig.pl contextfile=<CtxFile> -parallel`  
Where <CtxFile> is the absolute path of the database tier context file.

When using parallel mode, AutoConfig must be invoked with the –parallel option on *all* nodes of the relevant tier.

## Other AutoConfig Features: Profiler

### Other AutoConfig Features: Profiler

- The profiler feature provides a consolidated HTML report of an AutoConfig run
- The report displays a summarized view that lists all the product tops, along with the total instantiation and execution time of the templates within each product top
  - You can drill down further into the report to view additional details
- The slide notes page shows the commands used to run the AutoConfig profiler

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### Other AutoConfig Features: Profiler

This feature provides a consolidated HTML report of an AutoConfig run. The report displays a summarized view that lists all the product tops, plus the total instantiation and execution time of the templates within each product top.

You can drill down further into the report to view the source and target location of each template, the time taken to instantiate and execute individual template scripts, and the execution report for each template script.

AutoConfig can be run in profile mode on the application tier with the following command:

```
$AD_TOP/bin/adconfig.pl contextfile=<CtxFile> [product=<product_top>] -profile
```

Where <CtxFile> is the absolute path to the application tier context file and <product\_top> is the short name of the product to configure.

AutoConfig can be run in profile mode on the database tier with the following command:

```
perl $ORACLE_HOME/appsutil/bin/adconfig.pl contextfile=<CtxFile> -profile
```

Where <CtxFile> is the absolute path to the database tier context file.

## Other AutoConfig Features: Enhanced Check Config Tool

### Other AutoConfig Features: Enhanced Check Config Tool

- The Check Config tool (adchkcfg) is used to identify the changes that would be made to an Oracle E-Business Suite system on the next AutoConfig run
- In addition to its original features, this tool now:
  - Generates a report for database changes
  - Highlights important database updates
  - Offers improved report readability

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### Other AutoConfig Features: Enhanced Check Config Tool

The Check Config tool (adchkcfg) is used to identify the changes that would be made to an Oracle E-Business Suite system on the next AutoConfig run.

In addition to its original features, this tool now generates a report for database changes, highlights important database updates, and offers improved report readability.

## Other AutoConfig Features: Enhanced Service Dependency Management

### Other AutoConfig Features: Enhanced Service Dependency Management

- The AutoConfig service management infrastructure has been enhanced with dependency information for service groups and services
- The following attributes have been added:
  - **services** (required) - contains a list of the services that belong to a particular service group
  - **incompatible\_with** (optional) - contains a list of service groups and services that are mutually exclusive
  - **requires** (optional) - contains a list of service groups and services they require for their own successful operation

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### Other AutoConfig Features: Profiler

The AutoConfig service management infrastructure has been enhanced with dependency information for service groups and services. This dependency information is stored as metadata in the context file.

The following XML attributes have been added:

- **services** (required) - contains a comma-separated list of the services that belong to a particular service group.
- **incompatible\_with** (optional) - contains a comma-separated list of service groups and services that are mutually exclusive with the service group or service for which they are defined. For example, Forms socket and servlet mode are incompatible with each other.
- **requires** (optional) - contains a comma-separated list of required service groups and services. For example, OC4J containers require the TNS listener to be running in order to start and run successfully.

## Other AutoConfig Features: Build Context Utility

### Other AutoConfig Features: Build Context Utility

- The Build Context utility, adbldxml.pl, can be used to create a new context file on the database tier
  - This generated context file acts as a central repository for database configuration information
  - It is essential in enabling AutoConfig on the database tier of an Oracle E-Business Suite system
- The slide notes page shows the command used to run the Build Context utility

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### Other AutoConfig Features: Build Context Utility

The Build Context utility, \$ORACLE\_HOME/appsutil/bin/adbldxml.pl, can be used to create a new context file on the database tier (not the application tier). This generated context file acts as a central repository for database configuration information, and is essential in enabling AutoConfig on the database tier of an Oracle E-Business Suite system.

A new context file on the database tier can be created by issuing the following command:

```
perl $ORACLE_HOME/appsutil/bin/adbldxml.pl [template=<contextfile_template>] \[out=<contextfile_name>
```

Where <contextfile\_template> is the location of the context template (default is \$ORACLE\_HOME/appsutil/template/adxdbctx.tmp), and <contextfile\_name> is the full path of the context file to be generated (default is \$ORACLE\_HOME/appsutil/<context\_name>.xml).

## Module Summary

### Module Summary

In this module, you should have learned how to do the following:

- Describe the Applications context
- Update Applications context parameters
- Restore Applications context parameters
- Describe AutoConfig
- Run AutoConfig to configure an Oracle E-Business Suite system
- Roll back an AutoConfig session
- Identify the control scripts created by AutoConfig
- Run AutoConfig in test mode
- Describe additional AutoConfig features

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## Module Discussion

### Module Discussion

- Describe the benefits of the Applications context
- What are the context files?
- How is AutoConfig run?
- How would you update a context variable?
- Describe how template files are employed by AutoConfig
- When would you used the Support Cart with AutoConfig?
- How would you check in advance the effects of a system modification that is to be made by AutoConfig?
- What feature enables AutoConfig to be run simultaneously across multiple nodes of an Oracle E-Business Suite system?

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# **License Manager**

## **Chapter 18**



## License Manager

### License Manager

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## Objectives

### Objectives

At the end of this module, you should be able to do the following:

- Register products
- Register country-specific functionalities
- Register languages
- Identify licensed products and languages

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## Module Overview

### Module Overview

This module consists of the following topics:

- Introduction to License Manager
- Accessing License Manager
- Registering Oracle E-Business Suite
- Registering component applications
- Registering individual products
- Registering country-specific functionalities
- Registering languages
- Running License Manager reports

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## Introduction to License Manager

### Introduction to License Manager

You use License Manager to register:

- Products
- Country specific functionalities
- Languages

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### License Manager

At various times throughout the life cycle of an Oracle E-Business Suite system, you may decide to add other products, country-specific functionalities, or languages. If you do, you must register the new products and functionalities. This registration process is necessary so that other utilities recognize that the new components are activated.

You use License Manager, an Oracle Applications Manager (OAM) utility, to register new Oracle E-Business Suite products, country-specific functionalities, and languages.

Note that License Manager does not set up license agreements or determine pricing. It only registers the products you have licensed through the Oracle Store or the country-specific functionalities and languages you plan to add.

## License Manager Reports

### License Manager Reports

License Manager reports provide details about the products and product-related components that are already registered in your system:

- Licensed Products report
- Shared Products report
- Country-specific Functionalities report
- Languages and Territory report
- Summary report

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## Accessing License Manager

### Accessing License Manager

Access License Manager from Oracle Applications Manager:



### Accessing License Manager

You can access License Manager from Oracle Applications Manager (OAM).

Using the seeded System Administration responsibility, navigate to Oracle Applications Manager. From the Oracle Applications Manager Site Map, select the Administration tab, then click on the License Manager link under System Configuration.

## License Manager Home Page

### License Manager Home Page

The License Manager Home Page has links for licensing:

- Products
- Country-specific Functionalities
- Languages

In addition, you can generate reports for:

- Licensed Products
- Shared Products
- Country-specific Functionalities
- Languages
- Summary

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## License Manager Home Page

From the License Manager Home page, select one of the licensing (registration) options or report options by clicking the associated link.

Complete the information to register products, country-specific functionalities, or languages added since the initial installation of Oracle E-Business Suite. If you want to view a report, select a report type from the list and then complete the selection criteria.

Once you have successfully completed the registration information, or you have finished viewing reports, click Logout to close License Manager.

## License Manager Home Page

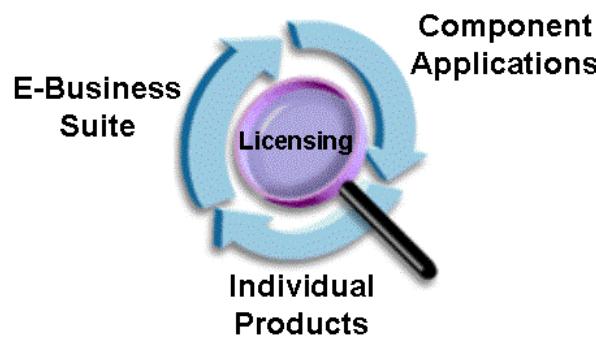
The screenshot shows the Oracle License Manager Home Page. At the top, there's a blue header bar with the Oracle logo and navigation links for 'Applications Dashboard' and 'Site Map'. Below the header, the page title 'License Manager Home Page' is displayed in large, bold, black font. A main content area is divided into two sections: 'License' and 'Reports'. The 'License' section contains links for 'Products', 'Country-specific Functionalities', and 'Languages'. The 'Reports' section contains links for 'Licensed Products', 'Shared Products', 'Country-specific Functionalities', 'Languages', and 'Summary'. A note at the bottom left says 'TIP Only the items to which you have access are clickable.' The bottom right corner features the Oracle logo.

## Registering Products

### Registering Products

There are three product registration options:

- Register entire Oracle E-Business Suite
- Register component applications
- Register products individually



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### Registering Products

Once you have set up the required product licensing agreement, you must register the new products in your system. If you do not, you will not be able to apply patches in their entirety, or perform other maintenance tasks for these products.

License Manager offers three product registration options:

- **Register entire Oracle E-Business Suite** This option registers all products in Oracle E-Business Suite price bundle in a single operation.
- **Register Component Applications** This option is used to register the components (products) that make up a particular application.
- **Register products individually** This option registers the products that you specify.

## Registering Oracle E-Business Suite

### Registering Oracle E-Business Suite

Registering Oracle E-Business Suite is a three-step process:

1. Registering Oracle E-Business Suite itself
2. Registering add-on products
3. Reviewing the selected products



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### Registering Oracle E-Business Suite

Registering Oracle E-Business Suite is a three step process, which consists of:

1. Registering Oracle E-Business Suite itself
2. Registering add-on products
3. Reviewing the selected products

## Registering Oracle E-Business Suite

### Registering Oracle E-Business Suite



### Registering Oracle E-Business Suite

To register the entire Oracle E-Business Suite, click Products on the License Manager Home page to see the License Products page. Select License E-Business Suite and click *Continue*.

## Registering Oracle E-Business Suite

The screenshot shows the Oracle E-Business Suite License E-Business Suite:Suite Licensing:VIS page. The interface has a blue header with the Oracle logo and navigation links like Support Cart, Setup, Home, Logout, and Help. Below the header, there are tabs for Suite Licensing, Add-ons, and Review. The main content area displays a list of modules and their component applications. A red circle highlights the first column of check boxes, which are all checked and grayed out. The modules listed are Suite, All, Basic, Intelligence, E-Business Intelligence, Marketing & Sales, Marketing, TeleSales, Field Sales, and Order Management.

## Registering Oracle E-Business Suite

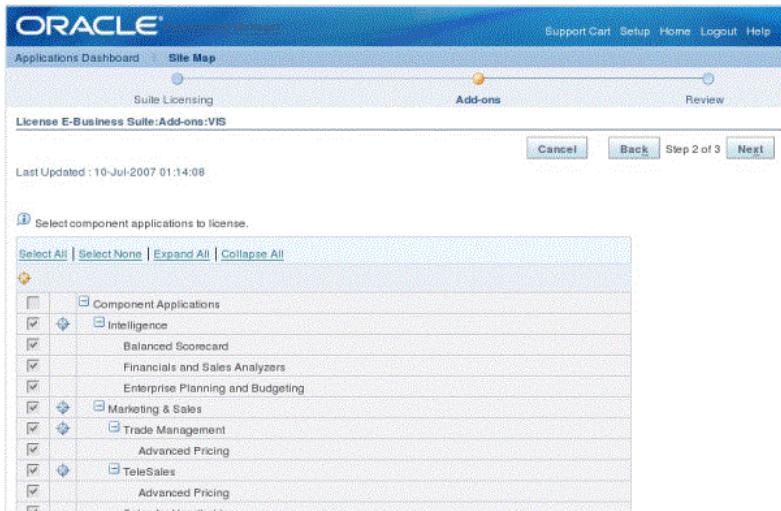
The License E-Business Suite page displays the list of modules included in Oracle E-Business Suite. Notice that all the check boxes are grayed and checked.

Since you have chosen to register the entire Oracle E-Business Suite, there are no choices to make on this page. All the modules and their component applications will be registered. Click *Next* to continue.

## Registering Oracle E-Business Suite

### Registering Oracle E-Business Suite

The License Add-on products page displays the Oracle E-Business Suite Add-on products:



### Registering Oracle E-Business Suite

The License Add-on products page displays Oracle E-Business Suite Add-on products.

Some products are not included in the Oracle E-Business Suite price bundle. For example, if you have recently licensed Advanced Supply Chain Planning, you must register it on this page, as it is not included in the standard Oracle E-Business Suite bundle. Click the check box beside an Add-on product to register it.

Any component applications or products that are already registered in your system are grayed and checked. Boxes that are grayed and not checked identify the name of a component application group. This group label is for identification only and cannot be selected. Click *Next* to continue.

## Registering Oracle E-Business Suite

### Registering Oracle E-Business Suite

Review the products you selected for registration and complete the registration process

- License Manager displays the Add-on products you selected on the previous screen, plus any Oracle E-Business Suite products not already registered
- Click OK on the confirmation page to complete product registration
- Once a product is registered, it cannot be unregistered

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### Registering Oracle E-Business Suite

Review the products you have selected for registration. License Manager displays the Add-on products you selected on the previous screen and any Oracle E-Business Suite products that have not been registered previously. Oracle E-Business Suite products that were already registered in your existing installation are not shown. Click *Submit* to continue.

License Manager displays a confirmation page. Click *OK* to complete the product registration and click *Logout* to exit License Manager.

## Post-Registration Steps

### Post-Registration Steps

After registering products, perform any required post-registration steps:

- Apply product patches
- Generate files
- Perform product-specific implementation steps

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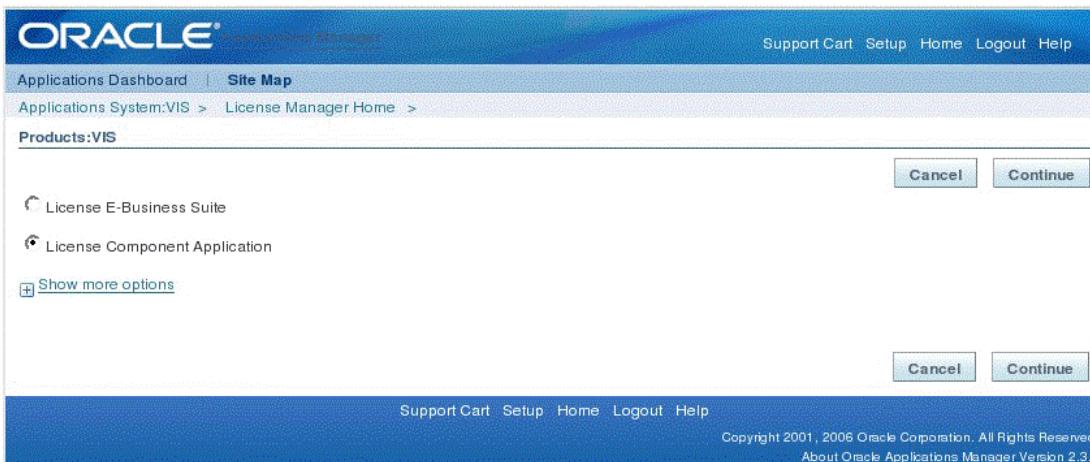
### Post Registration Steps

- **Apply product patches:** There may be product-specific patches or mini-packs required for the newly licensed products. In order to determine if there are patches to apply, use Patch Wizard. Once you have determined which patches (if any) you need to apply, use AutoPatch to apply the updates.
- **Generate files:** As patches are applied to Oracle E-Business Suite as part of general maintenance, files belonging to unregistered products are not generated. You should generate all product files now, before you use the newly registered product. If you generated files as a part of applying a product-specific patch (in the previous step), omit this step.
- **Perform product-specific implementation steps:** Setup or implementation steps may be required for the newly registered products. See the product-specific documentation for details.

## Registering Component Applications

### Registering Component Applications

Use the License Component Applications page to register component applications:



### Registering Component Applications

To register component applications, select License Component Application on the License Products page and click *Continue*.

## Registering Component Applications

The screenshot shows the Oracle License Manager interface for registering component applications. At the top, there's a navigation bar with the Oracle logo, a search bar, and links for Support Cart, Setup, Home, Logout, and Help. Below the navigation is a breadcrumb trail: Applications Dashboard > Site Map > Applications System:VIS > License Manager Home > License Products > License Component Application:VIS. The main content area is titled "Registering Component Applications". It displays a list of component applications under "Component Applications". Under "All", several items are listed: Basic, Intelligence, E-Business Intelligence, Balanced Scorecard, Financials and Sales Analyzers, Enterprise Planning and Budgeting, Marketing & Sales, Marketing, Trade Management, and Advanced Pricing. Most items under "All" have a checkmark next to them, indicating they are selected. There are also checkboxes for "Select All", "Select None", "Expand All", and "Collapse All". At the bottom right of the content area is the Oracle logo. Below the content area is a red footer bar.

### Registering Component Applications

On the License Component Applications page, License Manager displays the list of application modules. Each module is expanded to show its individual components. Notice that component applications that are already registered are grayed and checked. Applications that are grayed without a check are for display only and cannot be selected.

Collapse the component applications that you do not want to register by clicking the icon next to their names. Then, to select all the products included in the expanded component applications, click Select All. To select only some of the components, click them individually. Notice that the Select All option applies only to those component applications that you have expanded. Click Next to continue.

## Registering Component Applications

### Registering Component Applications

Review your selected products and then click *Next* to register the chosen component applications:

- Accept the registration choices
- Carry out any product-specific post-registration steps
- Post-registration steps are the same as those needed when registering Oracle E-Business Suite

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### Registering Component Applications

License Manager displays the products that will be licensed if you continue. Review your selections. If you selected an application on the previous page, you cannot deselect it on this page. To make changes, click *Back* and then revise the selections.

When you are finished:

- Click *Next* to register component applications
- Accept the registration choices
- Determine if there are product-specific post-registration steps

Post-registration steps are the same as those when registering Oracle E-Business Suite.

## Registering Individual Products

### Registering Individual Products

Use the License Applications Product page to register any add-on products that are not included in Oracle E-Business Suite, or individual products in a component application:

The screenshot shows a two-panel Oracle License Manager interface. The left panel displays a list of products under 'Products:VIS': 'License E-Business Suite' (radio button selected), 'License Component Application', and 'License Applications Product'. A red oval highlights the 'License Applications Product' option. The right panel shows a confirmation message: 'You have selected the following product for registration: License Applications Product'. It includes 'Cancel' and 'Continue' buttons. The bottom of the screen shows the Oracle logo.

### Registering Individual Products

You can use License Manager to register any add-on products that are not included in Oracle E-Business Suite, or individual products in a component application.

Click the icon next to Show More Options to expand the options. Select License Applications Product and click *Continue*.

## Registering Individual Products

### Registering Individual Products

The screenshot shows the Oracle Applications Dashboard. The top navigation bar includes links for Support Cart, Setup, Home, Logout, and Help. Below the navigation is a breadcrumb trail: Applications System:VIS > License Manager Home > License Products >. The main content area is titled "Applications Products: VIS". A callout box with an information icon points to the text "Select individual products to license." Below this, there are two buttons: "Select All" and "Select None". A table lists various Oracle products with their abbreviations. Most products have a checked checkbox next to them, indicating they are registered or shared. The table has two columns: "Select Product Name" and "Product Abbreviation".

Select Product Name	Product Abbreviation
Advanced Benefits	BEN
Advanced Outbound Telephony	IEC
Advanced Pricing	QP
Advanced Product Catalog	EGO
Advanced Supply Chain Planning	MSC
Alert	ALR
Application Implementation	AZ
Application Object Library	FND
Application Report Generator	RG
Applications BIS	BIS

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## Registering Individual Products

License Manager displays the License Individual Products page. This page lists all Oracle E-Business Suite products, including add-on products from the Oracle E-Business Suite and individual products included in component applications.

Boxes next to products that are already registered, and shared or dependent products, are shaded and checked.

Select individual products by clicking the check box next to the products you want to register. When you are finished:

- Click *Next* to register the selected products
- Accept the registration choices
- Determine if there are product-specific post-registration steps

## Registering Country-Specific Functionalities

### Registering Country-Specific Functionalities

Use the License Country-Specific Functionalities page to register features specific to a country or region

- From License Manager Home Page, click Country-Specific Functionalities
- Use the License Country-Specific Functionalities page to select additional functionalities
- Make your selection and click *Next* when finished
- You cannot use License Manager to remove functionalities once they have been licensed

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### Registering Country-Specific Functionalities

Country-Specific Functionalities are features and functionalities that are specific to a country or region.

From the License Manager Home page, click Country-Specific Functionalities to access the License Country-specific Functionalities page.

Use the License Country-specific Functionalities page to select additional functionalities. Check boxes next to functionalities that are already registered are checked and grayed. Once registered, you cannot use License Manager to remove the functionality. Make selections and click *Next* when finished.

## Registering Country-Specific Functionalities

### Registering Country-Specific Functionalities

The screenshot shows the Oracle Applications Dashboard. The top navigation bar includes links for Support, Cart, Setup, Home, Logout, and Help. Below the navigation is a breadcrumb trail: Applications System:VIS > License Manager Home > Country-specific Functionalities:VIS. The main content area is titled "Country-specific Functionalities:VIS". It contains a table with two columns: "Select Country Name" and "Country Short Name". The table lists ten countries, each with a checked checkbox in the first column. At the bottom right of the table are "Cancel" and "Next" buttons. A red banner at the bottom of the page contains the word "ORACLE".

Select Country Name	Country Short Name
<input checked="" type="checkbox"/> Argentina	AR
<input checked="" type="checkbox"/> Australia	AU
<input checked="" type="checkbox"/> Austria	AT
<input checked="" type="checkbox"/> Belgium	BE
<input checked="" type="checkbox"/> Bolivia	BO
<input checked="" type="checkbox"/> Brazil	BR
<input checked="" type="checkbox"/> Canada	CA
<input checked="" type="checkbox"/> Chile	CL
<input checked="" type="checkbox"/> China	CN
<input checked="" type="checkbox"/> Colombia	CO

### Registering Country-specific Functionalities

License Manager asks you to verify your choices. When you are finished:

- Click Submit to register the selected functionalities.
- Accept the registration choices.
- Determine if there are post-registration steps. For details, see the Global Financials user guide for the relevant country.

## Registering Languages

### Registering Languages

License Manager allows you to register languages that you have added to your system since the initial installation

Registering languages is a three-step process of:

- Registering individual languages
- Setting the base language
- Reviewing the selected languages and base language

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### Registering Languages

Oracle E-Business Suite supports numerous languages. License Manager allows you to register languages that you have added to your system since the initial installation. You can also use it to change the base language.

The languages you add must be supported by the current character set. If you need to change the current character set, see My Oracle Support Knowledge Document 124721.1, *Migrating an Applications Installation to a New Character Set*.

## Registering Languages

The screenshot shows the Oracle License Manager Home page. At the top, there's a blue header bar with the ORACLE logo, a search bar, and navigation links for Support Cart, Setup, Home, Logout, and Help. Below the header, the page title is "License Manager:VIS". A sub-header says "With the License Manager you can license additional products, country-specific functionalities and languages." There are two main sections: "License" and "Reports". Under "License", there are links for Products, Country-specific Functionalities, and Languages. Under "Reports", there are links for Licensed Products, Shared Products, Country-specific Functionalities, Languages (which is circled in red), and Summary. At the bottom right of the page is another ORACLE logo.

## Registering Languages

From the License Manager Home page, click Languages.

## Registering Languages

The screenshot shows the Oracle License Manager interface for registering languages. At the top, it says "Support Cart Setup Home Logout Help". Below that, "Languages" is selected in the navigation bar. The main area is titled "Languages: VIS". It displays a table of languages:

Select Language Name	Language Code
<input checked="" type="checkbox"/> American English	US
<input type="checkbox"/> Arabic	AR
<input type="checkbox"/> Brazilian Portuguese	PTB
<input type="checkbox"/> Canadian French	FRC
<input type="checkbox"/> Croatian	HR
<input type="checkbox"/> Czech	CS
<input checked="" type="checkbox"/> Danish	DK
<input type="checkbox"/> Dutch	NL
<input type="checkbox"/> Finnish	SF
<input type="checkbox"/> French	F

At the bottom right of the page is the "ORACLE" logo.

## Registering Languages

The License Languages page displays the list of languages and indicates your current database character set. Languages that are already registered are checked and grayed. Languages that are grayed without a check are not compatible with your current character set. You must change the character set before you can select a grayed-out language.

To register a new language, click the check box next to the language name. In the example on the slide, Danish will be registered as a new language, in addition to the base language of American English.

## Registering Languages

The screenshot shows the Oracle Applications Manager interface for registering languages. At the top, it says "Languages: Base Language : VIS". Below that, it shows the "Current Base Language" as "American English" (Language Code: US). A section titled "Select new Base Language" asks to choose a new base language from a list. The list includes "American English" (Language Code: US) and "Danish" (Language Code: DK). The "American English" option is circled in red. At the bottom, there are buttons for "Cancel", "Back", "Step 2 of 3", "Next", and "Submit".

## Registering Languages

The Base Language page displays the current base language, and any other registered languages that you can select as a replacement base language. Select the desired base language and click *Next*.

## Registering Languages

The following language(s) will be licensed when you submit the changes.

Language Name	Language Code
Danish	DK

The following language will be set as the base language when you submit the changes.

Language Name	Language Code
American English	US

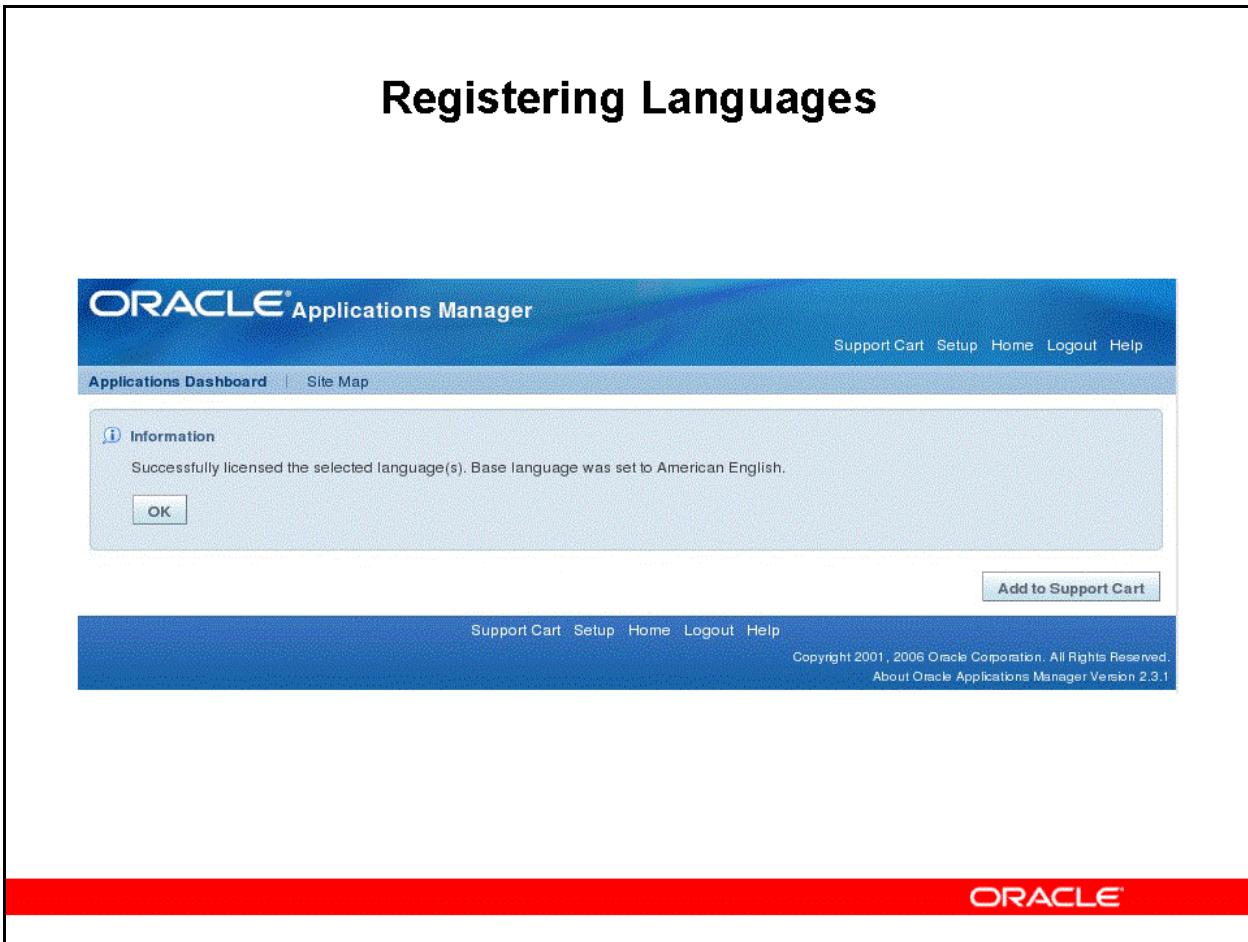
Support Cart Setup Home Logout Help  
Copyright 2001, 2006 Oracle Corporation. All Rights Reserved.  
About Oracle Applications Manager Version 2.3.1

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## Registering Languages

The Languages Review screen serves two purposes: it displays all newly-selected languages, plus any newly-selected base language. Click Submit to save the changes.

## Registering Languages



### Registering Languages

License Manager displays a confirmation screen listing your selection. Click OK to return to the License Manager Home Page.

To complete the licensing process, you must install the appropriate translated software. See *Oracle Applications NLS Release Notes* for instructions.

## License Manager Reports

The screenshot shows the Oracle License Manager Reports interface. The top navigation bar includes links for Support, Cart, Setup, Home, Logout, and Help. Below the navigation is a breadcrumb trail: Applications Dashboard > Applications System:VIS > License Manager:VIS. The main content area is titled "License Manager Reports". On the left, there are two main sections: "License" and "Reports". The "License" section contains links for "Products", "Country-specific Functionalities", and "Languages". The "Reports" section contains links for "Licensed Products", "Shared Products", "Country-specific Functionalities", "Languages", and "Summary". A red oval highlights the "Reports" section. A tip message at the bottom of the "Reports" section states: "TIP Only the items to which you have access are clickable." The bottom of the page features a blue footer bar with links for Support, Cart, Setup, Home, Logout, and Help, along with copyright information: Copyright 2001, 2006 Oracle Corporation. All Rights Reserved. About Oracle Applications Manager Version 2.3.1. The Oracle logo is at the very bottom right.

## License Manager Reports

License Manager reports provide information about registered products, country-specific functionalities, and languages. There are five reports:

- Licensed Products report
- Shared Products report
- Country-specific Functionalities report
- Languages report
- Summary report

## Licensed Products Report

The screenshot shows the Oracle Applications Manager interface for the 'Licensed Products Report'. At the top, there's a navigation bar with links for 'Support Cart', 'Setup', 'Home', 'Logout', and 'Help'. Below the navigation is a breadcrumb trail: 'Applications Dashboard > Site Map > Applications System:VIS > License Manager Home > Products Licensed with Base Version 12.0.0: VIS'. The page was last updated on '10-Jul-2007 02:44:30'. A 'Summary' section displays counts for 'Licensed' (182) and 'Shared' (12) products. The main area is titled 'List of Products' and includes a filter bar with dropdowns for 'Status' (set to 'licensed') and a 'Go' button. Below the filter is a table with columns: 'Select Product Abbreviation', 'Product Name', and 'Status'. The table lists five products: AHL (Complex Maintenance Repair and Overhaul), AK (Common Modules-AK), ALR (Alert), AME (Approvals Management), and AMS (Marketing). The status for all listed products is 'Licensed'. A red circle highlights the 'Select Product Abbreviation' dropdown and the 'Patch Information' button.

## Licensed Products Report

This report displays all fully licensed products registered in the Oracle E-Business Suite system and contains four columns of information:

- **Select:** This option button determines which product's patch summary information is presented in the Patch Summary page
- **Product Abbreviation:** Product abbreviation, for example, FND or GL
- **Product Name:** Name of the fully licensed product
- **Status:** License status of the product

There is a filter above the product list that allows you to narrow the contents of the report. You can filter by Product Abbreviation, Product Name, or (license) Status. Click *Go* to activate the filter.

Each line item in the report represents a fully licensed product.

From this report you can access the Patch Summary page for a specific product, either by choosing the Select option button for a product and clicking the Patch Summary button, or by clicking the Application name for the product.

## Shared Products Report

The screenshot shows the Oracle Applications Manager interface for the Shared Products Report. At the top, it displays 'Products Licensed with Base Version 12.0.0: VIS' and the date 'Last Updated: 10-Jul-2007 02:45:41'. Below this is a 'Summary' section with a table showing the count of licensed and shared products:

Status	Count
Licensed	<a href="#">182</a>
Shared	<a href="#">12</a>

Below the summary is a 'List of Products' section with a filter bar set to 'Status is shared'. A red circle highlights this filter bar. The table below lists products with columns for Product Abbreviation, Product Name, and Status:

Select	Product Abbreviation	Product Name	Status
<input checked="" type="radio"/>	AD	<a href="#">Applications DBA</a>	Shared
<input checked="" type="radio"/>	AMV	<a href="#">Marketing Encyclopedia System</a>	Shared
<input checked="" type="radio"/>	ASG	<a href="#">CRM Gateway for Mobile Devices</a>	Shared
<input checked="" type="radio"/>	CUA	<a href="#">Capital Resource Logistics - Assets</a>	Shared
<input checked="" type="radio"/>	CUI	<a href="#">Network Logistics - Inventory</a>	Shared

The Oracle logo is visible at the bottom right of the page.

### Shared Products Report

This report displays all shared products registered in the Oracle E-Business Suite system and, like the Licensed Products report, contains four columns of information:

- **Select:** This option button determines which product's patch summary information is presented in the Patch Summary page.
- **Product Abbreviation:** Product short name, for example AD or AU
- **Product Name:** Name of the shared product
- **Status:** License status of the product

There is a filter above the product list that allows you to narrow the contents of the report. You can filter by product Short Name, Application Name, or (license) Status.

From this report you can go to the Patch Summary page for a specific product.

## Country-Specific Functionalities Report

### Country-Specific Functionalities Report

The Country-Specific Functionalities report displays all registered country-specific functionalities:

The screenshot shows a web interface for the Oracle Applications System. At the top, there's a blue header bar with the 'ORACLE' logo and navigation links like 'Support', 'Cart', 'Setup', 'Home', 'Logout', and 'Help'. Below the header, the URL path is visible: 'Applications Dashboard > Site Map > Applications System:VIS > License Manager Home > Country-specific Functionalities:VIS'. The main content area contains a table titled 'Country-specific Functionalities:VIS'. The table has two columns: 'Country Name' and 'Country Short Name'. The 'Country Name' column lists countries like Argentina, Australia, Austria, Belgium, Bolivia, Brazil, Canada, Chile, China, and Colombia. The 'Country Short Name' column lists their abbreviations: AR, AU, AT, BE, BO, BR, CA, CL, CN, and CO. A red oval highlights the first two columns of the table. In the bottom right corner of the table area, there's a small 'OK' button. At the very bottom of the page, there's a red horizontal bar with the 'ORACLE' logo.

Country Name	Country Short Name
Argentina	AR
Australia	AU
Austria	AT
Belgium	BE
Bolivia	BO
Brazil	BR
Canada	CA
Chile	CL
China	CN
Colombia	CO

### Country-Specific Functionalities Report

The Country-Specific Functionalities report displays all registered country-specific functionalities in the Oracle E-Business Suite system, and contains two columns of information:

- **Country Name:** Country name of the country-specific functionality
- **Country Short Name:** Country-specific functionality short name, for example, CA or JP

## Languages Report

The screenshot shows a web-based application interface for managing languages. At the top, there's a blue header bar with the ORACLE logo, a navigation menu (Applications Dashboard, Site Map), and links for Support Cart, Setup, Home, Logout, and Help. Below the header, the URL is Applications System:VIS > License Manager Home > Languages:VIS. The main content area has a title 'Languages Report' and two sections: 'Licensed Languages' and 'Base Language'. The 'Licensed Languages' section contains a table with two rows:

Language Name	Language Code
American English	US
Danish	DK

An 'EDIT' button is located below this table. The 'Base Language' section contains a single row:

Language Name	Language Code
American English	US

At the bottom of the page, there are links for Support Cart, Setup, Home, Logout, and Help, along with copyright information: Copyright 2001, 2006 Oracle Corporation. All Rights Reserved. About Oracle Applications Manager Version 2.3.1. The page ends with the ORACLE logo.

## Languages Report

This report displays all registered languages and the base language. The Licensed Languages section contains a row for each registered language and two columns of information:

- **Language Name:** Name of the registered language
- **Language Code:** Short name of the registered language, for example, CA or ESA

The Base Language section contains one row and two columns of information:

- **Language Name:** Name of the base language
- **Language Code:** Base language short name, for example, US

Clicking Edit takes you to the License Languages pages.

## License Summary Report

The screenshot shows the Oracle License Manager Home page. At the top, there is a navigation bar with links for Applications Dashboard, Site Map, Support Cart, Setup, Home, Logout, and Help. Below the navigation bar, the breadcrumb path shows Applications System:VIS > License Manager Home. There are four tabs highlighted with red circles: Shared Products, Country-specific Functionalities, Licensed Languages, and Base Language. The 'Licensed Products' section is also highlighted with a red circle. This section contains a table with the following data:

Product Name	Product Abbreviation
Advanced Benefits	BEN
Advanced Outbound Telephony	IEC
Advanced Pricing	QP
Advanced Product Catalog	EGO
Advanced Supply Chain Planning	MSC
Alert	ALR
Application Implementation	AZ
Application Object Library	FND
Application Report Generator	RG
Application Utilities	AU

At the bottom right of the page is the Oracle logo.

### License Summary Report

The Summary Report provides a compilation of reports, in five sections.

For each fully licensed product, the Licensed Products section contains:

- **Product Name:** Name of the registered product
- **Product Abbreviation:** Product abbreviation

For each shared product, the Shared Products section contains:

- **Product Name:** Name of the shared product
- **Product Abbreviation:** Product abbreviation

For each registered functionality, the Country-Specific Functionalities section contains :

- **Country Name:** Country name of the country-specific functionality
- **Country Short Name:** Country-specific functionality short name

For each licensed language, the Licensed Languages section contains:

- **Language Name:** Name of the registered language
- **Language Code:** Short name of the registered language

The Base Language section contains:

- **Language Name:** Name of the base language
- **Language Code:** Base language short name

## Module Summary

### Module Summary

In this module, you should have learned how to do the following:

- Register products
- Register country-specific functionalities
- Register languages
- Identify licensed products and languages

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## Module Discussion

### Module Discussion

- Describe the various product groupings that you can license
- Describe the process to license and install an additional language
- When would the License Manager reports be useful?

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# **Reporting Utilities**

## **Chapter 19**



## Reporting Utilities

# Reporting Utilities

## AD Utilities Topics

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## Objectives

### Objectives

At the end of this module, you should be able to do the following:

- Report on configuration information for an installed Oracle E-Business Suite system
- Determine the version of Oracle E-Business Suite files
- Identify long-running scripts and other potential problems when running AD utilities that utilize parallel workers

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## Module Overview

### Module Overview

This module consists of the following topics:

- Running AD Configuration
- Using AD File Identification
- Running the AD Job Timing report
- Reducing system downtime

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## AD Configuration: Introduction

### AD Configuration: Introduction

#### AD Configuration:

- Is an SQL script, \$AD\_TOP/sql/ adutconf.sql
- Reports standard information about the installed configuration of Oracle E-Business Suite
- Generates a file called adutconf.lst in the current working directory



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## AD Configuration: Features

### AD Configuration: Features

The information reported by AD Configuration includes:

- SQL\*Plus PAUSE and NEWPAGE settings
- Rollback segment information
- Information about the product group
- Whether Multi-Org is configured
- List of operating units

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## AD Configuration: Features

### AD Configuration: Features

The information reported by AD Configuration includes:

- List of registered products
- Information on all registered schemas
- Information about all registered products, including shared and dependent products
- Status of localization modules
- The base language and other installed languages
- NLS init.ora settings

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## AD Configuration: Examples

### AD Configuration: Examples

To run AD Configuration:

- UNIX:

```
$ cd $APPL_TOP/admin/<SID>/out
$ sqlplus <APPS username>/<APPS password> \
@$AD_TOP/sql/adutconf.sql
```

- Windows:

```
C:\>cd %APPL_TOP%\admin\<SID>\out
C:\>sqlplus <APPS username>/<APPS password>
@%AD_TOP%\sql\adutconf.sql
```

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## AD File Identification: Introduction

### AD File Identification: Introduction

#### AD File Identification:

- Is an executable program, adident, located in \$AD\_TOP/bin
- Is used to identify the version and translation level of Oracle E-Business Suite files
- Can be useful when collecting information for Oracle Support



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## AD File Identification: Examples

### AD File Identification: Examples

To run the AD File Identification utility:

- UNIX:

```
$ adident Header <file 1> [ <file 2> ... ]
```

- Windows:

```
C:\>adident Header <file 1> [ <file 2> ... ]
```

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### AD File Identification: Examples

The <file n> arguments should be the name of any Oracle E-Business Suite file. You may provide any number of file names as arguments. When you give adident the name of a library file or executable, it lists all the files that make up the library or executable, plus their respective versions.

## AD File Identification: Examples

### AD File Identification: Examples

```
$ adident Header $FND_TOP/lib/wfload.o \
$FND_TOP/lib/libfnd.a

wfload.o:
  wfload.oc 120.0
libfnd.a:
  fdacon.lc 120.0
  fdatat.lc 120.0
  fdastr.lc 120.0
  fdaupd.lc 120.0
  fdahmi.lc 120.0
  fdacv.lc 120.0
  fdfutl.lc 120.4
  ....
```

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### AD File Identification: Examples

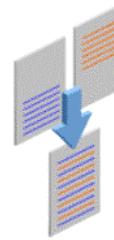
The slide shows a sample output when running the AD File Identification utility.

You can also use a '\*' to identify all files in a directory; for example, \*.sql to identify all SQL scripts.

## AD Job Timing Report: Introduction

### AD Job Timing Report: Introduction

- The AD Utilities, including AutoPatch and AD Administration, can improve the performance of certain tasks by running them in parallel
- Utilities that run parallel workers produce an AD Job Timing Report, which contains detailed information for all tasks run in parallel



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## AD Job Timing Report: Features

### AD Job Timing Report: Features

The AD Job Timing Report contains the following information:

- Jobs run successfully on the first try
- Failed jobs that were deferred and then run successfully
- Failed jobs that were restarted and then run successfully
- Failed jobs that were skipped
- Time consumption of jobs

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### AD Job Timing Report: Features

The AD Job Timing Report sorts jobs from the most time-consuming to the least time-consuming.

## AD Job Timing Report: Introduction

### AD Job Timing Report: Introduction

#### AD Job Timing Report usage:

- AD utilities have the timing feature enabled by default
- Each session is assigned a session ID that is displayed at the start of the log file
- A report named adt<session\_id>.lst is automatically generated at the end of the AD utility session
  - This report is created in the APPL\_TOP/admin/<SID>/out directory
- To generate a report for AD sessions before the AD utility completes, you can run the AD\_TOP/sql/adtimrpt.sql script, providing the session identifier as a parameter

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## AD Job Timing Report: Examples

### AD Job Timing Report: Examples

To run the AD Job Timing Report:

- UNIX:

```
$ cd $APPL_TOP/admin/<SID>/out
$ sqlplus <APPS username>/<APPS password> \
@$AD_TOP/sql/adtimrpt.sql <session_id> <OUTPUT
FILE>
```

- Windows:

```
C:\>cd %APPL_TOP%\admin\<SID>\out
C:\>sqlplus <APPS username>/<APPS password>
@%AD_TOP%\sql\adtimrpt.sql <session_id>
<OUTPUT FILE>
```

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### AD Job Timing Report: Examples

The report output will be placed in the directory from which the script was run. We recommend that you change directories to the APPL\_TOP/admin/<SID>/out directory, so you have a single location for all your output files.

## AD Job Timing Report: Reducing Downtime

### AD Job Timing Report: Reducing Downtime

The AD Job Timing Report provides you with detailed information about your test maintenance sessions

You can use it to:

- Determine long-running scripts and potential problem areas
- Find solutions to decrease the time of long-running scripts
  - Solutions may already be documented on My Oracle Support
- Repeat test maintenance sessions and monitor the AD Job Timing Report to determine other areas where performance can be enhanced

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### AD Job Timing Report: Reducing Downtime

The OAM Timing Reports are also useful in helping to identify areas where downtime can be reduced. The OAM Timing Reports are covered in the Patching section of this course.

## Module Summary

### Module Summary

In this module, you should have learned how to do the following:

- Report on configuration information for an installed Oracle E-Business Suite system
- Identify the version of Oracle E-Business Suite files
- Determine long-running scripts and potential problem areas when running AD utilities that utilize parallel workers

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## Module Discussion

### Module Discussion

- In what types of situations might AD Configuration be useful?
- How can the AD Job Timing Report assist you in reducing system downtime?

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# **Configuration Utilities**

## **Chapter 20**



## Configuration Utilities

### Configuration Utilities

#### AD Utilities Topics

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## Objectives

### Objectives

At the end of this module, you should be able to do the following:

- Install a new off-cycle product
- Convert the character set of Oracle E-Business Suite files

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## Module Overview

### Module Overview

This module consists of the following topics:

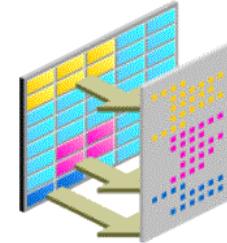
- AD Splicer
  - Introduction
  - Usage
  - Control files
  - Editing product configuration file
  - Post-splice steps
- File Character Set Converter
  - Introduction
  - Usage

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## AD Splicer: Introduction

### AD Splicer: Introduction

- AD Splicer registers an off-cycle product as a valid product for a given Oracle E-Business Suite release
- The splicing process enables AutoPatch and AD Administration to recognize the off-cycle product
- AD Splicer uses control files to manage the splicing process
  - These are not related to the database control files



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### AD Splicer: Introduction

AD Splicer performs a special product registration function , registering off-cycle products (those that are released between maintenance packs) as active in your system. This process of splicing modifies the APPL\_TOP and database so that AutoPatch and AD Administration recognize the off-cycle product as a valid product for the release.

Patches that contain off-cycle products also contain the control files that AD Splicer needs to register the product. Such patches also contain a readme file that describes how to install the new products.

## **AD Splicer: Usage**

### **AD Splicer: Usage**

- AD Splicer must be run for each APPL\_TOP and database combination
- From Oracle E-Business Suite Release 12.1, AD Splicer can be used with custom, non-Oracle products

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### **AD Splicer: Usage**

Product tablespaces for the new off-cycle products must be created before running AD Splicer. AD Splicer automatically determines the correct tablespaces in the Oracle Applications Tablespace Model (OATM).

## AD Splicer: Control Files

### AD Splicer: Control Files

AD Splicer requires two types of control file:

- Product configuration file
- Product definition files

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### AD Splicer: Control Files

Off-cycle products are generally released as patches. All product files and control files necessary to splice in the product are included in the patch.

There is one product configuration file, called *newprods.txt*. The product configuration file must be edited for your specific system before the off-cycle product can be properly spliced.

In addition, there are two product definition files per off-cycle product:

- <prod>**prod.txt**: contains language-independent information for product <prod>
- <prod>**terr.txt**: contains language-dependent information for product <prod>

In these file names, <prod> represents the product abbreviation for an Oracle E-Business Suite product, such as GL for General Ledger or PO for Purchasing. The product definition files must not be altered.

The AD Splicer control files must copied from the patch to the APPL\_TOP/admin directory.

## AD Splicer: Editing Product Configuration File

### AD Splicer: Editing Product Configuration File

Each spliced product in the newprods.txt file has an entry such as the following:

```
product=zsa
base_product_top=*APPL_TOP*
oracle_schema=zsa
sizing_factor=100
main_tspace=*Product_Name*D
index_tspace=*Product_Name*X
temp_tspace=*Temporary_Tablespace*
default_tspace=*Product_Name*D
```

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### AD Splicer: Editing Product Configuration File

Each spliced product in newprods.txt has an entry as shown in the slide. Release 12.1 uses the OATM (Oracle Applications Tablespace Model), so you do not need to supply AD splicer with parameters for identifying tablespaces. This example shows the ZSA product.

When editing the file for your specific environment, you may need to change the values of parameters such as:

- **base\_product\_top** – the default value of \*APPL\_TOP\* will place the product files under APPL\_TOP.
- **main\_tspace** – the default value of \*Product\_Name\*D must be changed to the product's tablespace name. For example, ZSAD for the ZSA product.
- **index\_tspace** – the default value of \*Product\_Name\*X must be changed to the product's index tablespace name. For example, ZSAX for the ZSA product.
- **temp\_tspace** – the default value of \*Temporary\_Tablespace\* must be changed to the temporary tablespace name. For example, TEMP.
- **default\_tspace** – the default value of \*Product\_Name\*D must be changed to the product's tablespace name. For example, ZSAD for the ZSA product.

## AD Splicer: Editing Product Configuration File

### AD Splicer: Editing Product Configuration File

Status	Description
product	The product being spliced
base_product_top	The base directory for product files
oracle_schema	The schema for product data objects
sizing_factor	The sizing factor used when creating tables and indexes

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### AD Splicer: Editing Product Configuration File

This table defines each of the parameters in the newprods.txt file.

- The product entry is the product abbreviation of the product you are splicing in.
- The base\_product\_top is the base directory for product files. In most cases this is called APPL\_TOP.
- oracle\_schema is the schema name for the products database objects (do **not** specify the APPS schema).
- sizing\_factor is the sizing factor used when creating tables and indexes. A sizing factor of 100 means that new data objects (tables or indexes) are created with the Oracle defined NEXT extent size. A sizing factor of 200 means that a new object's NEXT extent size will be 200% of the Oracle-defined value.
- Release 12.1 uses OATM (Oracle Applications Tablespace Model), so you do not need to supply AD Splicer with parameters for identifying tablespaces.

## AD Splicer: Post-Splice Steps

### AD Splicer: Post-Splice Steps

After the new product is spliced in, its files and objects can be installed by:

1. Logging out and log back in, to use the new environment file (or registry entries on Windows)
2. Verifying that <PROD>\_TOP environment variables are set for the newly-spliced product
3. Running AutoPatch to install the files and database objects for the new product

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## AD Splicer: Post-Splice Steps

After the new product is spliced in, its files and objects can be installed by:

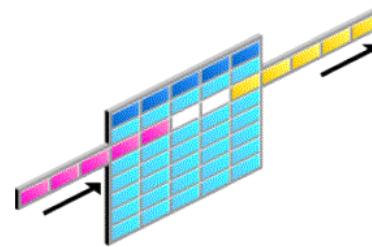
1. Logging out and log back in, to use the new environment file (or registry entries on Windows)
2. Verifying that <PROD>\_TOP environment variables are set for the newly-spliced product
3. Running AutoPatch to install the files and database objects for the new product

## File Character Set Converter: Introduction

### File Character Set Converter: Introduction

Rapid Install and the AD utilities convert Oracle files from one character set to another automatically

- You can use the File Character Set Converter to convert files from other vendors



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### File Character Set Converter: Introduction

Rapid Install, AutoPatch, and AD Administration convert Oracle files from one character set to another automatically. If necessary, you can use the File Character Set Converter to perform manual conversion of files from other vendors.

## File Character Set Converter: Usage

### File Character Set Converter: Usage

This utility converts one file at a time, and is run as follows:

```
$ adncnv <source file> <source char set>
<destination file> <dest char set>
```

- Do not convert a file multiple times - this may corrupt the file
- Non-text files (such as .fmx) should not be converted

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## File Character Set Converter: Usage

### File Character Set Converter: Usage

Parameter	Description
<source file>	Path and filename of the file to convert
<source char set>	Current character set
<destination file>	Path and filename for the converted file
<dest char set>	New character set for the converted file

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### File Character Set Converter: Usage

The table on the slide describes each of the parameters required by the File Character Set Conversion utility.

## File Character Set Converter: Usage

### File Character Set Converter: Usage

For example, to convert the file afcmstat.sql from the we8iso8859p1 character set to the UTF8 character set, you would enter:

```
$ cd $FND_TOP/sql  
$ cp afcmstat.sql afcmstat.old  
$ adncnv afcmstat.old we8iso8859p1 \  
afcmstat.sql UTF8
```

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### File Character Set Converter: Usage

The path and file name for the source and the destination files can be the same if the source file's directory and the APPLTMP directory are on the same file system. In general, it is simpler and safer to use different source and destination file names.

If you cannot convert to the same file name, convert to a different file name, or change APPLTMP to a directory on the same file system as the source file directory.

## Module Summary

### Module Summary

In this module, you should have learned how to do the following:

- Install a new off-cycle product
- Convert the character set of Oracle E-Business Suite files

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## Module Discussion

### Module Discussion

- What is an off-cycle product?
- When would you need to convert the character set of Oracle E-Business Suite files?

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