

We're Off To See The Wizard!

Eliminate Unnecessary Patch Testing With Oracle's Patch Wizard!

Mello-Dee Simmons, JEA

Liza Klosterman, JEA

Introduction

- Who We Are
- Our Testing Dilemma
 - 17 Modules
 - Mandatory Payroll Patch Testing
 - 195 to 250 hours of user testing, seven times per year
- The Search for an Answer



The Oracle Patch Wizard

- Recommend patches for the current code level
- Recommend patches that bring the system to a new code level
- Check if a particular patch has already been applied to the system
- Find un-applied pre-requisite patches for recommended patches
- Perform Impact Analysis for all recommended patches
- Aggregate Impact Analysis for top-level patches and their un-applied pre-requisite patches.
- Download and merge patches

Setup and execution of the Oracle Patch Wizard Tool

- Requires System Administrator privileges and a Metalink account
- [System Administrator] Oracle Applications Manager -> Patching and Utilities

Select "Patch Wizard" from the "Select Feature" drop-down box

The screenshot shows the Oracle Applications Manager interface. At the top right, there are navigation icons for Support Cart, Setup, Home, Logout, and Help. Below these is a navigation bar with 'Applications Dashboard' and 'Site Map'. The main content area shows 'Applied Patches : FIQA' with a 'Select Feature' dropdown menu set to 'Patch Wizard' and a 'Go' button. This dropdown menu is circled in red. Below the search section, there is a table with columns: Patch Name, Merged Patches, APPL_TOP Name, Language, Completion Date, and Details. The table currently shows 'No search conducted'.

ORACLE Applications Manager

Support Cart Setup Home Logout Help

Applications Dashboard | Site Map

Applications System:FIQA >

Applied Patches : FIQA

Last Updated : 25-04-2007 16:05:29

Select Feature Patch Wizard Go

Simple Search

At least one field must be completed.

Advanced Search

Querying for a specific patch will return all patches that include the specified patch.

Patch ID

Applied From Date To Date

(dd-MM-yyyy) (dd-MM-yyyy)

Language

Go Reset

Patch Name	Merged Patches	APPL_TOP Name	Language	Completion Date	Details
No search conducted					

Add to Support Cart

Support Cart | Setup | Home | Logout | Help

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

Set the Patch Wizard Preferences

ORACLE Applications Manager

Support Cart Setup Home Logout Help







Applications Dashboard | Site Map

Applications System:FIQA >

Patch Wizard : FIQA Select Feature Patch Wizard Go

Last Updated : 25-04-2007 16:07:52

Patch Wizard Tasks

Task Name	Description	Tasks	Job Status
Patch Wizard Preferences	Set download, merge, and stage area preferences		
Define Patch Filters	Create custom patch filters		
Recommend/Analyze Patches	Submit requests for patch advice or analysis		
Download Patches	Submit requests to download patches		

Filter Criteria

Filter Name contains

Completion Date is (dd-MM-yyyy)

Go

Designate a staging directory and set your Metalink credentials

ORACLE Applications Manager

Support Cart Setup Home Logout Help

Applications Dashboard | Site Map

Applications System:FIQA > Patch Wizard >

Patch Wizard Preferences : FIQA

Last Updated : 24-04-2007 14:02:16
Oracle MetaLink User ID **simmma@jea.com**

OK Cancel

Staging Directory

* Staging Directory
(Example: /user01/applmgr/stage)

Merge Option Defaults

To download patches, you must setup your Metalink Credentials page in OA Site Map.

Automatically merge downloaded patches

* Merging Strategy

- One merged patch: US and non-US
- Two merged patches: US; non-US
- Multiple merged patches: US; language1;language2;..

Merge Option Defaults

Language and Platform Defaults

Select default Languages and Platform for downloading patches.

Available Languages Selected Languages

The staging directory must be a server directory that you have write access to

Enter your Metalink account information

ORACLE Applications Manager

Support Cart Setup Home Logout Help

Applications Dashboard | Site Map

Dashboard Setup
Metalink Credentials
 Business Flows
 Knowledge Base
 Signon Audit Setup

Update Metalink Credentials

Update

Oracle Metalink

* Metalink Userid
 * Metalink Password
 * Email
This email address will be used for querying Metalink.

Web Proxy Setup

Please enter the following information if your Applications instance uses a Proxy Server to connect to the internet. Enter proxy username and password only if the proxy server requires authentication.

Proxy Server Host Name
Enter fully qualified proxy server host name.

Proxy Server Port
Enter proxy server port. Default port is 80.

Proxy Bypass Domains
Enter domains for which proxy host should be bypassed.

Proxy Username
 Proxy Password

Update

Remove the default information from the Web Proxy Setup section

Analyzing a Patch

From the main Patch Wizard screen, click on “Recommend/Analyze Patches” Task

ORACLE Applications Manager

Support Cart Setup Home Logout Help

Applications Dashboard | Site Map

Applications System:FIQA >

Patch Wizard : FIQA Select Feature Patch Wizard Go

Last Updated : 25-04-2007 16:07:52

Patch Wizard Tasks

Task Name	Description	Tasks	Job Status
Patch Wizard Preferences	Set download, merge, and stage area preferences		
Define Patch Filters	Create custom patch filters		
Recommend/Analyze Patches	Submit requests for patch advice or analysis		
Download Patches	Submit requests to download patches		

Filter Criteria

Filter Name contains

Completion Date is (dd-MM-yyyy)

Go

Results

i If the Patch Filter Name/Patch List that you submitted does not appear on this page, review the Request Log from the Job Status icon for more information. If needed, make corrections and resubmit the request.

Enter patch number(s) to be analyzed (separate multiple patches by commas)

ORACLE Applications Manager

Applications Dashboard | Site Map

Applications System:FIQA > Patch Wizard >

Recommend Patches : FIQA

Last Updated : 25-04-2007 16:38:30
Staging Directory /tmp
Oracle MetaLink User ID simmma@jea.com

Options

Patch Wizard automatically downloads patches or the InfoBundle from MetaLink before using them for analysis or recommendations. If it is unable to download files from MetaLink, it will try to use existing files in the staging directory.

Select OK Cancel

Create Recommendation

Using Patch Filter

Upload patch information bundle before analyzing patches.

The Patch Information Bundle has not been uploaded yet.

Analyze Specific Patches

* Patches (Enter Patch numbers, separated by commas)

Upload patch information bundle (no analysis)

The Patch Information Bundle has not been uploaded yet.

Check the status of the analysis by clicking on the “Job Status” icon on the main Patch Wizard screen

ORACLE Applications Manager

Support Cart Setup Home Logout Help

Applications Dashboard | Site Map

Applications System:FIQA >

Patch Wizard : FIQA Select Feature Patch Wizard Go

Last Updated : 25-04-2007 16:07:52

Patch Wizard Tasks

Task Name	Description	Tasks	Job Status
Patch Wizard Preferences	Set download, merge, and stage area preferences		
Define Patch Filters	Create custom patch filters		
Recommend/Analyze Patches	Submit requests for patch advice or analysis		
Download Patches	Submit requests to download patches		

Filter Criteria

Filter Name contains

Completion Date is (dd-MM-yyyy)

Go

Results

i If the Patch Filter Name/Patch List that you submitted does not appear on this page, review the Request Log from the Job Status icon for more information. If needed, make corrections and resubmit the request.

Filter Name/Patch List	Request	Request Set	Recommended	New Code Level	Requested By	Completion Date	Details
5917868	13794472	13794470	1	0	SIMMMA	04-04-2007 09:16:09	
4428068	13814320	13814318	1	0	SIMMMA	23-04-2007 15:47:34	

Click “Details” to view the patch analysis.

Interpretation and utilization of the patch analysis output

- Direct Impact – Files directly impacted by the patch
- Indirect Impact – Files, Menu Navigation Paths and Diagnostics Tests that are affected by the patch

Patch Analysis Summary Screen

The screenshot shows the Oracle Applications Manager interface. At the top, there is a navigation bar with links for Support Cart, Setup, Home, Logout, and Help. Below this is a breadcrumb trail: Applications System:FIPS > Patch Wizard > Recommended Patches Results >. The main heading is "Patch Impact Analysis for 6372555: FIPS".

Patch Description: 11i PAY: AFTER RUP 2 PRENOTE IN THE PERSONAL PAYMENT METHOD ERROR APP-PAY-07207

Patch Readme:

Total Files in Patch: 124

Files to install: 124 (100.00%)

Prerequisite Patches: 0

The screen is divided into two columns for impact analysis:

Direct Impact Summary		Indirect Impact Summary	
Applications Patched	3	Unchanged Files Affected	0 JSPs
File Types Installed	7	Menu Navigation Trees Affected	6 Responsibilities, 8 Paths
New Files Introduced	124	Diagnostics Tests to Re-Run	0 Test(s)
Existing Files Changed	0		
Existing Files Unchanged	0		

Below the impact summary, there are three tips:

- TIP** Analysis on Unchanged Files Affected only available for JSPs
- TIP** Click on the Prerequisite Patches link to toggle between Aggregate and Individual Impact Analysis
- TIP** Aggregate Impact Analysis only for patches with metadata uploaded from InfoBundle.zip
- TIP** Click on Patch ID in the Aggregate Impact Analysis Table to view individual Impact Analysis for Pre-reqs

At the bottom, there is a footer with copyright information: Copyright 2001, 2006 Oracle Corporation. All Rights Reserved. About Oracle Applications Manager Version 2.3.1. A secondary navigation bar also includes links for Support Cart, Setup, Home, Logout, and Help.

Summary statistics about the impact of a patch

Applications Patched

The screenshot shows the Oracle Applications Manager interface. At the top, there is a navigation bar with links for Applications Dashboard and Site Map. Below this, a breadcrumb trail indicates the current location: Applications System:FIPS > Patch Wizard > Recommended Patches Results > Patch Impact Analysis >. The main heading is "Patch Impact Applications Patched for 6372555: FIPS". The patch description is "11i PAY: AFTER RUP 2 PRENOTE IN THE PERSONAL PAYMENT METHOD ERROR APP-PAY-07207". A table displays the impact on various applications:

Application	Directory	Installed Files	New File	Changed File
[FF] FastFormula	1	1	1	0
[PAY] Payroll	3	5	5	0
[PER] Human Resources	3	118	118	0

At the bottom of the screenshot, there is a footer with copyright information: "Copyright 2001, 2006 Oracle Corporation. All Rights Reserved. About Oracle Applications Manager Version 2.3.1".

Applications that have files directly impacted by the patch.

File Types Installed

The screenshot shows the Oracle Applications Manager interface. At the top, there is a navigation bar with links for Support Cart, Setup, Home, Logout, and Help. Below this is a breadcrumb trail: Applications System:FIPS > Patch Wizard > Recommended Patches Results > Patch Impact Analysis >. The main heading is "Patch Impact File Types Installed for 6372555: FIPS". The patch description is "11i PAY: AFTER RUP 2 PRENOTE IN THE PERSONAL PAYMENT METHOD ERROR APP-PAY-07207". A table displays the impact on various file types.

File Type	Unchanged Files	Changed Files	New Files
drv	0	0	100
fmb	0	0	19
ildt	0	0	1
pkb	0	0	1
pkh	0	0	1
pll	0	0	1
sql	0	0	1

Displays the File Types that are directly impacted by the patch

New Files Introduced

Applications Manager

Applications Dashboard | Site Map

Applications System: FIPS > Patch Wizard > Recommended Patches Results > Patch Impact Analysis >

Patch Impact File Details for 6372555: FIPS

Patch Description: **11i PAY: AFTER RUP 2 PRENOTE IN THE PERSONAL PAYMENT METHOD ERROR APP-PAY-07207**

App Short Name: Directory:

Impact Type: File Name:

Object Type:

Apply Filter

Application	Directory	File Name	Impact Type	Version in APPL_TOP	Version in Patch	Objects Affected
[FF] FastFormula	admin/driver	ffcommon.drv	New File	<None>	115.4	N/A
[PAY] Payroll	forms/US	PAYWSEPM.fmb	New File	<None>	115.66	8
[PAY] Payroll	patch/115/sql	pyppmapi.pkb	New File	<None>	115.25	N/A
[PAY] Payroll	patch/115/sql	pyppmapi.pkh	New File	<None>	115.13	N/A
[PAY] Payroll	patch/115/irep/patch/115/sql	pyppmapi_pkh.ildt	New File	<None>	115.13	N/A
[PAY] Payroll	patch/115/sql	pyppmasd.sql	New File	<None>	115.7	N/A
[PER] Human Resources	resource	HRAMER.pll	New File	<None>	115.76	N/A
[PER] Human Resources	forms/US	PERAEOBJ.fmb	New File	<None>	115.32	N/A
[PER] Human Resources	forms/US	PERBEOBJ.fmb	New File	<None>	115.11	N/A
[PER] Human Resources	forms/US	PERDEOBJ.fmb	New File	<None>	115.18	N/A

Displays new files included with this patch.

Existing Files Changed

- Files included in the patch that are a newer version than current existing files in the database.

Existing Files Unchanged

- Files included in the patch that will not be applied to the database because their patched version would be older than what currently exists.

Unchanged Files Affected

- Files in the system that are not directly changed but have dependencies on files that would change.

Diagnostic Tests to Re-Run

- Summary and Detail screens display the diagnostics tests that could be re-run after the patch has been applied to verify bug fixes or to make sure there is no regression introduced.

Menu Navigation Trees Affected

ORACLE Applications Manager

Support Cart Setup Home Logout Help

Applications Dashboard | Site Map

Applications System:FIPS > Patch Wizard > Recommended Patches Results > Patch Impact Analysis >

Patch Impact Menu Navigation Trees Affected Summary for 6372555: FIPS

Patch Description **11i PAY: AFTER RUP 2 PRENOTE IN THE PERSONAL PAYMENT METHOD ERROR APP-PAY-07207** Apply Filter

Application

Application	Responsibilities Affected	Menu Paths Affected
[AZ] Application Implementation	1	2
[BEN] Advanced Benefits	1	1
[GHR] US Federal Human Resources	1	1
[PER] Human Resources	2	2
[POCUST] PO Customization	1	2

TIP Use (%) as wildcard in filters
 TIP Use Application Short Name in filter

Applications, responsibilities and the number of active users whose menu navigation trees would be affected.

Detail screen shows the exact menu navigation paths to the patched JSPs and Forms.

Tips and Tricks

- The Patch Wizard does not have the ability to analyze non-Applications patches, such as CPU security patches and other database patches.
- To our knowledge, the Patch Wizard also cannot analyze a patch that is password protected.

- Difference in changed file count between patch log and Patch Wizard analysis
 - AD tables are modified as being used by adpatch itself, so this will have no impact.
 - There are objects recompiled and used for advanced queuing, not modified by the patch.
 - The number of packages modified is a bit higher in the patch log than the number of changed pls objects shown in the patch analysis, but this is because of dependencies. A dependent package will show in the log as changed, due to recompilation because of the dependency; but the contents will not change, and therefore will not be listed in the patch analysis.

- A patch submitted for analysis, the analysis appears to complete without errors, but the patch analysis comes back empty.

Log file will probably show the error: “No Global View APPL_TOP found”

- The fix:

Have your dba run adadmin

Option 2 : Maintain Applications Files Menu

Option 5 : Maintain snapshot information

Option 2 : Update current view snapshot

Once the program successfully completes, run the Patch Wizard again and re-analyze patches.

Conclusion

- Oracle's Patch Wizard
 - one of the best-kept secrets of the Oracle Applications; there are even Oracle Engineers that are not aware of its existence.
 - one of the best tools available to Oracle System Administrators and support personnel for planning and executing patch application.
- We have achieved an 80% reduction in user hours required for Payroll patch testing alone!

If your users are tired of testing modules seemingly unrelated to patches being applied; take advantage of Oracle's Patch Wizard.

Not only will you be able to eliminate unnecessary testing; but you can also show the users that do have to test, just exactly what and why they need to test.

Questions?