

ORACLE 11G AUTOMATIC DIAGNOSTIC REPOSITORY – PART 2

Inderpal S. Johal, Data Softech Inc.

PACKAGE THE INCIDENT OR INCPKG DIRECTORY

Whenever critical errors are reported in the database, an incident is automatically created. Oracle collects lots of diagnostic data in the form of Trace and dump files in ADR, which may need to be sent to Oracle support. In order to send all required file for a specific problem or incident, we will use ADRCI or Enterprise Manager.

We can also use Enterprise manager to create an incident manually using Support Workbench as covered in the paper later where I am adding Alert.log file.

CREATING PACKAGE USING ADRCI

```
adrci> show incident
```

```
ADR Home = /home/oracle/app/diag/rdbms/orcl/orcl:
```

```
*****
```

INCIDENT_ID	PROBLEM_KEY	CREATE_TIME
14773	ORA 1578	2007-08-15 09:08:51.749759 -04:00
14772	ORA 1578	2007-08-15 09:08:41.329081 -04:00
14771	ORA 1578	2007-08-15 09:08:39.554096 -04:00
14770	ORA 1578	2007-08-15 09:08:38.027391 -04:00
14769	ORA 1578	2007-08-15 09:05:38.961166 -04:00

```
5 rows fetched
```

```
adrci> host "ls -ltr /home/oracle/app/diag/rdbms/orcl/orcl"
```

```
total 60
```

```
drwxr-x--- 2 oracle oinstall 4096 Aug 13 10:39 cdump
drwxr-x--- 2 oracle oinstall 4096 Aug 13 10:39 metadata
drwxr-x--- 2 oracle oinstall 4096 Aug 13 12:34 hm
drwxr-x--- 2 oracle oinstall 4096 Aug 14 09:52 alert
drwxr-x--- 2 oracle oinstall 4096 Aug 14 11:01 ir
drwxr-x--- 2 oracle oinstall 4096 Aug 15 11:33 sweep
drwxr-x--- 2 oracle oinstall 4096 Aug 15 11:33 stage
drwxr-x--- 2 oracle oinstall 4096 Aug 15 11:33 lck
drwxr-x--- 7 oracle oinstall 4096 Aug 15 11:33 incident
drwxr-x--- 7 oracle oinstall 20480 Aug 15 11:35 trace
drwxr-x--- 3 oracle oinstall 4096 Aug 15 12:54 incpkg
```

Create the Logical Package for incident 14773

```
adrci> ips create package incident 14773
```

```
Created package 1 based on incident id 14773, correlation level typical
```

This will create a new sub-directory in the ADR_HOME/incpkg directory

```
adrci> host "ls -ltr /home/oracle/app/diag/rdbms/orcl/orcl/incpkg"
```

```
total 4
```



If you want to add another incident to bundle in the same package, use the following command or go to next step

```
adrci> ips add incident 14769 package 1
```

Added incident 14769 to package 1

If you want to add more additional file to be bundled in the same package

```
adrci> ips add file <ADR_HOME>/trace/alert_orcl.log package 1
```

Added file <ADR_HOME>/trace/alert_orcl.log to package 1

Create physical package in the form of ZIP file in specified directory

```
adrci> ips generate package 1 in /tmp
```

Generated package 1 in file /tmp/ORAI578_20070815125445_COM_1.zip, mode complete

Verify the Zip file mentioned in the previous output

```
adrci> host "ls -ltr /tmp/ORAI578_20070815125445_COM_1.zip"
```

```
-rw-r--r--  1 oracle oinstall 2088815 Aug 15 13:13 /tmp/ORAI578_20070815125445_COM_1.zip
```

Check the Content of the Zip file and you will see that Oracle has added lots of files like Trace file, Trace Mapping etc

```
adrci> host "unzip -l /tmp/ORAI578_20070815125445_COM_1.zip"
```

Archive: /tmp/ORAI578_20070815125445_COM_1.zip

Length	Date	Time	Name
0	08-13-07	10:39	diag/rdbms/orcl/orcl/
52681	08-15-07	09:05	diag/rdbms/orcl/orcl/incident/incdir_14769/orcl_ora_13914_i14769.trm
2053639	08-15-07	09:05	diag/rdbms/orcl/orcl/incident/incdir_14769/orcl_ora_13914_i14769.trc
120355	08-15-07	10:10	diag/rdbms/orcl/orcl/trace/orcl_ora_13914.trc
6583	08-15-07	10:10	diag/rdbms/orcl/orcl/trace/orcl_ora_13914.trm
2053097	08-15-07	09:08	diag/rdbms/orcl/orcl/incident/incdir_14770/orcl_ora_13914_i14770.trc
52510	08-15-07	09:08	diag/rdbms/orcl/orcl/incident/incdir_14770/orcl_ora_13914_i14770.trm
2053051	08-15-07	09:08	diag/rdbms/orcl/orcl/incident/incdir_14771/orcl_ora_13914_i14771.trc
52526	08-15-07	09:08	diag/rdbms/orcl/orcl/incident/incdir_14771/orcl_ora_13914_i14771.trm
52511	08-15-07	09:08	diag/rdbms/orcl/orcl/incident/incdir_14772/orcl_ora_13914_i14772.trc
2053005	08-15-07	09:08	diag/rdbms/orcl/orcl/incident/incdir_14772/orcl_ora_13914_i14772.trc
2053004	08-15-07	09:08	diag/rdbms/orcl/orcl/incident/incdir_14773/orcl_ora_13914_i14773.trc
52536	08-15-07	09:08	diag/rdbms/orcl/orcl/incident/incdir_14773/orcl_ora_13914_i14773.trm
205233	08-15-07	11:35	diag/rdbms/orcl/orcl/trace/alert_orcl.log
730289	08-15-07	11:35	diag/rdbms/orcl/orcl/alert/log.xml
...			
...			
501	08-15-07	13:13	metadata.xml
-----			-----
11822447			83 files

CREATING PACKAGE USING EM

Step 1: Logon to EM Database Console home page. Click on **Software and Support** and then **Support Workbench**

ORACLE Enterprise Manager 11g Database Control

Setup Preferences Help Logout

Database

Logged in As SYS

Database Instance: orcl

Home Performance Availability Server Schema Data Movement **Software and Support**

Software

Configuration

- [Collection Status](#)
- [Clone Oracle Home](#)
- [Host Configuration](#)
- [Oracle Home Inventory](#)

Database Software Patching

- [Patch Advisor](#)
- [View Patch Cache](#)
- [Patch Prerequisites](#)
- [Stage Patch](#)
- [Apply Patch](#)

Real Application Testing

- [Database Replay](#)
- [SQL Performance Analyzer](#)

Deployment Procedure Manager

- [Getting Started with Deployment Procedure Manager](#)
- [Deployment Procedures](#)
- [Procedure Completion Status](#)
- [Deployment and Provisioning Software Library](#)

Support

[Support Workbench](#)

Related Links

Access	Advisor Central	Alert History
Alert Log Contents	All Metrics	Baseline Metric Thresholds
Blackouts	EM SQL History	Jobs
Metric and Policy Settings	Metric Collection Errors	Monitoring Configuration
Monitor in Memory Access Mode	Policy Groups	Scheduler Central
SQL Worksheet	Target Properties	User-Defined Metrics

Database | Setup | Preferences | Help | Logout

Step 2: Select the Problem **Check Box** As shown below for ORA-1578 and then click on **Package** button to package it

ORACLE Enterprise Manager 11g Database Control

Database Instance: orcl > Support Workbench

Page Refreshed August 16, 2007 9:58:07 AM EDT

Problems (1) | Checker Findings (0) | Packages (1)

New Problems in Last 24 Hours: 0 | All Active Problems: 1 | All Problems: 1
 New Incidents in Last 24 Hours: 10 | All Active Incidents: 50 | All Incidents: 60

View: Last 24 Hours | Search: [] | Go | Advanced Search

View: Package

Select All | Select None | Show All Details | Hide All Details

Select	Details	ID	Description	Number Of Incidents	Last Incident	Last Comment	Active	Packaged	SR#
<input checked="" type="checkbox"/>	► Show	1	ORA 1578	60	August 15, 2007 11:33:03 AM EDT		Yes	No	

► Performance and Critical Error

Problems (1) | Checker Findings (0) | Packages (1)

Related Links

Advisor Central | Alert Log Contents | Alert Log Errors
 Create User-Reported Problem | Incident Packaging Configuration

Database | Setup | Preferences | Help | Logout

Step 3: Select **Custom Packaging** and click on **Continue** button

ORACLE Enterprise Manager 11g Database Control

Database Instance: orcl > Support Workbench > Package : Select packaging mode

Problems Selected: ORA 1578

Quick Packaging

✓ TIP With quick packaging, an upload file is generated for a single problem and sent to Oracle with default options

☒ Custom Packaging — We will use to Add more data in the Package like Alert Log or so

✓ TIP With custom packaging, users get the following additional features.

- Edit Package Contents
- Scrub User Data
- Generate Additional Dumps and Test Cases

In the next page, you will either be able to create a new package or add selected problems to an existing one.

Cancel | Continue

Database | Setup | Preferences | Help | Logout

Step 4: Select **Create New Package**. Provide any **Description** to Default Package name provided by EM and click on **OK** button to continue

ORACLE Enterprise Manager 11g Database Control

Database Instance: orcl > Support Workbench > Custom Packaging : Select Package

Problems Selected **ORA 1578**

Select a package.
TIP Create a new package or select an existing one. Problems chosen earlier will be added to this package.

☒ Create New Package

Package Name: ORA1578_20070816101245 *Using Default Name specified by EM*

Package Description: Package for Oracle Critical Error ORA-1578

☐ Select from Existing Packages *Give any Name so as to separate it from existing Package*

Select	Name	Status	Description	Main Problem Keys	Created
<input type="radio"/>	ORA1578_20070815125445	Upload File Generated		ORA 1578	August 15, 2007 12:54:45 PM EDT

You can see if any Package is already created. We have created this package using ADRCI earlier

Cancel OK

Database | Setup | Preferences | Help | Logout

Step 5: Logical Package is created and now it has all diagnostic Data attached to it from ADR. We can use the following **EXCLUDE** button under **INCIDENT** tab to exclude any incident which will remove any associated data from the Logical Package.

ORACLE Enterprise Manager 11g Database Control

Database Instance: orcl > Support Workbench > Logged in As SYS

Confirmation
Package(ORA1578_20070816101245) has been created successfully.

Customize Package: ORA1578_20070816101245 Page Refreshed **August 16, 2007 10:16:29 AM EDT** (Refresh)

The package can be customized to edit its contents, to generate and include additional diagnostic data or to scrub user data. Once the package is ready it can be sent to Oracle Support.

Summary

Status	Active
Total Size (uncompressed)	10.16 MB
Incremental Size (uncompressed)	10.16 MB
Created	August 16, 2007 10:16:28 AM EDT
Description	Package for Oracle Critical Error ORA-1578
Problems in Package	ORA 1578
Incidents Previously Excluded by User	0 (Include)
Files Excluded by User	0 (Include)

Packaging Tasks

(Generate Upload File) (Send to Oracle)

Edit Contents
[Add Problems](#)
[Exclude Problems](#)
[View Package Manifest](#)

Scrub User Data
[Copy out Files to Edit Contents](#)
[Copy in Files to Replace Contents](#)

Additional Diagnostic Data
[Gather Additional Dumps](#)
[Add External Files](#)

Send to Oracle Support
[Finish Contents Preparation](#)
[Generate Upload File](#)
[View/Send Upload Files](#)

Incidents Files Activity Log

(Add Incidents) (Add Recent Incidents)

(Exclude) **You can Exclude any of these Incident which will otherwise included in the Package**

Select All | Select None

Select	ID	Type	Problem ID	Description	Size (MB)	Timestamp
<input type="checkbox"/>	14770	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:38 AM EDT
<input type="checkbox"/>	14771	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:39 AM EDT
<input type="checkbox"/>	14772	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:41 AM EDT
<input type="checkbox"/>	14773	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:51 AM EDT
<input type="checkbox"/>	14769	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.13	August 15, 2007 9:05:38 AM EDT

Incidents Files Activity Log

Related Links
[Advisor Central](#) [Alert Log Contents](#) [Alert Log Errors](#)
[Create User-Reported Problem](#) [Incident Packaging Configuration](#)

Database | Setup | Preferences | Help | Logout

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Done Local intranet 100%

Step 6: We can use the following **EXCLUDE** button under **File** tab to exclude any trace file(s). We can also **add any External file** as per our requirement to the package. Step 7 will show the procedure to add external File.

ORACLE Enterprise Manager 11g Database Control

Database Instance: orcl > Support Workbench > Customize Package: ORA1578_20070816101245

Page Refreshed August 16, 2007 10:20:54 AM EDT

The package can be customized to edit its contents, to generate and include additional diagnostic data or to scrub user data. Once the package is ready it can be sent to Oracle Support.

Summary

Status	Active
Total Size (uncompressed)	10.16 MB
Incremental Size (uncompressed)	10.16 MB
Created	August 16, 2007 10:16:28 AM EDT
Description	Package for Oracle Critical Error
Problems in Package	ORA-1578
Incidents Previously Excluded by User	0 (Include)
Files Excluded by User	0 (Include)

Packaging Tasks

Generate Upload File Send to Oracle

Edit Contents

[Add Problems](#)
[Exclude Problems](#)
[View Package Manifest](#)

Scrub User Data

[Copy out Files to Edit Contents](#)
[Copy in Files to Replace Contents](#)

Additional Diagnostic Data

[Gather Additional Dumps](#)
[Add External Files](#)

Send to Oracle Support

[Finish Contents Preparation](#)
[Generate Upload File](#)
[View/Send Upload Files](#)

Add Additional Alert Log or any other file required by user and available on Database server

Incidents Files Activity Log

Exclude any of the Incidents Trace file which will otherwise be part of the package

Select All Select None

Select	Source Name	Size (MB)	Has User Data	Timestamp	Path	View
<input type="checkbox"/>	Incident orcl_ora_13914_i14769.trm	0.05	No	August 15, 2007 9:05:40 AM EDT	/home/oracle/app/diag/rdbms/orcl/orcl/incident/incdir_14769	
<input type="checkbox"/>	Incident orcl_ora_13914_i14769.trc	1.96	No	August 15, 2007 9:05:40 AM EDT	/home/oracle/app/diag/rdbms/orcl/orcl/incident/incdir_14769	
<input type="checkbox"/>	Incident orcl_ora_13914_i14769.trm	0	No		/home/oracle/app/diag/rdbms/orcl/orcl/trace	
<input type="checkbox"/>	Incident orcl_ora_13914.trc	0.11	No	August 15, 2007 10:10:55 AM EDT	/home/oracle/app/diag/rdbms/orcl/orcl/trace	
<input type="checkbox"/>	Incident orcl_ora_13914.trm	0.01	No	August 15, 2007 10:10:55 AM EDT	/home/oracle/app/diag/rdbms/orcl/orcl/trace	
<input type="checkbox"/>	Incident orcl_ora_13914_i14770.trc	1.96	No	August 15, 2007 9:08:38 AM EDT	/home/oracle/app/diag/rdbms/orcl/orcl/incident/incdir_14770	
<input type="checkbox"/>	Incident orcl_ora_13914_i14770.trm	0.05	No	August 15, 2007 9:08:38 AM EDT	/home/oracle/app/diag/rdbms/orcl/orcl/incident/incdir_14770	
<input type="checkbox"/>	Incident orcl_ora_13914_i14770.trm	0	No		/home/oracle/app/diag/rdbms/orcl/orcl/trace	
<input type="checkbox"/>	Incident orcl_ora_13914_i14771.trc	1.96	No	August 15, 2007 9:08:40 AM EDT	/home/oracle/app/diag/rdbms/orcl/orcl/incident/incdir_14771	

Step 7: Select the **Torch** to identify the file to be added to the package. Provide the Host credential of the Database server and Click **OK** to continue. Select the File like Alert log in our case and Click **OK** to continue

Oracle Enterprise Manager 11g Database Control
Database Instance: orcl > Support Workbench > Package Details: ORA1578_200708161012... > Logged in As SYS

Add External Files

Host **db02pn**

File Name

Host Credentials

Specify the host credentials.

Host **db02pn**

* Username

* Password

☐ Save as Preferred Credential Normal

Browse and Select: File or Directory

Host **db02pn**

User **oracle** (Change)

Path **/ > home > oracle > app > diag > rdbms > orcl > orcl > trace >**

Search

Go

Previous 1-25 of 500 Next 25

Select	Name	Owner	Group	Size (KB)	Last Modified Time (EST)
<input checked="" type="radio"/>	alert_orcl.log	oracle	oinstall	229	Aug 16, 2007 6:06:14 AM
<input type="radio"/>	cdmp_20070815090838	oracle	oinstall	4	Aug 15, 2007 9:08:39 AM
<input type="radio"/>	cdmp_20070815090842	oracle	oinstall	4	Aug 15, 2007 9:08:42 AM
<input type="radio"/>	cdmp_20070815090853	oracle	oinstall	4	Aug 15, 2007 9:08:53 AM
<input type="radio"/>	orcl_arc0_11456.trc	oracle	oinstall	2	Aug 14, 2007 7:58:27 PM

Step 8: We have Added the Alert log successfully to the Package and Click on **Finish Contents Preparation.**

ORACLE Enterprise Manager 11g Database Control

Database Instance: orcl > Support Workbench > **Customize Package: ORA1578_20070816101245**

Page Refreshed **August 16, 2007 10:58:57 AM EDT** (Refresh)

The package can be customized to edit its contents, to generate and include additional diagnostic data or to scrub user data. Once the package is ready it can be sent to Oracle Support.

Summary

Status **Active**

Total Size (uncompressed) **10.38 MB**

Incremental Size (uncompressed) **10.38 MB**

Created **August 16, 2007 10:16:28 AM EDT**

Description **Package for Oracle Critical Error ORA-1578**

Problems in Package **ORA 1578**

Incidents Previously Excluded by User **0** (Include)

Files Excluded by User **0** (Include)

Packaging Tasks

(Generate Upload File) (Send to Oracle)

Edit Contents

[Add Problems](#)

[Exclude Problems](#)

[View Package Manifest](#)

Additional Diagnostic Data

[Gather Additional Dumps](#)

[Add External Files](#)

Scrub User Data

[Copy out Files to Edit Contents](#)

[Copy in Files to Replace Contents](#)

Send to Oracle Support

Finish Contents Preparation

[Generate Upload File](#)

[View/Send Upload Files](#)

When Done with adding all required Files

Will be Enabled once Content is prepared

(Exclude)

Select All | Select None

Select	ID	Type	Problem ID	Description	Size (MB)	Timestamp
<input type="checkbox"/>	14770	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:38 AM EDT
<input type="checkbox"/>	14771	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:39 AM EDT
<input type="checkbox"/>	14772	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:41 AM EDT
<input type="checkbox"/>	14773	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:51 AM EDT
<input type="checkbox"/>	14769	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.13	August 15, 2007 9:05:38 AM EDT

Related Links

[Advisor Central](#) [Alert Log Contents](#) [Alert Log Errors](#)

[Create User-Reported Problem](#) [Incident Packaging Configuration](#)

Database | Setup | Preferences | Help | Logout

Step 9: You will see that Alert log as well as around 80 files are attached to this package. All these files are related to Problem selected earlier. Now we can click on **Generate Upload File** to create the ZIP file for the Package

ORACLE Enterprise Manager 11g Database Control

Database Instance: orcl > Support Workbench > Logged in As SYS

Confirmation

The following files are determined to be relevant to the package and consequently added to it. Please review the package and edit its contents accordingly. Once you are done editing the package, you can generate the Upload File and send it to Oracle.

1. [/home/oracle/app/diag/rdbms/orcl/orcl/trace/alert_orcl.log](#) — See Alert is Added in the Package along with Other file found in ADR
2. /home/oracle/app/diag/rdbms/orcl/orcl/alert/log.xml
3. /home/oracle/app/diag/rdbms/orcl/orcl/trace/orcl_m000_13392.trc
4. /home/oracle/app/diag/rdbms/orcl/orcl/trace/orcl_m000_13392.trm
5. /home/oracle/app/diag/rdbms/orcl/orcl/trace/orcl_diag_17739.trc
6. /home/oracle/app/diag/rdbms/orcl/orcl/trace/orcl_diag_17739.trm
7. /home/oracle/app/diag/rdbms/orcl/orcl/trace/orcl_m000_14277.trc
8. ... There are 80 more files.

Customize Package: ORA1578_20070816101245

Page Refreshed **August 16, 2007 11:01:11 AM EDT** (Refresh)

The package can be customized to edit its contents, to generate and include additional diagnostic data or to scrub user data. Once the package is ready it can be sent to Oracle Support.

Summary

Status	Contents Finalized
Total Size (uncompressed)	11.59 MB
Incremental Size (uncompressed)	11.59 MB
Created	August 16, 2007 10:16:28 AM EDT
Description	Package for Oracle Critical Error
Problems in Package	ORA-1578
Incidents Previously Excluded by User	0 <input type="button" value="Include"/>
Files Excluded by User	0 <input type="button" value="Include"/>

Packaging Tasks

Edit Contents

[Add Problems](#)
[Exclude Problems](#)
[View Package Manifest](#)

Scrub User Data

[Copy out Files to Edit Contents](#)
[Copy in Files to Replace Contents](#)

Additional Diagnostic Data

[Gather Additional Dumps](#)
[Add External Files](#)

Send to Oracle Support

[Finish Contents Preparation](#)
[Generate Upload File](#) (This Button is Enabled not to Create Zip file to upload to Oracle Support Site)
[View/Send Upload Files](#)

Incidents | [Files](#) | [Activity Log](#)

[Select All](#) | [Select None](#)

Select	ID	Type	Problem ID	Description	Size (MB)	Timestamp
<input type="checkbox"/>	14770	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:38 AM EDT
<input type="checkbox"/>	14771	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:39 AM EDT
<input type="checkbox"/>	14772	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:41 AM EDT
<input type="checkbox"/>	14773	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.01	August 15, 2007 9:08:51 AM EDT
<input type="checkbox"/>	14769	Main	1	ORA-1578 [4] [27] [] [] [] [] []	2.13	August 15, 2007 9:05:38 AM EDT

Step 10: Select the **Full** and schedule it run **immediately**. Click **Submit** to submit the job to the scheduler

ORACLE Enterprise Manager 11g Database Control

Database Instance: orcl > Support Workbench > Package Details: ORA1578_200708161012... > Logged in As SYS

Generate Upload File: ORA1578_20070816101245

An upload file is a compressed form of the package. Once an upload file is generated, you can use it to send the package to Oracle.

Package File Type

☒ **Full**
The entire package contents will be included in the upload file.

☐ Incremental
Only items added since the last upload file generation will be included.

Schedule

Generating an upload file for larger packages might be resource intensive and take several minutes to complete. You could choose to schedule the generation of the upload file immediately, or at a later time.

The current package size before compressing is **11.59MB**.

☒ **Immediately**

☐ Later

See the sum of all Files included in the Package. Maximum size allowed is around 2G

Database | Setup | Preferences | Help | Logout

ORACLE Enterprise Manager 11g Database Control

Confirmation

The package: ORA1578_20070816101245 is successfully processed.

Database | Setup | Preferences | Help | Logout

Step 11: Package is now generated in Zip file. Click on **View/Send Upload files** to see the name and location of the Zip file.

ORACLE Enterprise Manager 11g Database Control Setup Preferences Help Logout Database

Database Instance: orcl > Support Workbench > **Customize Package: ORA1578_20070816101245** Logged in As SYS

Page Refreshed **August 16, 2007 11:11:09 AM EDT** Refresh

The package can be customized to edit its contents, to generate and include additional diagnostic data or to scrub user data. Once the package is ready it can be sent to Oracle Support.

Summary

	Status	Upload File Generated
Total Size (uncompressed)		11.68 MB
Incremental Size (uncompressed)		0.09 MB
Created		August 16, 2007 10:16:28 AM EDT
Description		Package for Oracle Critical Error
Problems in Package		ORA-1578
Incidents Previously Excluded by User	0 <input type="button" value="Include"/>	
Files Excluded by User	0 <input type="button" value="Include"/>	

Packaging Tasks

Edit Contents

- [Add Problems](#)
- [Exclude Problems](#)
- [View Package Manifest](#)

Additional Diagnostic Data

- [Gather Additional Dumps](#)
- [Add External Files](#)

Scrub User Data

- [Copy out Files to Edit Contents](#)
- [Copy in Files to Replace Contents](#)

Send to Oracle Support

- [Finish Contents Preparation](#)
- [Generate Upload File](#)
- [View/Send Upload Files](#)

Now this is enabled and you can click to see the location of the Zip file created earlier

Step 12: We are done with the Package creation.

ORACLE Enterprise Manager 11g Database Control Setup Preferences Help Logout Database

Database Instance: orcl > Support Workbench > Package Details: ORA1578_200708161012... > Logged in As SYS

View/Send Upload Files OK

Please select upload files and click 'Send to Oracle'. The upload file will be sent using Oracle Configuration Manager. If Oracle Configuration Manager is unavailable, the process will fail. In this case, you can either enable Oracle Configuration Manager to allow the Enterprise Manager to send the files to Oracle automatically, or you could alternatively send the files manually to Oracle Support.

If CM is configured, then you can even send it to Oracle Support

[Select All](#) | [Select None](#)

Select Name	Path	Size (MB)	Mode	Created	Time Sent
<input type="checkbox"/> ORA1578_20070816101245_COM_1.zip	/home/oracle/app/product/11.1/db_1/prnhs-db02pn.profnet.com_orcl/sysman/emd/state	2.04	Full	August 16, 2007 11:01:10 AM EDT	Not sent yet

Name of Zip file **Location of Zip file on the Database Server** OK

[Database](#) | [Setup](#) | [Preferences](#) | [Help](#) | [Logout](#)

HEALTH MONITOR OR HM DIRECTORY

This directory contains the reports generated by the Health Monitor. Health Monitor examine various database components and below is list of some of them

- DB Structure Integrity Check
- Data Block Integrity Check
- Redo Integrity Check
- Logical Block Check
- Undo Segment Integrity Check
- All Control Files Check
- All Datafiles Check
- Single Datafile Check
- Log Group Check
- Log Group Member Check
- Archived Log Check
- Dictionary Integrity Check etc

You can get the complete list using the below query

```
Select name from v$hm_check;
```

Health Monitor check can be invoked by any of the following method

1. Reactive → Whenever a Problem or Critical error is detected in the database
2. Manual → It can be done by any of the following ways
 - a. Using ADRCI
 - b. Using PLSQL API
 - c. Using Enterprise Manager

USING ADCRI

List all Checker Runs registered in the ADR.

```
adrci> show hm_run
```

```
ADR Home = /home/oracle/app/diag/rdbms/test11g/test11g:
```

```
*****
```

```
HM RUN RECORD 1
```

```
*****
```

```
...
```

```
...
```

```
*****
```

```
HM RUN RECORD 30
```

```
*****
```

RUN_ID	621
RUN_NAME	HM_RUN_621
CHECK_NAME	DB Structure Integrity Check
NAME_ID	2
MODE	2
START_TIME	2007-08-15 13:40:26.219314 -04:00
RESUME_TIME	<NULL>
END_TIME	2007-08-15 13:40:26.246310 -04:00
MODIFIED_TIME	2007-08-15 13:40:26.246310 -04:00
TIMEOUT	0
FLAGS	0
STATUS	5
SRC_INCIDENT_ID	0
NUM_INCIDENTS	0
ERR_NUMBER	0
REPORT_FILE	<NULL>

```
30 rows fetched
```

Suppose I want to create report for Run Name HM_RUN_621 which is for "DB Structure Integrity Check". This will create the Report in ADR_HOME/hm directory

```
adrci> create report hm_run HM_RUN_661
```

```
adrci> show report hm_run HM_RUN_661
```

```
<?xml version="1.0" encoding="US-ASCII"?>
<HM-REPORT REPORT_ID="HM_RUN_661">
  <TITLE>HM Report: HM_RUN_661</TITLE>
  <RUN_INFO>
    <CHECK_NAME>DB Structure Integrity Check</CHECK_NAME>
    <RUN_ID>661</RUN_ID>
    <RUN_NAME>HM_RUN_661</RUN_NAME>
    <RUN_MODE>REACTIVE</RUN_MODE>
    <RUN_STATUS>COMPLETED</RUN_STATUS>
    <RUN_ERROR_NUM>0</RUN_ERROR_NUM>
    <SOURCE_INCIDENT_ID>0</SOURCE_INCIDENT_ID>
    <NUM_INCIDENTS_CREATED>0</NUM_INCIDENTS_CREATED>
    <RUN_START_TIME>2007-08-15 13:43:22.215671 -04:00</RUN_START_TIME>
    <RUN_END_TIME>2007-08-15 13:43:22.240171 -04:00</RUN_END_TIME>
  </RUN_INFO>
  <RUN_PARAMETERS/>
  <RUN-FINDINGS/>
</HM-REPORT>
```

OR

```
adrci> host "ls -ltr /home/oracle/app/diag/rdbms/orcl/orcl/hm/HMREPORT_HM_RUN_661.hm"
```

```
-rw-r----- 1 oracle oinstall 711 Aug 15 13:50 /home/oracle/app/diag/rdbms/orcl/orcl/hm/HMREPORT_HM_RUN_661.hm
```

```
adrci> host "cat /home/oracle/app/diag/rdbms/orcl/orcl/hm/HMREPORT_HM_RUN_661.hm"
```


*USING PLSQL API***Check the name of Available Checks**

```
SQL> select name from v$hm_check order by 1;
```

```
NAME
```

```
-----
All Control Files Check
All Datafiles Check
Archived Log Check
Block IO Revalidation Check
CF Member Check
DB Structure Integrity Check
Data Block Integrity Check
Dictionary Integrity Check
Failure Simulation Check
HM Test Check
IO Revalidation Check
Log Group Check
Log Group Member Check
Logical Block Check
Redo Integrity Check
Redo Revalidation Check
Single Datafile Check
Transaction Integrity Check
Txn Revalidation Check
Undo Segment Integrity Check
```

```
21 rows selected.
```

```
SQL> exec dbms_hm.run_check('DB Structure Integrity Check',' indy_2' );
```

```
PL/SQL procedure successfully completed.
```

```
SQL> select run_id,name,check_name from v$hm_run where name=' indy_2' ;
```

```

RUN_ID NAME                                CHECK_NAME
-----
681 indy_2                                DB Structure Integrity Check
```

```
SQL> set long 1000000000
```

```
SQL> select dbms_hm.get_run_report(' indy_2') from dual;
```

```
DBMS_HM.GET_RUN_REPORT(' INDY_2')
```

```
-----
Basic Run Information
```

```
Run Name           : indy_2
Run Id             : 761
Check Name         : DB Structure Integrity Check
Mode               : MANUAL
Status             : COMPLETED
Start Time         : 2007-08-15 14:51:47.986255 -04:00
End Time           : 2007-08-15 14:51:48.003219 -04:00
Error Encountered   : 0
Source Incident Id  : 0
Number of Incidents Created : 0
```

More Details can be found from V\$HM_RUN, V\$HM_FINDING and V\$HM_RECOMMENDATION,

USING EM

Step 1 : Logon to Oracle EM Database Home page. Click on **Availability** and then click **Advisor Central**

ORACLE Enterprise Manager 11g Database Control

Setup Preferences Help Logout Database

Logged in As SYS

Database Instance: orcl

Home Performance **Availability** Server Schema Data Movement Software and Support

Backup/Recovery

Setup

- Backup Settings
- Recovery Settings
- Recovery Catalog Settings

Manage

- Schedule Backup
- Manage Current Backups
- Backup Reports
- Manage Restore Points
- Perform Recovery
- View and Manage Transactions

Oracle Secure Backup

- Oracle Secure Backup Device and Media
- File System Backup and Restore

Related Links

- Access
- Alert Log Contents
- Blackouts
- Metric and Policy Settings
- Monitor in Memory Access Mode
- SQL Worksheet
- Advisor Central**
- All Metrics
- EM SQL History
- Metric Collection Errors
- Policy Groups
- Target Properties
- Alert History
- Baseline Metric Thresholds
- Jobs
- Monitoring Configuration
- Scheduler Central
- User-Defined Metrics

Database | Setup | Preferences | Help | Logout

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About Oracle Enterprise Manager

Step 2 : Select Checkers Tab and then click the Checkers like DB Structure Integrity Check used in my example.

ORACLE Enterprise Manager 11g Database Control

Setup Preferences Help Logout Database

Logged in As SYS

Database Instance: orcl >

Advisor Central

Advisors **Checkers**

Page Refreshed August 15, 2007 2:10:14 PM EDT Refresh

Checkers

- DB Structure Integrity Check**
- Transaction Integrity Check
- Data Block Integrity Check
- Undo Segment Integrity Check
- Redo Integrity Check
- Dictionary Integrity Check

Checker Runs

Search

Checker Name Run Name Runs Status Run Type

All All All All All Go

Results

Details Previous 1-25 of 33 Next 8

Select	Checker Name	Run Name	Run Type	Status	Start Time	End Time
<input checked="" type="radio"/>	DB Structure Integrity Check	HM_RUN_683	Manual	Completed	August 15, 2007 2:00:31 PM EDT	August 15, 2007 2:00:31 PM EDT
<input type="radio"/>	DB Structure Integrity Check	HM_RUN_661	Reactive	Completed	August 15, 2007 1:43:22 PM EDT	August 15, 2007 1:43:22 PM EDT
<input type="radio"/>	DB Structure Integrity Check	HM_RUN_641	Manual	Completed	August 15, 2007 1:42:23 PM EDT	August 15, 2007 1:42:23 PM EDT

Step 3 : HM Report is ready now and select the Checker Name and then click on **Details**. Select the **Runs** Tab and then click on **View Report** to see the Health Monitor Report

Confirmation
DB Structure Integrity Check: indy_1 ran successfully.

Advisor Central
Checkers
Page Refreshed **August 15, 2007 2:21:59 PM EDT** (Refresh)

Checker Runs
Search
Checker Name Run Name Runs Status Run Type
All All All All All
Results
Details
Select Checker Name Run Name Run Type Status Start Time
DB Structure Integrity Check indy_1 Manual Completed August 15, 2007 2:21:59 PM EDT
DB Structure Integrity Check HM_RUN_701 Manual Completed August 15, 2007 2:13:43 PM EDT
DB Structure Integrity Check HM_RUN_681 Manual Completed August 15, 2007 2:00:31 PM EDT

Basic Run Information
Run Name : indy_1
Run Id : 721
Check Name : DB Structure Integrity Check
Mode : MANUAL
Status : COMPLETED
Start Time : 2007-08-15 14:21:59.306108 -04:00
End Time : 2007-08-15 14:21:59.322869 -04:00
Error Encountered : 0
Source Incident Id : 0
Number of Incidents Created : 0

Run Detail
Page Refreshed **August 15, 2007 2:26:53 PM EDT** (Refresh)
Findings Runs
Run Details: indy_1
Run Name indy_1 Checker Name DB Structure Integrity Check
Class Data Corruption Availability Offline Capable
Run Type Manual Triggering Incident
Start Time August 15, 2007 2:21:59 PM EDT Status Completed
End Time August 15, 2007 2:21:59 PM EDT
Findings Runs View Report

METADATA

This directory under ADR_HOME contains the important file for ADR. You can compare this to a database dictionary which is queried by ADRCI.