

How to Check and Enable/Disable Oracle Binary Options (Doc ID 948061.1)

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APPLIES TO:

Oracle Database - Enterprise Edition - Version 10.2.0.1 to 12.2.0.1 [Release 10.2 to 12.2]

Oracle Database Configuration Assistant - Version 12.2 BETA1 to 12.2 BETA1 [Release 12.2]

Other UNIX

GOAL

To show how to install/deinstall and/or disable/enable the following database components at the ORACLE_HOME software/binary level:

Product/Component	Short Name
Automated Storage Management	ASM
Context Management Text	CTX
Oracle Data Mining	DM
Database Vault	DV
Oracle OLAP	OLAP
Oracle Label Security	OLS
Oracle Partitioning	PART
Real Application Cluster	RAC
Real Application Testing	RAT

This requires advanced skills to make the changes and perform the relink.

This note **WILL NOT** address product specific scripts that are required at the database level for specific components to further complete the install/deinstall process.

Please refer to the appropriate Oracle Component Guide or as a starting point

[Note 472937.1](#) Information On Installed Database Components and Schemas

Furthermore it will only cover UNIX/LINUX and Windows where applicable covering versions 9.2.0.x through 11.2.0.x.

SOLUTION

Checking if products/components have been installed

Starting with releases 11.1.0.7.x and above all products are installed by default and the option to customize the product/component selection is no longer possible.

The only customization that can be done on these releases is to enable or disable certain products/components which will be covered in the following sections.

For versions 9.2.0.x through 11.1.0.6.x product installation can be confirmed in the following manner:

1. Using the Oracle Universal Installer (OUI) from either the \$ORACLE_HOME/oui/bin or software installation media:

```
$ cd <location of OUI>

$ ./runInstaller

click on "Installed Products"
select the ORACLE_HOME
click on "Expand All"
Review the list of products installed.
```

2. Use the opatch utility:

```
$ export PATH=$ORACLE_HOME/OPatch:$PATH

$ opatch lsinventory -detail
```

Review the log file in either \$ORACLE_HOME/.patch_storage/ or \$ORACLE_HOME/cfgtoollogs/patch/lsinv

Use the following notes to assist with product identification:

[Note 783288.1](#) Oracle Database Software Component Guide for 10gR2

[Note 783290.1](#) Oracle Database Software Component Guide for 11gR1

What file contains the various status's of products/components?

Once the products/components have been confirmed as being installed (applicable only to versions 9.2.0.x through 11.1.0.6.x) then they can be enabled/disabled at the binary level.

The file that contains the status of components being enabled or disabled is:

```
$ORACLE_HOME/rdbms/lib/libknlopt.a
```

The relevant files contained within this archive and status's associated with them are:

```
Automatic Storage Mgt ON=kfon.o
Automatic Storage Mgt OFF=kfoff.o
```

```
Context Management Text ON=kciwcx.o <<CTX is always enabled and cannot be disabled.
```

```
Oracle Data Mining ON=dmwdm.o
Oracle Data Mining OFF=dmndm.o
```

```
Oracle Database Vault ON=kzvidv.o
Oracle Database Vault OFF=kzvndv.o
```

```
Oracle OLAP ON=xsyeolap.o
Oracle OLAP OFF=xsnoolap.o
```

```
Oracle Label Security ON= kzlibac.o
Oracle Label Security OFF= kzlnlbac.o
```

Oracle Partitioning ON=kkpoban.o
 Oracle Partitioning OFF=ksnkkpo.o

Real Application Cluster ON=kcsn.o
 Real Application Cluster OFF=ksnkcs.o

Oracle Real Application Testing ON=kecwr.o
 Oracle Real Application Testing OFF=kecnr.o

Please note that Advanced Analytics is superset of Oracle Data Mining.

Reference: <https://www.oracle.com/database/advanced-analytics/index.html>

The following command can be used to verify the contents of the archive:

```
$ cd $ORACLE_HOME/rdbms/lib
$ ar -tv libknlopt.a

For IBM AIX

$ cd $ORACLE_HOME/rdbms/lib
$ ar -X64 -tv libknlopt.a
```

Sample output:

```
$ ar -tv libknlopt.a
rw-rw-r-- 94110/42424 275432 Sep 17 08:28 2011 kkxwtp.o
rw-rw-r-- 94110/42424 46832 Sep 17 07:14 2011 ktd.o
rw-r--r-- 503/502 25144 Sep 17 06:20 2011 kxmwsd.o
rw-r--r-- 503/502 44056 Sep 17 06:14 2011 kciwcx.o
rw-rw-r-- 94110/42424 4040 Sep 17 07:16 2011 slfls.o
rw-rw-r-- 94110/42424 4032 Sep 17 07:16 2011 kprnts.o
rw-rw-r-- 94110/42424 5104 Sep 17 07:19 2011 kzvndv.o
rw-rw-r-- 94110/42424 4016 Sep 17 06:55 2011 kdzof.o
rw-rw-r-- 94110/42424 1512392 Sep 17 07:03 2011 jox.o
rw-rw-r-- 503/502 4032 Sep 17 06:05 2011 kecwr.o
rw-r--r-- 503/502 6352 Sep 17 06:19 2011 xsyeolap.o
rw-r--r-- 503/502 4872 Sep 17 06:14 2011 kzlnlbac.o
rw-r--r-- 503/502 4024 Sep 17 06:15 2011 dmwdm.o
rw-r--r-- 503/502 4608 Sep 17 05:56 2011 kfoff.o
rw-r--r-- 503/502 5272 Sep 17 05:57 2011 ksnkcs.o
rw-r--r-- 503/502 4032 Sep 17 06:05 2011 kkpoban.o
```

Checking if products/components have been enabled/disabled at the binary level

An alternative to going through the \$ORACLE_HOME/rdbms/lib/libknlopt.a output line by line is to check the archive for the existence of the 'ON' file noted above by running the following command:

```
$ cd $ORACLE_HOME/rdbms/lib
$ ar -t libknlopt.a | grep -c <filename>

For IBM AIX

$ cd $ORACLE_HOME/rdbms/lib
$ ar -X64 -t libknlopt.a | grep -c <filename>
```

Where <filename> is:

Product/Component	Short Name	<filename>
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Automated Storage Management	ASM	kfon.o
Oracle Data Mining	DM	dmwdm.o
Database Vault	DV	kzvidv.o
Oracle OLAP	OLAP	xsyeolap.o
Oracle Label Security	OLS	kzlibac.o
Oracle Partitioning	PART	kcpoban.o
Real Application Cluster	RAC	kscsm.o
Real Application Testing	RAT	kecwr.o

For example:

```
$ ar -t libknlOPT.a | grep -c kfon.o
```

For IBM AIX

```
$ ar -X64 -t libknlOPT.a | grep -c kfon.o
```

If the output is 0, the option is disabled.

If the output is 1, the option is enabled.

How to enable/disable products/components at the binary level

For all versions 9.2.0.x through 11.2.0.x or above products/components can be enabled or disabled by running 'make' commands and passing the appropriate switch.

In Oracle Database Home versions 9.2.0.x, 10.1.0.x and 10.2.0.x, it is possible to deinstall a specific component from Oracle Database Home using "OUI -> Deinstall".

Note:

All processes running from the ORACLE_HOME including but not limited to databases, listeners, intelligent agents, etc. must be shutdown/stopped before issuing these commands.

For example to enable/disable Oracle Partitioning:

Enable

```
$ cd $ORACLE_HOME/rdbms/lib
```

```
$ make -f ins_rdbms.mk part_on ioracle
```

Disable

```
$ cd $ORACLE_HOME/rdbms/lib
```

```
$ make -f ins_rdbms.mk part_off ioracle
```

The list of switches for each product/component are:

Product/Component	Enable Switch	Disable Switch
Automated Storage Management	asm_on	asm_off
Oracle Data Mining	dm_on	dm_off

Database Vault	dv_on	dv_off
Oracle OLAP	olap_on	olap_off
Oracle Label Security	lbac_on	lbac_off
Oracle Partitioning	part_on	part_off
Real Application Cluster	rac_on	rac_off
Real Application Testing	rat_on	rat_off

Warning: switching on ASM should only be done on Grid Infrastructure Homes in Oracle 11gR2. Doing it on an RDBMS ORACLE_HOME will result in errors on startup.

To Enable / Disable Direct NFS (DNFS):

Enable DNFS:

```
cd $ORACLE_HOME/rdbms/lib/
make -f ins_rdbms.mk dnfs_on
```

Disable DNFS:

```
cd $ORACLE_HOME/rdbms/lib/
make -f ins_rdbms.mk dnfs_off
```

Starting with 11.2 and above there is a utility called 'chopt' that can be used in UNIX/LINUX and WINDOWS as well.

For 12.1 and 12.2, Below link can be used for Windows platform about chopt tool.

<https://docs.oracle.com/database/121/NTDBI/postcfg.htm#NTDBI5600> (7.7 Enabling and Disabling Database Options)

<https://docs.oracle.com/en/database/oracle/oracle-database/12.2/ntdbi/enabling-and-disabling-database-options-after-installation.html#GUID-C45D75FC-34B5-4C24-9DE8-1518044A3BB3> (7.9 Enabling and Disabling Database Options After Installation)

The database needs to be shutdown in order to use the chopt utility to enable/disable binary options.

usage:

chopt <enable|disable> <option>

For example to enable/disable Oracle Partitioning:

Enable

```
$ chopt enable partitioning
```

Disable

```
$ chopt disable partitioning
```

Note: In case of RAC environment, the chopt enable / disable <option> command has to be executed on all RAC nodes.

This utility only works for the following products/components for version **11.2**:

Product/Component	Option
Oracle Data Mining	dm
Database Vault	dv
Oracle OLAP	olap
Oracle Label Security	lbac
Oracle Partitioning	partitioning
Real Application Testing	rat

For Oracle Database 12.1 , only the following components can be enabled/disabled:

Product/Component	Option
Oracle Data Mining	dm
Oracle OLAP	olap
Oracle Partitioning	partitioning
Real Application Testing	rat
Direct NFS	dnfs

For Oracle Database 12.2, only the following components can be enabled/disabled:

Product/Component	Option
Oracle Advanced Analytics	oaa
Oracle OLAP	olap
Oracle Partitioning	partitioning
Oracle Real Application Testing	rat

NOTE:

This note is a merge of the following documents:

Note 888934.1 Is it possible to deinstall/remove a specific component from already installed Oracle Database Home using OUI?

Note 1069015.1 How to determine enabled/disabled components in an 11.2 software-only installation

Note 1271072.1 Is it possible to deinstall/remove a specific component from already installed Oracle Database Home using OUI?

REFERENCES

[NOTE:884232.1](#) - 11gR2 Install (Non-RAC): Understanding New Changes With All New 11.2 Installer

[NOTE:284785.1](#) - How to Check Whether Oracle Binary/Instance is RAC Enabled and Relink Oracle Binary in RAC

[NOTE:1351051.1](#) - Information Center: Install and Configure Database Server/Client Installations

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