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“How To Do” in Oracle Apps?

❖ How to Relink Oracle Database Software

It is always better to know the relinking of oracle software manually because if there is a situation like

- An OS upgrade has occurred.
- A change has been made to the OS system libraries. This can occur during the application of an OS patch.
- A new install failed during the relinking phase.
- Individual Oracle executables core dump during initial startup.
- An individual Oracle patch has been applied.

So, relinking Oracle manually is a suggested way.

Therefore lets start the step by step procedure to relink manually.

Step 1 - Log into database tier as oracle.

Step 2 - Verify that \$ORACLE_HOME is set correctly by issuing the following command:
echo \$ORACLE_HOME

Step 3 - Verify and Configure the Linux environment for Proper Relinking as follows:
Set LD_LIBRARY_PATH to include \$ORACLE_HOME/lib

Step 4 - For all Oracle Versions and Linux platforms:
Verify that we have performed Step 2 correctly:

env|pg - make sure that the correct absolute path for \$ORACLE_HOME in the variable definitions.

Step 5 - For all Oracle Versions and Linux platforms:
Verify umask is set correctly by issuing following command:
umask

This must return 022. If it does not, set umask to 022,as follows:
umask 022

Step 6 - Run the OS Commands to Relink Oracle:

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Before relinking Oracle, shut down both the database and the listener.
The following commands will output a lot of text to the session window. To capture this output for upload to support, redirect the output to a file.

For all Linux platforms:

Oracle 7.3.x

For executables: oracle, exp, imp, sqlldr, tkprof

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

For executables: svrmgrl, svrmgrm

```
cd $ORACLE_HOME/svrmgr/lib  
make -f ins_svrmgr.mk linstall mininstall (linstall is for svrmgrl, mininstall is for svrmgrm)
```

For executables: sqlplus

```
cd $ORACLE_HOME/sqlplus/lib  
make -f ins_sqlplus.mk install
```

For executables: dbsnmp, oemevent, oratclsh

```
cd $ORACLE_HOME/network/lib  
make -f ins_agent.mk install
```

For executables: names, namesctl

```
cd $ORACLE_HOME/network/lib  
make -f ins_names.mk install
```

For executables: tnslnsr, lsnrctl, tnsping, csmnl, trceval, trcroute

```
cd $ORACLE_HOME/network/lib  
make -f ins_network.mk install
```

Oracle 8.o.x

For executables: oracle, exp, imp, sqlldr, tkprof, mig, dbv, orapwd, rman, svrmgrl, ogms, ogmsctl

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

```
For executables: sqlplus  
cd $ORACLE_HOME/sqlplus/lib  
make -f ins_sqlplus.mk install
```

For executables: dbsnmp, oemevent, oratclsh, libosm.so

```
cd $ORACLE_HOME/network/lib  
make -f ins_oemagent.mk install
```

For executables: tnslnr, lsnrctl, namesctl, names, osslogin, trcasst, trcroute

```
cd $ORACLE_HOME/network/lib  
make -f ins_network.mk install
```

Oracle 8.1.X, 9.X.X, 10.X.X or 11.X.X

***** NEW IN 8i AND ABOVE *****

A 'relink' script is provided in the \$ORACLE_HOME/bin directory.

```
cd $ORACLE_HOME/bin  
relink
```

This will display all of the command's options.

usage: relink

accepted values for parameter: all, oracle, network, client, client_sharedlib, interMedia, precomp, utilities, oemagent, ldap

```
relink all
```

11.2.X special instructions

In 11.2 relink script will only accept "all" as argument

-or-

Since the 'relink' command merely calls the traditional 'make' commands, you still have the option of running the 'make' commands independently:

```
For executables: oracle, exp, imp, sqlldr, tkprof, mig, dbv, orapwd, rman, svrmgrl, ogms,  
ogmsctl  
cd $ORACLE_HOME/rdbms/lib
```

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make -f ins_rdbms.mk install

PLEASE NOTE: After relinking the oracle executable, make sure that the permissions on the executable are 6751 (-rwsr-s--x). If they are not, run the following command as the Oracle software owner that is 'oracle':

```
cd $ORACLE_HOME/bin  
chmod 6751 oracle
```

For executables: sqlplus
cd \$ORACLE_HOME/sqlplus/lib
make -f ins_sqlplus.mk install

For executables: isqlplus (Oraclegi and higher versions)

```
cd $ORACLE_HOME/sqlplus/lib  
make -f ins_sqlplus.mk install_isqlplus
```

For executables: dbsnmp, oemevent, oratclsh

```
cd $ORACLE_HOME/network/lib  
make -f ins_oemagent.mk install
```

PLEASE NOTE: After relinking the dbsnmp executable, it is necessary to run the following commands as root (so that the ownership/permissions on the executable are correct):

```
# cd $ORACLE_HOME/bin  
# chown root dbsnmp  
# chmod 6750 dbsnmp
```

For executables: names, namesctl

```
cd $ORACLE_HOME/network/lib  
make -f ins_names.mk install
```

For executables: osslogin, trcasst, trcroute, onrsd, tnsping

```
cd $ORACLE_HOME/network/lib  
make -f ins_net_client.mk install
```

For executables: tnslsnr, lsnrctl

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```
cd $ORACLE_HOME/network/lib
make -f ins_net_server.mk install
```

For executables related to ldap (for example Oracle Internet Directory):

```
cd $ORACLE_HOME/ldap/lib
make -f ins_ldap.mk install
```

How to know if Relinking Was Successful:

If relinking was successful, the make command will eventually return to the OS prompt without an error. There will NOT be a 'Relinking Successful' type message.

If we receive an Error Message During Relinking:

Confirm that the message you received is an actual fatal error and not a warning. Relinking errors usually terminate the relinking process and contain verbage similar to the following:

'Fatal error', 'Ld: fatal', 'Exit Code 1'

While warnings will look similar to: 'ld: warning: option -YP appears more than once, first setting taken' and can most often be ignored.

If we receive an error that terminates the relinking process, your first step should be to extract the relevant information about the error from the make output:

This can be broken down into three basic steps:

1. Identify the OS utility that is returning the error.
'ld', 'make', 'cc', 'mv', 'cp', 'ar' are common sources.
2. Identify the type of error:
'Permission Denied', 'Undefined Symbol', 'File Not Found' are common types.
3. Identify the files or symbols involved.

❖ How to find the versions of technology stack components?

To find out the versions of Forms, iAS, Framework, JDK, OJSP, Database, etc. for oracle support review.

- We need to execute the following command on application Tier .

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```
$ADPERLPRG $FND_TOP/patch/115/bin/TXKScript.pl \  
-script=$FND_TOP/patch/115/bin/txkInventory.pl -txktop=$APPLTMP \  
-contextfile=$CONTEXT_FILE \  
-appspass=apps \  
-outfile=$APPLTMP/Report_App_Inventory.html
```

- We need to execute the following command on database Tier.
\$ADPERLPRG \$ORACLE_HOME/appsuil/bin/TXKScript.pl
-script=\$ORACLE_HOME/appsuil/bin/txkInventory.pl -
txktop=\$ORACLE_HOME/appsuil/temp
-contextfile=\$CONTEXT_FILE
-appspass=apps
-outfile=\$ORACLE_HOME/appsuil/temp/Report_DB_Inventory.html

If we want to generate the report in text format, the parameter "-reporttype=text" needs to be passed to the above commands.

For example:

```
outfile=$ORACLE_HOME/appsuil/temp/Report_DB_Inventory.html -reporttype=text
```

Once the command executes successfully, it should generate the report file in the location specified for "outfile" parameter in above script.

❖ How to enable automatic compilation of JSP pages in R12

Step1 - Login into E-Business suite as SYSADMIN and select System Administrator responsibility

Step2 -Select function AutoConfig (under Oracle Applications Manager)

For each web tier server, we need to perform the following:

click on pencil icon under Edit Parameters ,Select tab System and expand section jtff_server.

Step3 - Change value for the entry s_jsp_main_mode from justrun to recompile Confirm the change by clicking Save button.

Step4 - Run AutoConfig to propagate the changes to the configuration files.Verify that the \$INST_TOP/ora/10.1.3/j2ee/oacore/application-deployments/oacore/html/orion-web.xml has the following:

Check param-name "main_mode" under init-param variables .Its changed into "recompile"

Step5 - Restart the web tier services.

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❖ How to enable debugging for Concurrent Managers

Sometimes concurrent managers debug information is requires to solve issues related with CM, for achieve this purpose we need to do the following :

➤ **Steps for enable DIAG for the ICM**

We have to modify adcmctl.sh script using vi editor,as follows:

```
vi $COMMON_TOP/admin/scripts/SID_HOSTNAME/adcmctl.sh
```

Replace line :

```
CONTEXT_PARAMS="diag=N wait=N" With : CONTEXT_PARAMS="diag=Y wait=N"
```

Save the file.

➤ **Steps for enable the Debug Service**

Login with System Administrator responsibility

Navigate to Concurrent -> Manager->Define

Query manager with name "Debug Service"

Tick the "Enabled" checkbox if not yet ticked

Click Save button.

Once completed the above steps, required to bounce the concurrent managers

```
cd $COMMON_TOP/admin/scripts/SID_HOSTNAME
```

```
adcmctl.sh stop apps/apps_password
```

Wait for all concurrent process to complete, you can monitor using

```
ps -ef|grep -i fndlibr
```

All CM process completed, start your CM

```
adcmctl.sh start apps/password
```

Please Note: Switch it off after the debug information has been generated.

❖ How to synchronize (sync) refreshed database with already applied patches in Test Apps Tiers

Normally, we apply patches to test Instance. But if we have a situation like after applying the patches to the Test instance, suddenly need to refresh the database with latest from production db.

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We can perform the database refresh part without having any problems, but how to sync already applied patch to the newly refreshed database.

In this case, we have to use the adpatch option "options=nocopyportion,nogenerateportion".

By doing this, only the database portion will be applied, and the database will be in sync with the application in terms of those earlier patches.

❖ **How to Enable Tracing in Jinitiator**

This trace file will obtain additional information when the application is running - For e.g. to know the files being loaded when the web form application uses images.

There are two ways to enabling tracing in Jinitiator

➤ **Method 1**

From client machine, Open the Jinitiator Control Panel.

On Windows select Start - Settings -

Control Panel - Jinitiator 1.3.1.x. Enter the following in the "java Run Time parameters" textfield:

-Djavaplugin.trace=true

-Djavaplugin.trace.option=basic|net|security|ext|liveconnect.

Tracing set through the Control Panel will take effect when the Plug-in is launched, but changes made through the Control Panel while a Plug-in is running will have no effect until restart.

We can see the trace information in the jinitiator console or in the file
C:\Documents and Settings\jinitiator131x.trace

➤ **Method 2**

This method assumes you are running a web forms application and the Java Console is active. Press an appropriate number using your alphanumeric keypad (0-5).

The trace level options (0-5) are increasingly verbose with the various levels corresponding to the following:

0 - off

1 - basic

2 - network and basic

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- 3 - security, network and basic
- 4 - extension, security, network and basic
- 5 - LiveConnect, extension, security, network and basic

❖ **How to start concurrent managers ,if concurrent managers do not start after doing a clone**

Sometimes after cloning, all the concurrent managers may not start. The symptom of the issue is , after doing a clone when attempt to start the concurrent manager using the below :

```
$COMMON_TOP/admin/scripts/  
. adcmctl.sh stop apps/apps
```

We get the following errors:

Errors found in ICM logfile as

Could not initialize the Service Manager FNDSM__. Verify that has been registered for concurrent processing.

The reason for this issue is that, FND_NODES table having incorrect node entries (old node from the Source Instance) and that no Service Manager was found for the existing node.

Solution to the issue

1. Stop all middle tier services including the concurrent managers.
2. Stop the database.
3. Start the database.
4. Connect SQLPLUS as APPS user and run the following :
EXEC FND_CONC_CLONE.SETUP_CLEAN;
COMMIT;
EXIT;
5. Run AutoConfig on all tiers, firstly on the DB tier and then the APPS tiers and webtiers to repopulate the required system tables.
6. Connect to SQLPLUS as APPS user and run the following sql statement :

```
select CONCURRENT_QUEUE_NAME from FND_CONCURRENT_QUEUEUS where  
CONCURRENT_QUEUE_NAME like 'FNDSM%';
```

If the above SQL statement does not return any value then please do the following:

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Go to \$FND_TOP/patch/115/sql

Connect SQLPLUS as APPS user and run the following script :

```
SQL> @afdcmo37.sql;
```

Please Note : The same "afdcmo37.sql" is used for Release 12 also .

This script will create libraries for FNDSM and create managers for preexisting nodes.
Check again that FNDSM entries now exist:

```
select  CONCURRENT_QUEUE_NAME  from    FND_CONCURRENT_QUEUES   where
CONCURRENT_QUEUE_NAME like 'FNDSM%';
```

7. Go to cd \$FND_TOP/bin

```
$ adrelink.sh force=y "fnd FNDLIBR"
$ adrelink.sh force=y "fnd FNDSM"
$ adrelink.sh force=y "fnd FNDFS"
$ adrelink.sh force=y "fnd FNDCRM"
```

8. Run the CMCLEAN.SQL script from the referenced note below (don't forget to commit).
9. Start the middle tier services including your concurrent manager.
10. Retest the issue

We can check the following document from Metalink.

NOTE:218893.1 - How to Create The Service Manager 'FNDSM' on Oracle Applications

NOTE:260887.1 - Steps to Clean Nonexistent Nodes or IP Addresses from FND_NODES

NOTE:134007.1 - CMCLEAN.SQL - Non Destructive Script to Clean Concurrent Manager Tables