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Goal [IMG_259](https://support.oracle.com/epmos/faces/DocumentDisplay?%26id=1268927.2%26cid=ocdbgeneric-ad-Document-1276368.1%26parent=KM-Advert%26sourceId=ocdbgeneric-ad-Document-1276368.1)  This document explains how to perform an out-of place manual database upgrade from 11.2.0.1 to 11.2.0.2 or later version of 11.2.0.*N* Ask Questions, Get Help, And Share Your Experiences With This Article **Would you like to explore this topic further with other Oracle Customers, Oracle Employees, and Industry Experts?**  [Click here to join the discussion where you can ask questions, get help from others, and share your experiences with this specific article](https://community.oracle.com/message/11804675" \l "11804675).  Discover discussions about other articles and helpful subjects by clicking [here](https://community.oracle.com/community/support/oracle_database/database_install_upgrade_opatch) to access the main *My Oracle Support Community* page for Database Install/Upgrade. Solution The 11.2.0.2 and later patchsets are a full release. The 11.2 Patchset Installer does not update existing 11.2 installations.  The install process performs a new installation whether you are doing out-of-place upgrade or in-place upgrade.  (See 11.2 Upgrade Guide Chapter 3 "Known Issue When Starting an In-Place Upgrade for Release 11.2.0.2" or later )    Starting with 11.2.0.2, you have two ways to apply a patchset:   * Out-of-place upgrade (Recommended) * In-place upgrade   "In-Place" upgrades are an option,  but are NOT recommended.  It can be done. But you can't simply run the installer for 11.2.0.2 and point it to the 11.2.0.1.  The "In-Place" upgrade steps are documented in the Upgrade Guide.  [Performing an In-Place Upgrade (Into the Same Oracle Home)](http://docs.oracle.com/cd/E11882_01/server.112/e23633/upgrade.htm" \l "UPGRD52700)  For more info, please refer to the following notes:  [Document 1189783.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=1189783.1) Important Changes to Oracle Database Patch Sets Starting With 11.2.0.2  [Document 1320966.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=1320966.1) Things to Consider to Avoid Poor Performance or Wrong Results on 11.2.0.2  [Document 1392633.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=1392633.1) Things to Consider to Avoid Poor Performance or Wrong Results on 11.2.0.3  [Document 1645862.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=1645862.1) Things to Consider to Avoid Poor Performance or Wrong Results on 11.2.0.4    If Mitigation Patch 19721304 is applied at source database, then Oracle JVM component has been disabled. You might get the following error while upgrading the database.  ORA-02290 - check constraint (SYS.JAVA\_DEV\_DISABLED) violated.  Enable Oralce JVM java component at the source database before start upgrading the database .  Connect to the database as a SYSDBA user  SQL> exec dbms\_java\_dev.enable;  Refer:Database Upgrade failed with Errors “ORA-02290: check constraint (SYS.JAVA\_DEV\_DISABLED) violated” & “ORA-04045: SYS.DBMS\_ISCHED” (Doc ID [1985725.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=1985725.1))  NOTE : This step is ONLY applicable if you have applied Mitigation Patch on the source database  **PLEASE NOTE:  In this document when a reference indicates 11.2.0.1 it can be any currently installed version of 11.2 (11.2.0.1-11.2.0.*N*).  When a reference indicates 11.2.0.2 that can be any newer version of the 11.2 patchset (11.2.0.2-11.2.0.*N)*.**  **STEP 1**  **======**  Download the 11.2.0.2 or later RDBMS software.  See [NOTE:753736.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=753736.1) - Quick Reference to Patchset Patch Numbers  Review the patchset readme for complete instructions on the files needed for download as multiple files may be needed and there are specific instructions in the readme for each patchset.    Please also review:  [Note 549617.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=549617.1) : How To Verify The Integrity Of A Patch/Software Download? [Video]  [Note 169706.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=169706.1) : Oracle Database Installation and Configuration Requirements Quick Reference (8.0.5 to 11.2)  **STEP 2**  **======**  Install the latest 11.2 RDBMS Software into a new ORACLE\_HOME.  Please note that with the 11.2 installation forward, all base RDBMS components are installed.  The only options are if a component is linked on or off (active and able to be used).  Custom installations are not possible.  IF your database is using Oracle Text themes or IF you want to install Oracle Multimedia demos and other demos THEN you need to install 11.2.0.2 examples CD ( Formerly Companion CD) as these items are not part of the base installation.  You can run "opatch lsinventory -detail" against previous and new ORACLE\_HOME to compare installed products.  Also please note:  rootupgrade.sh will fail if you are using /opt/oracle as the ORACLE\_BASE.   For further information please see:  [Note: 1281913.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=1281913.1) Root Script Fails if ORACLE\_BASE is set to /opt/oracle  **STEP  3**  **======**  After installing the latest 11.2 RDBMS  software, start the 11.2.0.1 instance with the previous ORACLE\_HOME and spool/run 11.2.0.2 $ORACLE\_HOME/rdbms/admin/utlu112i.sql script against the running, previous instance.    Running the Pre-Upgrade Information Tool is **mandatory** whether you are upgrading with DBUA or manually. Otherwise you can expect to encounter the error:  SQL> SELECT TO\_NUMBER('MUST\_BE\_SAME\_TIMEZONE\_FILE\_VERSION')  2 FROM registry$database  3 WHERE tz\_version != (SELECT version from v$timezone\_file);  SELECT TO\_NUMBER('MUST\_BE\_SAME\_TIMEZONE\_FILE\_VERSION')  \*  ERROR at line 1:  ORA-01722: invalid number  You need to review 11.2 pre-upgrade script spool file and fix any issues before upgrading to the latest release of 11.2.  Known Issues  ++++++++++++++++  11.2.0.2 uses Time Zone version 14. 11.2.0.1 uses Time Zone version 11  (later versions may use even later versions of the Time Zone data).  DBUA from the latest home would automatically upgrade Time Zone to the included version  if  you checked the "Upgrade Timezone Version and TIMESTAMP WITH TIME ZONE data" box.  IF you are upgrading manually THEN:  You can either upgrade time zone version after upgrading to latest 11.2 Version using DBMS\_DST package or upgrade 11.2.0.1 time zone to that Time Zone version  (Please note that you must re-run utlu112i.sql if you upgrade 11.2.0.1 Time zone version to another version before the upgrade).    Please refer to:  [Note 1201253.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=1201253.1) Actions For DST Updates When Upgrading To Or Applying The 11.2.0.2 Patchset  **STEP 4**  **======**  Run dbupgdiag.sql script from the below My Oracle Support article to verify that all the components in dba\_registry are valid and no invalid data dictionary objects exist in dba\_objects.  [Note 556610.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=556610.1) Script to Collect DB Upgrade/Migrate Diagnostic Information (dbupgdiag.sql)    If the dbupgdiag.sql script reports any invalid objects, run $ORACLE\_HOME/rdbms/admin/utlrp.sql (multiple times) to validate the invalid objects in the database, until there is no change in the number of invalid objects.  $ cd $ORACLE\_HOME/rdbms/admin  $ sqlplus "/ as sysdba"  SQL> @utlrp.sql  After validating the invalid objects, re-run dbupgdiag.sql in the database once again and make sure that everything is fine.  **STEP 5**  **======**  Disable all batch and cron jobs and then take a full  backup of the database.  Example  ----------  To perform a full backup of the database, complete the following steps:  1. Sign on to RMAN:  rman "target / nocatalog"  2. Issue the following RMAN commands:  RUN  {  ALLOCATE CHANNEL chan\_name TYPE DISK;  BACKUP DATABASE FORMAT 'some\_backup\_directory%U' TAG before\_upgrade;  BACKUP CURRENT CONTROLFILE FORMAT 'controlfile location and name';  }  See also: Oracle Database Backup and Recovery User's Guide  NOTE:  for a full cold backup, please shut down the database first.  **STEP 6**  **=======**  Shut down the database cleanly.  **STEP 7 ( Windows Platform only)**  **========================**  1) Set Environment variable ORACLE\_HOME to point to 11.2.0.1 installation.    2) Stop 11.2.0.1 Oracle database service with ORACLE\_HOME set to point to 11.2.0.1 installation.    C:\> NET STOP OracleServiceORCL    3)  Delete 11.2.0.1 Oracle service using %ORACLE\_HOME%\bin\ ORADIM binary.  C:\> ORADIM -DELETE -SID ORCL    4) Set Environment variable ORACLE\_HOME to point to 11.2.0.2 installation.  5) Copy init.ora/spfile and password file (orapw<sid>.ora) from 11.2.0.1 %ORACLE\_HOME%/database to 11.2.0.2 %ORACLE\_HOME%/database  6) Copy network configuration files (listener.ora, sqlnet.ora, tnsnames.ora, etc) from 11.2.0.1 %ORACLE\_HOME%\network\admin ( or $TNS\_ADMIN) location to 11.2.0.2 %ORACLE\_HOME%\network\admin ( or %TNS\_ADMIN%) location  7) If DB Console / DB Control  is configured and used then also copy the following two directories and their contents from 11.2.0.1 to 11.2.0.2. (if DB Console / DB Control is not configured these directories MAY not exist).             ORACLE\_HOME/<hostname\_dbname>             ORACLE\_HOME/oc4j/j2ee/OC4J\_DBConsole\_<hostname\_dbname>    8) Create the Oracle 11.2.0.2 service at a command prompt using the 11.2.0.2.  %ORACLE\_HOME%\bin\ ORADIM  C:\> ORADIM -NEW -SID SID -SYSPWD PASSWORD -STARTMODE AUTO -PFILE %ORACLE\_HOME%\DATABASE\INIT<SID>.ORA    For Example:  C:\> ORADIM -NEW -SID ORCL -SYSPWD  pass\_with\_sysdba\_priv  -STARTMODE AUTO -PFILE %ORACLE\_HOME%\DATABASE\INIT<SID>.ORA    PASSWORD = The password for the new Oracle Database 11g Release 2 (11.2)  database instance. This is the password for the user connected with  SYSDBA privileges. The -SYSPWD option is not required. If you do not  specify it, then operating system authentication is used, and no  password is required.    **STEP 8 (Unix & Linux)**  **================**=  Configure the target 11.2.0.2 ORACLE\_HOME.  1) Make sure environment variables ORACLE\_BASE, ORACLE\_HOME, PATH, NLS\_10 and LIBRARY\_PATH are set to point to 11.2.0.2 installation.  Set ORACLE\_SID to the 11.2.0.1 DB name to upgrade.  The etc/oratab file points to your Oracle Database 11g Release 2 (11.2.0.2) Oracle home.    2) Disable Database Vault  [Note 453903.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=453903.1) - Enabling and Disabling Oracle Database Vault in UNIX  3) Copy init.ora/spfile and password file (orapw<sid>.ora) from 11.2.0.1 $ORACLE\_HOME/dbs to 11.2.0.2 $ORACLE\_HOME/dbs  4) Copy network configuration files (listener.ora, sqlnet.ora, tnsnames.ora, etc) from 11.2.0.1 $ORACLE\_HOME/network/admin ( or $TNS\_ADMIN) location to 11.2.0.2 $ORACLE\_HOME/network/admin ( or $TNS\_ADMIN) location  5) If DB Console / DB Control  is configured and used then also copy the following two directories and their contents from 11.2.0.1 to 11.2.0.2. (if DB Console / DB Control is not configured these directories MAY not exist).             ORACLE\_HOME/<hostname\_dbname>             ORACLE\_HOME/oc4j/j2ee/OC4J\_DBConsole\_<hostname\_dbname>  Specify the actual name for <hostname\_dbname>  6) Make sure the COMPATIBLE initialization parameter is properly set for Oracle Database 11g Release 2 (11.2). The Pre-Upgrade Information Tool displays a warning in the Database section if COMPATIBLE is not properly set.    7) Adjust the values of the initialization parameters to at least the minimum values indicated by the Pre-Upgrade Information Tool.  For customers with JVM installed, java\_pool\_size and shared\_pool\_size must be set to at least 250MB prior to the upgrade otherwise JVM upgrade may fail with the following error:  ORA-07445: exception encountered: core dump [qmkmgetConfig()+52] [SIGSEGV] [ADDR:0x18] [PC:0x103FFEC34] [Address not mapped to object] []  **STEP 9**  **======**  Upgrade the database manually.    1) Start sqlplus and run catupgrd.sql script from the Newly installed (Target) $ORACLE\_HOME/rdbms/admin  sqlplus " / as sysdba "  SQL> spool /tmp/upgrade.log  SQL> startup upgrade  SQL> set echo on  SQL> @catupgrd.sql;  SQL> spool off  SQL> Shutdown immediate  If we are upgrading a cluster database, CLUSTER\_DATABASE initialization parameter should be set to false.  2) Check catupgrd.sql spool file for errors.  3) Restart the database in normal mode.  4) SQL> @$ORACLE\_HOME/rdbms/admin/catuppst.sql;  5) SQL> @$ORACLE\_HOME/rdbms/admin/utlrp.sql;  6) Run dbupgdiag.sql script (See note: 556610.1) and verify that all the components in dba\_registry are valid and there are no invalid objects in dba\_objects.  **POST UPGRADE STEPS**  **===================**  1) Upgrade the Oracle Clusterware Configuration  If you are using Oracle Clusterware, then you must upgrade the Oracle Clusterware keys for the database.  Starting with Oracle Database 11g Release 2 (11.2.0.2), the upgrade command upgrades the configuration to the version of the software on which it is running.  Run srvctl for release to be upgraded. For example:  srvctl upgrade database  The srvctl upgrade database command upgrades the configuration of a database and all of its services to the version of the database home from where this command is run.  Syntax and Options  Use the srvctl upgrade database command as follows:  srvctl upgrade database -d db\_unique\_name -o Oracle\_home  Table A-161 srvctl upgrade database Options  Options Description  -d db\_unique\_name   Unique name for the database    -o Oracle\_home   The path to the ORACLE\_HOME    2) Upgrade Time Zone to latest version using DBMS\_DST.  [Note 1201253.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=1201253.1)  Title: Actions For DST Updates When Upgrading To Or Applying The 11.2.0.2 Patchset  3) Upgrade the Recovery Catalog  For complete information about upgrading the recovery catalog and the UPGRADE  CATALOG command, see Oracle Database Backup and Recovery User's Guide for the  topic that describes the procedures.  4) Upgrade Statistics Tables Created by the DBMS\_STATS Package  If you created statistics tables using the DBMS\_STATS.CREATE\_STAT\_TABLE  procedure, then upgrade these tables by running the following procedure:  EXECUTE DBMS\_STATS.UPGRADE\_STAT\_TABLE('scott', 'stat\_table');  In the example, SCOTT is the owner of the statistics table and STAT\_TABLE is the  name of the statistics table. Perform this procedure for each statistics table.  5) Enable Oracle Database Vault and Revoke the DV\_PATCH\_ADMIN Role.  If you use Oracle Database Vault, then you were instructed to disable it before  upgrading your database. You must now:    Enable Database Vault.  [Note 453903.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1276368.1&id=453903.1) - Enabling and Disabling Oracle Database Vault in UNIX  Revoke the Database Vault DV\_PATCH\_ADMIN role for the SYS account.  REFERENCE  ===========  Oracle Database  Upgrade Guide  11g Release 2 (11.2)  E17222-06                             <October 2010                         <  Chapter 3         Upgrading to the New Release    <http://download.oracle.com/docs/cd/E11882_01/server.112/e17222.pdf>  6) Oracle Warehouse Builder (OWB) component in database will not be upgraded as part of database upgrade. There are few post upgrade steps to be carried to upgrade the component.  Details in [Oracle® Warehouse Builder Release Notes 11g Release 2 (11.2)](http://docs.oracle.com/cd/E11882_01/relnotes.112/e24470/toc.htm)    **The window below is a live discussion of this article (not a screenshot).  We encourage you to join the discussion by clicking the "Reply" link below for the entry you would like to provide feedback on.  If you have questions or implementation issues with the information in the article above, please share that below.** | | |