



**Installation Instructions for
Oracle 8.1.6 and Patch Set Version 8.1.6.3.0
for HPUX 11**

IMPORTANT NOTES RE INSTALLATION INSTRUCTIONS:

This is one of a set of documents needed to implement the Oracle upgrade needed for Banner 4.x5.x.

Before beginning your installation, you **MUST** read *Infrastructure Upgrade Plan for HP Operating System Environments*, which includes critical information about specifications, known issues, and bugs.

This document is current as of February 8, 2001. Warnings, changes, and tips from the workshops are being placed in the *Addenda from the Installation Workshops* as they take place. Please check the Addenda before you begin.



Office of Information and Instructional Technology
Enterprise Applications Systems
Technical Services

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Instructions for Installing Oracle 8.1.6 and Patch Set Version 8.1.6.3.0 for HPUX 11

Everything that you will need for this installation is located on ftp.usg.edu in the following directory:


banner/prod/oracle/hpux11


You may want to download the complete directory into a directory on your own system so that files are more easily accessible. Not all schools will use every file.




We used the Oracle recommended directory structure during this installation. Use your own structure that refers to the location of files and setting of parameters.


Step	Instructions	Successful?		Comments
		Yes	No	
Pre-upgrade tasks				
1	Verify 8.0.5.2.1 upgrade has been applied			
2	Verify that oracle for bug fix 991197 for 8.0.5 has been applied Comments: Verify permissions on all files in \$ORACLE_HOME/lib are correct. Verify reference to -lpthread inside of your sysliblist. If you need to add it, put it between librt.sl and libnss.dns. Verify link for libobk.a → libmm.a			
3	Verify that setuid patch has been applied.			
4	Ensure that you have a good full cold database backup			
5	Set environment to old (Oracle 8.0.5) ORACLE_HOME			
6	Set ORACLE_SID to reflect database being upgraded			
7	Set ORA_NLS33 to \$ORACLE_HOME/ocommon/nls/admin/data			
8	Set PATH to include \$ORACLE_HOME and \$ORACLE_HOME/bin			
9	Add \$ORACLE_HOME/lib:\$ORACLE_HOME/network/lib to SHLIB_PATH			



Step	Instructions	Successful?		Comments
		Yes	No	
10	Go into svrmgrl and connect internal. If your database is not up, start up at the 8.0.5 level.			
11	Check for user OUTLN or role OUTLN; drop user or role if exists (select username from dba_users where username = 'OUTLN'; and select role from dba_roles where role = 'OUTLN';)			
12	Increase size of SYSTEM tablespace by 100M			
13	Increase size of Tools tablespace to have 100m free space			
14	Be aware that the installer will write to /tmp . You might want to remove any unnecessary files.			
15	Download banner/prod/oracle/hpux11/validate.sql to /oracle/admin/<SID>/create directory			
16	Change directory (cd /oracle/admin/<SID>/create			
17	Go into svrmgrl and connect internal			
18	@validate (Will create package and package body)			
19	<p>Validate structure of SYSTEM tablespace by entering the following six (6) commands from svrmgrl.</p> <pre>SPOOL validated_system.lst execute dbms_output.enable(1000000); set serveroutput on EXECUTE ValidateStructure.TS('SYSTEM',TRUE); SPOOL OFF;</pre> <p>IF THERE ARE ANY ERRORS IN THE OUTPUT LOG FROM THIS STEP, WE MUST CALL ORACLE SUPPORT BEFORE PROCEEDING!!!!!!.</p>			
20	Shutdown immediate;			
21	Startup;			
22	Shutdown;			

Step	Instructions	Successful?		Comments
		Yes	No	
23	<p>Change the following initialization parameters (in /oracle/admin/<SID>/pfile/init<SID>.ora)</p> <ul style="list-style-type: none"> • COMPATIBLE = 8.1.0 • DB_DOMAIN= connect string minus SID_NAME <p>Ex: global_name = prod.esu.anynet.edu Db_domain = esu.anynet.edu</p>			
24	<p>Comments: Check initSID.ora file for the following obsolete parameters and comment them out:</p> <p>SEQUENCE_CACHE_HASH_BUCKETS and SEQUENCE_CACHE_ENTRIES</p>			
Install Oracle 8.1.6				
25	Review install process			
26	Make sure to have a group called oinstall that oracle is a member.			
27	Make a directory for oracle 8.1.6			
28	<p>Install NFS client and server if not already installed</p> <p>Comments: Oracle installer “hangs “ on HPUX 11.0 If NFS server and client is not “enable”.</p> <p>Note: /usr/sbin/ch_rc -lv -p NFS_SERVER -p NFS_CLIENT will show you the status of your NFS Client and NFS Server. The following should appear:</p> <p>/etc/rc.config.d/nfsconf: NFS_SERVER=1 /etc/rc.config.d/nfsconf: NFS_CLIENT=1</p> <p>If not modify the file /etc/rc.config.d/nfsconf so that the parameters NFS_SERVER and NFS_CLIENT both equal one.</p>			


Step	Instructions	Successful?		Comments
		Yes	No	
29	<p>Enter the following</p> <pre>ps -ef grep pfsd</pre> <p>If grep returns the process running continue with next step.</p> <pre>Pfsd -v</pre> <pre>Pfsd.rpc</pre> <p>If not please contact TSS System Support.</p> <p>The Oracle Product Installation media is in the RockRidge format.</p> <ol style="list-style-type: none"> Use a system editor to add the following line to the /etc/pfs_fstab file Syntax <device_file<mount_point<filesystem_type<translation_method <p>Example:/dev/dsk/c5t2d0 /SD_CDROM pfs-rrip xlat=unix 0 0</p> <p>Perform the following as root:</p> <ol style="list-style-type: none"> #nohup /usr/sbin/pfs_mountd & #nohup /usr/sbin/pfsd & 			
30	<p>Insert the CD-ROM into the tray and run the following to mount the CD-ROM. The command assumes that a link exists to actual cdrom device name.</p> <p>Perform as root</p> <pre>/usr/sbin/pfs_mount /dev/cdrom /SD_CDROM</pre> <p>Verify the correct mounting by</p> <pre>Cd /SD_CDROM</pre> <pre>Ls</pre> <p>All files and sub directories should be listed in lower case</p>			
31	Install xterm client on desktop			
32	Stop the Sql*net listeners Comments: !snrctl stop			

Step	Instructions	Successful?		Comments
		Yes	No	
33	Set DISPLAY environment variable Comments: Setenv DISPLAY IP-HOST:0.0 i.e IP-HOST is your machine ip address			
34	Shutdown INSTANCES			
35	Set ORACLE_HOME to 8.1.6 Comments: If you change your SID in /etc/oratab and resource your .login or logout and login again your environment will be set correctly.			
36	Add \$ORACLE_HOME/lib:\$ORACLE_HOME/network/lib:/usr/lib to SHLIB_PATH			
37	Set ORA_NLS33 to \$ORACLE_HOME/ocommon/nls/admin/data			
38	Add COBOL compiler executable location to PATH			
39	Add COBLIB location to SHLIB_PATH COBLIB = /COBDIR/COBLIB			
40	Set COBDIR variable COBDIR = /opt/cobol/cobdir			
41	Add C compiler executable location to PATH			
42	Modify .cshrc file to add /usr/local/sbin to (setpath...) or .profile. Note: Only if you are using the C shell			
43	Make a backup copy of your oraenv and coraenv			
44	Start your xterm			
45	Cd /SD_CDROM ./runInstaller Comments: Run as ORACLE only			
46	In the "Welcome" dialog box click the [Next] button to begin your installation. In the "File Locations" dialog box, enter a value in the [Destination...] field for the desired location of your ORACLE_HOME. You are prompted to run /tmp/OraInstall/orainstRoot.sh as root before proceeding. This is to create a pointer file to the location of the oraInventory directory. You also will be prompted for Unix group name. Enter in the unix group "dba".			


Step	Instructions	Successful?		Comments
		Yes	No	
47	In the “Available Products” dialog box, select a product installation category, and in the dialog box that follows, “Installation Types”, select an installation type. Chose Oracle 8I Enterprise Edition 8.1.6.0.0 On the next screen chose Custom Install.			
48	During the install process, you will be prompted whether to migrate Existing databases or not. Do not migrate. Do not install in a different location Do not create a new database Do not Install Legato Storage Manager Will ask you to configure Net8. This is not necessary since you will copy tnsnames.ora ,sqlnet.ora and listener.ora from the your /oracle/product/8.0.5/network/admin directory to \$/oracle/product/8.1.6/network/admin			
49	Install the following Oracle 8.1.6 components Oracle 8.1.6 Enterprise Server 8.1.6.0.0  Database Utilities Oracle Data Migration Assistant Database Configuration Assistant Object Type Translator Oracle Migration Utility Oracle Call Interface PL/SQL Oracle Universal Installer 1.6.0.7 Oracle JDBC Drivers 8.1.6 Oracle SqlJ 8.1.6 Oracle Java Tools 8.1.6 Net 8 Oracle Intelligent Agent 8.1.6 At Oracle Protocol Support, TCPIP is the default choice, which you should select			
50	Continue with install process until successful then choose next install.			

Step	Instructions	Successful?		Comments
		Yes	No	
Installing the Oracle8i Client 8.1.6.0.0				
51	<p>Choose Custom and Install all Pro* C and Pro*Cobol, also Sql Plus 8.1.6 </p> <p>Reason: Installing 8.1.6 brought need for cobsq1 intf.o used in a couple processes.</p>			
52	Modify \$ORACLE_HOME/bin/dbshut to perform shutdown immediate commands rather than just shutdown.			
53	<p>Verify validity of oratab file Comments: make sure SID is pointing to 8.1.6 Oracle</p> <p>Note: You can source your .login. This will make sure that all oracle environments are using 8.1.6.</p> <p>i.e. source .login.</p> <p>or you and logout and log back in with the SID that is now using 8.1.6.</p>			
54	Copy (or create new symbolic links) init.ora files for the database being upgraded to new location - Oracle 8.1.6 ORACLE_HOME/dbs			
55	<p>Verify that your environment is set to the Oracle 8.1.6 ORACLE_HOME</p> <p>Comments: Make sure no oracle environment variables have 8.0.5</p>			
56	Set ORACLE_SID to reflect database being upgraded			
57	Set PATH to include \$ORACLE_HOME and \$ORACLE_HOME/bin 			
58	Change to admin dir (cd \$ORACLE_HOME/rdbms/admin)			
59	Go into svrmgrl and connect internal			
60	STARTUP RESTRICT;			
61	SPOOL catoutu.log			
62	SET ECHO ON			

Step	Instructions	Successful?		Comments
		Yes	No	
63	<p>WARNING: In the group of files that you have downloaded from ftp.usg.edu, there is a revised catalog sql script that you need to put into \$ORACLE_HOME/rdbms/admin before you run u0800050.sql</p> <p>The original script delivered with this release contains known issues that will not be corrected until the 8.1.7 release. We modified the script according to Oracle specifications as a workaround.</p> <p>@u0800050.sql (this one runs the upgrade scripts along with catalog and catproc scripts)</p>			
64	SPOOL OFF			
65	SET ECHO OFF			
66	<p>Review log file (catoutu.log) and correct any errors</p> <p>Comments: Errors that refer to SYSTEM.AQS_QUEUES_CHECK constraint violations ,repcat\$ and def\$ may be ignored because they refer to replication</p>			
67	ALTER SYSTEM DISABLE RESTRICTED SESSION;			
68	SPOOL catexp.log			
69	@catexp Spool off			
70	SPOOL catoctk.log Comments: Optional			
71	@catoctk Comments: Optional			
72	SPOOL caths.log Comments: Optional			
73	@caths Comments: Optional			
74	SPOOL utlrp.log			
75	@utlrp (Compiles invalid PL/SQL objects)			
76	SPOOL OFF			
77	SPOOL utlresult.log			
78	@utlconst (To check for and disable bad date manipulation in constraints)			
79	SPOOL OFF			
80	SHUTDOWN IMMEDIATE;			
81	CONNECT INTERNAL;			

Step	Instructions	Successful?		Comments
		Yes	No	
82	STARTUP;			
83	CRITICAL STEP ONCE DATABASE IS UPGRADED!!!: Remove old copies (or links) of init.ora (config.ora) files from the old (8.0.5) ORACLE_HOME/dbs directory			
84	Copy \$ORACLE_HOME/network/admin/sqlnet.ora from 8.0.5 ORACLE_HOME to new 8.1.6 ORACLE_HOME			
85	Make changes manually to old listener.ora in \$ORACLE_HOME/network/admin (under 8.0.5) and copy to the new ORACLE_HOME/network/admin directory (8.1.6). Change ORACLE_HOME location in listener.ora 			
86	Startup listeners from ORACLE 8.1.6 ORACLE_HOME			
87	Verify Sql*Net connectivity to new database (sqlplus system/<password>@<SID>.eas.regents.usg_ons			

Step	Instructions	Successful?		Comments
		Yes	No	
Post-Installation Tasks				
88	Update /etc/ oratab with new ORACLE_HOME for Banner DB			
89	Run pupbld.sql as system at \$ORACLE_HOME/sqlplus/admin in sqlplus			
Installation of Patch Set Version 8.1.6.3.0				
90	Make a backup copy of coraenv and oraenv			
91	Uncompress and untar the downloaded patch set file into a new directory. The patch can be found on the FTP server under banner/prod/oracle/hpux 11/hpux_81630_32bitpatchset.tar.gz.			
92	Shut down the existing Oracle Server instance with normal or immediate. Also shut down listeners.			
93	Setenv DISPLAY IP-HOST:0.0.			
94	Start your xterm			

Step	Instructions	Successful?		Comments
		Yes	No	
95	IMPORTANT: On HP-UX go to the install/hpunix directory from the top level directory of the patchset. DO NOT run the installer from the installed area(original orainst/install) . To start the installer./runInstaller			
96	On the Welcome screen, click the Next button. This will display the File Locations screen.			
97	Click the Browse button for the Source... entry field and navigate to the stage directory where you unpacked the Patch Set tar file.			
98	Select the products.jar file. Click the Next button			
99	The screen shows a menu with the title "Available Products". The list of products are "Java Runtime Engine 1.1.8.0.2" and "Oracle 8i Patchset 8.1.6.3.0". Only one of the two products can be selected at any time. Please select the product "Oracle 8i Patchset 8.1.6.3.0" the first time around, and then, after your installation is completed, restart your installation to install the product "Java Runtime Engine 1.1.8.0.2".			
100	The products file will be read and the installer will load the product definitions. Then the products to be loaded will be displayed.			
101	Check the products listed and then click on the Install button. once the installation has completed successfully it will display End of Installation. Click on Exit and confirm to exit the installer.			

Step	Instructions	Successful?		Comments
		Yes	No	
102	<p>Invoke SQL*Plus (sqlplus), connect as internal and run the following SQL scripts located in the \$ORACLE_HOME/rdbms/admin directory:</p> <p>catalog.sql catproc.sql</p> <p>Note: To connect internal through sqlplus, at UNIX prompt, enter:</p> <p>sqlplus/nolog sql>connect internal</p>			
103	<p>If Java has previously been loaded into the database, invoke SQL*Plus (sqlplus), connect as internal and run the following SQL DDL command:</p> <pre>SQL> create or replace java system 2 /</pre> <p>If Java has not previously been loaded into the database, skip this step.</p> <p>To determine whether Java has previously been loaded into the database, invoke SQL*Plus (sqlplus), connect as internal and run the following:</p> <pre>SQL> describe dbms_java</pre> <p>If the result is:</p> <pre>ERROR: ORA-04043: object dbms_java does not exist</pre> <p>then java has not previously been loaded in the database. If the result is a long package description, then java has previously been loaded in the database.</p>			

Known Restrictions

- Linking error using pro*c, pro*cobol 8.1.6 and pro*cobol 1.8 using static mode.

Error message is as follows:

```

Undefined          first referenced
symbol            in file
X509CompareDN     /export/home/ora816c/app/oracle/product/8.1.6/lib//libn8.a(sslx509.o)
X509ParseCertificateData /export/home/ora816c/app/oracle/product/8.1.6/lib//libn8.a(sslctx.o)
X509FreeCertificat /export/home/ora816c/app/oracle/product/8.1.6/lib//libn8.a(sslctx.o)

```

```
ld: fatal: Symbol referencing errors. No output written to sample1
*** Error code 1
make: Fatal error: Command failed for target `build_static'
```

Workaround is as follows:

```
add 'libnssl8.a' to the target 'build_static' in makefile.
For example:
build_static: $(OBJS)
    $(CC) -o $(EXE) $(OBJS) -L$(LIBHOME) $(STATICPROLDLIBS) -lnssl8
```

Annotations from oracle816plus4_20update.pdf

Page 1

Annotation 1; Label: OIIT; Date: 4/20/2001 4:29:18 PM

Warnings, changes, tips, and advice from the ongoing installation workshops and campus installations are being added to the document as electronic "sticky notes."

Notes have been added for the following dates:

2/25/01

3/6/01

4/20/01

For a complete list of these annotations, select "annotations" from the bookmarks.

Annotation 2; Label: OIIT; Date: 4/20/2001 4:32:02 PM

Beta testing of the version 3 Georgia Enhancements following the upgrade to 8.1.6 revealed that ZHRTRTC failed to compile. A release of ZHRTRTC that will compile with Oracle 8.1.6, Banner 3.x, and GaMods 3.x has been placed on ftp.usg.edu in the following directory: banner/prod/gamod/310.

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Annotation 1; Label: OIIT; Date: 4/20/2001 4:41:49 PM

24a. Before beginning installation of Oracle 8.1.6, set umask 022.

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Annotation 1; Label: OIIT; Date: 4/20/2001 4:42:36 PM

30. Verify in PATH that usr/ccs/bin is there BEFORE usr/bin.

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Annotation 1; Label: OIIT; Date: 4/20/2001 4:43:04 PM

Reorder. After 32, do 36, then 34, 35, and 33 because of the shutdown.

Annotation 2; Label: OIIT; Date: 4/20/2001 4:43:50 PM

44. Start your xterm in the session in which you have just set the environment.

Annotation 3; Label: OIIT; Date: 4/20/2001 4:44:53 PM

46. If you get a permission error running Root.sh, then go to var/opt/oracle and do a chmod on that directory to 775. This is created by root.sh, which is owned by root. Changing permissions allows you to write to it as Oracle.

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Annotation 1; Label: OIIT; Date: 4/23/2001 9:20:40 AM

49. Replace the list of Oracle 8.1.6 components with the following list that matches what you see on the screen:

ORACLE 8i Enterprise

-Oracle 8.1.6 Enterprise Server 8.1.6.0.0 Oracle Database Configuration Assistant Data Migration Assistant Migration Utility Intelligent Agent

-Oracle Protocol Options Oracle Time Series

-Net 8 Products Net 8 Client Net 8 Server Net 8 Names Net 8 Connection Manager

Net 8 Protocol Support

-Utilities Database Utilities SQL Plus

-Configuration Assistants Data Migration Assistant Database Configuration Assistant

-Development Tools Call Interface Object Type Translator

-Oracle Java Products All JDBC Drivers 8.1.6
- SQLJ Oracle Java Tools 8.1.6 Enterprise Manager Product Intelligent Agent 8.1.6
-Installation Products Universal Installer 1.6.0.7

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Annotation 1; Label: OIIT; Date: 4/20/2001 4:46:30 PM

51. Select "sql plus reinstall" to make current link.

Annotation 2; Label: OIIT; Date: 4/20/2001 4:48:01 PM

57. Read the warning from Item 63 NOW.

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Annotation 1; Label: OIIT; Date: 4/20/2001 4:49:01 PM

86. If your listener won't come up, then check for (envs = 'EPC_DISABLED = TRUE') and remove it.

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Annotation 1; Label: OIIT; Date: 4/20/2001 4:30:23 PM

Check ALL the products listed.