Step-by-step installation of an EBS 12.2 Vision instance

Oct 7, 2013 / By [John Piwowar](#)

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It's here! It's here! It's finally here!

(what, you don't get excited when you get new toys?)

Now that version 12.2 of Oracle Applications has been released, it's time for eager Apps DBAs and non-DBA EBS geeks to get their hands dirty with new features! This post will walk through the steps required to install a single-node "Vision" instance of E-Business Suite Release 12.2. Apps DBAs can certainly learn a lot about the technical pieces of EBS 12.2 just by installing an empty, unconfigured "Prod" instance. I'm covering a Vision install in this post because I prefer having real data to play with, and don't have time to learn how to configure all the apps modules myself. :)

This exercise is not for the faint of heart, nor the impatient, but it's not terribly complicated. If you've done Vision installs for the 11i or R12.0/12.1 versions of E-Business Suite, you're already familiar with the basics. Unlike previous versions of EBS, though, installing a test instance 12.2 onto a laptop or mid-grade workstation is a very tight squeeze. If you have a lab machine with server-class resources, I strongly recommend starting there. Since "can I run this on my personal workstation?" is a common question about EBS Vision installs, however, I'm going to walk through what I've done to get 12.2 running on my laptop.

Still with me? Let's get going.

References

These are early days for EBS 12.2, and while this guide should be sufficient to get you started, you should keep an eye out for additional patches, updates to instructions, etc. Here are the base notes, and a few others released shortly after the software went GA. These are also the references you should consult if you suspect that I missed something in this guide. Hey, it could happen.

- [Oracle Applications 12.2 Install Guide (pdf)](#)
- [Note 1330701.1](#) – Oracle E-Business Suite Installation and Upgrade Notes Release 12 (12.2) for Linux x86-64
- [Note 1320300.1](#) – Oracle E-Business Suite Release Notes, Release 12.2
- [Note 1588372.1](#) has important warnings about setting up your software staging area
- [Note 1583109.1](#) (Oracle E-Business Suite Release 12.2 Information Center) is another good starting point to catch recent announcements and updates about Release 12.2.

You will need…

At a minimum, your test server will need:

- 2 CPU cores, more if you have them.
- 8GB of RAM. No, really. You'll need it all. If you skimp on memory, you'll find that patching in particular will be intolerably long at best, and prone to failure at worst.
- Lots of disk space. In addition to the usual 10-12 GB for root+swap, you need 40G for the software staging area, and 275-300G for the database and applications. If you want to split apps and database, allocate 200G for the database and the remainder for the apps. If possible, put your staging area and the install target on separate physical devices.
- Access to the internet/web/cloud/whatever, for downloading patches and OS packages. Alternatively, you can transfer these things manually, but who needs that kind of inconvenience?

In addition, *you* will need a lot of patience, and probably some side projects that don't involve using a keyboard. This little adventure is going to tie up your workstation for quite a while.

Install steps

1. **Download the EBS install media.**
   I covered this in my earlier post about 12.2 prep, so I won't duplicate it here. Pay close attention to which zip files are actually required!
2. **Set up your Linux server.**
   My server is running 64-bit Oracle Enterprise Linux (OEL) 6.4. If you're installing on a different platform, your experience may be different. A full walkthrough of how to install Linux is beyond the scope of this post. If you need guidance, I recommend this OEL 6 install guide by the inimitable Tim Hall.I've covered most of the setup requirements (packages, disk sizing, etc.) in my previous post. Here are a few more details:
   o **Important warning: Keep your hostname short!** There's an item buried at the end of Note 1320300.1 that warns against using a SID and hostname combination that would make the instance name for the 10.1.2 ORACLE_HOME (EBS_web_*SID_hostname*) longer than 30 characters. If your hostname is too long, the installer will fail when attempting to create the EBS web tier.
   o Set up /etc/hosts and /etc/sysconfig/network as described in the "Verifying Host Names" section of Note 1330701.1.
   o Adjust /etc/sysctl.conf. Full requirements are in Note 1330701.1, though I found that after installing the oracle-rdbms-server-11gR2-preinstall package, I only needed to make one change:

   ```
   kernel.sem = 250 32000 100 142
   ```

   o Create database and application software owners, oraInventory, and and /etc/oraInst.loc
   It's possible to have the entire instance owned by a single user, but splitting the ownership of the database and applications between two OS users makes management of the services a bit clearer, and more closely reflects the situation you'd expect to see in real life. You could also use the 'oracle' user created by the 11gr2 pre-install rpm as the database owner if you prefer, instead of 'oravis'.

   ```
   [root@breen ~]# useradd oravis -g dba
   [root@breen ~]# useradd applvis -g dba
   [root@breen ~]# groups oravis applvis
   oravis : dba
   applvis : dba
   [root@breen ~]# passwd applvis
   Changing password for user applvis.
   ```

```
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@breen ~]# passwd oravis
Changing password for user oravis.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@breen ~]# cd /u01
[root@breen u01]# mkdir -m 775 oraInventory
[root@breen u01]# chgrp dba oraInventory
[root@breen u01]# chown oravis oraInventory
[root@breen u01]# echo "inventory_loc=/u01/oraInventory" > /etc/oraInst.loc
[root@breen u01]# chmod g+w /etc/oraInst.loc
[root@breen u01]# chgrp dba /etc/oraInst.loc
```

o   Adjust limits.conf

```
* hard nofile 65536
* soft nofile 4096
* hard nproc 16384
* soft nproc 2047
* hard stack 16384
* soft stack 10240
```

o   Create empty stage area and software install target. In my case, my staging directory is in /mnt/stage, and my database and software are going on /u01:

```
[root@breen u01]# df -h
Filesystem            Size  Used Avail Use% Mounted on
/dev/mapper/vg_breen-lv_root
                       20G  2.3G   17G  12% /
tmpfs                 3.0G     0  3.0G   0% /dev/shm
/dev/sda1             485M   55M  405M  12% /boot
/dev/mapper/vg_breen-lv_u01
                      287G  191M  272G   1% /u01
/dev/sdd1              79G  184M   75G   1% /mnt/stage
192.168.56.1:/Users/jpiwowar/R12.2.2
                      465G  383G   82G  83% /mnt/zips
[root@breen u01]# mkdir -p oracle/VIS
[root@breen u01]# chmod -R 775 .
[root@breen u01]# chgrp -R dba .
[root@breen u01]# cd /mnt/stage
[root@breen u01]# mkdir Stage122
```

3. **Stage the software (buildStage.sh)**Unlike earlier installs of Oracle Applications, staging is not as simple as unzipping all of the install media yourself. Use of the Oracle-supplied script to build a staging area is *required*. As you might guess from the df output in the previous step, I put the zip files containing the EBS 12.2 software in /mnt/zips. This is where buildStage.sh will find and unpack the install media; the only thing we need to unzip manually is the Rapid Install software.

When the buildStage.sh run is complete, look for a "Stage area verified" message. If directories are listed as invalid, or if you see a message indicating that the stage area is incomplete, you'll need to identify the missing files and add them to your zip file location. *Hint:* if you need to run buildStage.sh again, move the already-unzipped files *out* of the zip file stage location, and only add the new files for the next buildStage run. The second run will move along more quickly. Also, be aware that stage area "verification" is very basic: "Do the directories exist? Are they non-empty?" There is still a risk that a corrupted zip file could sink the whole enterprise. Hopefully you validated the zips after download with md5sum. :)

```
[root@breen stage]# pwd
/mnt/stage
[root@breen stage]# cd Stage122/
[root@breen Stage122]# unzip -q '/mnt/zips/V35215-01*.zip' -d .
[root@breen Stage122]# cd startCD/Disk1/rapidwiz/bin/
[root@breen bin]# ./buildStage.sh
Rapid Install Platform Menu


-------------------------------------------------------


1.      Oracle Solaris SPARC (64-bit)

2.      Linux x86-64

3.      IBM AIX on Power Systems (64-bit)

4.      HP-UX Itanium

5.      Exit Menu

Enter your choice [5]: 2

/mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../jre/Linux_x64/1.6.0/bin/java -classpath /mnt/stage/Stage122/startCD/Di
3_4_22.jar:/mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../jlib/share-
1_1_18.jar:/mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../jlib/jnls.jar:/mnt/stage/Stage122/startCD/Disk1/rapidwiz/bi
b/ojdbc14.jar:/mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../jlib/OraInstaller.jar:/mnt/stage/Stage122/startCD/Disk1/

Please enter the directory containing the zipped installation media:
/mnt/zips
Unzipping V29764-01.zip
Unzipping V29856-01.zip
Unzipping V35215-01_1of3.zip
Unzipping V35215-01_2of3.zip
Unzipping V35215-01_3of3.zip
Unzipping V35230-01_1of2.zip
Unzipping V35230-01_2of2.zip
Unzipping V35231-01_1of5.zip
Unzipping V35231-01_2of5.zip
Unzipping V35231-01_3of5.zip
```

```
Unzipping V35231-01_4of5.zip
Unzipping V35231-01_5of5.zip
Unzipping V35802-01.zip
Unzipping V35803-01_1of3.zip
Unzipping V35803-01_2of3.zip
Unzipping V35803-01_3of3.zip
Unzipping V35804-01_1of2.zip
Unzipping V35804-01_2of2.zip
Unzipping V35807-01.zip
Unzipping V35808-01.zip
Unzipping V35809-01.zip
Unzipping V35810-01.zip
Unzipping V35811-01.zip
Unzipping V35812-01.zip
Unzipping V35813-01.zip
Unzipping V37515-01_1of6.zip
Unzipping V37515-01_2of6.zip
Unzipping V37515-01_3of6.zip
Unzipping V37515-01_4of6.zip
Unzipping V37515-01_5of6.zip
Unzipping V37515-01_6of6.zip
Unzipping V39571-01.zip
Unzipping V39615-01.zip
Applying one-off patches
All files have been unzipped.
Stage area is complete.

Done Unzipping shiphome ...

StageBuilder will now stage the tech patches for Linux_x64...

Copying one-off patches to shiphome

/mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../unzip/Linux_x64/unzip -o /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bi

Archive:  /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../Xpatches/Linux_x64.zip
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/16303726/p16303726_112030_Linux-x
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/14123213/p14123213_112030_Linux-x
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/13923995/p13923995_112030_Linux-x
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/14751895/p14751895_112030_Linux-x
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/16163946/p16163946_112030_Linux-x
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/14207902/p14207902_112030_Linux-x
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/15967134/p15967134_112030_Linux-x
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/16438289/p16438289_112030_Linux-x
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/13931044/p13931044_112030_Linux-x
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/16342486/p16342486_112030_Linux-x
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/14398795/p14398795_112030_Linux-x
 extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/12951696/p12951696_112030_Generic
```

```
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/12942119/p12942119_112030_Linux-x
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/14698700/p14698700_112030_Generic
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/16587934/p16587934_112030_Linux-x
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/16105745/p16105745_112030_Generic
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/DB/16040940/p16040940_112030_Linux-x
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/13583235/p13583235_1036_Ge
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/14825718/p14825718_10123_1
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/14353879/p14353879_10123_1
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/14614795/p14614795_101231_
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/16209520/p16209520_10123_G
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/16275529/p16275529_10105_1
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/14597598/p14597598_1036_Ge
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/14577216/p14577216_101231_
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/16784403/p16784403_101232_
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/14386347/p14386347_111160_
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/16199894/p16199894_111160_
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/14374587/p14374587_10123_G
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/10152652/p10152652_10123_1
extracting: /mnt/stage/Stage122/startCD/Disk1/rapidwiz/bin/../../../../TechPatches/MiddleTier/11669923/p11669923_10123_G

Done Copying additional patches

Verifying stage area...

Directory /mnt/stage/Stage122/TechInstallMedia is valid
Directory /mnt/stage/Stage122/TechPatches/DB is valid
Directory /mnt/stage/Stage122/TechPatches/MiddleTier is valid
Directory /mnt/stage/Stage122/EBSInstallMedia/AppDB is valid
Directory /mnt/stage/Stage122/EBSInstallMedia/Apps is valid
Directory /mnt/stage/Stage122/EBSInstallMedia/AS10.1.2 is valid
Directory /mnt/stage/Stage122/TechInstallMedia/database is valid
Directory /mnt/stage/Stage122/TechInstallMedia/ohs11116 is valid
Directory /mnt/stage/Stage122/TechInstallMedia/wls1036_generic is valid

Stage area verified.

Press enter to continue...
```

4. *[Optional]* **Adjust the RMAN restore script** for the Vision database install, as discussed in my previous post.

```
[root@breen stage]# cd Stage122/startCD/Disk1/rapidwiz/template/
[root@breen template]# cp restore-single2.sql restore-single2.sql.orig
[root@breen template]# vi restore-single2.sql
[root@breen template]# cat restore-single2.sql
--lines snipped for brevity--
set linesize 300
spool %s_db_oh%/appsutil/out/%s_contextname%%/%restore-single2.rman
```

```
select 'configure device type DISK parallelism 1;' from dual;
select 'catalog start with ''INSTALL'' NOPROMPT;' from dual;
select 'RUN { ' from dual;
select 'set newname for datafile '||file#||' to '||'''%s_dbhome1%/'||substr(NAME,instr(NAME,'%/%',-1)+1,length(NAME))||'
--lines snipped for brevity--
[root@breen template]# diff restore-single2.sql restore-single2.sql.orig
17d16
< select 'configure device type DISK parallelism 1;' from dual;
```

5. **Start the EBS Installer**

   I ran my installer in VNC, because I don't have a graphical console configured on my server. If you opted to install Gnome when you installed OEL, then you can just log in as root and launch the installer from the desktop.

```
[root@breen ~]# vncserver :1

New 'breen.local.org:1 (root)' desktop is breen.local.org:1

Starting applications specified in /root/.vnc/xstartup
Log file is /root/.vnc/breen.local.org:1.log

[root@breen ~]# export DISPLAY=:1
[root@breen ~]# xhost +
access control disabled, clients can connect from any host
[root@breen ~]# /mnt/stage/Stage122/startCD/Disk1/rapidwiz/rapidwiz

Rapid Install Wizard is validating your file system......
CMDDIR=/mnt/stage/Stage122/startCD/Disk1/rapidwiz
Rapid Install Wizard will now launch the Java Interface.....
```

6. **Answer all the installer questions** (screenshots ahoy, cap'n!)

   There are a handful of possible options, but for the most part I'm taking the defaults. Fewer changes means fewer opportunities for error. I'll experiment more when I'm not writing docs for others. ;-)

o   A few boring first steps: Opening splash screen; Confirming a new, non-express install; Declining security emails (unless you're into that sort of thing); Confirming a new configuration…
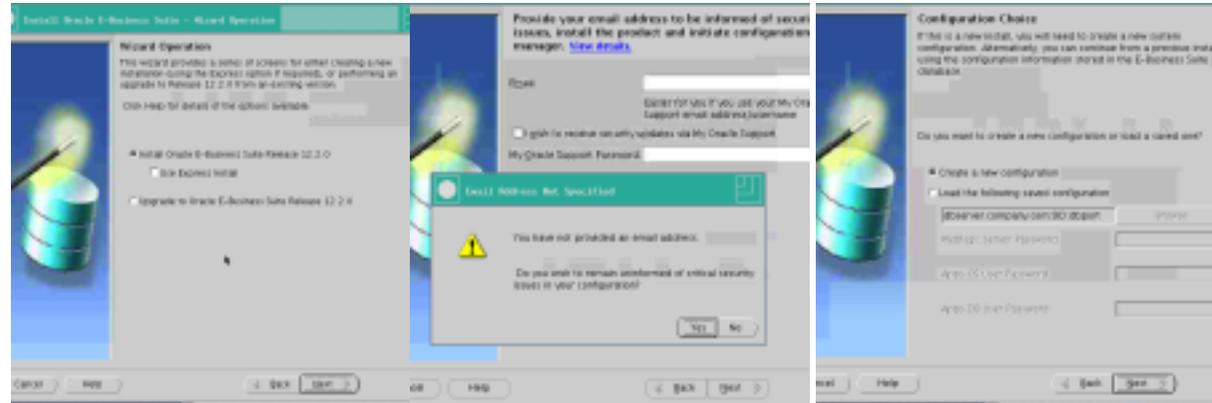
o   Take the default port settings (note the two sets of ports, for patch and run filesystems)
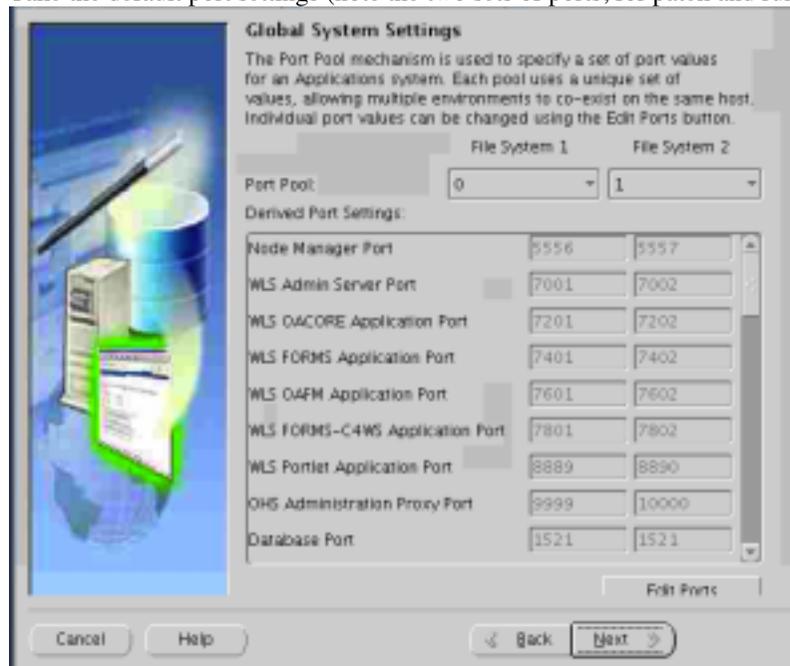
o Database node configuration. In this case, two changes to make: selecting 'oravis' as the datbaase OS user, and changing the base dir to /u01/oracle/VIS. This will cascade through the rest of the config, no need to change elsewhere.

o For the app node configuration, just change the Apps OS owner to 'applvis'

o On the next screen, set a password for the Weblogic admin user, and supply the password you'd previously set for the applvis user. I left the remaining passwords at the default values, in compliance with protocol El-Ay-Zed-Why.
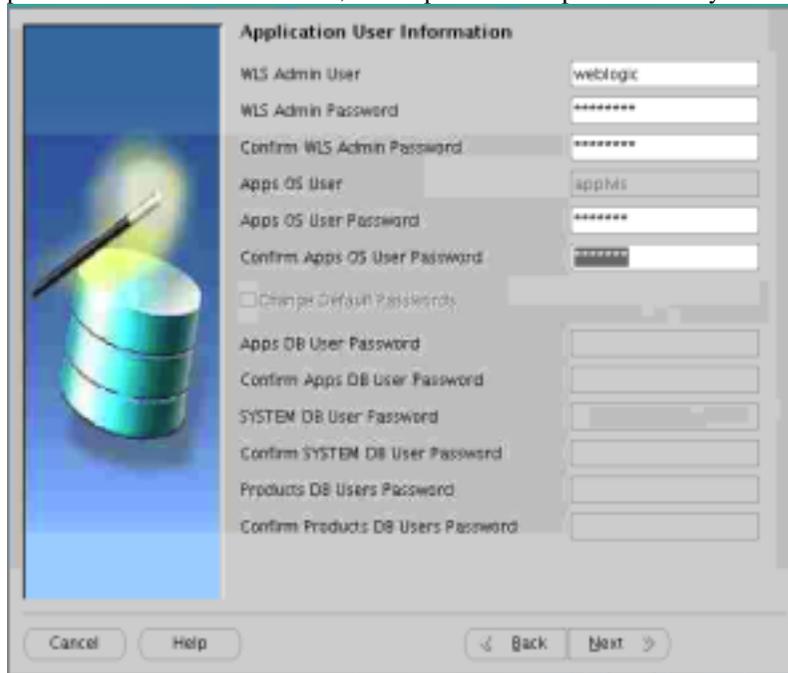
o Click Next on the node info screen, and the system checks will start. Assuming you've sized your disks correctly, and set up the target directories, everything should look great at the end. Otherwise, fix any issues (denoted by a red "X" or "?") and retry.

o   When the validation checks are all green, you can launch the install and find something else to do for a few hours:
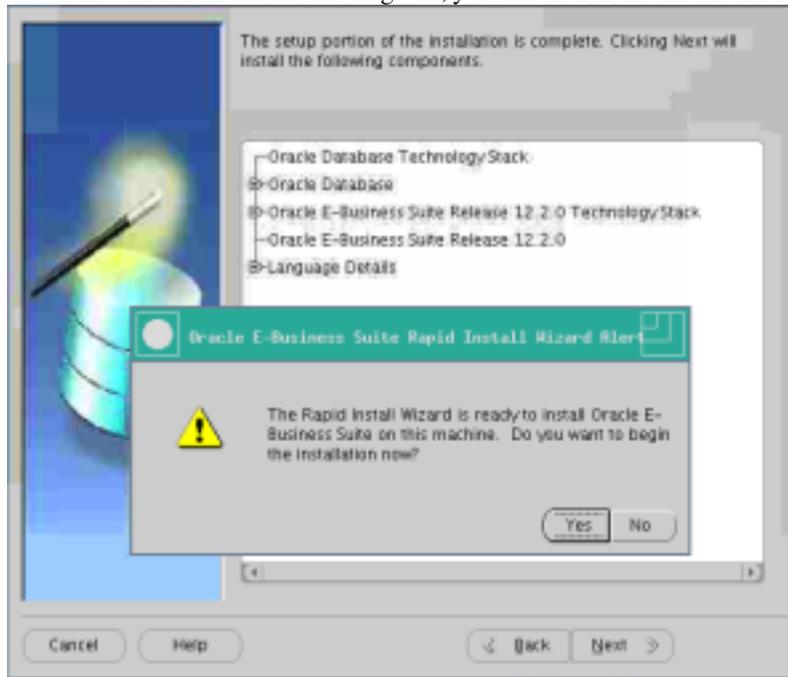
You're going to be staring at that "Installing Oracle Applications…" window with its blue bars for quite a while. You can also watch for output from the terminal where you launched rapidwiz, and tail the log files there:

```
[root@breen u01]#

Configuration file written to: /u01/oracle/VIS/fs1/inst/apps/VIS_breen/conf_VIS.txt

Configuration file written to: /u01/oracle/VIS/fs2/inst/apps/VIS_breen/conf_VIS.txt
Configuration file written to: /u01/oracle/VIS/11.2.0/appsutil/conf_VIS.txt
Database logfile – /u01/oracle/VIS/11.2.0/appsutil/log/VIS_breen/10051848.log
```

7. **Confirm that you have all green checkmarks in the post-install verification window.**
   On a slower system, the first pass at checking some of the services (HTTP, WLS Admin, etc) may fail. Before digging too far into troubleshooting, click "Retry" to

see if the validation steps pass on a second attempt.
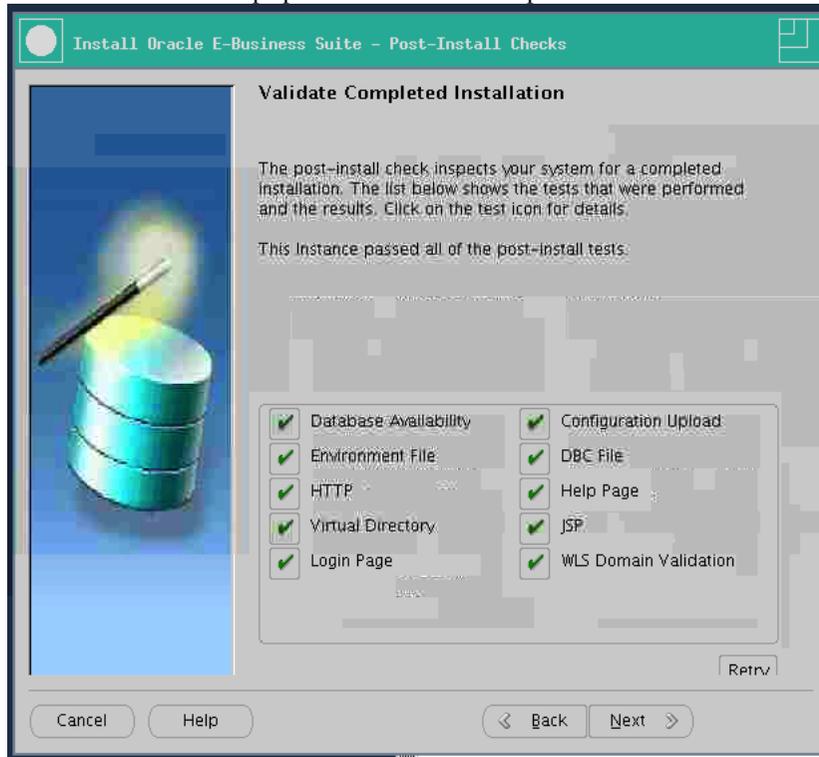
Post-install steps

The following post-install steps are split between Notes 1320300.1 and 1330701.1. There's patching involved, which is pretty exciting, because you get to use the online patching tool (adop) right away (yay)! They're hot patches, though, so it's not a full, true online patch cycle yet (boo). That comes when it's time to update to EBS 12.2.2 (yay)! I'm presenting these steps in the order that I executed them, which in retrospect might not have been the most efficient, but it didn't break anything. A few post-install steps are given as pre-requisites for the 12.2.2 upgrade, so in the interest of keeping this post short (hah!) I'm leaving them until a later blog post.

Since some of the steps required everything but the WLS admin server to be down, and one of the steps requires a database bounce, I just stopped all apps services before working on these steps:

```
[root@breen template]# sudo su - applvis
[applvis@breen ~]$. /u01/oracle/VIS/EBSapps.env run

E-Business Suite Environment Information
----------------------------------------
RUN File System : /u01/oracle/VIS/fs1/EBSapps/appl
PATCH File System : /u01/oracle/VIS/fs2/EBSapps/appl
```

```
Non-Editioned File System : /u01/oracle/VIS/fs_ne
DB Host: breen.local.org  Service/SID: VIS


[applvis@breen ~]$ export PATH=$PATH:$ADMIN_SCRIPTS_HOME
[applvis@breen ~]$ adstpall.sh
```

You'll need to supply the WLS admin password in addtion to the APPS username and password when running adstpall.sh. Get used to that.

When reviewing my adop output below, please don't jump to any conclusions about "normal" patch timing. Remember, this output is generated on a severly underpowered

system, *and* all of these steps were run before I figured out that my VM needed an extra 2GB of RAM. :-)

1. **10.1.2 ORACLE_HOME stub library update** (Note 1330701.1, "After Installing or upgrading")

   ```
   [applvis@breen other_patches]$ getOraPatch 'https://updates.oracle.com/Orion/Services/download/p12415211_10105_LINUX.zip'
   Oracle Support Userid: ****
   Oracle Support Password: 2013-09-27 01:17:42 URL:http://aru-
   akam.oracle.com/adcarurepos/vol/patch22/PLATFORM/CORE/LINUX/R80101050/p12415211_10105_LINUX.zip?FilePath=/adcarurepos/vol
   nU9MTM3MjcxNDkmZW1haWw9cGl3b3dhckBweXRoaWFuLmNvbSZmaWxlX2lkPTQyNjI3MzE0JnBhdGNoX2ZpbGU9cDEyNDE1MjExXzEwMTA1X0xJTlVYLnppcC
   uthParam=1380337651_3587efa97fc97049e42d12077c59cbfa [17799/17799] -> "p12415211_10105_LINUX.zip" [1]
   Completed with status: 0
   [applvis@breen other_patches]$ unzip -tq p12415211_10105_LINUX.zip
   No errors detected in compressed data of p12415211_10105_LINUX.zip.
   [applvis@breen other_patches]$ unzip -q p12415211_10105_LINUX.zip
   [applvis@breen other_patches]$ cd /u01/oracle/VIS/fs1/EBSapps/10.1.2/lib/
   [applvis@breen lib]$ cp -p -R stubs stubsORIG
   [applvis@breen lib]$ cd stubs
   [applvis@breen stubs]$ cp /mnt/stage/other_patches/12415211/files/lib/stubs/libgcc_s-2.3.2-stub.so .
   [applvis@breen stubs]$ ln -sf libgcc_s-2.3.2-stub.so libgcc_s.so.1
   [applvis@breen stubs]$ ln -sf libgcc_s.so.1 libgcc_s.so
   [applvis@breen stubs]$ $ORACLE_HOME/appsutil/clone/adlnktools.sh
   adlnktools.sh started at Fri Sep 27 01:34:32 PDT 2013
   Log file located at /u01/oracle/VIS/fs1/inst/apps/VIS_breen/logs/ora/10.1.2/install/make_09270134.log

   adlnktools.sh completed sucessfully
   [applvis@breen stubs]$ grep -i err /u01/oracle/VIS/fs1/inst/apps/VIS_breen/logs/ora/10.1.2/install/make_09270134.log
   [applvis@breen stubs]$ grep -i warn /u01/oracle/VIS/fs1/inst/apps/VIS_breen/logs/ora/10.1.2/install/make_09270134.log
   [applvis@breen stubs]$ grep -i fail /u01/oracle/VIS/fs1/inst/apps/VIS_breen/logs/ora/10.1.2/install/make_09270134.log
   ```

2. **Patch 17064510** (12.2 Release notes, Note 1320300.1) to fix fs_clone
   As promised, here's our first run of adop, albeit in hotpatch mode, which doesn't require prepare or cutover/finalize steps. Make sure the WLS admin server is up ($ADMIN_SCRIPTS_HOME/adadminsrvctl.sh start), or you'll get a message like this:

   ```
   ***** W A R N I N G *****
   ADMIN SERVER is down. Cannot proceed further...
   Please start the ADMIN SERVER.
   ```

```
         adop exiting with status = 3 (Fail)


3.  I staged the patches in the default expected directory in the non-editioned filesystem, but you can specify a patchtop if you prefer.

    [applvis@breen other_patches]$ unzip -tq p17064510_R12.TXK.C_R12_GENERIC.zip
    No errors detected in compressed data of p17064510_R12.TXK.C_R12_GENERIC.zip.
    [applvis@breen other_patches]$ unzip -q p17064510_R12.TXK.C_R12_GENERIC.zip -d $APPL_TOP_NE/../patch
    [applvis@breen other_patches]$ adop phase=apply patches=17064510 hotpatch=yes


    Enter the APPS password:
    Enter the SYSTEM password:
    Enter the WLSADMIN password:


     Please wait. Validating credentials...


     Enter the RUN file system context file name [/u01/oracle/VIS/fs1/inst/apps/VIS_breen/appl/admin/VIS_breen.xml]:


     [STATEMENT] [END   2013/09/27 02:47:18] Performing verification of parameters
     [STATEMENT] [START 2013/09/27 02:47:19] Checking for the required ENV setup
     [STATEMENT] [END   2013/09/27 02:47:19] Checking for the required ENV setup


     ************* Start of  session *************
      version: 12.2.0
      started at: Fri Sep 27 2013 02:47:19


     APPL_TOP is set to /u01/oracle/VIS/fs1/EBSapps/appl
     [STATEMENT] [START 2013/09/27 02:47:20] Determining admin node
     [STATEMENT] [END   2013/09/27 02:47:22] Determining admin node
     [STATEMENT]  Recommended Worker Count:  2 Max Allowed Workers: 10
     [STATEMENT] [START 2013/09/27 02:47:26] Acquiring lock on sessions table
     [STATEMENT] [END   2013/09/27 02:47:28] Acquiring lock on sessions table
     [STATEMENT] [START 2013/09/27 02:47:28] Checking for any pending sessions
     [STATEMENT] [START 2013/09/27 02:47:33] Staging the current session
       [STATEMENT] [START 2013/09/27 02:47:38] Checking if node "breen" is abandoned
       [STATEMENT] [END   2013/09/27 02:47:40] Checking if node "breen" is abandoned
     [STATEMENT] [END   2013/09/27 02:47:42] Staging the current session
     [STATEMENT] [START 2013/09/27 02:47:44] Unlocking sessions table
     [STATEMENT] [END   2013/09/27 02:47:45] Unlocking sessions table
     [STATEMENT] [START 2013/09/27 02:47:45] adzdoptl.pl run
       [STATEMENT] Session ID: 2
       [STATEMENT] Phase: apply
       [STATEMENT] Log file: /u01/oracle/VIS/fs_ne/EBSapps/log/adop/2/adop_20130927_024700.log
       [STATEMENT] [START 2013/09/27 02:47:55] Invoking admerge
       [STATEMENT] [END   2013/09/27 02:47:56] Invoking admerge
       [STATEMENT] [START 2013/09/27 02:47:56] apply phase
         [STATEMENT] APPLY Phase START TIME: 27-09-2013 02:47:58
         [STATEMENT] [START 2013/09/27 02:48:00] Performing Check for Logon Trigger existence and enablement
         [STATEMENT] [END   2013/09/27 02:48:08] Performing Check for Logon Trigger existence and enablement
```

```
    [STATEMENT] [Start 2013/09/27 02:48:13] ADOP::DefaultsFileUtil::substituteDefaultsFileTokensForPatchApplTop
      [STATEMENT] Reading defaults file /u01/oracle/VIS/fs1/EBSapps/appl/admin/VIS/adalldefaults.txt
      [STATEMENT] Substituting tokens ...
      [STATEMENT] Regenerating defaults file ...
    [STATEMENT] [End   2013/09/27 02:48:13] ADOP::DefaultsFileUtil::substituteDefaultsFileTokensForPatchApplTop
    [STATEMENT] Calling: adpatch  workers=2   options=hotpatch    flags=autoskip   console=no
interactive=no  defaultsfile=/u01/oracle/VIS/fs1/EBSapps/appl/admin/VIS/adalldefaults.txt patchtop=/u01/oracle/VIS/fs_ne,
logfile=u17064510.log
    [STATEMENT] ADPATCH Log directory: /u01/oracle/VIS/fs_ne/EBSapps/log/adop/2/apply_20130927_024700/VIS_breen/1706451(
    [STATEMENT] Running: adpatch  workers=2   options=hotpatch    flags=autoskip   console=no
interactive=no  defaultsfile=/u01/oracle/VIS/fs1/EBSapps/appl/admin/VIS/adalldefaults.txt patchtop=/u01/oracle/VIS/fs_ne,
logfile=u17064510.log stdin=yes

 Successfully created out directory

    [STATEMENT] [START 2013/09/27 03:33:22] Running finalize since in hotpatch mode
      [STATEMENT] [START 2013/09/27 04:02:21] Compiling Invalid Objects as part of Finalize
      [STATEMENT] [END   2013/09/27 04:02:42] Compiling Invalid Objects as part of Finalize
    [STATEMENT] [END   2013/09/27 04:02:43] Running finalize since in hotpatch mode
    [STATEMENT] [START 2013/09/27 04:02:44] Performing Automatic DB cutover
      [STATEMENT] [Start 2013/09/27 04:02:45] ADOP::DefaultsFileUtil::substituteDefaultsFileTokensForPatchApplTop
        [STATEMENT] Reading defaults file /u01/oracle/VIS/fs2/EBSapps/appl/admin/VIS_patch/adalldefaults.txt
        [STATEMENT] Substituting tokens ...
        [STATEMENT] Regenerating defaults file ...
      [STATEMENT] [End   2013/09/27 04:02:46] ADOP::DefaultsFileUtil::substituteDefaultsFileTokensForPatchApplTop
    [STATEMENT] Calling: adpatch options=hotpatch,nocompiledb interactive=no console=no workers=2 restart=no abandon=y
defaultsfile=/u01/oracle/VIS/fs1/EBSapps/appl/admin/VIS/adalldefaults.txt patchtop=/u01/oracle/VIS/fs1/EBSapps/appl/ad/1.
driver=ucutover.drv
      [STATEMENT] ADPATCH Log directory: /u01/oracle/VIS/fs_ne/EBSapps/log/adop/2/apply_20130927_024700/VIS_breen/log
    [STATEMENT] Running: adpatch options=hotpatch,nocompiledb interactive=no console=no workers=2 restart=no abandon=y
defaultsfile=/u01/oracle/VIS/fs1/EBSapps/appl/admin/VIS/adalldefaults.txt patchtop=/u01/oracle/VIS/fs1/EBSapps/appl/ad/1.
driver=ucutover.drv stdin=yes

 Successfully created out directory
    [STATEMENT] [END   2013/09/27 04:06:11] Performing Automatic DB cutover
    [STATEMENT] [START 2013/09/27 04:06:11] Running cutover since in hotpatch mode
    [STATEMENT] [END   2013/09/27 04:06:16] apply phase
    [STATEMENT] [START 2013/09/27 04:06:17] Generating Post Apply Reports
      [STATEMENT] APPLY Phase END TIME: 27-09-2013 04:06:18
        [STATEMENT] [START 2013/09/27 04:06:21] Generating Report to spool all logs from ad_zd_logs
          [STATEMENT] Report: /u01/oracle/VIS/fs1/EBSapps/appl/ad/12.0.0/sql/ADZDSHOWLOG.sql

          [STATEMENT] Output: /u01/oracle/VIS/fs_ne/EBSapps/log/adop/2/apply_20130927_024700/VIS_breen/adzdshowlog.out

        [STATEMENT] [END   2013/09/27 04:07:01] Generating Report to spool all logs from ad_zd_logs
    [STATEMENT] [END   2013/09/27 04:07:02] Generating Post Apply Reports
  [STATEMENT] [END   2013/09/27 04:07:05] adzdoptl.pl run
  [STATEMENT] adop phase=apply - Completed Successfully
```

```
        [STATEMENT] Log file: /u01/oracle/VIS/fs_ne/EBSapps/log/adop/2/adop_20130927_024700.log

  adop exiting with status = 0 (Success)
```

4. **Maintain snapshots**
   Not convinced that this is 100% necessary for a "play around" system, but I'm being a good kid and following the docs. :) I'll spare you the full output this time. Just
   run:

```
[applvis@breen scripts]$ adadmin menu_option=UPDATE_CURRENT_VIEW
    (many lines of output later)
AD Administration is complete.

Errors and warnings are listed in the log file
/u01/oracle/VIS/fs_ne/inst/VIS_breen/logs/appl/conc/log/adadmin.log

and in other log files in the same directory.
```

5. **Run utlirp/utlrp to fix timestamp issues with package dependencies**
   Again, for a test system, one might be tempted to ignore this, but the install docs say it's mandatory for Vision installs. Remember, we're going to be
   recompiling *all* the PL/SQL in the database. That's 10′s of thousands of objects. This is going to take a ***long time***. Go play outside or something.

```
[oravis@breen ~]$ sqlplus / as sysdba @$ORACLE_HOME/rdbms/admin/utldtchk.sql

SQL*Plus: Release 11.2.0.3.0 Production on Fri Sep 27 15:07:42 2013

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Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> SET FEEDBACK 1
SQL> SET NUMWIDTH 10
SQL> SET LINESIZE 80
SQL> SET TRIMSPOOL ON
SQL> SET TAB OFF
SQL> SET PAGESIZE 100
SQL>
SQL> column d_owner format B99999
SQL> column p_owner format B99999
SQL> column d_name format a22;
SQL> column p_name format a22;
SQL> column reason format a18;
SQL>
SQL> select d.owner# d_owner, d.name d_name, p.owner# p_owner, p.name p_name,
  2        case
```

```
  3          when p.status not in (1, 2, 4) then 'P Status: ' || to_char(p.status)
  4      else 'TS mismatch:         ' ||
  5         to_char(dep.p_timestamp, 'DD-MON-YY HH24:MI:SS') ||
  6         to_char(p.stime, 'DD-MON-YY HH24:MI:SS')
  7      end reason
  8      from sys.obj$ d, sys.dependency$ dep, sys.obj$ p
  9      where d.obj# = dep.d_obj# and p.obj# = dep.p_obj#
 10        and d.status = 1                                 -- Valid dependent
 11        and bitand(dep.property, 1) = 1                  -- Hard dependency
 12        and d.subname is null                            -- !Old type version
 13        and not(p.type# = 32 and d.type# = 1)            -- Index to indextype
 14        and not(p.type# = 29 and d.type# = 5)            -- Synonym to Java
 15        and not(p.type# in(5, 13) and d.type# in (2, 55))   -- TABL/XDBS to TYPE
 16        and (p.status not in (1, 2, 4) or p.stime != dep.p_timestamp);
```

D_OWNER	D_NAME	P_OWNER	P_NAME	REASON
359	HAB_RT_EXEC_PROC_RUN_METRICS	359	WB_RT_VERSION	TS mismatch: 16-SEP-10 09:13:44 26-NOV-12 18:48:19
359	WB_RTI_OBJECT_CATALOG	359	WB_RT_VERSION	TS mismatch: 16-SEP-10 09:13:44 26-NOV-12 18:48:19
359	UAB_RT_EXEC_PROCESS	359	WB_RT_VERSION	TS mismatch: 16-SEP-10 09:13:44 26-NOV-12 18:48:19
359	UAB_RT_EXEC_PROCESS_RUNS	359	WB_RT_VERSION	TS mismatch: 16-SEP-10 09:13:44 26-NOV-12 18:48:19
359	UAB_RT_EXEC_PROC_RUN_COUNTS	359	WB_RT_VERSION	TS mismatch: 16-SEP-10 09:13:44 26-NOV-12 18:48:19
359	UAB_RT_EXEC_PROC_RUN_METRICS	359	WB_RT_VERSION	TS mismatch: 16-SEP-10 09:13:44 26-NOV-12 18:48:19
1	WB_OLAP_AW_PRECOMPUTE	359	WB_OLAP_AW_PRECOMPUTE	TS mismatch: 23-SEP-10 05:17:34 26-NOV-12 18:48:25
359	ALL_RT_INSTALLATIONS	359	WB_RT_VERSION	TS mismatch: 16-SEP-10 09:13:44 26-NOV-12 18:48:19

```
     359 RAB_RT_INSTALLATIONS        359 WB_RT_VERSION        TS mismatch:
                                                              16-SEP-10 09:13:44
                                                              26-NOV-12 18:48:19


     359 HAB_RT_EXEC_PROCESS         359 WB_RT_VERSION        TS mismatch:
                                                              16-SEP-10 09:13:44
                                                              26-NOV-12 18:48:19


     359 HAB_RT_EXEC_PROCESS_RU      359 WB_RT_VERSION        TS mismatch:
         NS                                                   16-SEP-10 09:13:44
                                                              26-NOV-12 18:48:19


     359 HAB_RT_EXEC_PROC_RUN_C      359 WB_RT_VERSION        TS mismatch:
         OUNTS                                                16-SEP-10 09:13:44
                                                              26-NOV-12 18:48:19

12 rows selected.
SQL> shutdown immediate;
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> startup upgrade
ORACLE instance started.

Total System Global Area 2137886720 bytes
Fixed Size                  2230072 bytes
Variable Size             452987080 bytes
Database Buffers          1660944384 bytes
Redo Buffers               21725184 bytes
Database mounted.
Database opened.
SQL> set timing on
SQL> @?/rdbms/admin/utlirp
PL/SQL procedure successfully completed.
(output snipped, you're welcome!)
SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> startup
ORACLE instance started.

Total System Global Area 2137886720 bytes
Fixed Size                  2230072 bytes
Variable Size             452987080 bytes
Database Buffers          1660944384 bytes
Redo Buffers               21725184 bytes
```

```
Database mounted.
Database opened.
SQL> set timing on
SQL> @?/rdbms/admin/utlrp
(output snipped)
SQL> Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
[oravis@breen ~]$ sqlplus / as sysdba @$ORACLE_HOME/rdbms/admin/utldtchk.sql

SQL*Plus: Release 11.2.0.3.0 Production on Fri Sep 27 23:50:15 2013

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Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

(snippety-doo-dah)
no rows selected

SQL>
```

6. **Seed table update: Patch 16605855**
   One more hotpatch, and this phase of the install is complete. As instructed, stop all app services if they're started (adstpall.sh). Then start the WLS admin server if
   it's not already (adadminsrvctl.sh start)

```
[applvis@breen other_patches]$ getOraPatch 'https://updates.oracle.com/Orion/Services/download/p16605855_12.2.0_R12_GENEF
Oracle Support Userid: ****
Oracle Support Password: 2013-09-28 00:09:33 URL:http://aru-
akam.oracle.com/adcarurepos/vol/patch43/PLATFORM/Generic/relR12/p16605855_12.2.0_R12_GENERIC.zip?FilePath=/adcarurepos/vo
ck5PZzphcnU9MTYyMDE0OTAmZW1haWw9cGl3b3dhckBweXRoaWLmNvbSZmaWxlX2lkPTYzMjYyOTc5JnBhdGNoX2ZpbGU9cDE2NjA1ODU1XzEyLjIuMF9SI
WRfaWQ9ODk5MjUwMjQ@&AuthParam=1380419967_28dfc2102fe846ff2174b1e94a41a82d [237980/237980] -> "p16605855_12.2.0_R12_GENER]
Completed with status: 0
[applvis@breen other_patches]$ unzip -q p16605855_12.2.0_R12_GENERIC.zip -d $APPL_TOP_NE/../patch
[applvis@breen other_patches]$ adop phase=apply patches=16605855 hotpatch=yes
(adop output snipped)
[applvis@breen other_patches]$ $ADMIN_SCRIPTS_HOME/adstrtal.sh
```

That's a wrap! (Sort of…)

At this point, you can start exploring your 12.2 instance a little bit. You'll find that on the surface it looks a lot like a 12.0 or 12.1 instance. The login URL, if you've followed

these instructions, should be http://breen.local.org:8000/OA_HTML/AppsLocalLogin.jsp (substitute your hostname for breen.local.org, of course). If you can't guess the

default password for SYSADMIN and other user accounts, you'll find them in the Install/Upgrade Guide.

But wait, there's more! In upcoming posts, I'll cover some basic orientation to your new Vision instance, and then we'll dive in to upgrading it to version 12.2.2, which is where you'd expect to be if you were deploying 12.2 in real life.