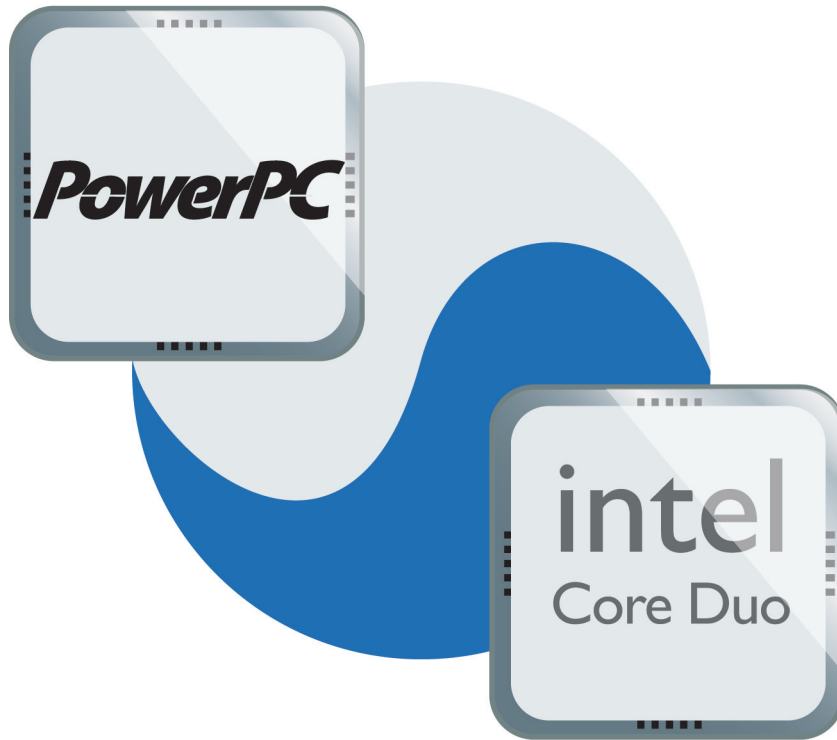


WORKING WITH MULTIPLE ARCHITECTURES



Head-On
Two Builds
Universal Hacks

Head-On

The Intel transition is now completely underway, with many systems using the CoreDuo and CoreSolo processors. Lab administrators have to take this transition head-on. One of the main disadvantages of the current builds of OS X is that it is architecture specific. In other words, there are two versions of OS X; OS X Power PC, and OS X X86. Although 10.5 Leopard should be a universal operating system, as of now we need to make two of everything. This section will guide you through the Intel transition in regards to NetBoot and NetBoot deployment systems.



fig 6.1 - These Mac's look the same, but but they are completely different inside.

Fortunately, the NetBoot service already supports images for use with Intel-based clients. First, though, make sure you have updated to at least 10.4.4 on the local NetBoot server. After updating we will notice a new column in the Images section of Server Admin's NetBoot management. This new column is labeled "Architecture."

If you have both architectures requiring the same images, your mantra should be: two of everything. That is: two NetRestore deployment sets and two master images. Fortunately, X86 clients only see native NetBoots, and the same rule follows PowerPC clients. That means you won't have to worry about accidentally booting a client to the wrong architecture. This means that you can have two default images, one for both architectures.

Two Builds

To build a NetInstall-Restore .dmg for Intel based Mac's you simply need to download the latest Version of NetRestore to your X86 Mac, following the same instructions in creating the image as earlier stated in the guide. Once you have added this image to /Library/Netboot/NetbootSP0 you will notice that the architecture will be labeled as "Intel" within Server Admin. Set one default for Power PC and one default for Intel.

You are now ready to deploy to both processor architectures, but remember: you need to make an architecture-specific master image for your systems. Although this extra step is really time consuming and annoying, future versions of OS X should alleviate this problem.

Architecture Check List

Power PC Clients

- Build install set on PowerPC: server can do this.
- Build PowerPC specific master image from master client PowerPC.

Intel Clients

- Build install set on Intel Mac. *Remember, to build an Intel set, simply use the latest version of NetRestore Helper on an Intel based Mac.
- Build master Intel Master Image.

Universal Hacks

Although Apple does not imply it or support it, you can already make universal bootable OS X partitions. That means it will boot on both PowerPC and X86 based Macintosh computers. This is not supported at all by Apple, and should not be used in a production environment, unless the configuration is heavily tested. If you have special circumstances that don't allow two Architecture-specific masters, you might want to take a look at this. Here are links to get you started. Don't forget that the next version of OS X, known as Leopard, will ship with a universal operating system. We have only tested making a bootable universal Firewire disk, and it does work. Good luck.

Creating a universal bootable disk

<http://www.macosxhints.com/article.php?story=20060322054212363>

Creating a universal NetBoot

<http://www.macosxhints.com/article.php?story=20060323085045578>

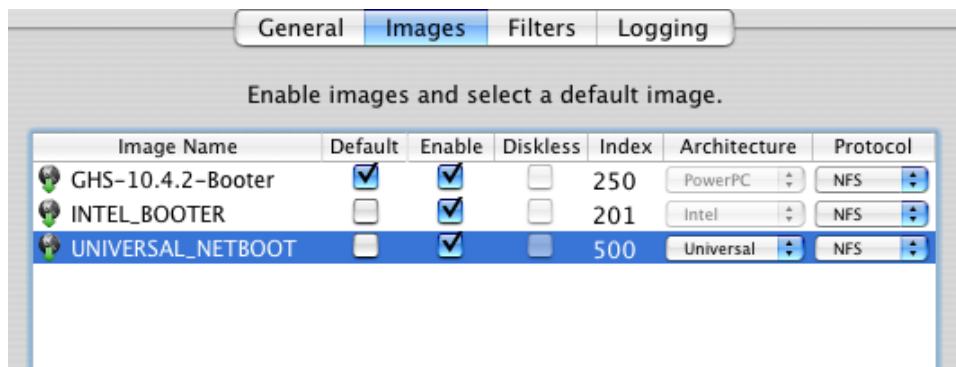


fig 6.2 - This server is broadcasting hacked version of OS X, the server has appropriately labeled it "universal"

