Upgrading an Intel Mac from 10.5.x to 10.6.x using NetInstall and DeployStudio

Introduction

There's a three-step process to use to upgrade from Mac OS X 10.5.x to 10.6.x. Following this process is designed to take a fully-updated 10.5.8 Mac, upgrade it to 10.6.x, and have it match our current 10.6.x builds as closely as possible.

Before starting the upgrade process, verify that the Mac in question meets or exceeds the requirements below:

An Intel Mac. 10.6.x only supports Intel-based Macs; it does not support older PowerPC Macs.
A Mac running 10.5.x.
1 GB of RAM.
9 GB of free space on the boot drive.

This process is not designed to upgrade the third-party applications on the Mac, just the OS and Apple applications. Make sure all of your 10.6.x compatible site licensed software is up to date before upgrading. Also make sure to check for other third-party applications and verify that they are compatible with 10.6.x. If you're not sure, check the Mac OS X 10.6 Snow Leopard compatibility table website.

1. Back up the system

Before going any further, make a complete backup of the Mac in case of a problem with the upgrade. This will allow you to rollback in case of a problem. I've been doing a complete backup of the boot drive by booting to DeployStudio ahead of time and using a workflow named **Create Backup System Image** to make and store a monolithic image of the system's boot drive up on the DeployStudio server.

2. Boot from the network and upgrade the Mac to 10.6.3

A 10.6.3 installer disk is available on my NetBoot server to boot the Mac from. To boot from it, log into the Mac and open **System Preferences**. Next, select the **Startup Disk** pane and choose the 10.6.3 installer image to boot from.

Once you've selected the 10.6.3 installer, restart the Mac. It should display a blinking globe, then start booting once the Mac has made a connection to the 10.6.3 installer disk.

Once the Mac has booted from the 10.6.3 installer, the Mac OS X installer window will open. Click the 'Continue' button.

Select the destination drive for 10.6.3.The selected drive must already have OS X 10.5 installed.

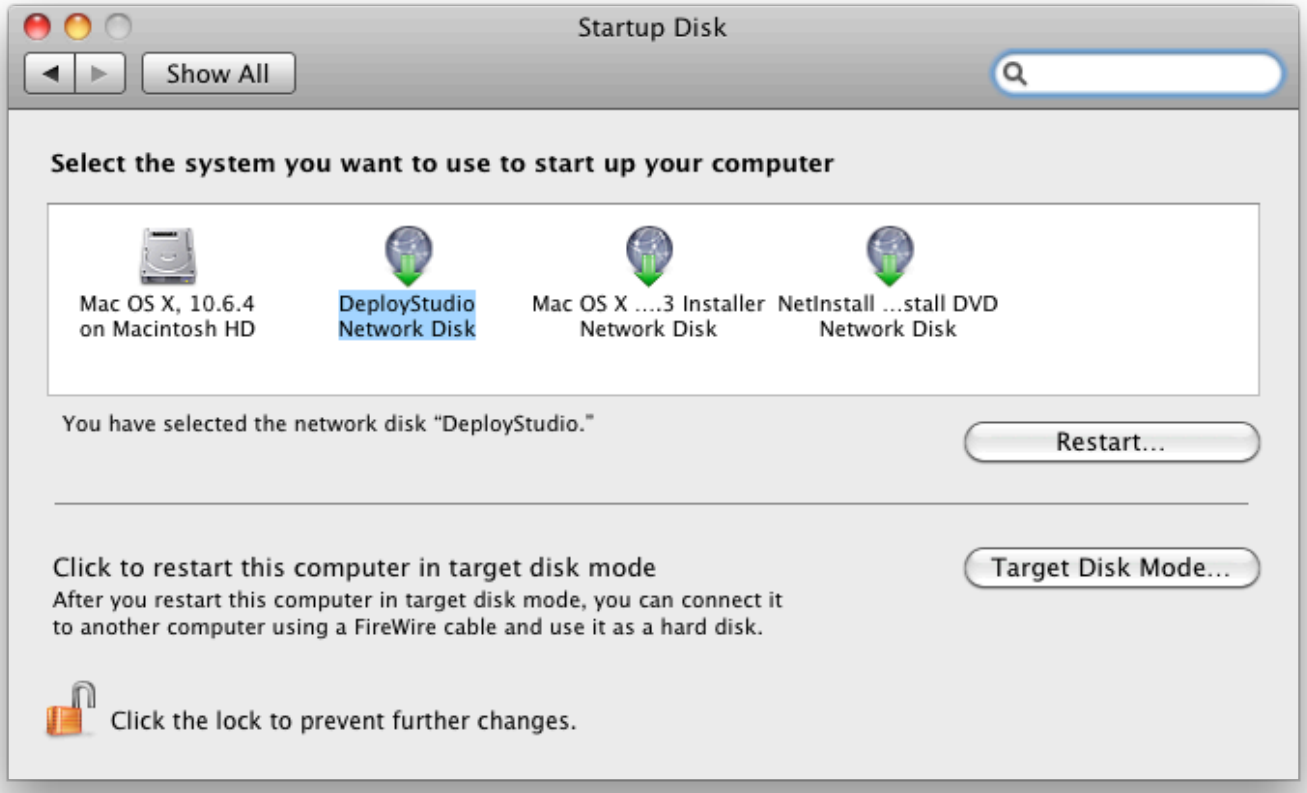
Just like on the normal OS X Install DVD, you can click the **Customize** button to add or select what options you want. When you're ready to proceed with the install, click the **Install** button.

On my 10.6.3 NetInstall image, I've pre-configured it to install everything (including all printer drivers, all language support, Quicktime 7 and Rosetta.)

The Mac will then go through the installation procedure and prompt you to restart once it has finished.

The following steps assume that the upgrade was successful. If it wasn't successful, roll back to the backup you made in step 1 and try it again.

1. Once the Mac has rebooted, it should come back to the login screen.
2. Log in with the administrator account and verify that the boot drive is named **Mac HD**. If it isn't, change it to **Mac HD**. (In my case, the DeployStudio workflow is looking for this specific name. Recent changes to DeployStudio allow you to be more flexible with this.)
3. Next, open **System Preferences**
4. Once **System Preferences** is open, select the **Startup Disk** pane and choose the DeployStudio image to boot from.



5. Reboot while holding down the ***N*** key and continue holding the key until you see a blinking globe appear on the screen. The computer will now attempt to boot from the DeployStudio server.
6. After booting, the computer will prompt you for your credentials. Enter your normal network credentials.

7. Select the **Post 10.5.x - 10.6.x Upgrade Setup** workflow from the list, then click the play button at the top.
8. In my usual workflow, the upgrader is then prompted for the computer's hostname, which is set using our standard naming convention.
9. Once it has finished it will prompt you to **Continue** or **Quit**. Choose **Quit** and it will reboot the computer.

3 Finish post-upgrade configuration of the computer

3.1 Install Apple software updates

1. Select ***Software Update*** from the ***Apple Menu***. The computer will check for available updates.
2. By default, all available updates will be selected. Click ***Install***. Provide the administrator credentials and click through any license agreements.
3. On restart, check for available updates and install all available.
4. Repeat update check and installation until no more updates are available.

3.2 Verify VPN

1. Verify that the VPN program launches and works correctly.
2. Log into the VPN and make sure everything looks like it’s working correctly.
3. Log out of the VPN.

3.3 Verify with user that everything is working correctly.

Make sure to work with the user to verify that everything is working correctly following the upgrade, as they may have third-party software or hardware that needs updates or drivers installed.

DeployStudio Post 10.5.x - 10.6.x Upgrade Setup Workflow and component scripts and packages

Pre-boot installed packages (these packages don't have preflight or postflight scripts that need to run as part of the installation)

Create 10.6 Default User Template - Installs our customized template for new user accounts into **/System/Library/User Template/English.lproj**.
Set Default Desktop Image - Installs the custom graphic we use into **/System/Library/CoreServices/** as **/System/Library/CoreServices/DefaultDesktop.jpg**, replacing the existing **DefaultDesktop.jpg**
Install Permissions Repair Script - Installs an executable script named **801.repairPermissions** into **/etc/periodic/daily**. This script runs a permissions repair of the boot drive along with the other daily maintenance scripts in **/etc/periodic/daily**. The **801** number tells the **periodic** process which order it should be run in.

Post-boot installed packages (these packages have preflight or postflight scripts that need to run as part of the installation, so DeployStudio runs them on the Mac's first boot.)

Initial 10.6 Setup - Script that runs a number of commands to configure the Mac.
Add Airport - Adds Airport network interface if it doesn't exist.
ARD Enable - Configures the Apple Remote Desktop client's permissions.
Keychain Minder - Installs Keychain Minder and a LaunchAgent to have Keychain Minder launch on user login to see if the login keychain is unlocked. If it is, Keychain Minder silently disappears. If not, Keychain Minder gives the user the opportunity to update the user's login keychain with the current password.
Install VPN - Installs our VPN client
Install Xerox Drivers - Installs two packages to install the drivers used by the common-use Xerox printer/copiers.
Install Canon Drivers - Installs two packages to install the drivers used by the common-use Canon printer/copiers.
Sophos Auto-Update Settings - Installs the **com.sophos.sau.plist** configuration file into **/Library/Sophos Anti-Virus**. This file tells our Sophos antivirus software which server address can provide updated AV definitions and client software.
Set Master Password - Sets the Master Password on the Mac to be the work-designated master password.
Add Wireless Network to Preferred Network List - Adds our wireless network to the list of preferred wireless networks on the Mac.
Remove Old OD bindings – If present, this script removes our (now retired) Open Directory server settings from Directory Utility.
Clear Caches - Clears the system caches on the Mac
Reset Login Window Settings - Fixes a problem that causes Login Options in Accounts to not work properly.