

## Windows on Mac (cont.)

“The Cloning Process”

Chris Hamady and Jeff Sankovich

Toledo Central Catholic High School

**Machine to be duplicated = Master. Machine to get duplicated = Clone.**

### Using sysprep to prepare a XP machine for cloning:

1. Setup your Master machine by installing Mac OS X, running the Boot Camp Assistant, installing Windows XP, installing third party applications, and adding any other customized settings to each operating system that you would like to clone.
2. While booted from the Windows XP Master partition, download the deployment tools.  
<http://search.microsoft.com/results.aspx?q=deployment+tools>  
Make sure you download the deployment tools for your specific service pack.
3. Create a new file called sysprep in the root directory. C:\sysprep\  
Open the “.cab” file downloaded in step one.  
Select all files within the downloaded .cab file and paste them in C:\sysprep\ folder.
4. In the C:\sysprep\ folder, click on the program "setupmgr.exe."
5. Follow the prompts and fill any information needed.  
Most of this section is self explanatory.  
Information can be left blank if needed.  
Click Finish on the final prompt to create your answer file.
6. A screen may pop up asking you to save the created answer file.  
Make sure you save this file in the C:\sysprep\ folder with the name "sysprep.inf".  
C:\sysprep\sysprep.inf  
This should default to the correct location.  
If the filename is incorrectly named, sysprep will not function correctly.
7. The pop up disappears and the file saves after clicking “Ok”.  
You are now redirected back to the setup manager.  
Click “Cancel” on the setup manager to quit.
8. Navigate back to the C:\sysprep\ folder and click on the program "sysprep.exe."
9. Within this program, select “Use Mini-Setup” which is located in the section labeled “options.”
10. Click the “reseal” button.  
The program will run a few more seconds and then shutdown your computer.
11. You are done! Now your computer is ready for the cloning process.

### For more information regarding sysprep:

Video Tutorial:

<http://www.vernalex.com/guides/sysprep/video.shtml>

Microsoft documentation

XP: <http://support.microsoft.com/kb/302577>

Windows 2000: <http://support.microsoft.com/kb/298491>

## Using NetRestore Helper to create images:

1. Connect the Master machine via Firewire cable to the machine to be Cloned and turn on the Master machine booting into Mac OS X.
2. Start the Macintosh to be Cloned in target disk mode by pressing the power button and holding down the "T" key on your keyboard as it boots. Let go of the "T" key after the Firewire symbol appears on your screen.
3. Open Disk Utility on the Master machine.
4. Select the hard drive of the Clone machine.
5. Click on the "Partition" tab.
6. Select "2 Partitions" from the dropdown under "Volume Scheme."
7. The first partition should have the format "Mac OS Extended (Journaled)" selected. This will be used for our Mac OSX image.
8. The second partition should have the format "MS-DOS File System" selected. This will be used for our XP image.
9. Click "Partition."
10. Download NetRestore from <http://www.bombich.com/software/netrestore.html> .  
Make sure you version you download correlates to the Mac operating system you are running.
11. Double click the downloaded file, Netrestore.dmg and copy the file "NetRestore-3.3.4" to the desktop.
12. Open the file "NetRestore-3.3.4" on the desktop and click on the program "NetRestore Helper"
13. Select your Mac partition of the Master Machine from the dropdown labeled "Master disk."
14. Click the lock icon in the lower left hand corner and enter your password
15. Click the button labeled "Create Master Image" and save the Mac OS X image to the desktop of the Master Machine.  
After the image completes you will be returned to NetRestore Helper.
16. Select your Windows partition of the Master Machine from the dropdown labeled "Master disk" in "NetRestore Helper."
17. If it is needed, click the lock icon in the lower left hand corner and enter your password again.
18. Click the button labeled "Create Master Image" and save the Windows XP image to the desktop of the Master Machine.  
After the image completes you will be returned to NetRestore Helper. Quit the application.
19. You are done! Now we can move onto deploying the images.

## Using NetRestore to deploy images:

1. Download "ntfsprogs" installer from <http://www.bombich.com/software/files/ntfsprogs.dmg> .
2. Install ntfsprogs onto the master computer.
3. In the NetRestore folder, click on the application "NetRestore."
4. Click the browse button and locate the MacOS Master image (step 15 in the previous section)
5. Select the Macintosh partition of the Clone computer in the dropdown labeled "Target."
6. Click the lock next to the grayed out button labeled "Restore" and enter your password.
7. Click the restore button.
8. After the Mac image is restored, click the "Browse" button again and locate the Windows XP Master image (step 18 in the previous section).
9. Select the Windows partition of the Clone computer from the dropdown labeled "Target."
10. Click the restore button.
11. You are done! Enjoy!