

Hackintosh Tutorial: Install a Mac Leopard OS X Retail DVD on a PC

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fter building hackintosh machines using different modified OS X installers, the hackintosh community has come a long way and is within grasp of achieving the holy grail of running Mac OS X on PCs—installing the original, unmodified OS X DVDs created by Apple for Macs on ordinary IBM compatible personal computers. Well, almost.

While we can now use a retail Mac OS X DVD to turn our PC into a hackintosh, we still need a bootloader to get it to recognize and install OS X the first time. The good news is, after a successful installation, we can now install any updates from Apple without breaking our system or reinstall the operating system without having to add the same kexts (drivers) that we already have that makes our non-Mac standard hardware peripherals work.

Pre-requisites

- A PC with Intel Core Processors and Chipset (AMD is not yet supported).
- A Blank CD (for Boot-132).
- A retail Mac OS X DVD Installer (not an Upgrade OS X DVD).
- Download the Leopard 10.5.4 ComboUpdate [here](#).
- Download the Chameleon for Hard Disk [here](#).
- Download the Boot-132 Generic ISO [here](#) (generic.iso).
- Download EFIStudio [here](#).

Step 1. Before You Begin

Burn the Boot-132 Generic ISO on a CD. This **BootCD** should work fine for most hardware configurations; after which, it should be able to install the retail OS X DVD. If this doesn't work for you, you may need to modify the contents and add the necessary kexts for your hardware. More info [here](#).

Step 2. Install Leopard.

1. Insert your **BootCD** and boot/start your PC.
2. On the boot prompt, press **Enter**. You will be asked to enter a two-digit hexadecimal boot device (do not enter anything yet).

3. Remove the BootCD and replace it with the Mac OS X **Retail DVD**. Wait for the blinking light on your DVD drive to stop and then hit **Enter** (this will read your DVD drive and not your HD).

Hint: If you keep going back to the bootloader, it only means you don't have the correct Retail Mac OS X DVD Installer. The best solution is to buy one.

4. Perform the Mac OS X Leopard **installation**. You may need to use Disk Utility (under the Utilities Menu) to partition and format your HD if you haven't already. Make sure to select GUID (under Options).

5. **Restart** after the installation and replace the Retail Mac OS X DVD with the **BootCD**.

6. On the boot prompt, press **Enter**. This time, enter the two-digit hexadecimal of the drive where you installed OS X. Enter **80**; if it doesn't show the startup volume of your OS X, hit Esc. Try 81, and so on until you see your OS X volume. Select it and hit **Enter**.

7. You should now be in Leopard.

Step 3. Update Leopard to 10.5.4

1. Install the 10.5.4 ComboUpdate.

2. Reboot with the BootCD and enter the same two-digit hex you entered before. Select your startup volume and type **-v -f** (you don't have to enter these the next time), and press Enter.

3. At this point, you still won't be able to boot your hackintosh without the BootCD.

Step 4. Install Chameleon

The Chameleon for Hard Disk you downloaded above has the following files:

- Chameleon_DFE_for_Hard_Disk.dmg
- OSX86Tools
- EFISudio

1. Open Chameleon.
2. Copy the contents of the Extra directory from the Generic.iso CD by dragging it to the Extra Contents folder in Chameleon.

Hint: To do this, you need to perform the following:

- Open the Generic.iso CD from your desktop.
 - Double-click on the **INITRD.IMG** file.
 - Double-click on the **Extra** folder.
 - Drag the **Extensions** folder to the **Extra Contents** folder in Chameleon
3. Double-click the **Chameleon_DFE_for_Hard_Disk.pkg** file and install to your hard disk.
 4. Remove the BootCD and reboot.
 5. You should now be able to boot into Leopard without the BootCD.

Step 5. Fix Your Hardware Peripherals

After upgrading to 10.5.4, some of your hardware peripherals (i.e. video, network card, audio, etc.) may no longer work. Even the kexts that worked for my previous modified OS X installations don't work with the latest version so I had to scour the net for a fix. Depending on what you have

installed on your PC, you may need different solutions. Below are the fixes I applied for my own peripherals.

Network Fix:

Taken from the IONetworkingFamily.kext included in the [GA-965P-DS3_ISO](#) bootcd.

Audio Fix:

Taken from the AppleAzaliaAudio.kext included in the Generic.iso BootCD.

Restart/Reboot Fix:

Replace your AppleACPIPlatform.kext with [this](#).

Shutdown Fix:

Download and install [this](#).

Hint: To easily install kexts, you may want to use the **OSX86 Tools**. Read more about the OSX86 Tool [here](#). You can also use the **EFI Studio** to try adding EFI Strings to your Boot.plist in case you have problems with video or audio kexts. Read more about EFI [here](#).

Video (Nvidia 7200GS) Fix (QE/CI):

This one gave me the biggest headache. The video kexts or injectors (Nvinject, NvInstaller) that worked for me in the past, no longer works after

upgrading to 10.5.4. I tried many versions and none worked. I tried adding device strings to com.apple.Boot.plist using EFIStudio and deleting all video injectors in Extensions and still a no go. I tried to manually edit the kexts by entering my device ID, etc., and still no QE/CI support. Finally, I found out that the Generic.iso BootCD has Nvkush.kext in it and by installing Chameleon, it also installed it to my hard drive. So I just deleted it from the /Extra/Extensions folder and made sure I had my video device string in the com.apple.Boot.plist using EFIStudio, reboot and voila!

Now you have a Hackintosh that is as close to a real Mac in terms of the underlying software program. You can safely use Software Update to install updates directly from Apple to your PC.

To get a real Mac experience, buy a Mac!