

How to install OS X Yosemite in Virtualbox with Yosemite Zone

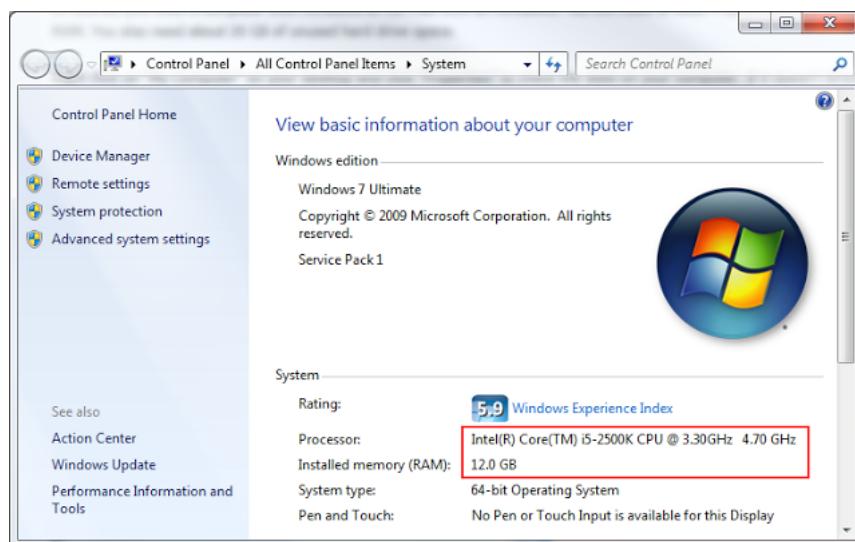


We've previously shown you how to [install OS X Mavericks on virtual machine by using Niresh](#), which is great practice for installing Mac OS X on your actual computer. And now that Apple has released OS X Yosemite, it's only fitting that we show you how to install Yosemite in a virtual machine as well. For this guide, we'll be using the "[Yosemite Zone" distro](#), which is really just a rebranded version of the old Niresh distro that we used in our Mavericks guide. While we've already shown you how to install Yosemite on your actual computer with Yosemite Zone, it also works great with virtual machines.

In essence, this method will let you run Mac OS X from inside a program window in Windows. As always, we're going to use Virtualbox for this. It's important to note that Windows virtualization programs do not "officially" support Mac OS X, so you will not be able to enable full graphics support. This tutorial should only be taken as a proof of concept.

Computer Requirements

You need a computer with Windows to run Mac OS X on Windows (of course). The "System Type" of your copy of Windows needs to be 64-bit, because OS X Yosemite is a 64-bit operating system. If you have a 32-bit copy of Windows, you can only install Mac OS X Snow Leopard on Virtualbox. You will need at least 4 GB of RAM and a dual-core (two core) processor or better. Personally, the computer I was using for this had a 4-core processor and 12 GB RAM, which is way more than enough. You also need about 10 GB of unused hard drive space.



Right click on "My Computer" on your desktop and click "Properties" to check the stats on your computer. If it doesn't directly tell you how many cores your processor has, look up your processor model on Wikipedia or Google. You also want to find out whether your processor is made by "Intel" or "AMD". While Yosemite Zone technically works with both types of processors, if you have an AMD processor, you'll have to perform a few extra steps during the installation (and the final result may not work as well, either).

General Requirements

- **Virtualbox**: This virtualization suite is free, and though it doesn't offer official support for Mac OS X, it works well enough.
- **Yosemite Zone**: Unfortunately, the [standard "Unibeast" method for installing OS X Yosemite on PCs](#) (which uses an official copy of the Yosemite installer) doesn't work with Virtualbox. Instead, you'll have to pirate "distros" of Mac OS X such as Yosemite Zone, which is now the most popular distro for OS X Yosemite right now.

You will need to [use a bittorrent client](#) to download the Yosemite Zone disk image file, which is around 5 GB in size. On the Hackintosh Zone website, you can get the appropriate torrent by choosing "Yosemite ISO Torrent.zip". (*Do not* choose the "DMG Torrent", as it does not work with Virtualbox.) Once you've downloaded the right torrent, open it on your bittorrent client so that you can download the actual disk image file.

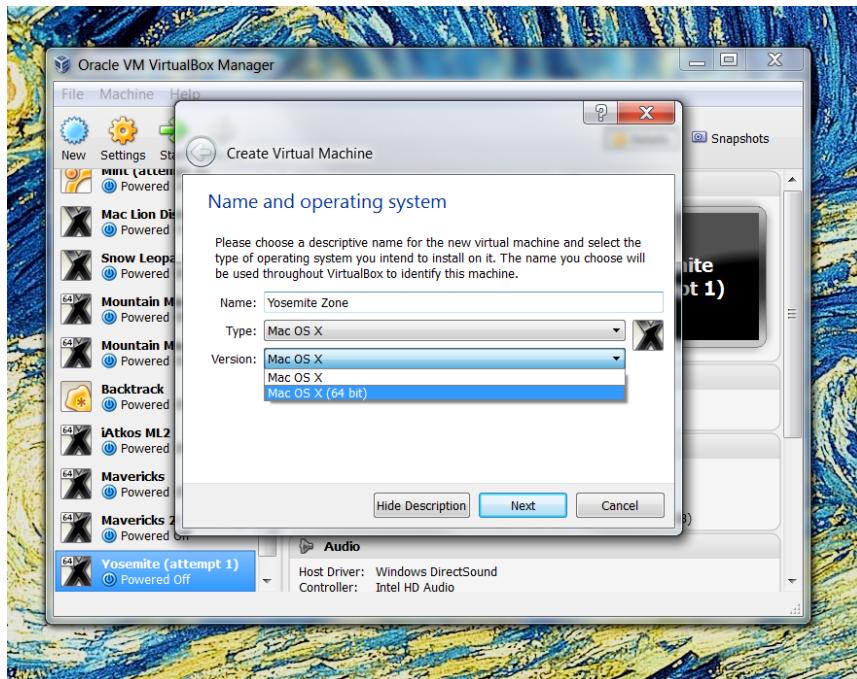
Step 1: Prep

Download [Virtualbox](#), install it, and open it up. Also, if you want to be able to view USB devices from your Mac OS X virtual machine, download the [Virtualbox Extension Pack](#) and run it *before* going to Step 2.

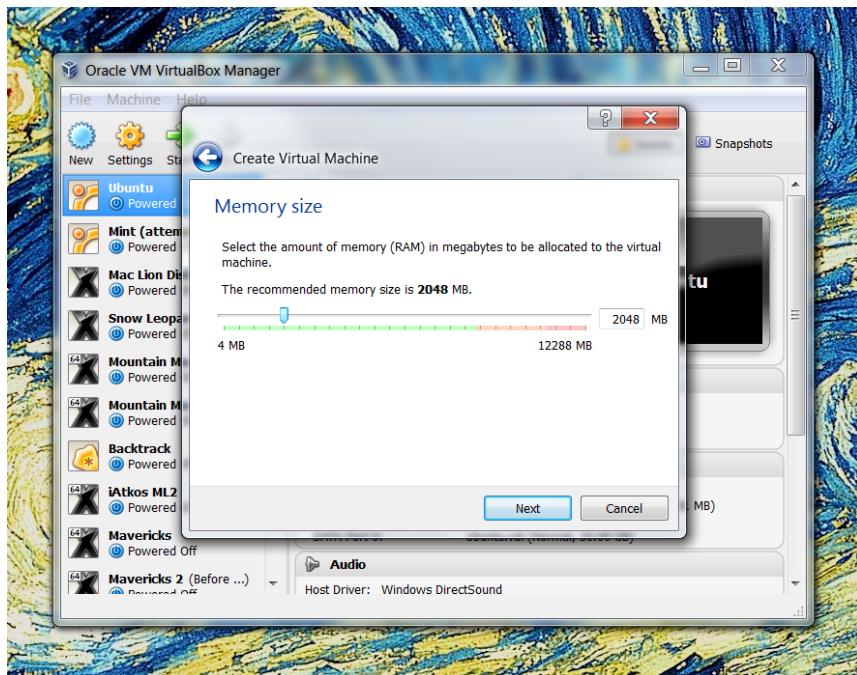
Step 2: Create a new virtual machine.

Virtualbox lets you run Mac OS X within Windows by creating a virtual machine, which is a program that simulates a normal computer. To create a virtual machine, open up Virtualbox and click "New" on the upper left. Give your new virtual machine a name, and choose "Mac OS X" for the OS Type.

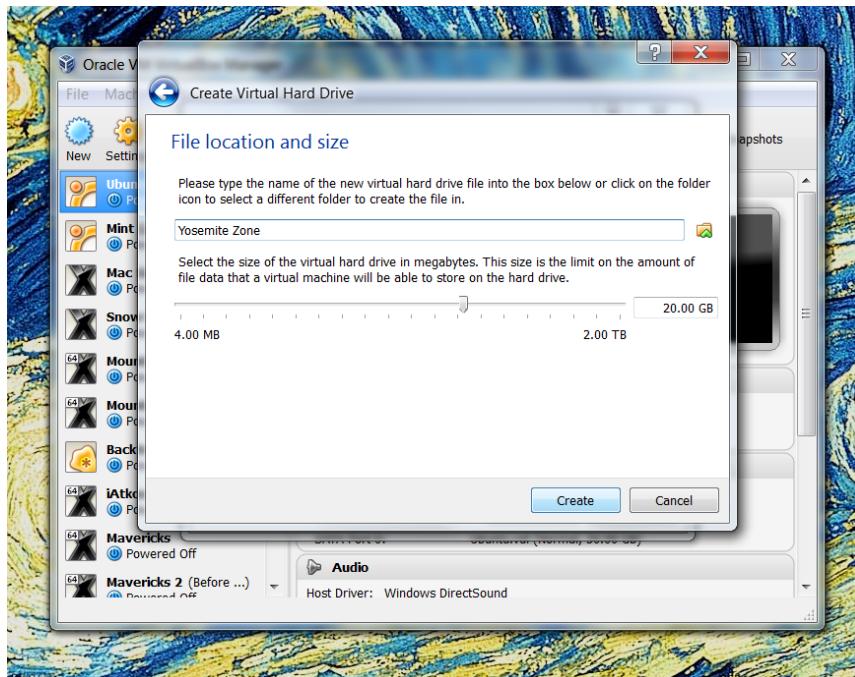
If your version of Virtualbox asks you to choose between 64-bit and 32-bit, be sure to choose 64-bit. Choosing 32-bit will result in a critical "Guru Meditation" error later on.



I recommend assigning 4 GB of RAM to the virtual machine, but you can assign as little as 2 GB of RAM. Every time you turn on Mac OS X, that RAM that you assign here will be used to run the virtual machine. The RAM will be given back to your normal computer after you turn Virtualbox off.



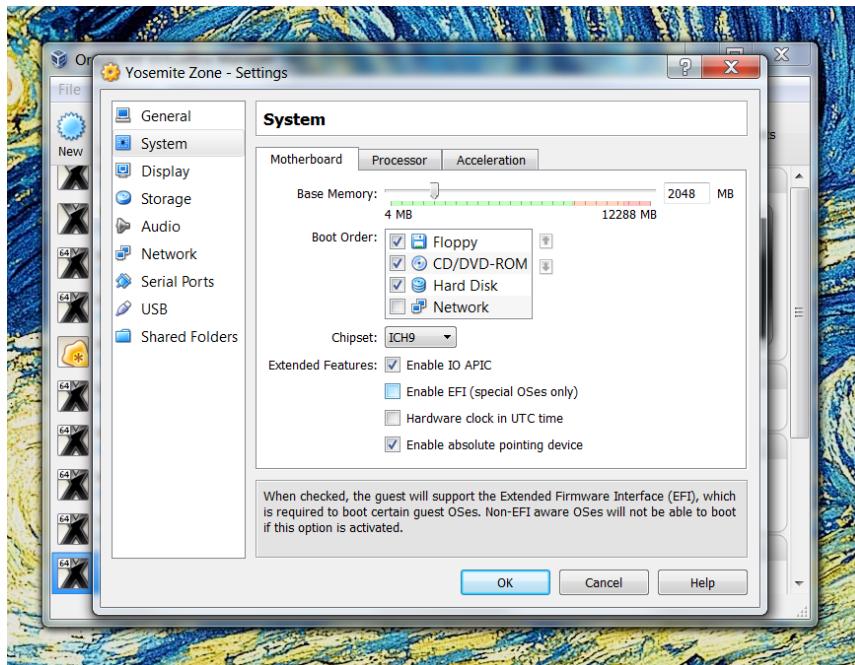
You'll then need to create a "virtual hard drive" for the virtual machine. Virtualbox will ask you what type of drive you want to create: VDI, VDMK, or VHD. VDI is the original format for Virtualbox, while VDMK is the format used by VMWare. If you're considering getting a copy of VMWare, you might want to choose VDMK. Otherwise, just choose VDI. I recommend creating a dynamically expanding drive— the other option ("fixed sized storage") is a waste of space.



You'll need to allocate at least 10 GB of space for this new virtual hard drive; the default of 20 GB will work fine.

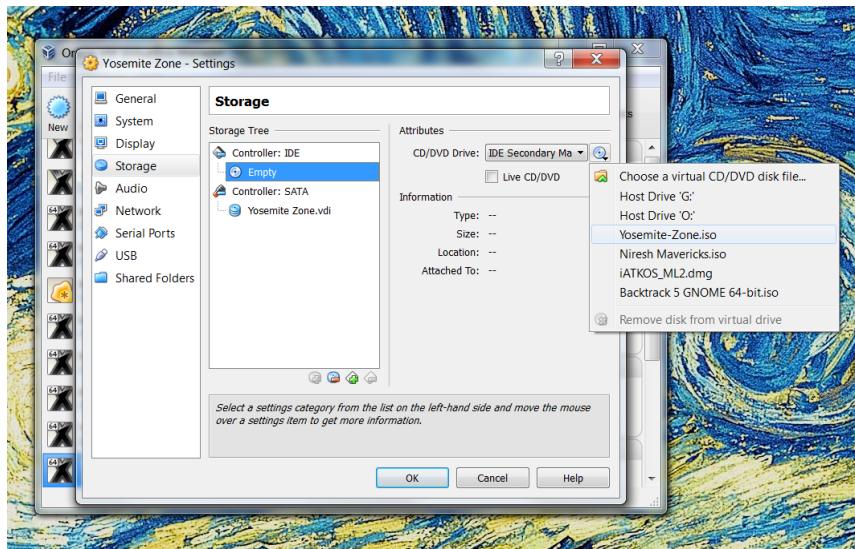
Step 3: Give your new virtual machine an operating system.

Your virtual machine will now be created. But don't stop now—you still need to change a few settings before your machine will actually work. Your new virtual machine will show up on the left column of the Virtualbox start page. Select your Mac OS X virtual machine (single-click) from the main page of Virtualbox, and open up the virtual machine settings. Once the settings window is open up, go to "System" and *uncheck* the "Enable EFI" box. This is by far the most important single setting that you will need to change.



EFI, which stands for Extended Firmware Interface, is a feature that helps operating systems start up. Unfortunately, Mac OSX requires "special" EFI, so the EFI that Virtualbox uses doesn't work.

Once you're done with that, go to the settings for "Storage". In the storage tree box, you'll see a CD icon labeled "Empty". Click on it and click "Choose a virtual CD/DVD disk file". In the window that pops up, choose the .iso file for Yosemite Zone; this file will probably be named "Yosemite-Zone.iso".



This way, when your virtual machine starts for the first time, it will boot into the Yosemite Zone installer program.

Step 4: Install OS X Yosemite

Start up your virtual machine. You will come up to the Yosemite Zone boot screen, with one option to select: Yosemite Zone. Press the "Enter" key on your keyboard.

NOTE 1: If your computer uses an AMD processor, you will have to type the boot flag "amd" or "amd64" (without quotation marks)– which flag you need depends on your specific processor, so test one flag at a time. Type the boot flag "amdfx" (also without quotation marks) if your AMD processor has "FX" in its model name.

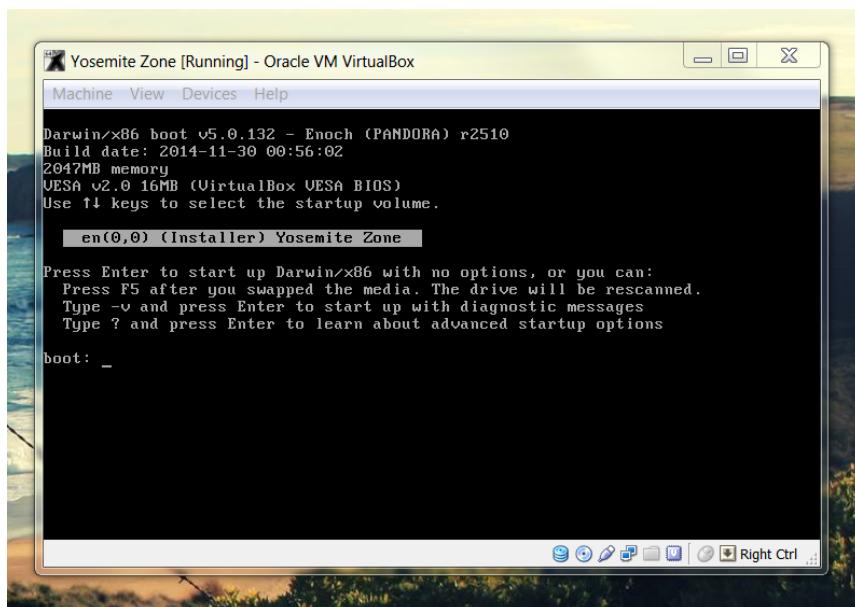
NOTE 2: Virtualbox may have problems booting Mac OS X if your computer uses an Intel Haswell processor (i.e. if your computer was built/bought in 2013 or later). If this is the case will have to trick Virtualbox into thinking that your processor is actually an older model. To do this, open the Command Prompt in Windows (make sure you are logged into an Administ account on Windows). You can do this by opening the Start Menu, and typing "command prompt" into the Start Menu search bar. Then, type the following command into the Command Prompt.

```
cd "C:\Program Files\Oracle\Virtualbox"
```

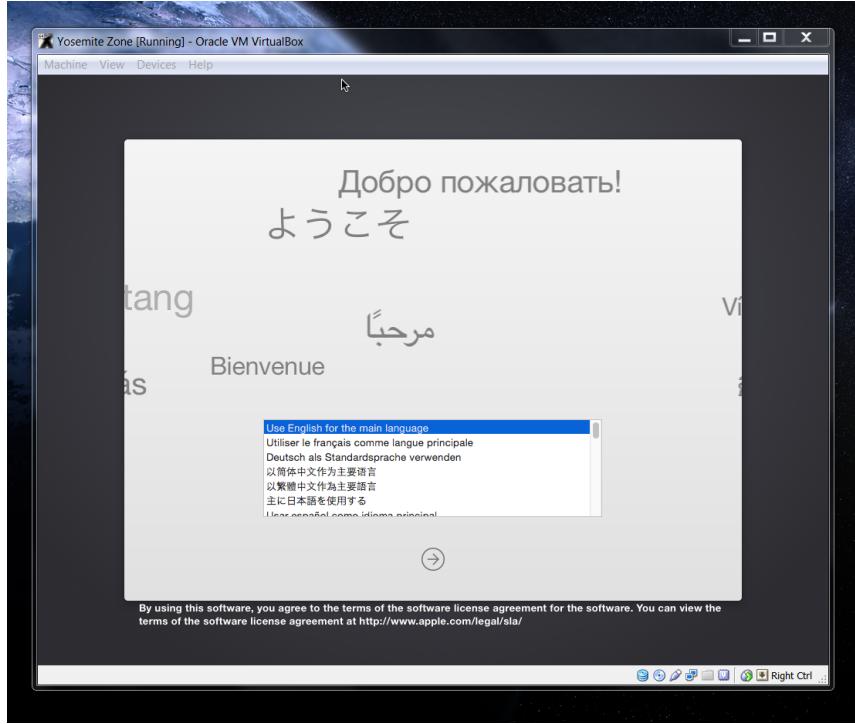
This command will change the focus of the Command Prompt to the program folder for Virtualbox (if you installed Virtualbox somewhere different, then change the command to wherever you installed it). Next, type in this command:

```
VBoxManage modifyvm <Name of virtual machine> --cpuidset 00000001 000306a9 00020800 80000201 178bfbff
```

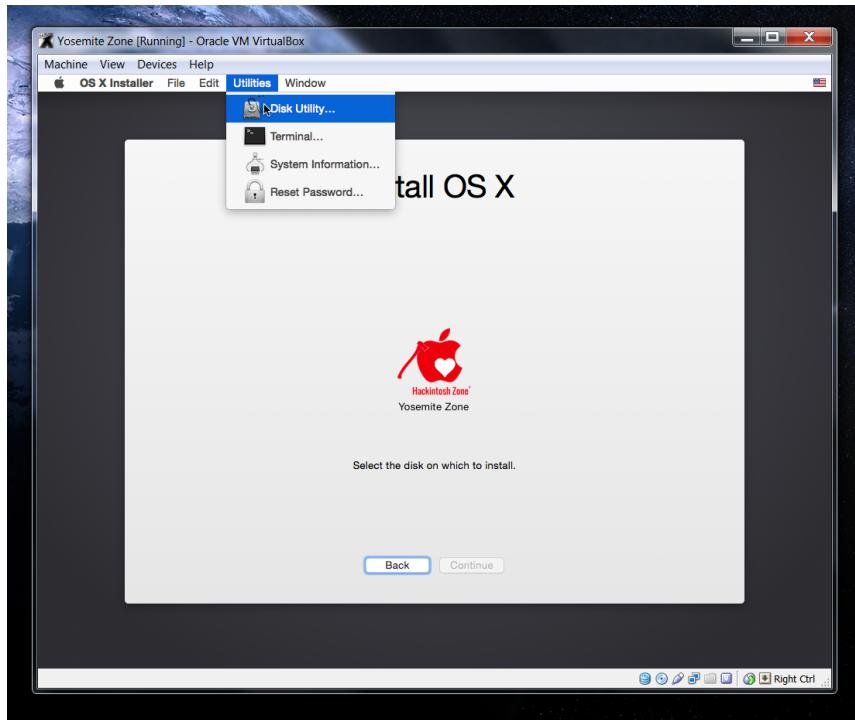
This command activates "vboxmanage", a command-line program included with Virtualbox that allows you to edit the properties of your virtual machine, including its built-in resolutions Replace "Name of virtual machine" with the name of your virtual machine (no quotation marks)– you can find the name of your virtual machine in the left pane of the Virtualbox main window. This command should do the trick. - [Source](#)



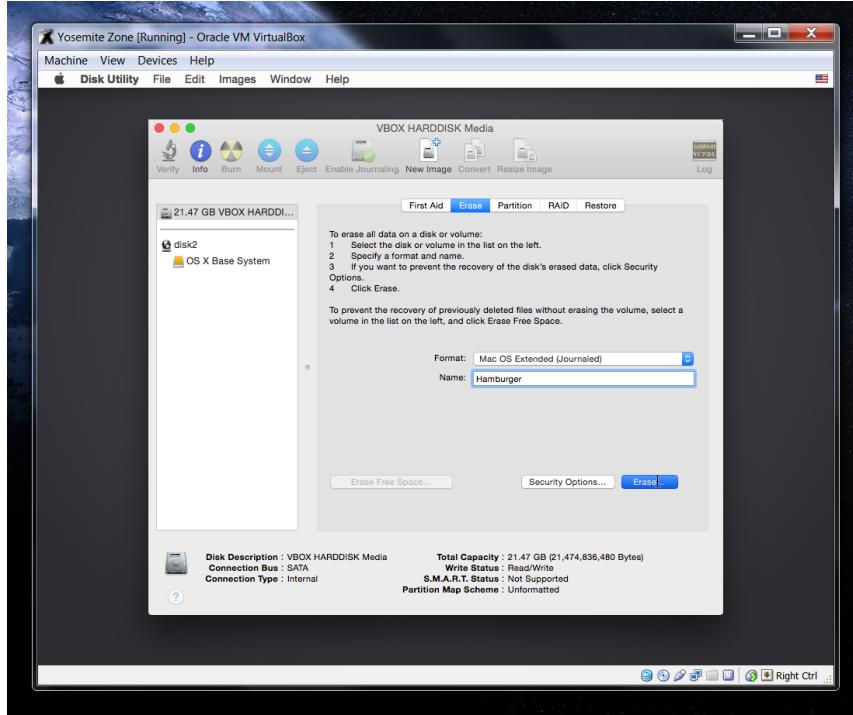
After you press the "enter" key, wait a few seconds, and the virtual machine will automatically start the Mac OS X installer. (This startup process may take anywhere from 30 seconds to 15 minutes, depending on your computer's hardware.) Eventually, you will reach the welcome page of the installer.



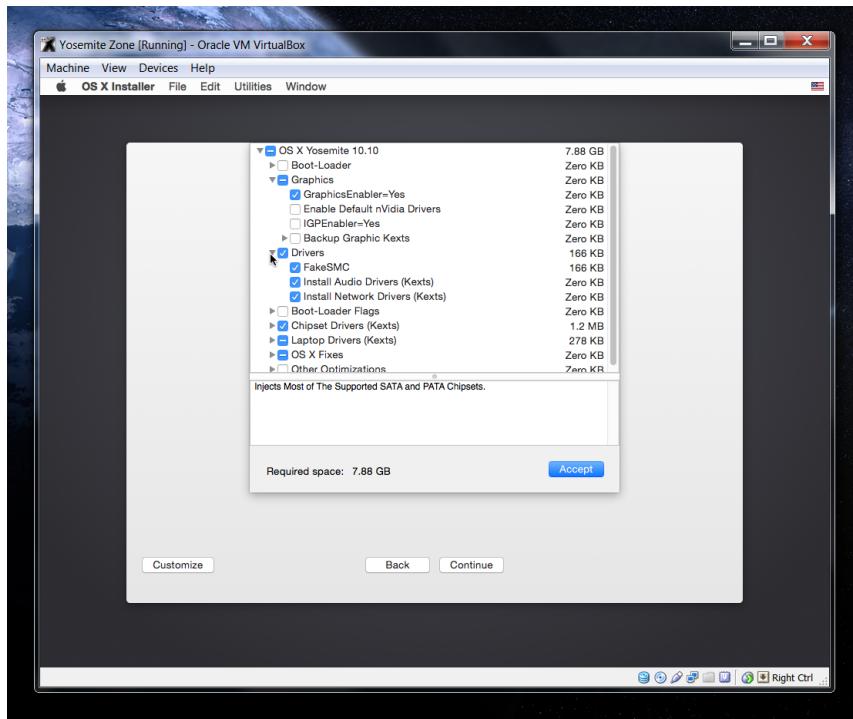
Continue, and you will eventually reach a page that asks you for a "destination" for your Mac install. At first, your only option will be the Yosemite Zone ISO file, which isn't going to work because you can't install OS X Yosemite on the ISO itself. Instead, start up Disk Utility (located under the Utilities menu).



Mac OSX can only be installed on a completely clean disk, so you need to use Disk Utility to wipe your Virtualbox hard drive. Click on the Virtualbox hard drive in Disk Utility and erase it. Don't worry, there's nothing important on it.



On the installation summary page for Mac OSX, the Virtualbox hard disk should now be showing up. Click the "Customize" button on the lower left-hand corner of the summary page. This is where using a distro becomes really useful: Yosemite Zone allows you to install extra Hackintosh drivers and kexts, straight from the OS X Yosemite installer.



The default selection will enable Mac OS X to boot from the virtual machine without any assistance. There are only two things you need to change:

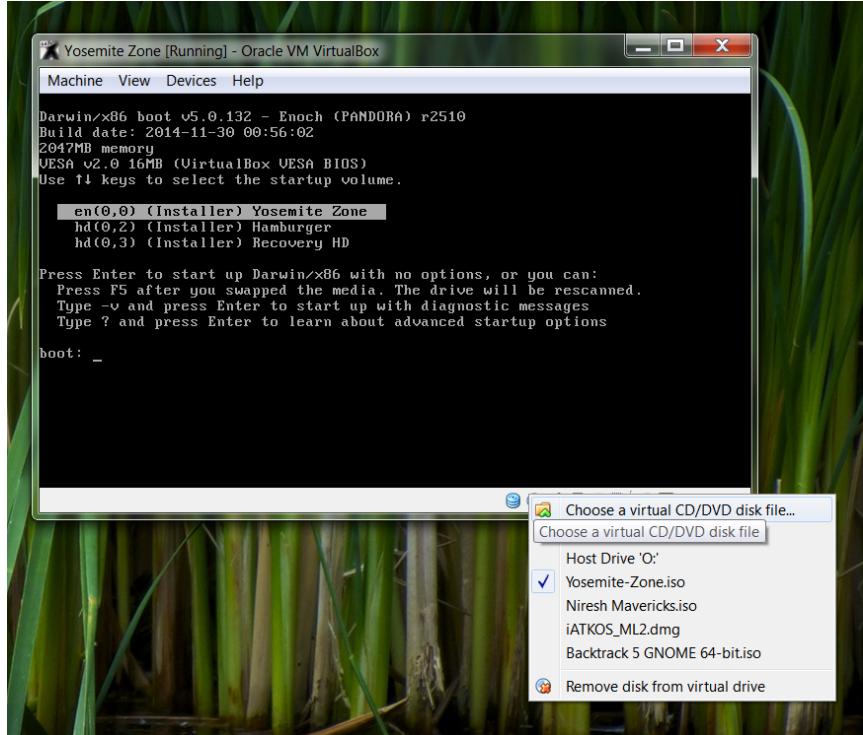
- Uncheck **Install Audio Drivers (Kexts)** and **Install Network Drivers (Kexts)**. These two options are checked by default. Normally, they will allow Yosemite Zone to automatically detect your computer's audio codec and ethernet controller, and install the appropriate kexts so that your audio and internet will work immediately in Mac OS X. However, both audio and ethernet should already work by default in Virtualbox, so neither of these options is really necessary.
- Uncheck **Graphics > GraphicsEnabler=Yes**. This option is also checked by default. Normally, it allows Mac OS X to work better with your computer's graphics card. However, Virtualbox doesn't support Mac OS X graphics anyways, so this option is essentially pointless for virtual machines. All it does is decrease the default screen size of your virtual machine from 1280x1024 to 1024x768.

Once you have selected the appropriate options from the "Customize" screen, return to the installation summary page and click "Install". This will take anywhere from 10 minutes to an hour, depending on your computer's hardware.

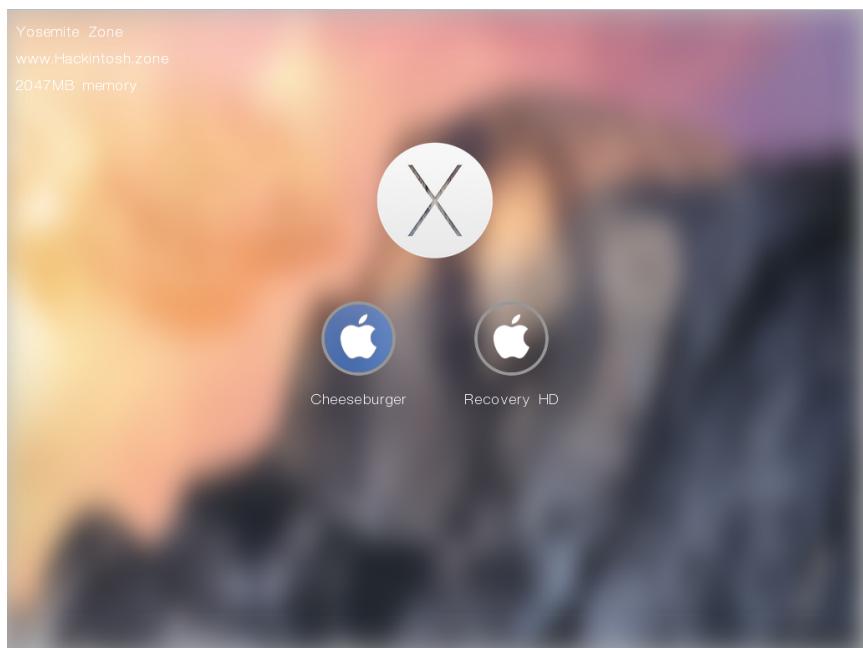
When the installation finishes, the OS X installer will probably crash and display a crash log. This is normal; OS X Yosemite has still installed successfully. Now proceed to the next step.

Step 5: Boot it up

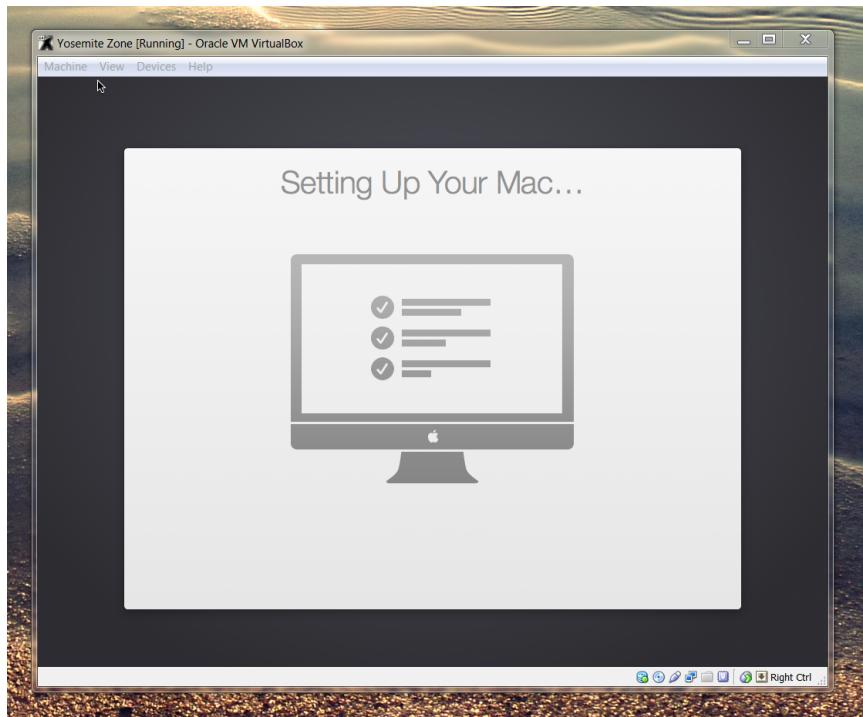
Restart your virtual machine, and eject the Yosemite Zone ISO file from your virtual DVD drive. To do this, right-click on the CD icon at the bottom right of the Virtualbox window, and check the Yosemite Zone file (probably named "Yosemite-Zone.iso"). Your mouse cursor will probably be trapped inside the virtual machine. Press the right "Ctrl" key on your keyboard to allow your mouse to escape.



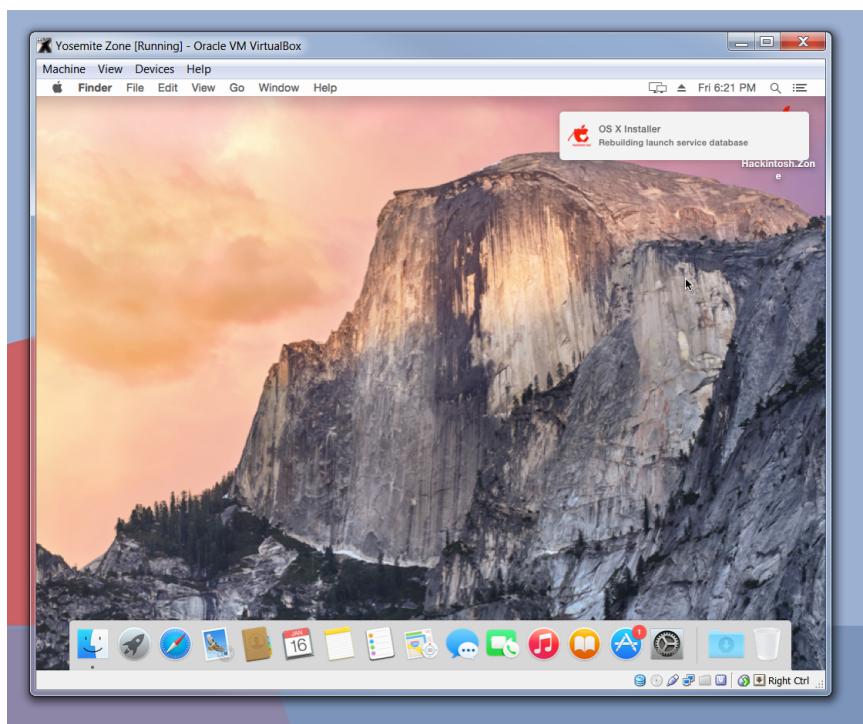
After ejecting Yosemite Zone, restart your virtual machine again. Now, at the bootup screen, you'll see an Apple icon for the hard drive where you installed Yosemite (also, the screen resolution of your virtual machine might be bigger than before).



OS X Yosemite will now start. This will take anywhere from 30 seconds to 15 minutes, depending on your computer's hardware. You should eventually be led to the Mac OS X setup screen. Fill it out, then mission accomplished!



This concludes the first part of the guide. You'll have to wait a few minutes for Yosemite Zone to finish installing its extra kexts and drivers, but after that, audio and ethernet should work automatically. However, you're not done yet! You still have to enable increase the screen resolution of your virtual machine, which is probably still stuck at 1280x1024 (or even 1024x768).

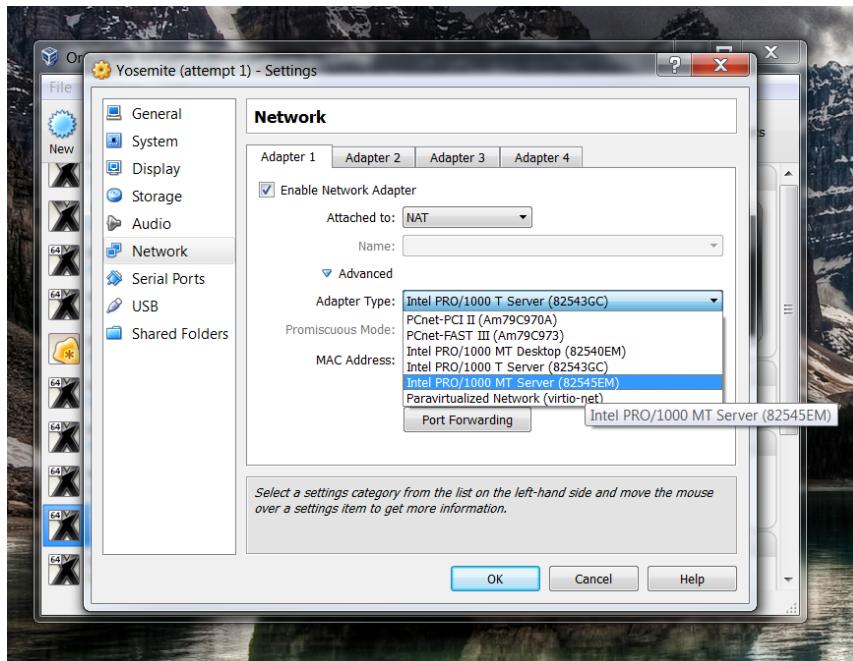


NOTE 1: One common issue with Yosemite Zone is that it tends to lag out of the account creation process, and skip straight to the Mac OS X login screen before you can make your account. If this happens, simply log into Mac OS X with the following credentials:

Username: root
Password: niresh

This will log you into the "root" account of Mac OS X. From here, open the System Preferences app, go to "Users & Groups", and create your own account. (We don't recommend that you use the root account permanently, because it is insecure.)

NOTE 2: Another common issue with Yosemite Zone is that the ethernet (internet) might not work immediately within your virtual machine. If this is the case, you may be able to fix the problem by switching your virtual machine to a different Network Adapter.

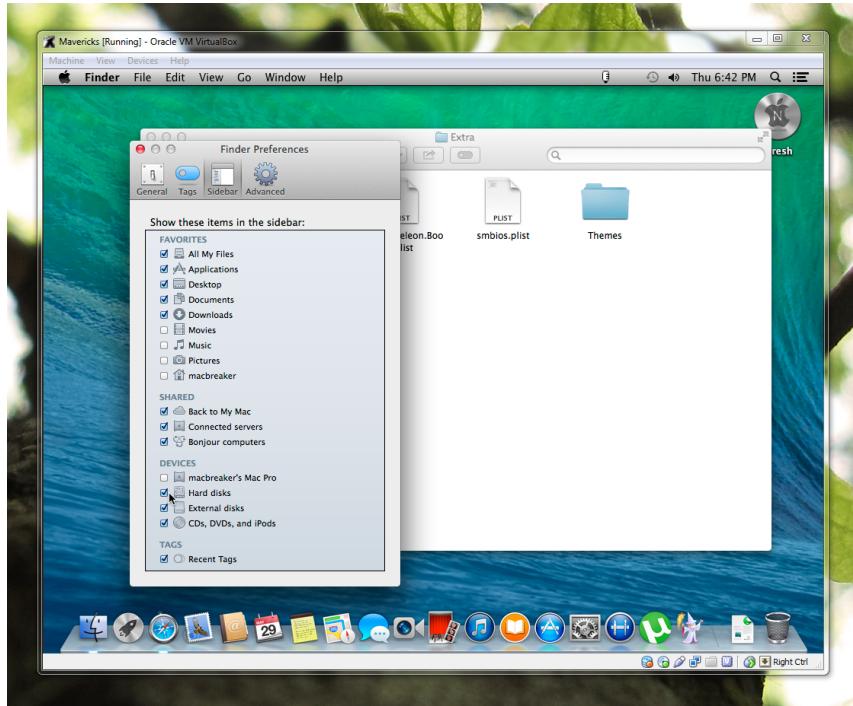


To do this, turn off your virtual machine. Then select your virtual machine (single-click) from the main window of Virtualbox, and open up the settings. Go to "Network", and open up the "Advanced" section. From there, change the "Adapter Type" from the default "Intel PRO/1000 T Server" to the alternative "Intel PRO/1000 MT Server" instead.

Step 6: Make the screen bigger

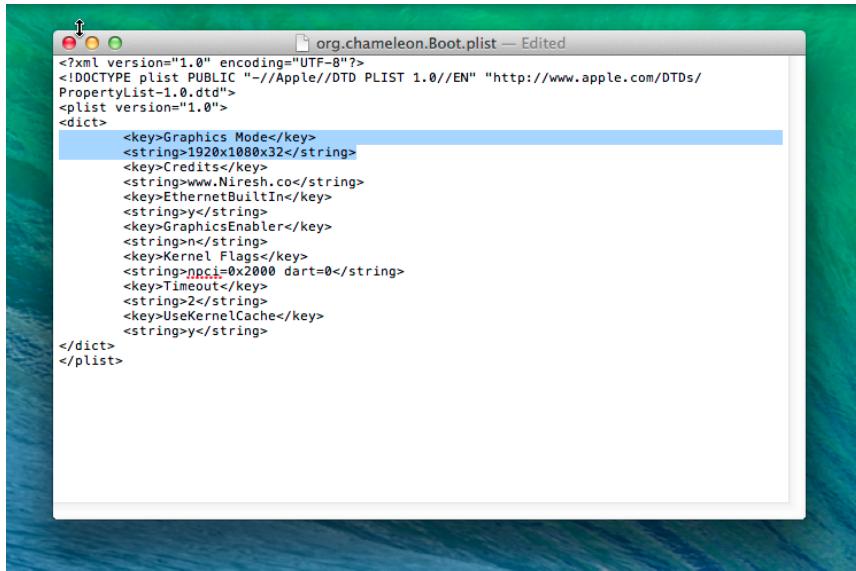
Though this step is optional, I still recommend you do it anyways. Anyways, when you first use your virtual machine, you'll probably notice one thing: your screen resolution is 1280x1 (or 1024x768 if you forgot to turn off GraphicsEnabler=Yes). Since Virtualbox doesn't "technically" support Mac OS X, there's no official way to change this. But here's how you can change it anyways.

First, you need to access org.Chameleon.boot.plist, the settings file for your virtual machine's Mac OS X bootloader. You can do this from Finder, the file browser built into Mac OS X. However, Finder hides your hard drives by default. To unhide them, open Finder, and click on File -> Preferences in the menu bar at the top of Mac OS X. Under the "Sidebar" settings, check "Hard disks", so that Finder will display your virtual machine's hard disks in the sidebar.



Once that's done, access your virtual machine's main hard drive through Finder, and go to the folder "Extra". Open the file org.Chameleon.boot.plist. Between <dict> and </dict> in the file, insert the following line.

```
<key>Graphics Mode</key>
<string>1920x1080x32</string>
```



You can change "1920x1080x32" to whatever resolution best fits your monitor. For instance, if you want to use the 1600x900 resolution, type in "1600x900x32". Once you've saved it, off the virtual machine.

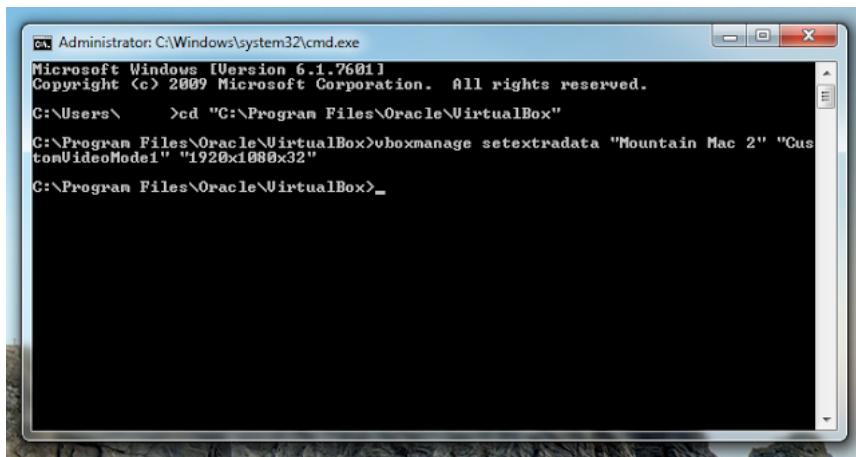
Next, turn off your virtual machine. Open the Command Prompt in Windows (make sure you are logged into an Administrator account on Windows). You can do this by opening the Start Menu, and typing "command prompt" into the Start Menu search bar. Then, type the following command into the Command Prompt.

```
cd "C:\Program Files\Oracle\VirtualBox"
```

This command will change the focus of the Command Prompt to the program folder for Virtualbox (if you installed Virtualbox somewhere different, then change the command to wherever you installed it). Next, type in this command:

```
vboxmanage setextradata "Name of virtual machine" "CustomVideoMode1" "1920x1080x32"
```

This command activates "vboxmanage", a command-line program included with Virtualbox that allows you to edit the properties of your virtual machine, including its built-in resolutions. Replace "Name of virtual machine" with the name of your virtual machine-- you can find the name of your virtual machine in the left pane of the Virtualbox main window (in the screens below, my virtual machine is named "Mountain Mac 2"). Replace "1920x1080x32" with whatever resolution you're using.



Press the enter key to submit the command. Once that's done, start your virtual machine again. Your virtual machine will now boot Yosemite in full resolution. Congrats!

Recap

I'll just repeat what I said in my other two Virtualbox guides. Installing Mac OS X on a virtual machine is excellent practice for the real thing: [installing Mac OS X on your actual computer](#). Don't get too comfortable, though. Compared to most computers, Virtualbox virtual machines are very "vanilla", meaning that they're very compatible with Mac OS X in the first place. I can't count on being that lucky with a real PC.

And even if you don't plan on doing this for real, with a Hackintosh, it's still a really cool thing to try out over the weekend.