



Bringing the Eko VM Home (202)

This Howto shows how to install VirtualBox and transfer the Linux Eko VM that is used in the CIS 90 course. VirtualBox is a free download and can be installed on Windows, Linux or Mac OS X. This Howto will demonstrate installation on a Windows 7 computer.

Supplies:

- A fast PC at home
 - 2+ GB memory recommended
 - o 5 GB free disk space minimum
- VirtualBox 3.2.6 or later
 http://dlc.sun.com/virtualbox/vboxdownload.html
- The hard drive file for Eko
 - o available on any of the CIS-Lab-XX stations in the CIS Lab
 - o the filename is 90-eko-master.vdi
 - located on the D drive (D:\cis90\VirtualBox\HardDisks)
- USB drive (to transport the VM)
 0 4+ GB required

Overview

VMs or virtual machines can be moved or copied to another computer. A VM is stored on one or more files. To move a VM you must first move these files from one physical computer to another.

The steps involved to bring the Eko VM home from school are:

- 1. At home, install VirtualBox
- 2. At school, obtain the Eko VM hard drive file
- 3. At home, create a new Eko VM
 - a. Clone a new unique drive
 - b. Add the new hard drive into VirtualBox
 - c. Create a new VM using the new hard drive
 - d. Configure the VM's NIC for Internet access

Step 1 - At home, install VirtualBox

Download and install version 3.2.6 or higher using the link above. You can take all the

defaults for the installation.



Step 2 - At school, obtain the Eko VM hard drive

The 24 stations in the classroom (Room 2501) and the 10 CIS-Lab-*XX* stations in the CIS lab (Building 1400) all have the Eko VM installed. Locate the file *90-eko-master.vdi* on the *D: drive* in the folder *D: \cis90\VirtualBox\HardDisks* and copy this file to your USB drive.



Step 3 - At home, create a new Eko VM

Copy the *90-eko-master.vdi* file from your USB drive to the location on your home computer containing hard drives for VirtualBox. If you don't know where this is, run VirtualBox and

on the menu select *File > Preferences*. Stretch the VirtualBox – Settings window so you can see the full path to the *HardDisks* folder.

🄗 VirtualBox - Se	ettings ? ×
General	General
Input Update	Default Hard Disk Folder: C:\Users\Administrator\.VirtualBox\HardDisks
Language	Default Machine Folder: 🏭 C:\Users\Administrator\.VirtualBox\Machines 🔹
🗗 Network	VRDP Authentication Library: 🐻 VRDPAuth
	Select a settings category from the list on the left-hand side and move the mouse over a settings item to get more information.
	<u>Q</u> K Cancel <u>H</u> elp

Next copy the *90-eko-master.vdi* file from your USB drive to your *HardDisks* folder. If you have not created any new VMs yet you will need to manfully make this folder.



a) Clone a new unique hard drive

This step makes a new hard drive with unique UUID's using the hard drive you got at school. There may be a easier way to do this but this is still the fastest way I've found. You must bring up a DOS command box (*Start > Run > cmd*) then type the following two commands:

cd "c:\Program Files\Oracle\VirtualBox" vboxmanage clonevdi 90-eko-master.vdi eko.vdi

🖅 Run	
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
<u>O</u> pen:	cmd 👻
	This task will be created with administrative privileges.
	OK Cancel <u>B</u> rowse

Use Tab completes to simplify typing the first command. For example, type *cd c:* *pro* then press the tab key after typing the *o* of *pro*)



This creates a new hard drive file, eko.vdi, in your HardDisks folder.

b) Add the new drive into VirtualBox

VirtualBox has a Virtual Media Manager to keep all your virtual drives, CDs and DVDs in a single repository. From the menu bar, select *File > Virtual Media Manager...*

🛐 Virtual Media Manager	
Actions	
Wew Add Remove Refresh Hard Disks A CD/DVD Images Eloppy Images	
Name	Virtual Size Actual Size
Location: Type (Format): Attached to:	
	QK Help



🕤 Virtual Media Manager		- 0 ×
Actions		
Image: Solution of the second seco		
Name	Virtual Size	Actual Size
eko.vdi	5.00 GB	3.36 GB
Location: C:\Users\Administrator\.VirtualBox\HardDisks\eko.vdi Type (Forma): Normal (VD) Attachet D: NorAttached		
	QK	<u>H</u> elp

c) Create a new VM using the hard drive

Click the New button to create a new VM

Oracle VM VirtualBox File Machine Help	
	🖗 Qetals 🙆 Stateshots 🖗 Description
New Settings Start Discard	Welcome to VirtualBox!
	The left part of this window is a list of all virtual machines on your computer. The list is empty now because you haven't created any virtual machines yet.
	In order to create a new virtual machine, press the New button
	You can press the F1 key to get instant help, or visit www.virtuabox.org for the latest information and news.

Use the wizard to create a new VM named eko, for Ubuntu Linux, with 512MB RAM and use the new drive we just made (*eko.vdi*)

? **	2 ×
Create New Virtual Machine	Create New Virtual Machine
Welcome to the New Virtual Machine Wizard!	VM Name and OS Type
This wizard will guide you through the steps that are necessary to create a new virtual machine for VirtualBox.	Enter a name for the new virtual machine and select the type of the guest operating system you plan to install onto the virtual machine.
Use the Next button to go to the next page of the wizard and the Back button to return to the previous page. You can also press Cancel if you want to cancel the execution of this wizard.	The name of the virtual machine usually indicates its software and hardware configuration. It will be used by all VirtuaBox components to identify your virtual machine.
	eko
	OS Type Operating System: Linux
	Version: Ubuntu
Next Cancel	Next Cancel

Starts here





Vir	tual Hard Disk
Sele new pres	tt a hard disk image to be used as the boot hard disk of the virtual machine. You can either create a hard disk using the New button or select an existing hard disk image from the drop-down list or by sing the Existing button (to invoke the Virtual Media Manager dialog).
If yo usin	u need a more complicated hard disk setup, you can also skip this step and attach hard disks later g the VM Settings dialog.
The	recommended size of the boot hard disk is 8192 MB.
	Boot Hard Disk
C) Create new hard disk
6) Use existing hard disk

Take the default

Use existing eko.vdi drive



d) Configure the VM's NIC for Internet access

On the Details tab, click on Network



The select *Bridged Adapter* to allow the VM to share the network interface used by your physical computer then click OK.

🔅 eko - Settings	? 🗙
General	Network
 Display Storage Audio Network Serial Ports USB Shared Folders 	Adapter <u>1</u> Adapter <u>2</u> Adapter <u>3</u> Adapter <u>4</u> © Enable Network Adapter <u>At</u> tached to: Bridged Adapter <u>•</u> <u>Name:</u> Marvell Yukon 88E8039 PCI-E Fast Ethernet Controller <u>•</u> b Adjvanced
	Select a settings category from the list on the left-hand side and move the mouse over a settings item to get more information.

You now have your own Linux computer on your Windows computer. Click the Green Start arrow to fire it up!



If your mouse ever gets "stuck" inside the VM, just press the Right Ctrl key to release it.