

CSI3131: Operating Systems Winter 2012

How to setup Linux virtual machine (SiteDev) in VirtualBox.

The file *LinuxVM_VirtualBoxWindows7.ova* is a packaged Linux Virtual Machine (SiteDev) that can be used to import the virtual machine into VirtualBox, complete with settings. The settings include:

- Configuration of the network card that uses DHCP to obtain a network address.
- Configure to connect to the “Virtual Box Host Only Adaptor”
- Necessary hard drive configuration to read the Linux Virtual Hard Drive.

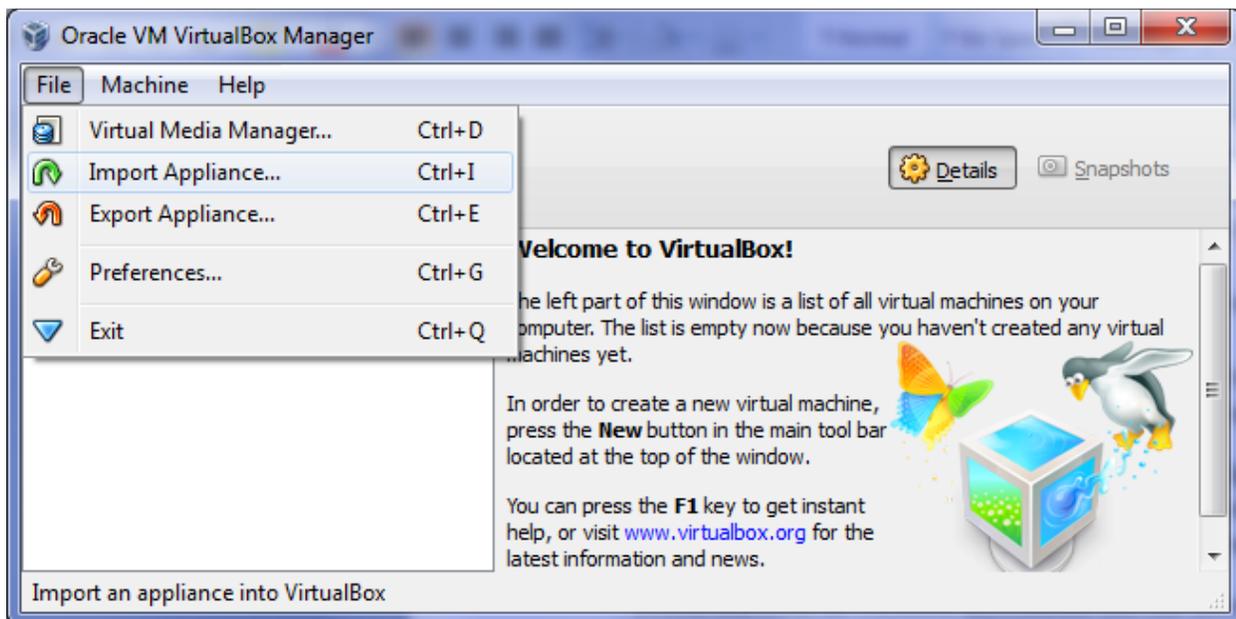
The Virtual Machine has been configured to align as much as possible with the default Virtual Box installation. But you may wish to check the network configuration of Virtual Box as described. The following instructions were developed using a Windows 7 system. The installation on other systems (such as MacOs) should be similar. There is a separate file for importing the file into the Mac - *LinuxVM_VirtualBoxMac.ova*. The network settings have a small difference between the 2 versions.

From the course website download the file *LinuxVM_VirtualBoxWindows7.ova*. Download and install virtual box from the following site:

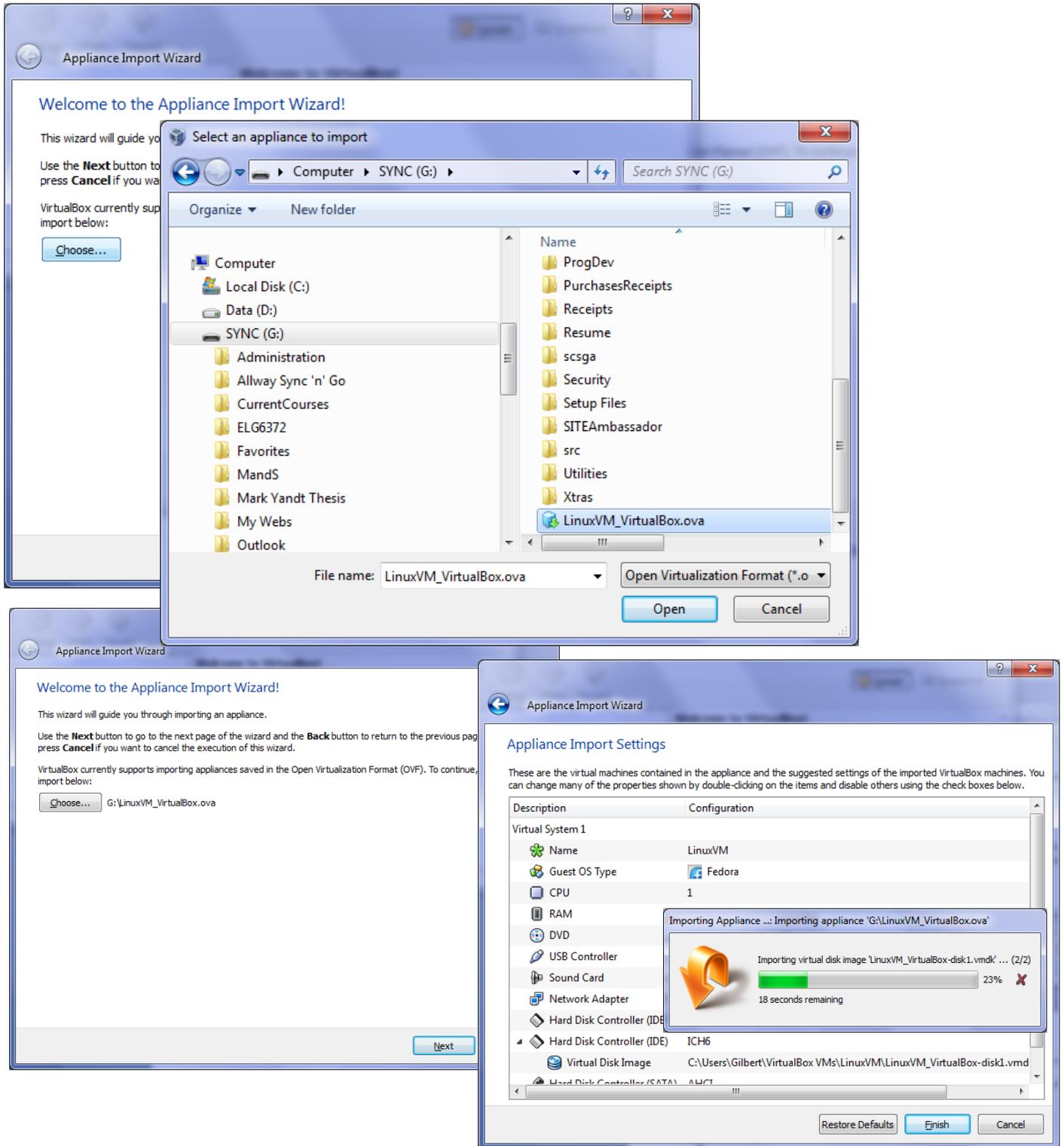
<http://www.virtualbox.org/wiki/Downloads>

Once installed, open virtualbox, and load the virtual machine as follows.

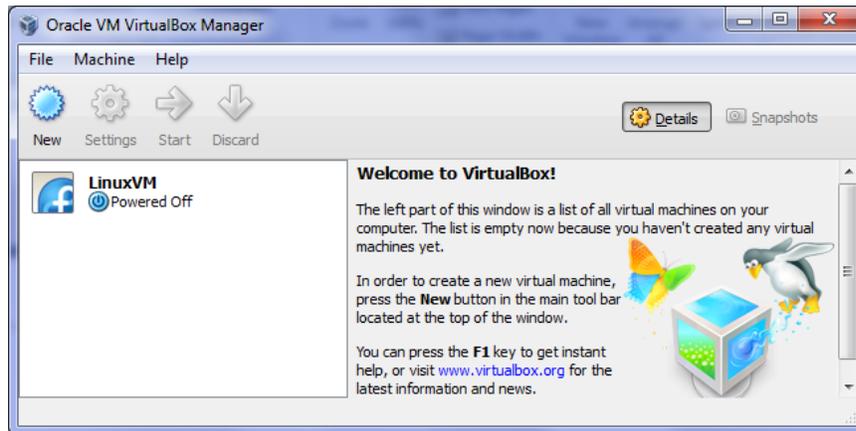
1. Start Virtual Box, select File | Import Appliance (or use keyboard shortcut Cntrl-I).



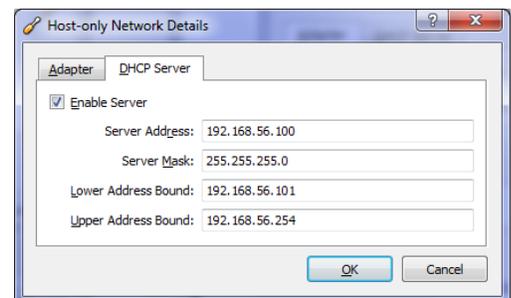
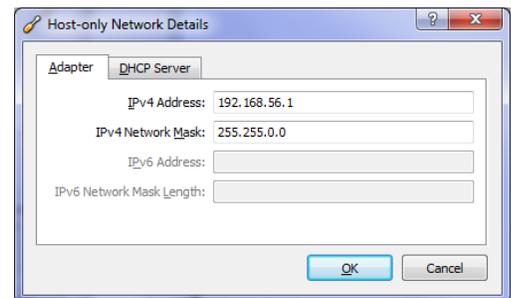
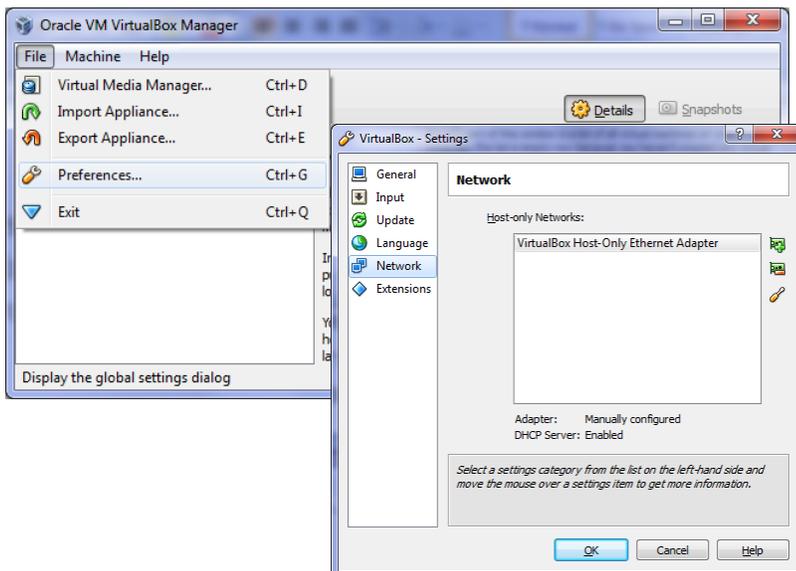
2. The Import Appliance Wizard will appear. Click on Choose and import the virtual machine from the file *LinuxVM_VirtualBoxWindows7.ova* as shown below.



3. When the machine is installed it shall appear in the original Virtual Box Manager window



4. Select the LinuxVM and click on Start to start the Virtual Machine. The user name and login for the virtual machine is *test1* and *site* respectively.
5. Use the following steps to ensure that the Virtual Box virtual network is properly setup. The virtual network used is the *Virtual Box Host Only Adaptor*.
 - a. The configuration window is accessed from the Virtual Box Manager by selecting the menu item File | Preferences to get the Virtual Box Settings window as shown below. Click on Network to view the network settings.
 - b. You should see the *Virtual Box Host Only Adaptor* in the window below the title "Hosts Only Networks". If not, then click on the first icon to the right with the + sign.
 - c. To view the settings of the network, click on the screwdriver icon (3rd one) to the right. The Adaptor and DNCP server settings should be set as shown below.



6. Logging from the host OS to the Linux VM. You may login to the virtual box from the SSH Client using the IP address of the Linux system as shown below. Use the user name/password *test1/site* to login.

The image displays two overlapping windows. On the left is an SSH Secure Shell client window titled 'default - SSH Secure Shell'. It features a menu bar (File, Edit, View, Window, Help) and a toolbar. Below the menu is a 'Quick Connect' section with a 'Profiles' button. The main text area shows the SSH client version (3.2.9) and copyright information. A 'Connect to Remote Host' dialog box is open in the foreground, containing the following fields: Host Name (192.168.56.101), User Name (test1), Port Number (22), and Authentication Method (Profile Settings). The dialog has 'Connect' and 'Cancel' buttons. On the right is a Linux VM terminal window titled 'LinuxVM [Running] - Oracle VM VirtualBox'. The terminal shows a user logging in as 'test1' and running the 'ifconfig' command. The output of 'ifconfig' shows the network configuration for the 'eth0' interface, including the IP address 192.168.56.101. The user then runs 'su' to become root. A callout box points to the 'su' command in the terminal, stating: 'su - command gives administrator access. Use the password site.' Another callout box points to the 'ifconfig' output, stating: 'The ifconfig command lists the network configuration. Use the IP address shown in the SSH client to connect.'