Virtual Machine Installation Instruction

Introduction

The Debian virtual machine is provided as an Open Virtual Format image (*.ova). Virtual box is a cross-platform virtualization software. To download it visit the following url:
https://www.virtualbox.org/wiki/Downloads

Follow the installation instructions for your specific Operating System. VirtualBox supports Windows, OS X, Linux, and Solaris.

Download the virtual machine and its md5sum at the following urls:

https://www.cs.stevens.edu/~dduggan/Teaching/CS492/debian.ova
https://www.cs.stevens.edu/~dduggan/Teaching/CS492/debian.md5

After the download verify the md5 of *debian.ova* is the one reported within the *debian.md5* file. In Windows, open the prompt and run the following command:

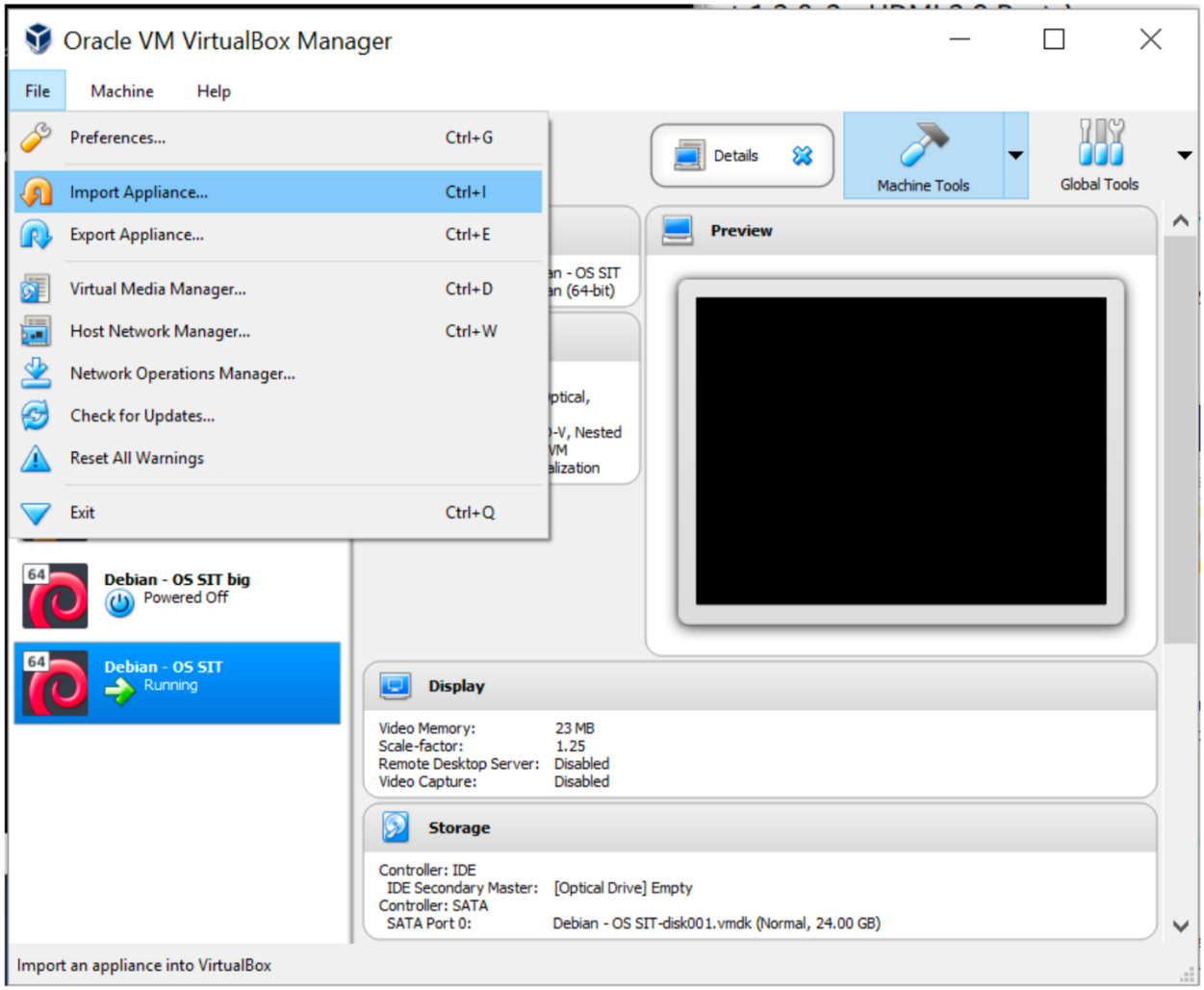
```
C:\> certutil -hashfile debian.ova MD5
```

In OS X, Linux and Solaris instead run the following command: `$ md5sum debian.ova`

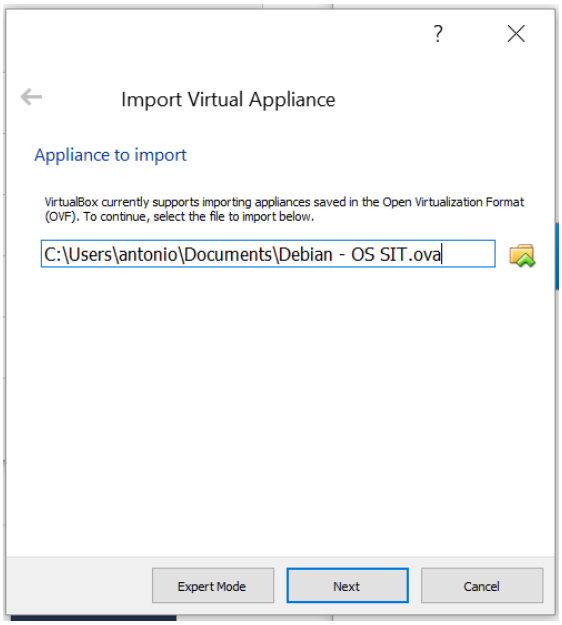
In each case the output of your command should be the same of the content of the *debian.md5* file.

Importing the Virtual Machine Image

Open VirtualBox and click File -> Import Appliance

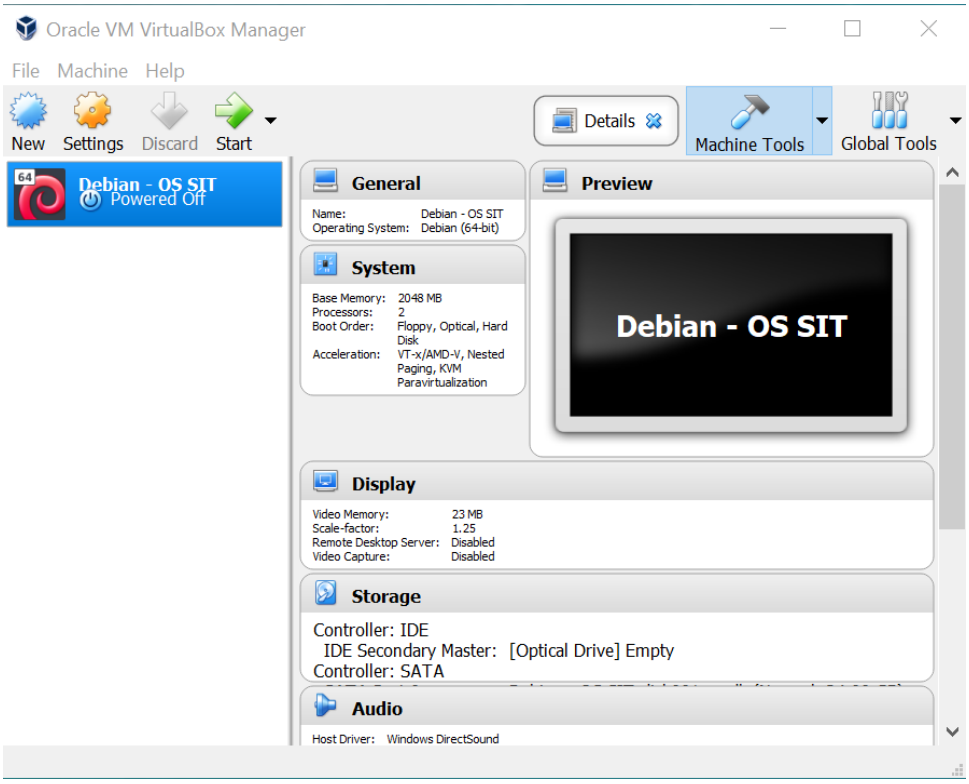


The following windows will pop up, please select the *debian.ova* by using clicking on the icon, and click Next.



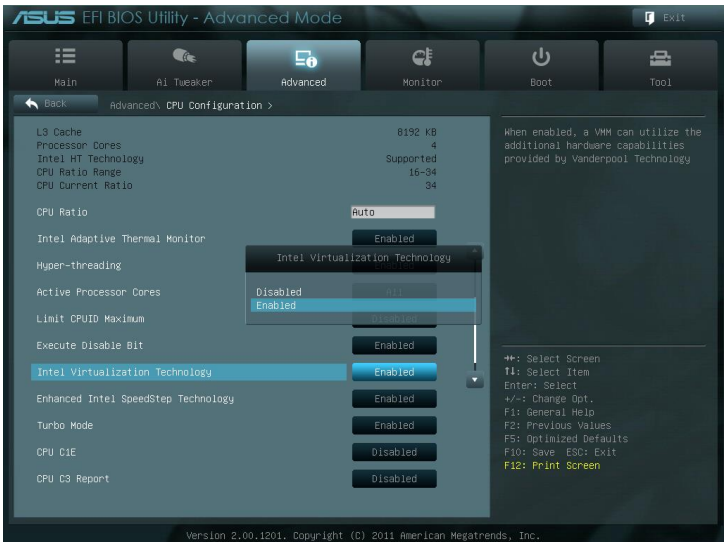
The next windows pops up. Keep all settings as in the figure and select “Reinitialize the MAC address of all network cards”.

Your VM is now ready to be used, just double click on it, or click START.



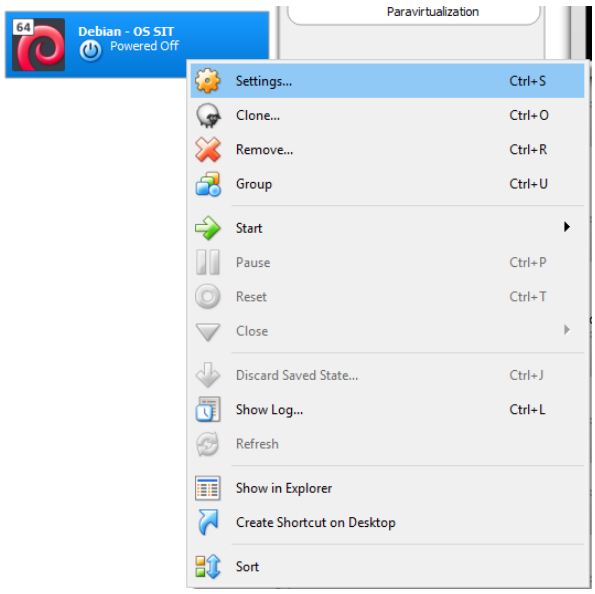
Troubleshooting

If your VM fails during launch with a VT-X error message, it means that in your computers BIOS settings the Intel Virtualization Technology is disabled (or equivalent technology on your AMD box). You will have to enter your computers BIOS settings and enable VT-X. As an example the following picture shows how to enable it on an ASUS motherboard. You can look on the web on how to enable it for your specific type of motherboard.



Connecting to the Virtual Serial in Windows

With the virtual machine turned off (the virtual machine is not running), right click on the virtual machine and select “Settings”



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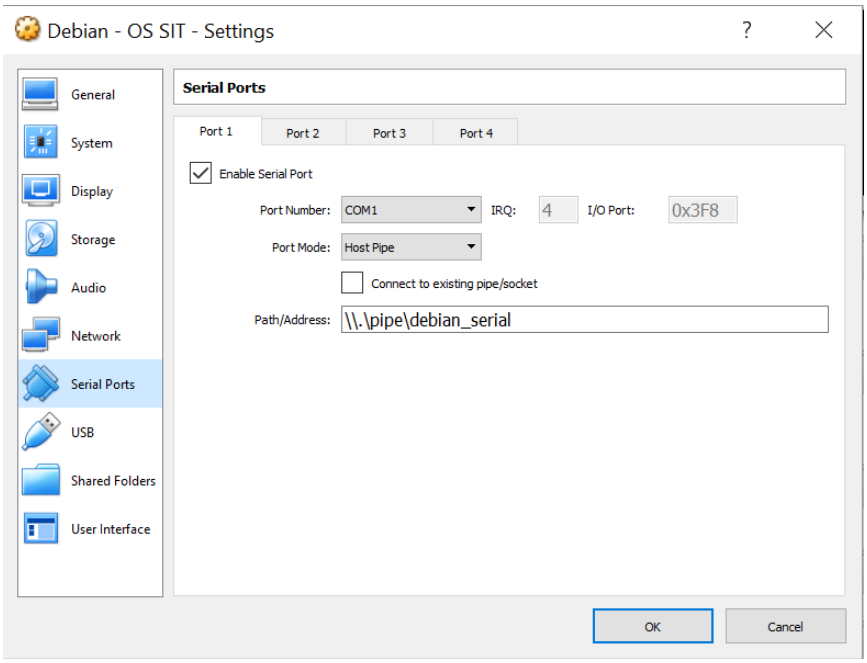
On left side of the window click on Serial Ports. On the left side of the window replicate the same configuration as in the picture below:

1. select “Enable Serial Port”
2. *Port Number* should be “COM1”
3. Port *Mode* should be “Host Pipe”
4. deselect “Connect to existing pipe/socket”
5. *Path/Address* must be set to \\.\pipe\debian_serial

Click “OK” to apply the configuration



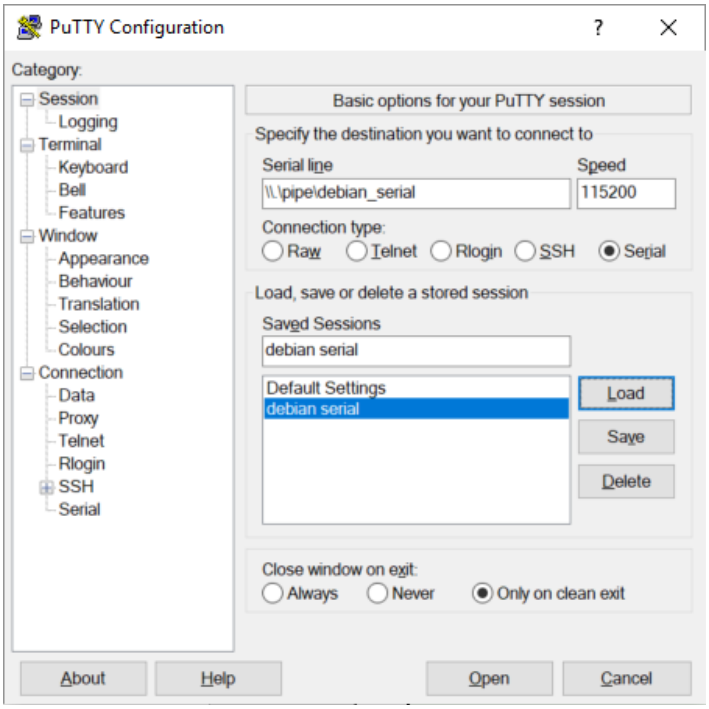
Download Putty from the following url:

https://www.putty.org/

Follow the instructions for your Operating System in order to make sure it is correctly installed. Start Putty, configure it as in the picture below.

1. *Serial line* should be \\.\pipe\debian_serial
2. *Speed* should be “115200”
3. *Connection type* should be “Serial”

Then click “Open” to connect.

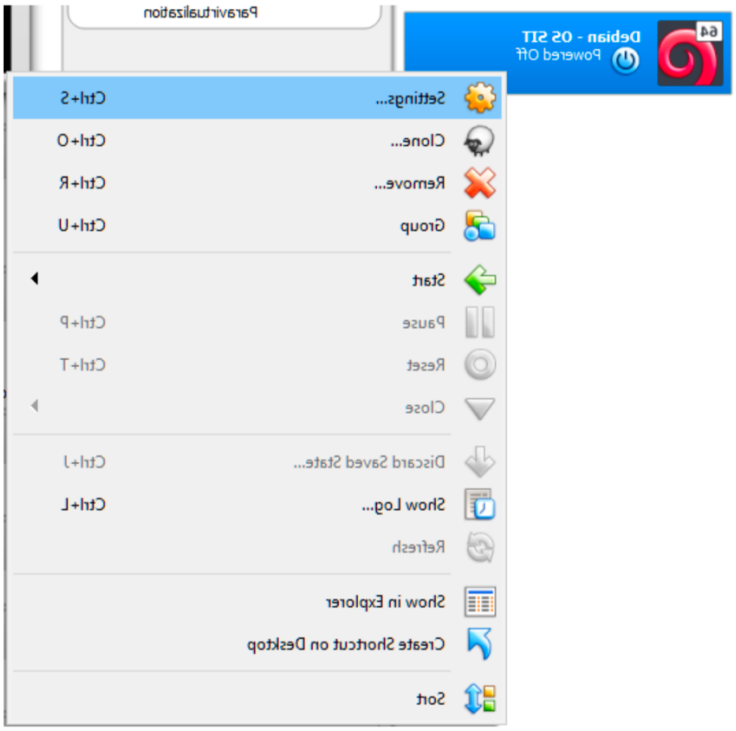


WARNING

The connection succeeds only if the virtual machine is actually running.

Connecting to the Virtual Serial in UNIX

With the virtual machine turned off (the virtual machine is not running), right click on the virtual machine and select “Settings”.



On left side of the window click on Serial Ports. On the left side of the window replicate the same configuration as in the picture below:

1. select “Enable Serial Port”
2. *Port Number* should be “COM1”
3. Port *Mode* should be “Host Pipe”
4. deselect “Connect to existing pipe/socket”
5. *Path/Address* must be set to /tmp/debian_pipe

Click “OK” to apply the configuration

Download minicom via your package manager

Arch

1. pacman -Syu
2. pacman -S minicom
3. minicom -D unix#/tmp/debian_pipe

Debian / Debian based

1. sudo apt-get install minicom
2. minicom -D unix#/tmp/debian_pipe

Mac

1. brew install minicom
2. minicom -D unix#/tmp/debian_pipe