

ROOT TUTORIAL

Virtual Machine Installation Instructions

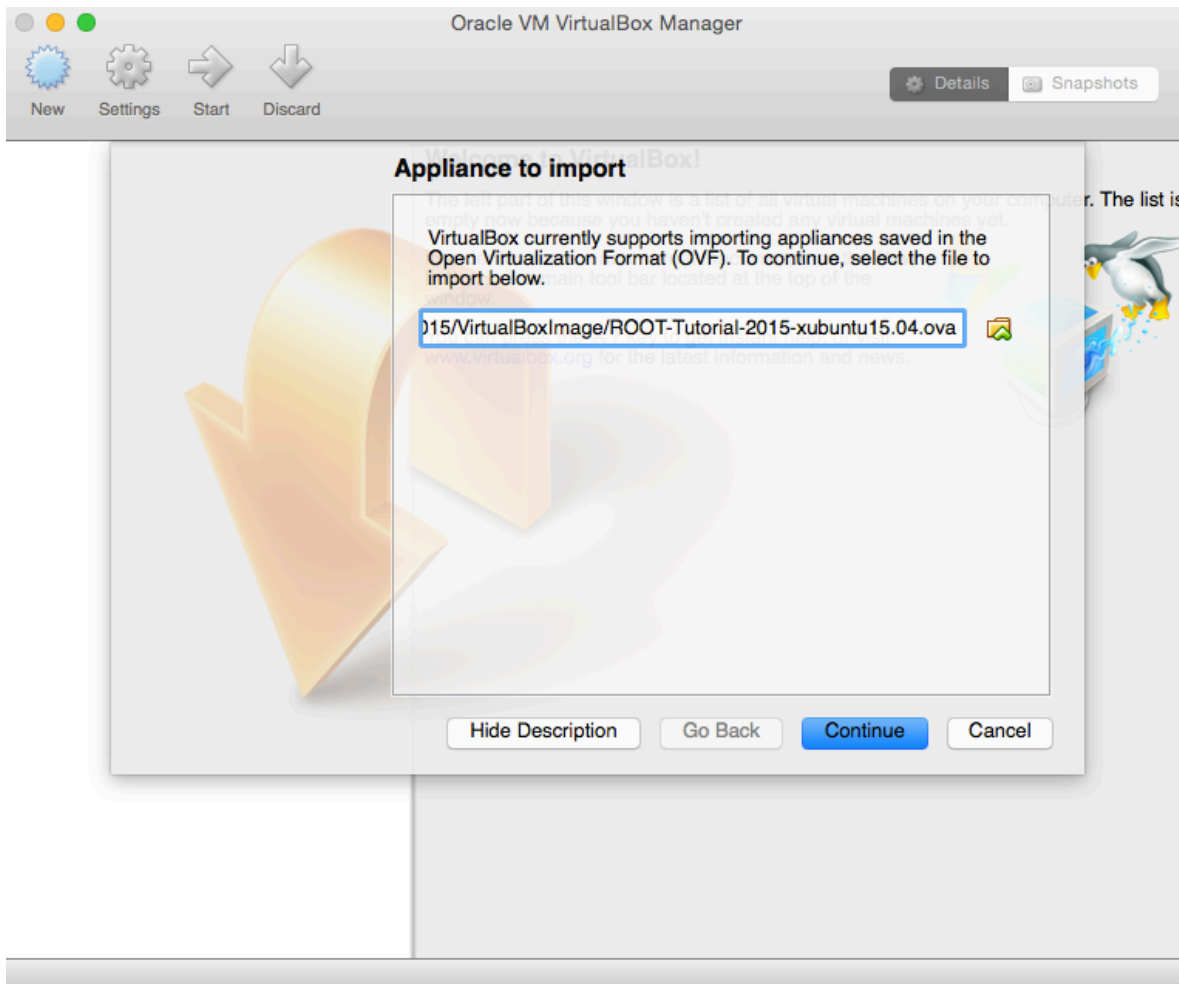


How To Get Started

- Install the latest VirtualBox on your machine:
<https://www.virtualbox.org>
- Download the Virtual Disk Image prepared for this tutorial:
 - <http://cern.ch/go/cqc6> Or the extended,
 - <https://dpiparo.web.cern.ch/dpiparo/SummerStudentTutorial2015/ROOT-Tutorial-2015-xubuntu15.04-v2.ova>
- Import the Appliance into VirtualBox (see next slide)

Import Appliance

From the menu “File” select “Import Appliance”

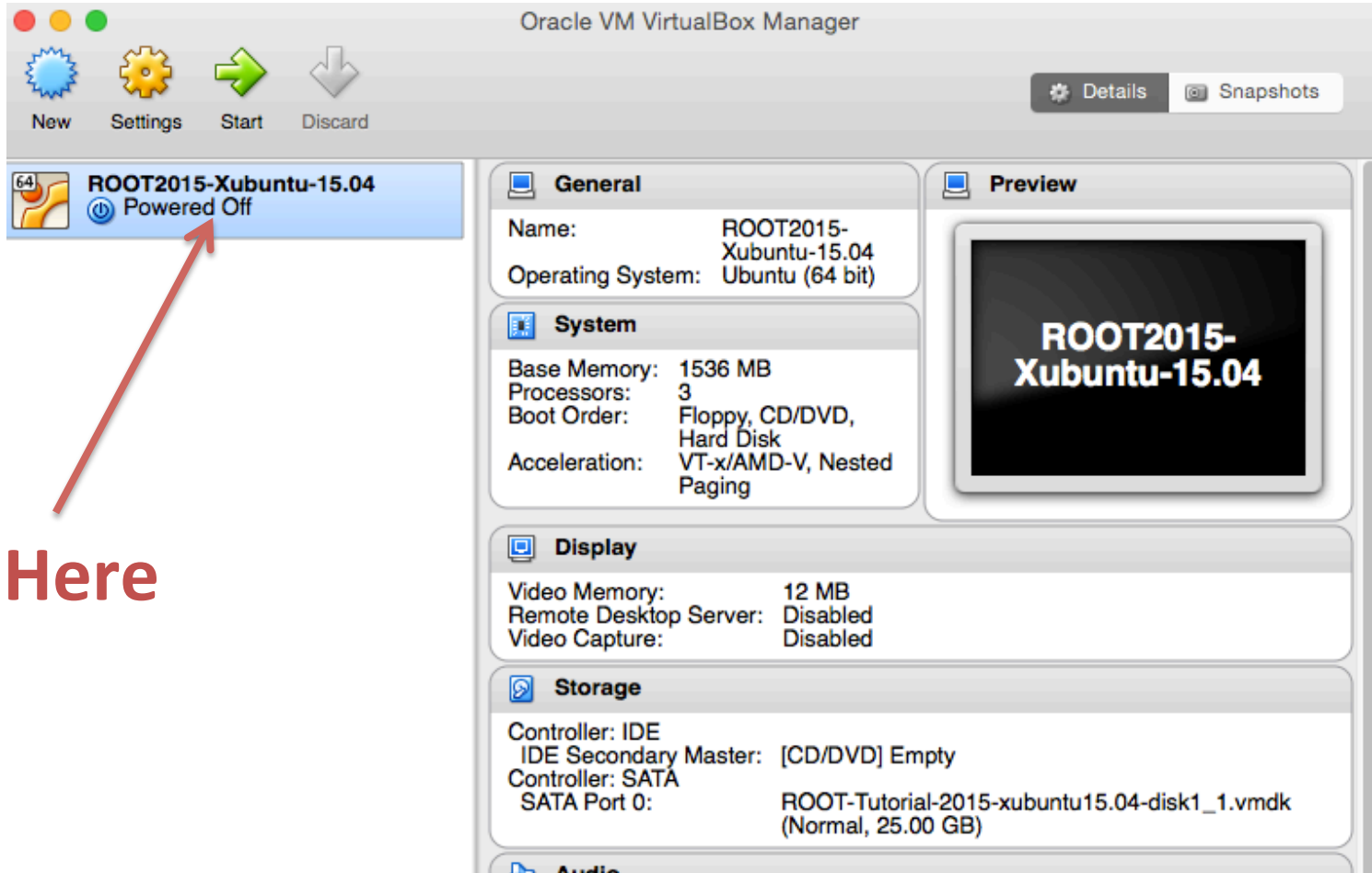


Reinitialise MAC Addresses

May not be needed: it depends on the platforms!



Boot the Machine

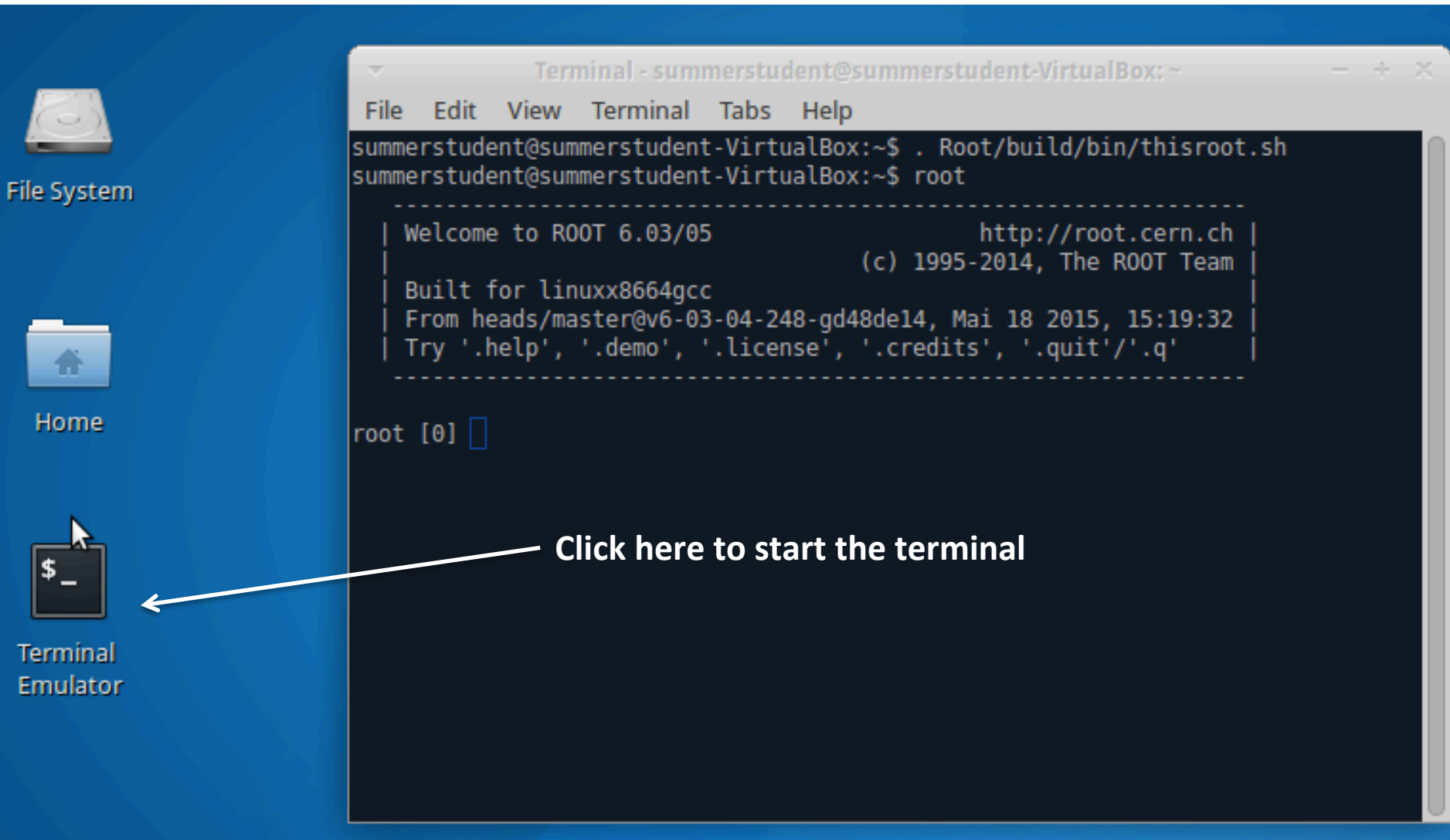


Click Here

USERNAME: SummerStudent

PASSWORD: root

Open a terminal and start ROOT



The image shows a Linux desktop environment with a blue background. On the left side, there are three desktop icons: a hard drive icon labeled "File System", a folder icon labeled "Home", and a terminal emulator icon labeled "Terminal Emulator". The terminal emulator icon is a black square with a white dollar sign and a white underscore. A white arrow points from the text "Click here to start the terminal" to the terminal emulator icon. In the center-right of the image, a terminal window is open. The terminal window has a title bar that reads "Terminal - summerstudent@summerstudent-VirtualBox: ~". The terminal content shows the following commands and output:

```
File Edit View Terminal Tabs Help
summerstudent@summerstudent-VirtualBox:~$ . Root/build/bin/thisroot.sh
summerstudent@summerstudent-VirtualBox:~$ root

-----
| Welcome to ROOT 6.03/05                               http://root.cern.ch |
|                                                         (c) 1995-2014, The ROOT Team |
| Built for linuxx8664gcc                               |
| From heads/master@v6-03-04-248-gd48de14, Mai 18 2015, 15:19:32 |
| Try '.help', '.demo', '.license', '.credits', '.quit'/'.' |
|-----

root [0] █
```

Click here to start the terminal

Just type root in the shell!

How do I get a bigger screen?

This is not crucial for this tutorial but you can install the so called “virtual box additions”

See <https://www.virtualbox.org/manual/ch04.html>

What if this fails?

If for some reasons, the installation of the vm fails and you cannot install ROOT6 on your system, you can open a graphical connection to a CERN lxplus machine (lxplus.cern.ch) using your cern account.

See next page for the instructions

Connecting to lxplus and setting up ROOT

If you are on a Linux or Mac system: just type

```
ssh -XY username@lxplus.cern.ch
```

If you are on Windows, you can follow instructions like this ones:

<https://wiki.utdallas.edu/wiki/display/FAQ/X11+Forwarding+using+Xming+and+PuTTY>

Once you have access to the remote shell, just type:

```
./afs/cern.ch/sw/lcg/external/gcc/4.8/x86_64-slc6/setup.sh
```

```
./afs/cern.ch/sw/lcg/app/releases/ROOT/6.04.00/x86_64-slc6-gcc48-opt/root/bin/thisroot.sh
```

(or see the instructions for AFS usage here:

<https://root.cern.ch/drupal/content/production-version-604>)