

# VirtualBox Walkthrough 2013

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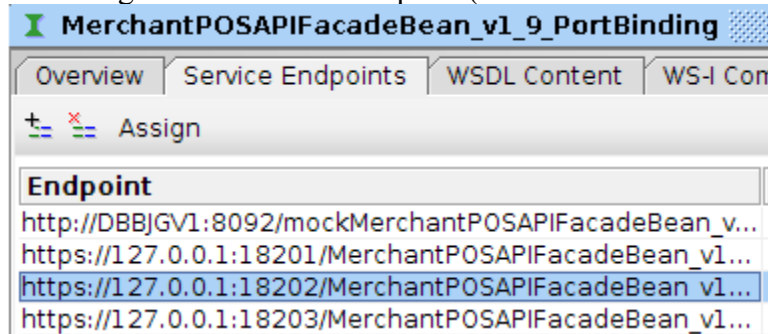
## QuickList

---

- Network
  - Use wired Ethernet first as Bridged
  - Verify Connection to Google
- SoapUI
  - /bin/ext/JARs
  - MCX Project XMLs
- PuTTY
  - Normal Port Settings worked with NAT
  - Browser requests to LAB/VAL access denied using a Bridged connection so...
  - Then use NAT and re-test PuTTY

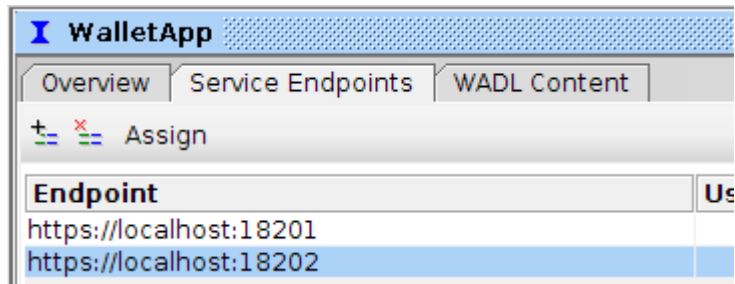
## WSDL Config/Endpoints

Use Assign to force it to all requests(Same as Pro Environment)

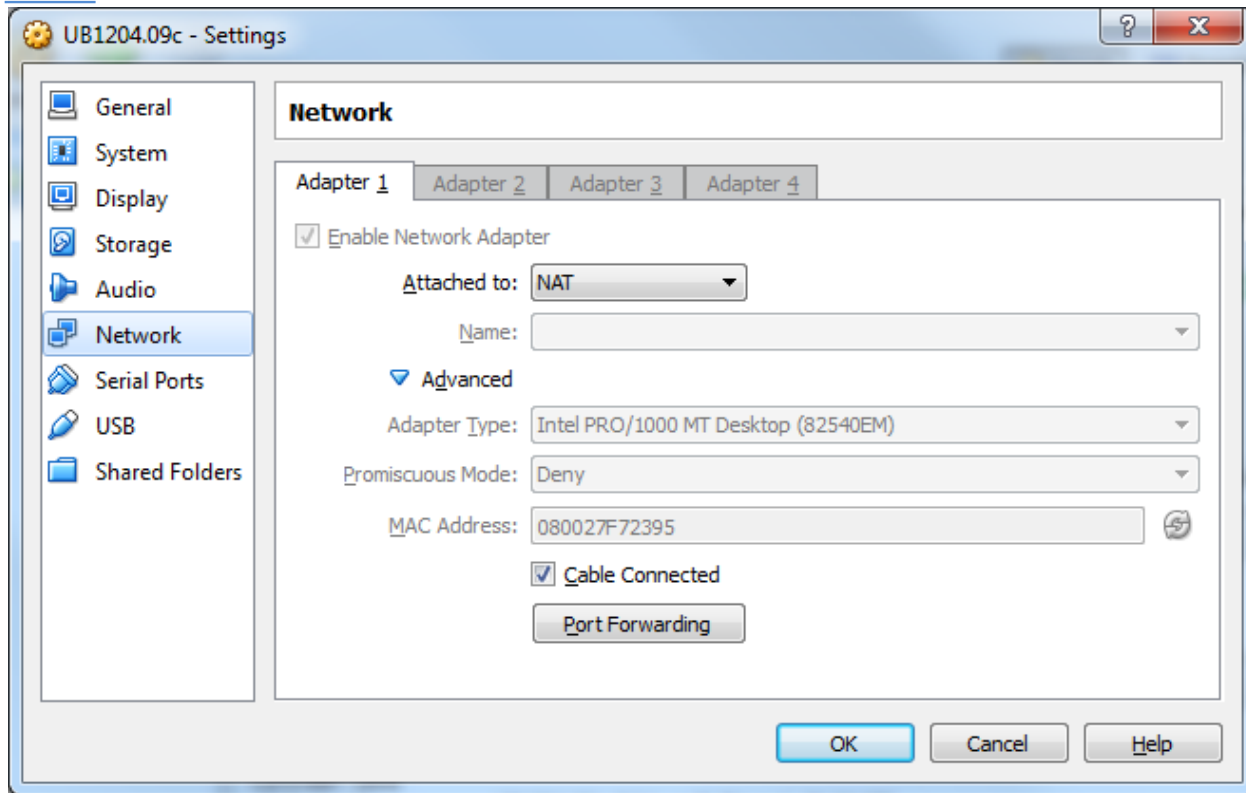


## WADL Config/Endpoints

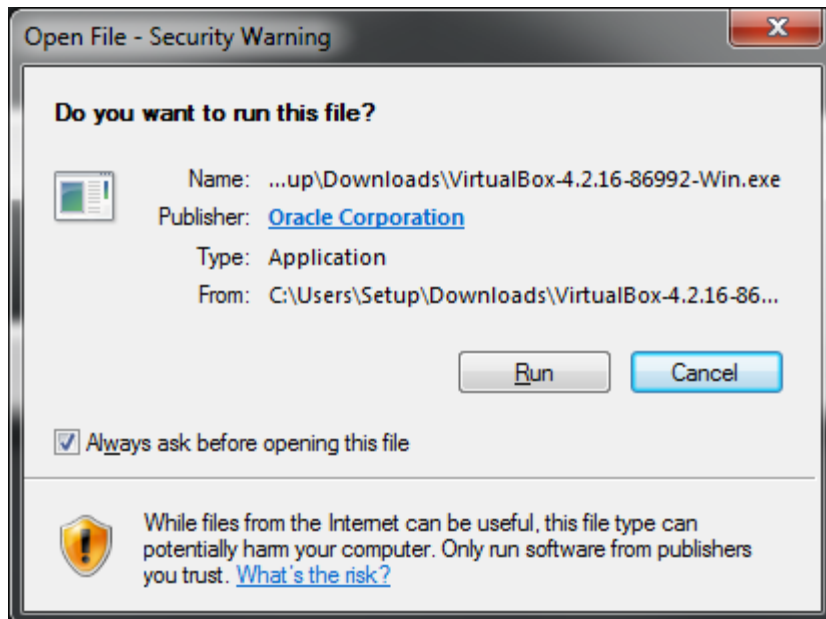
Use Assign to force it to all requests(Same as Pro Environment)

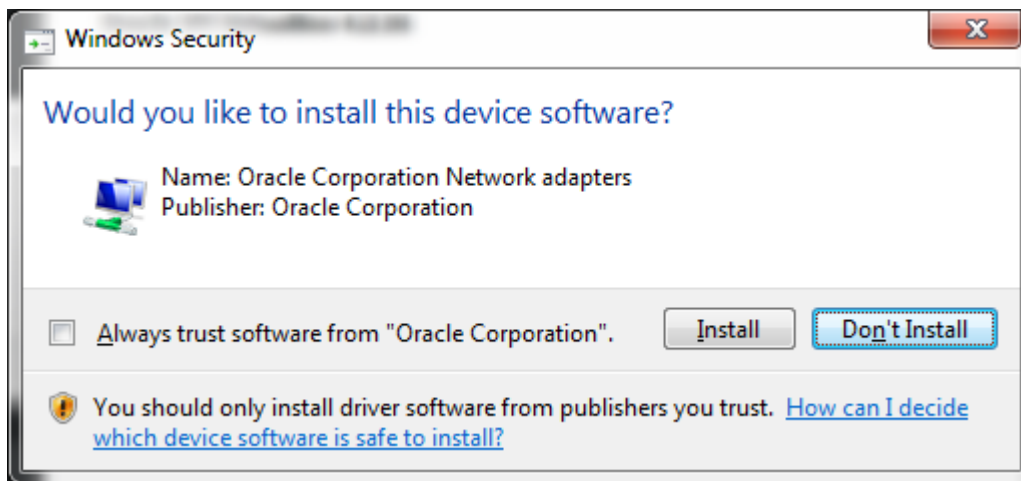


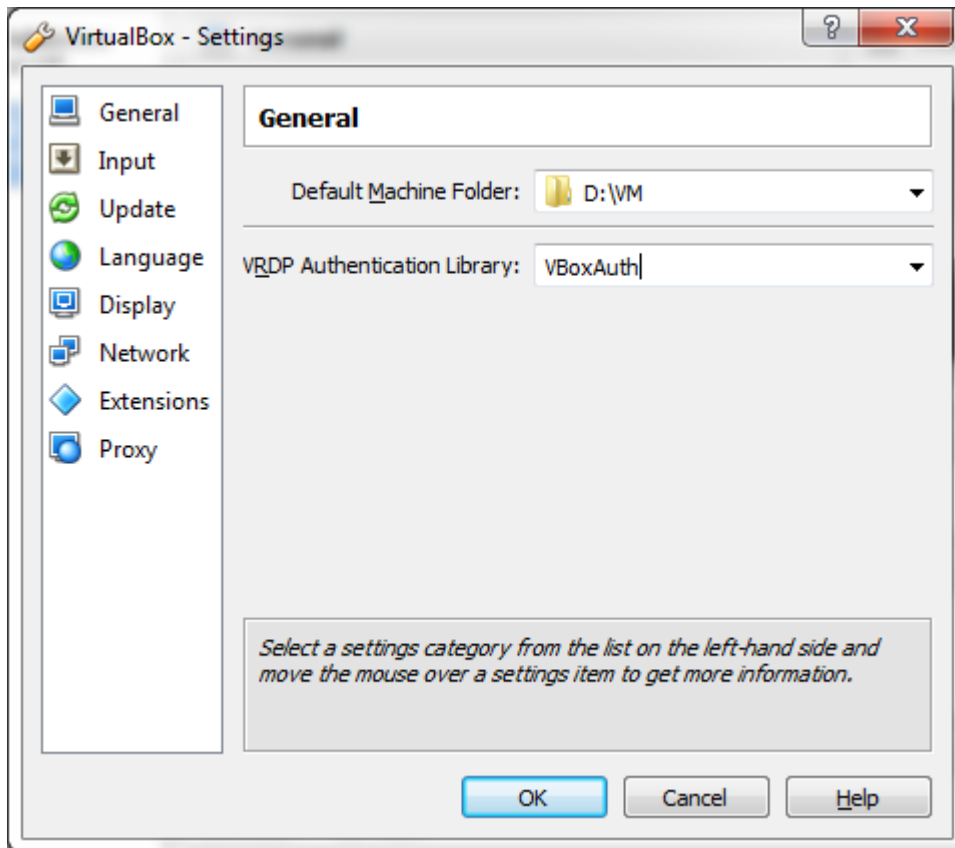
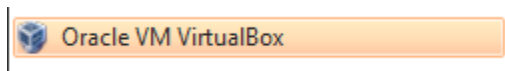
## NAT

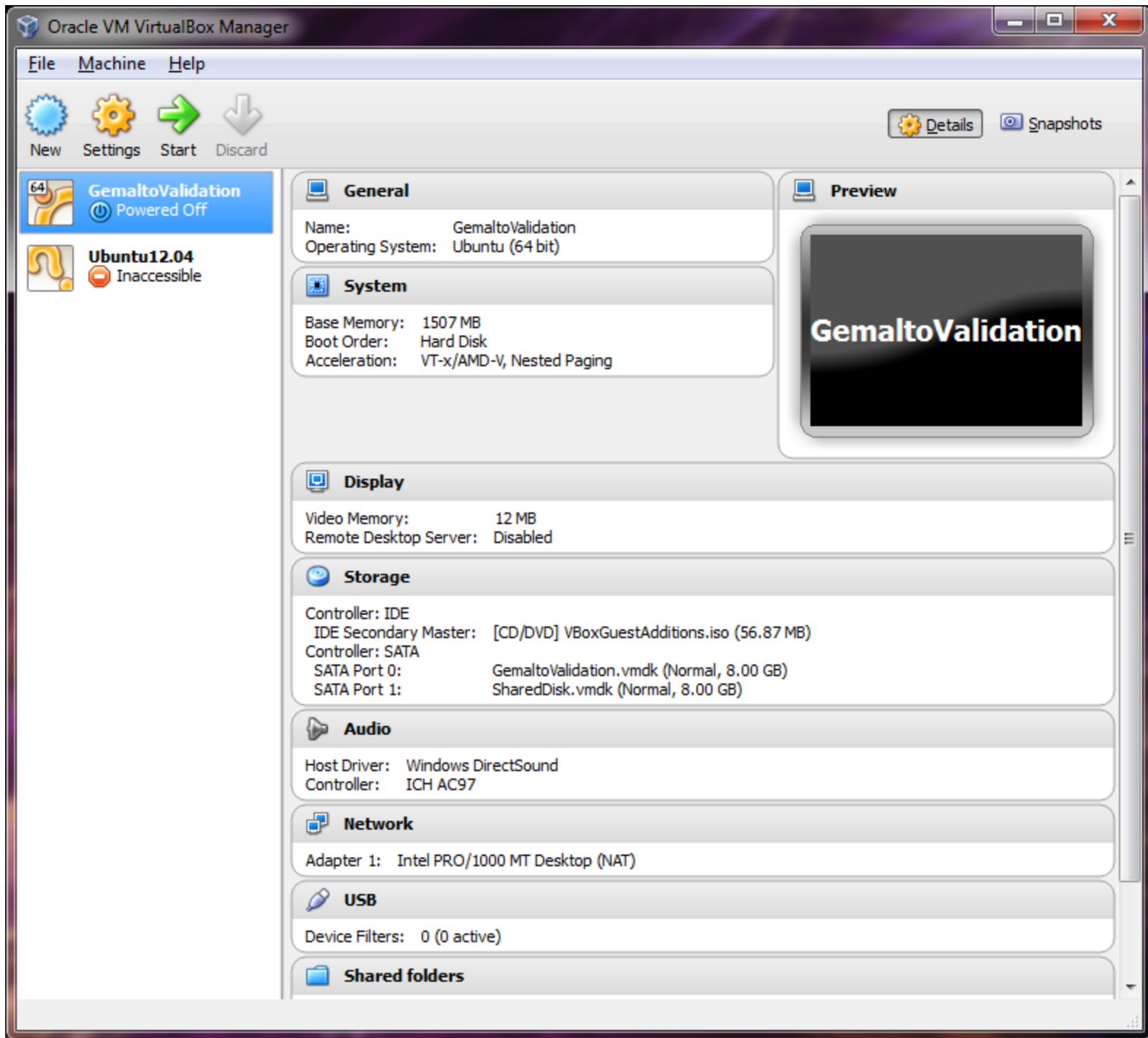


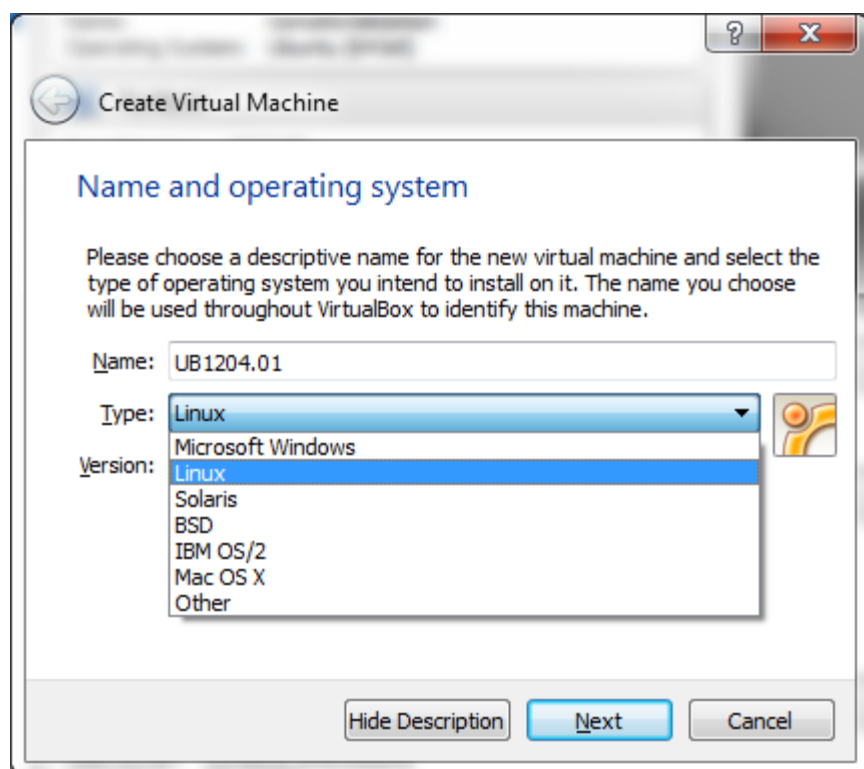
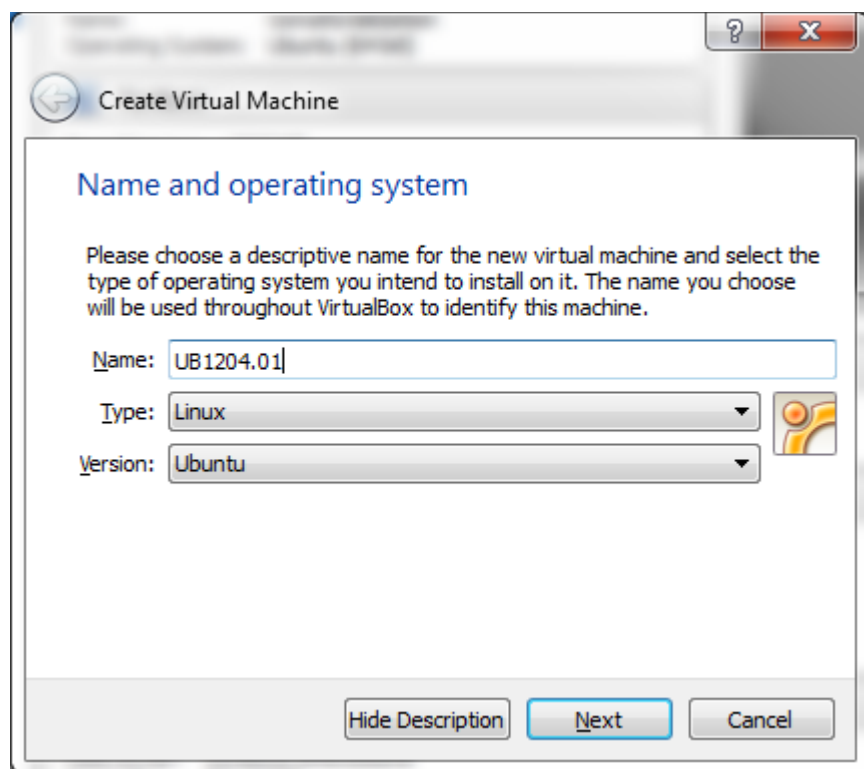
## VirtualBox Install

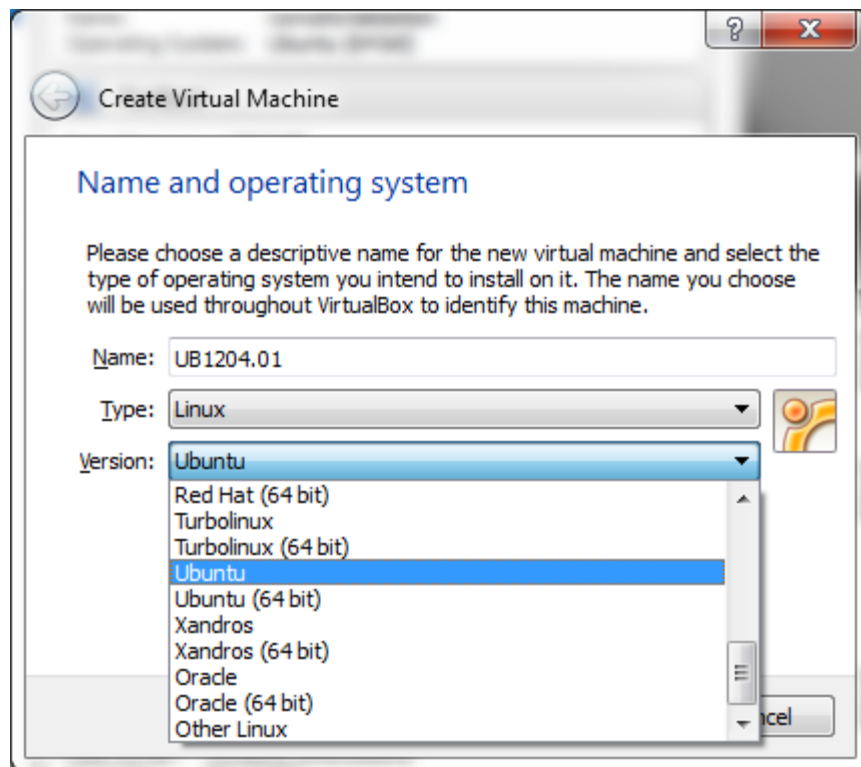




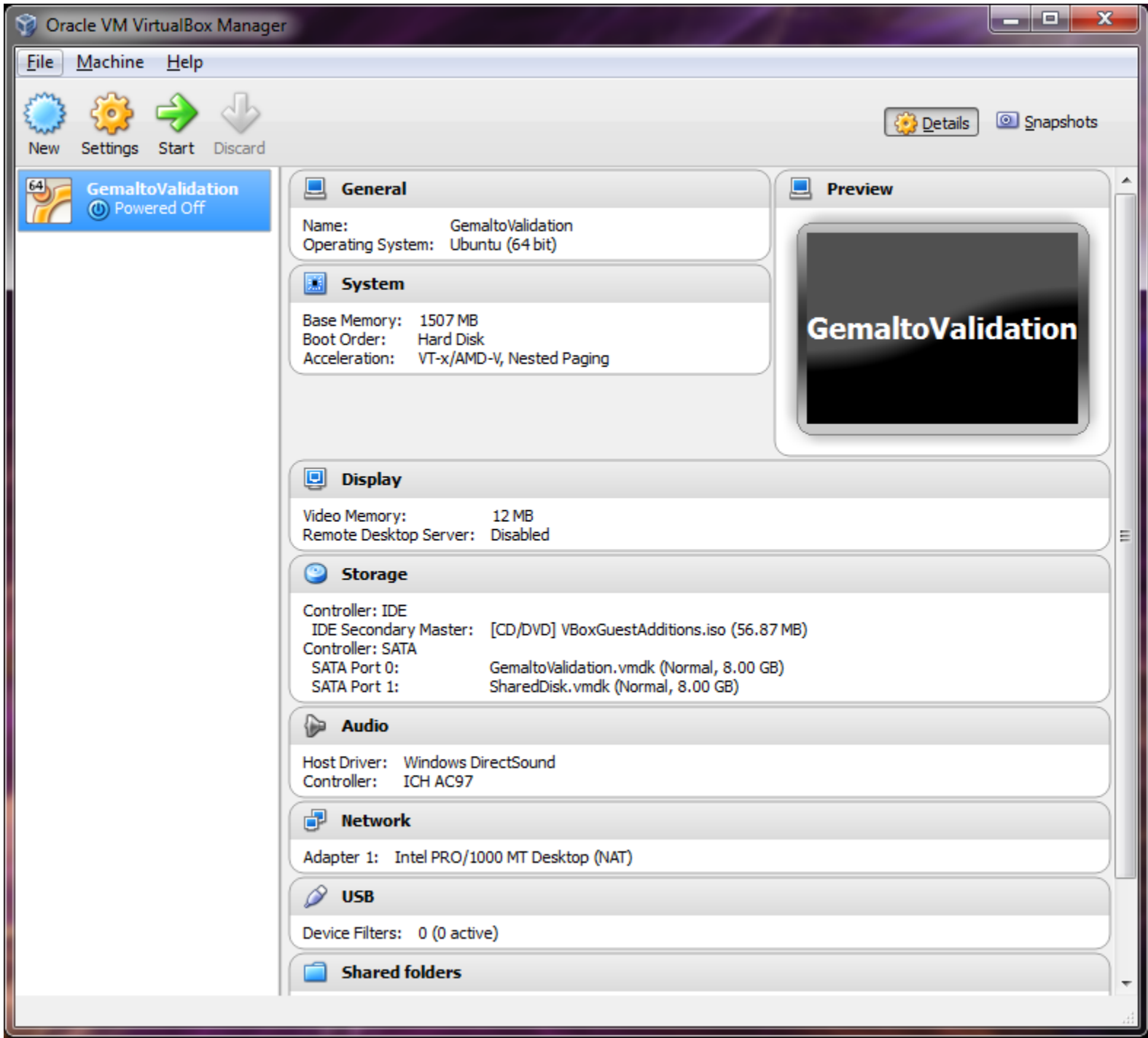




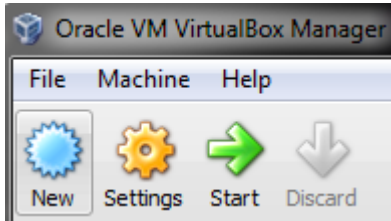




# VirtualBox Main Screen

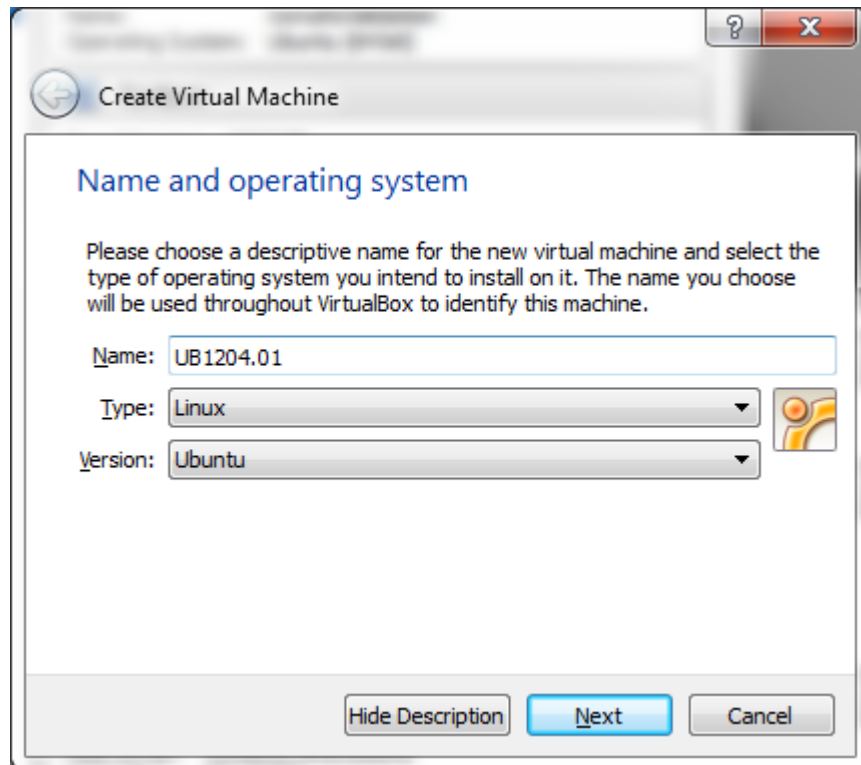


## NEW





## UB1204.01



Create Virtual Machine

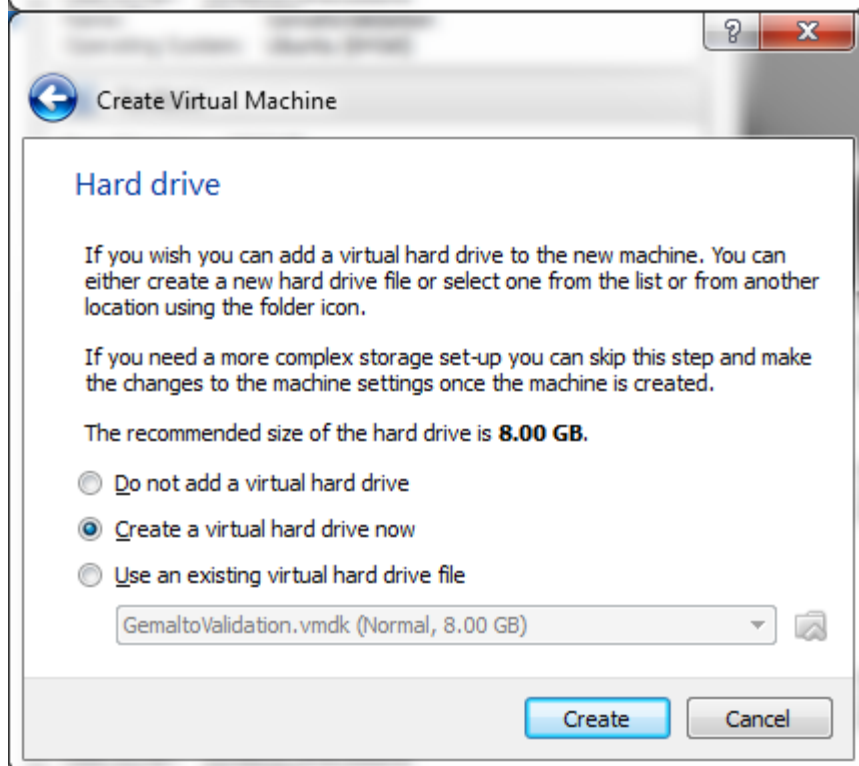
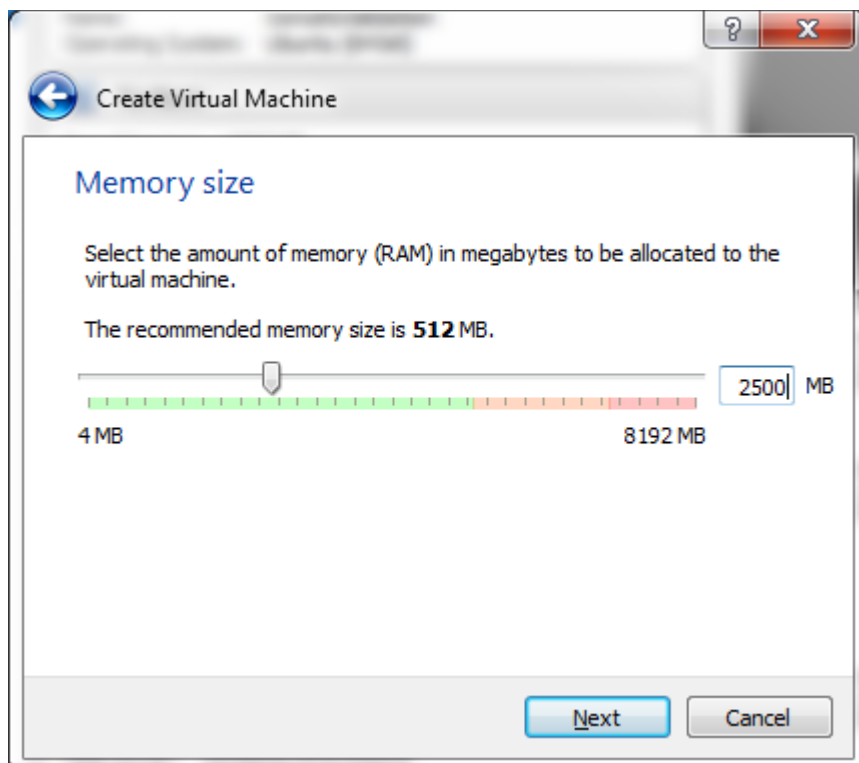
### Name and operating system

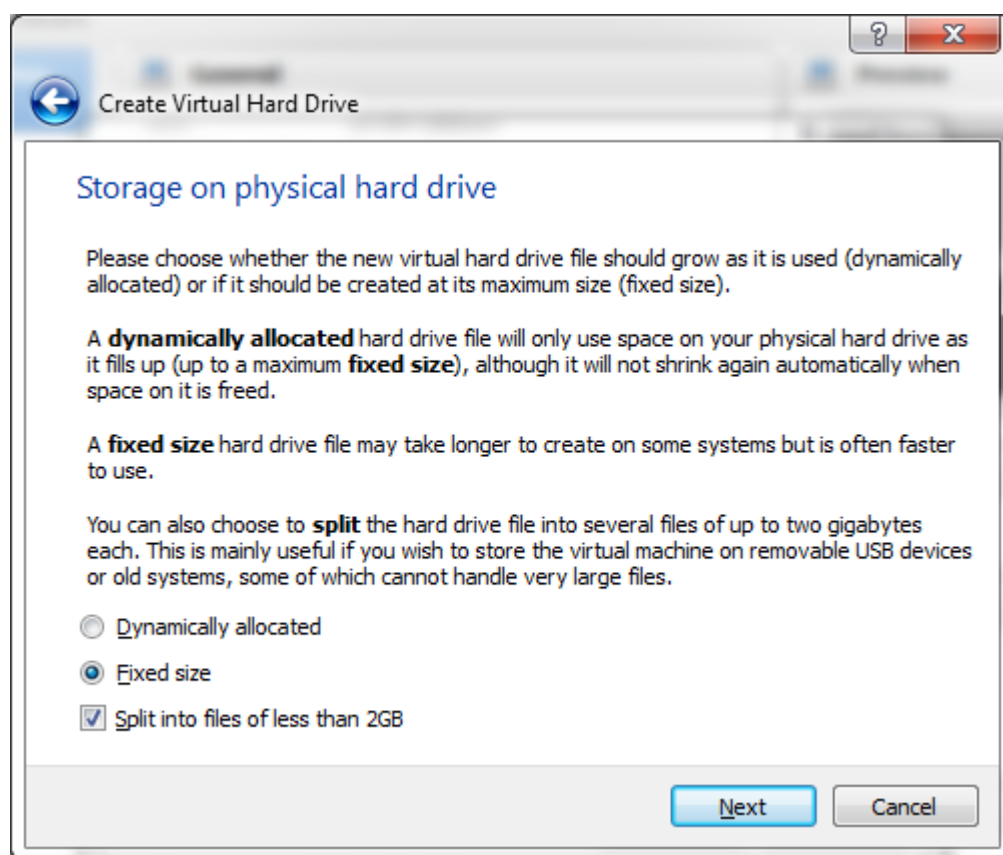
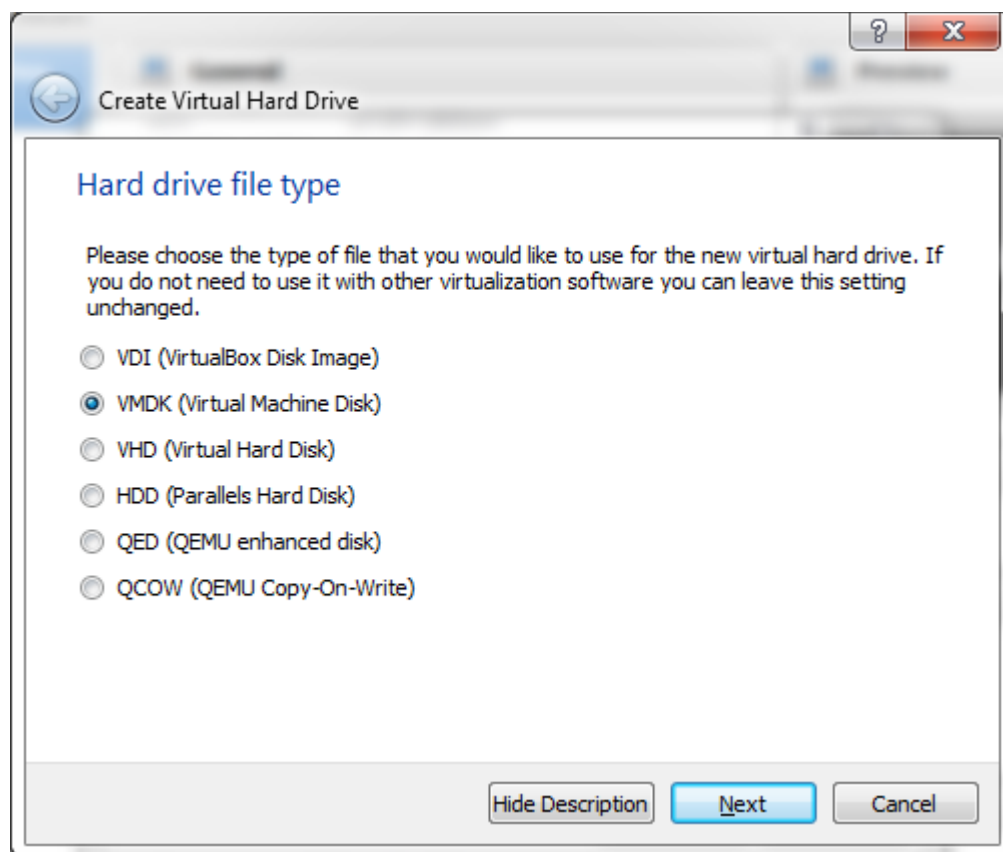
Please choose a descriptive name for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.

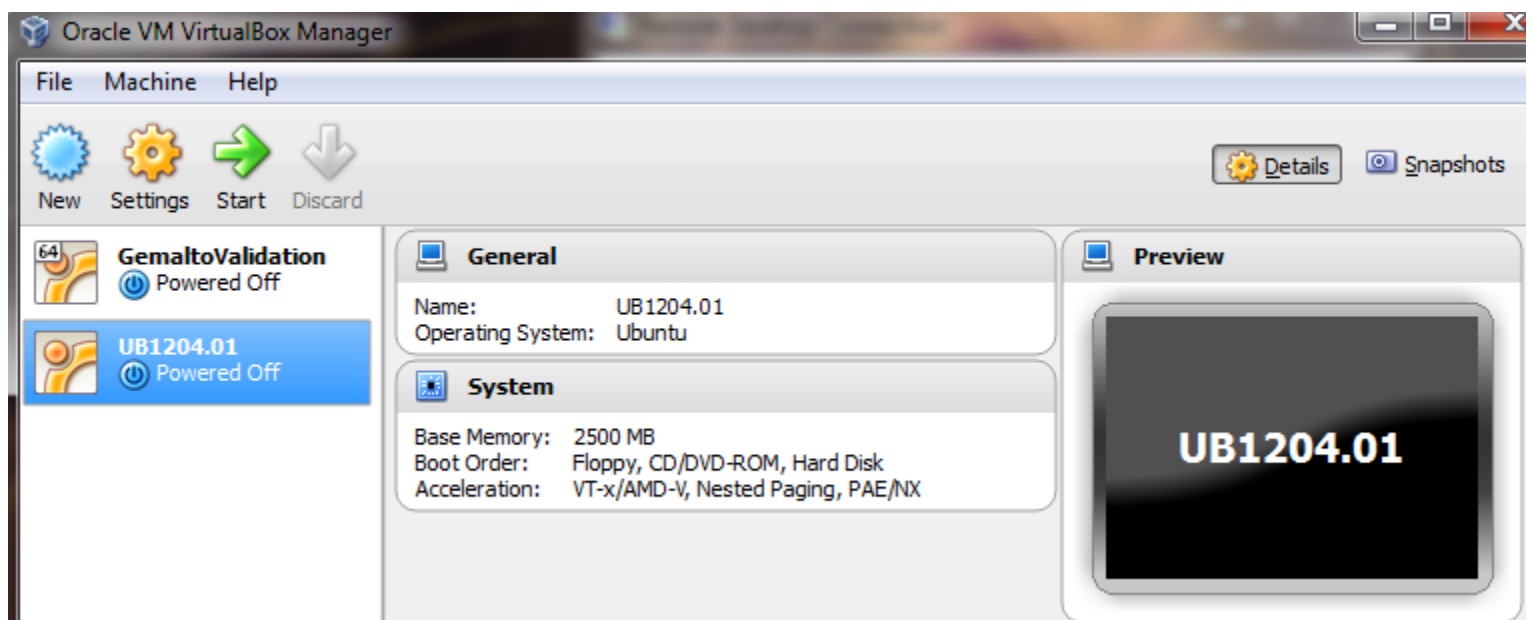
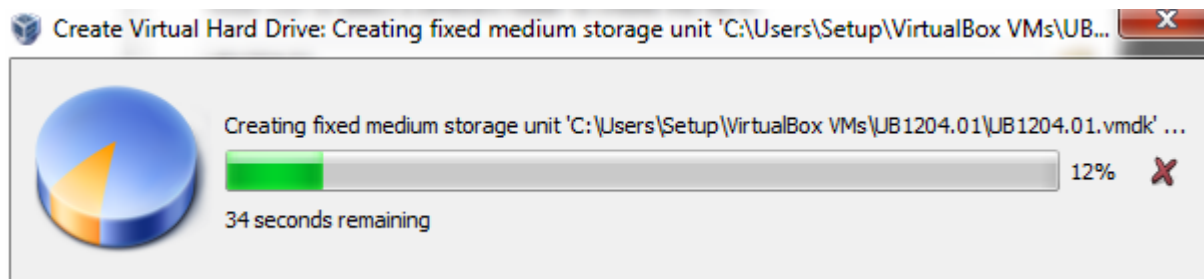
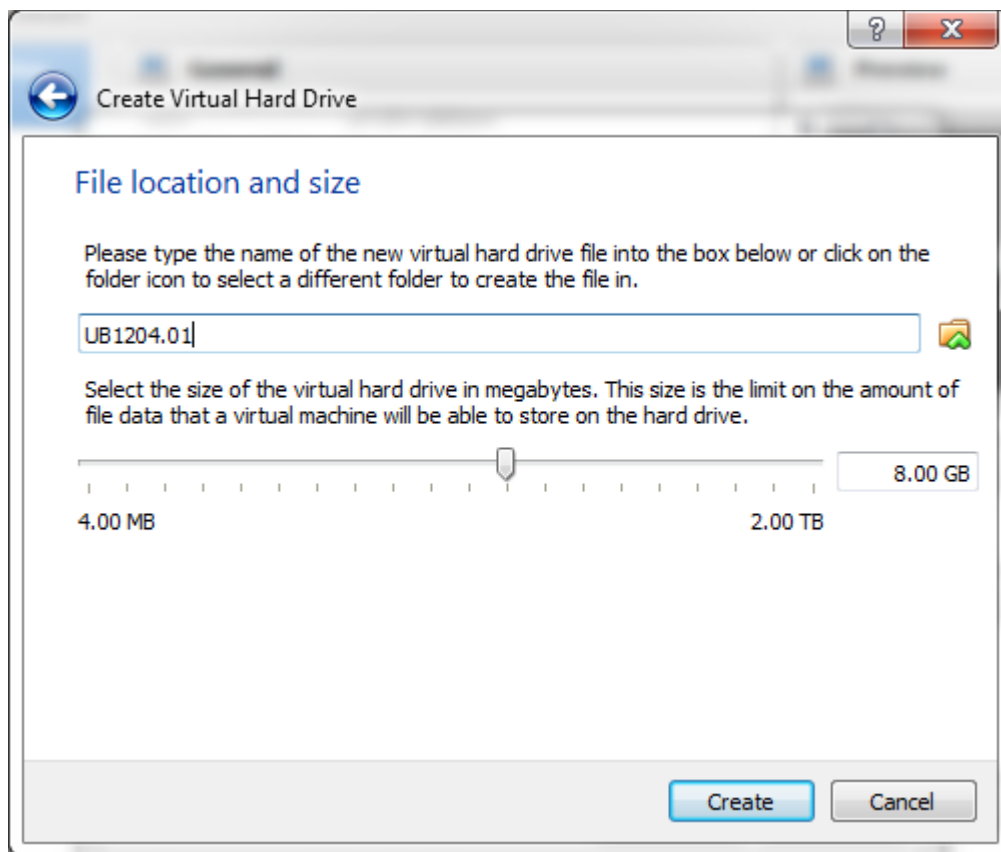
Name:

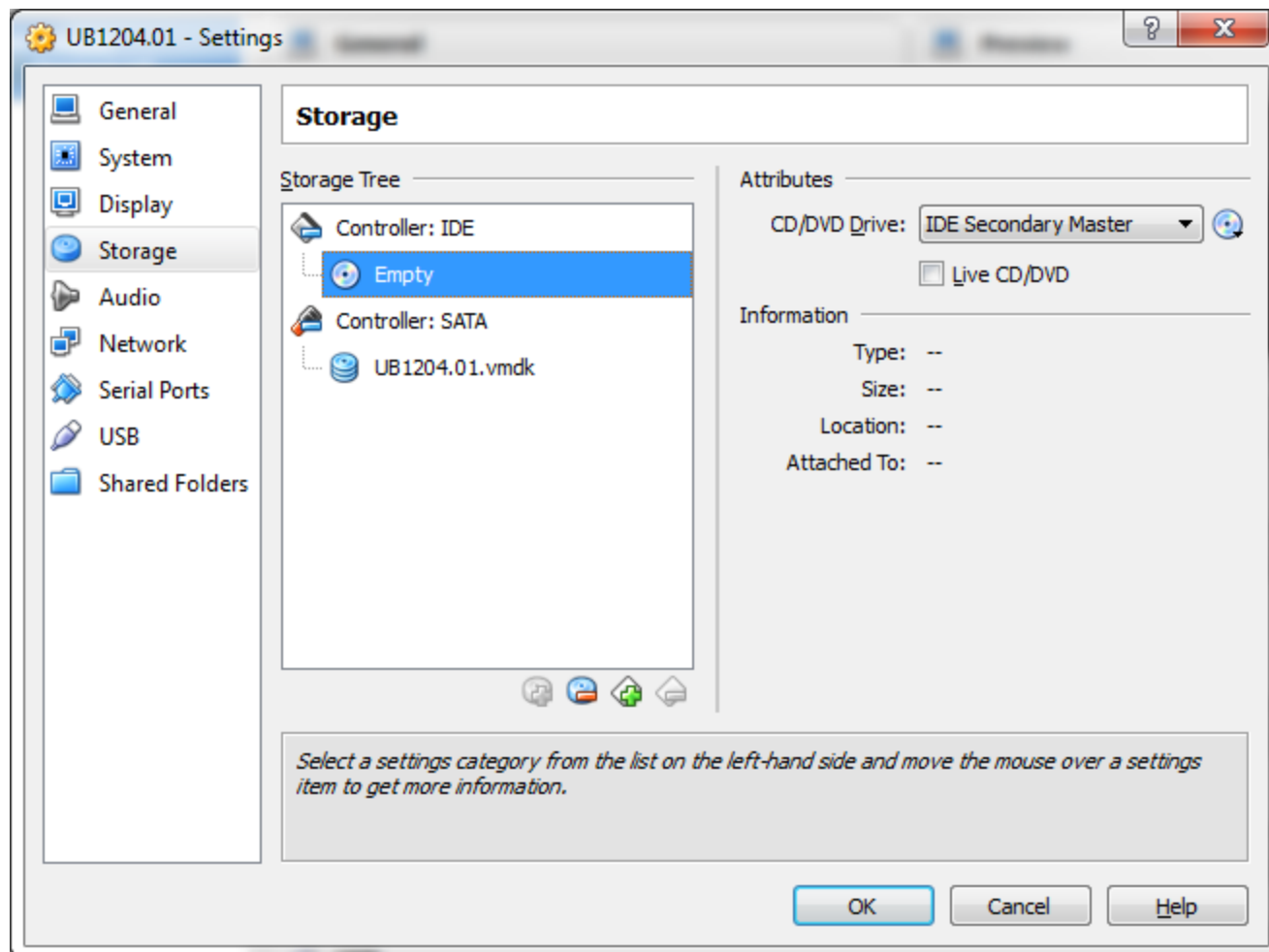
Type:

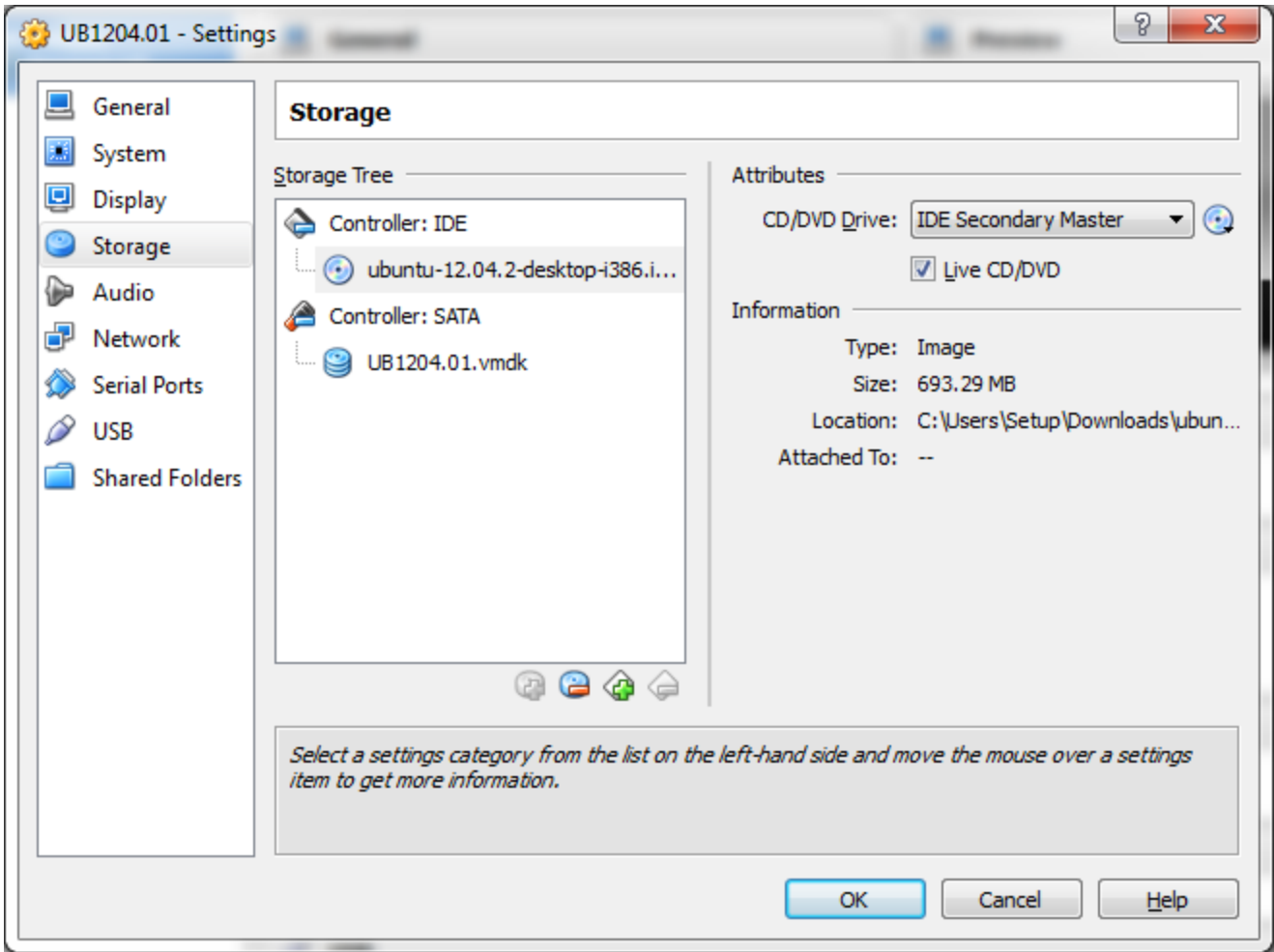
Version:





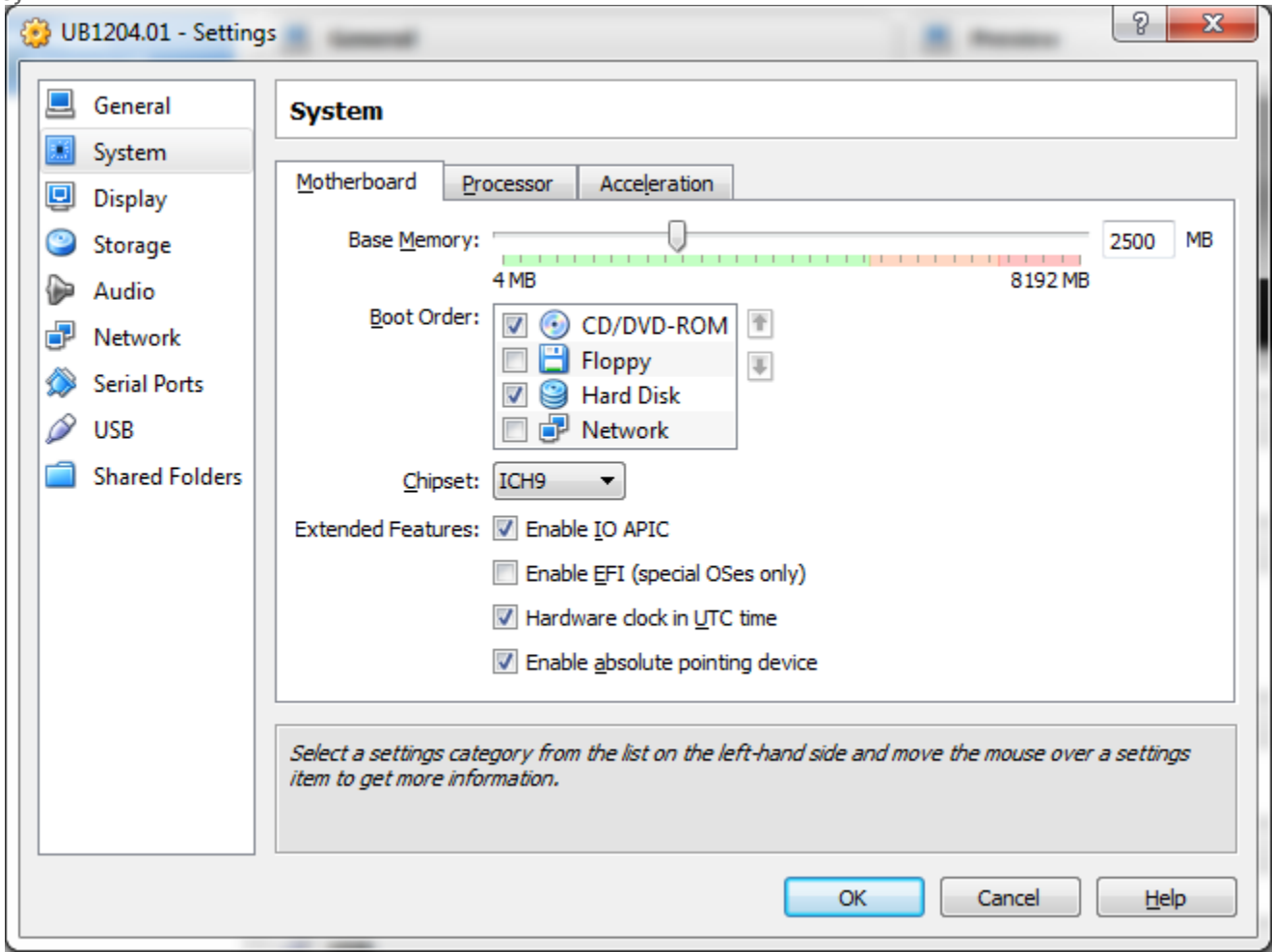


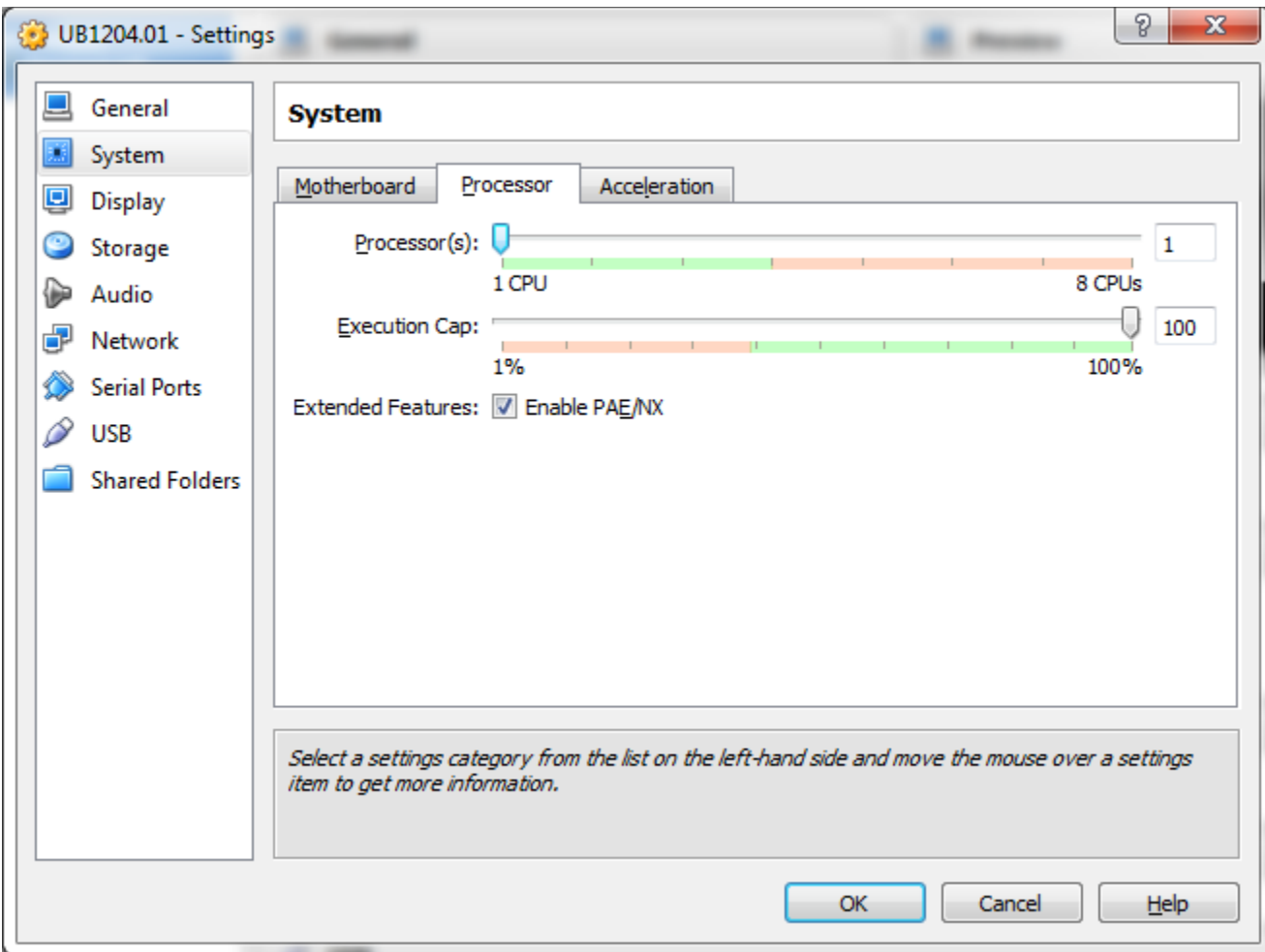




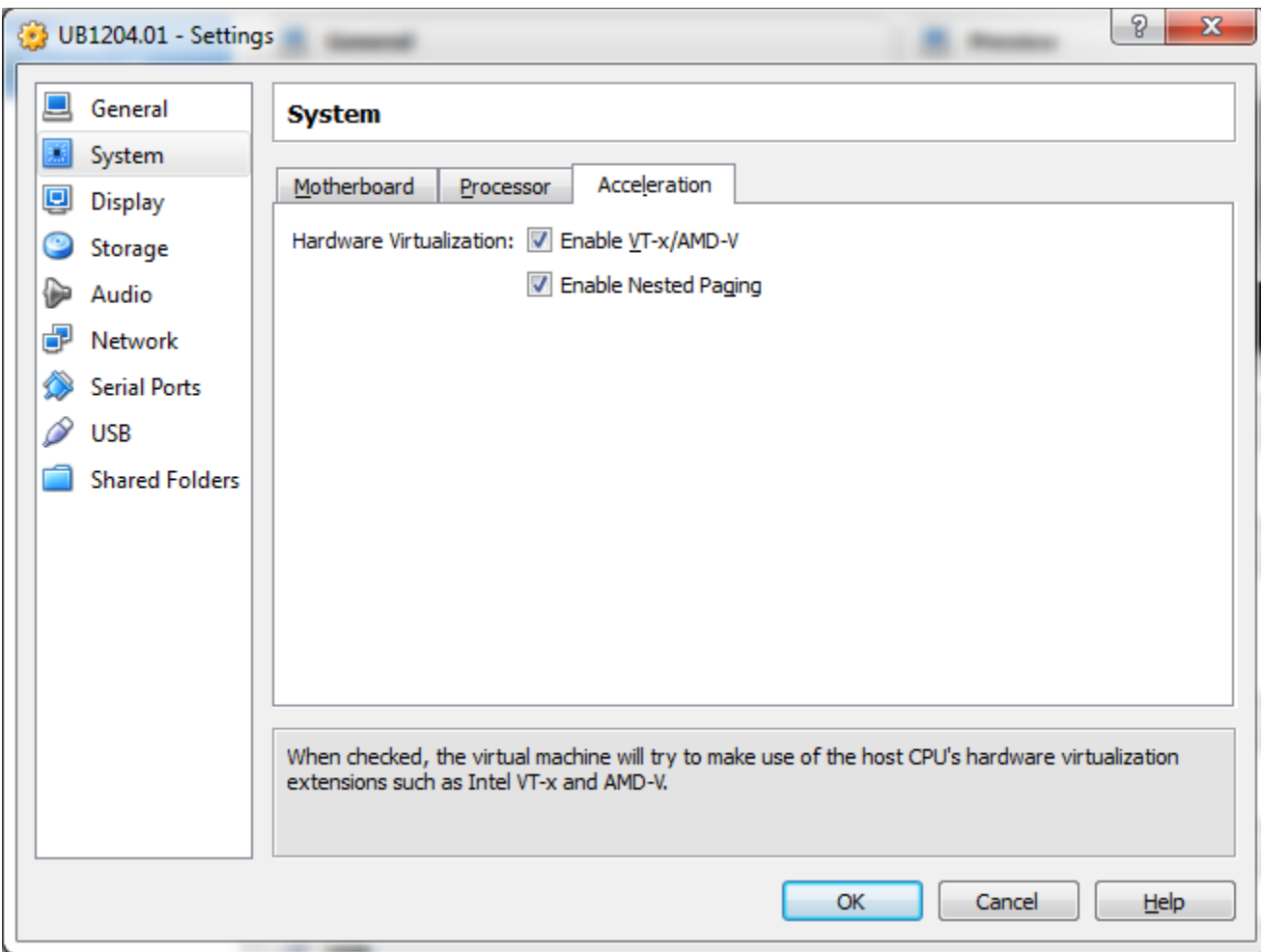
VM Configuration

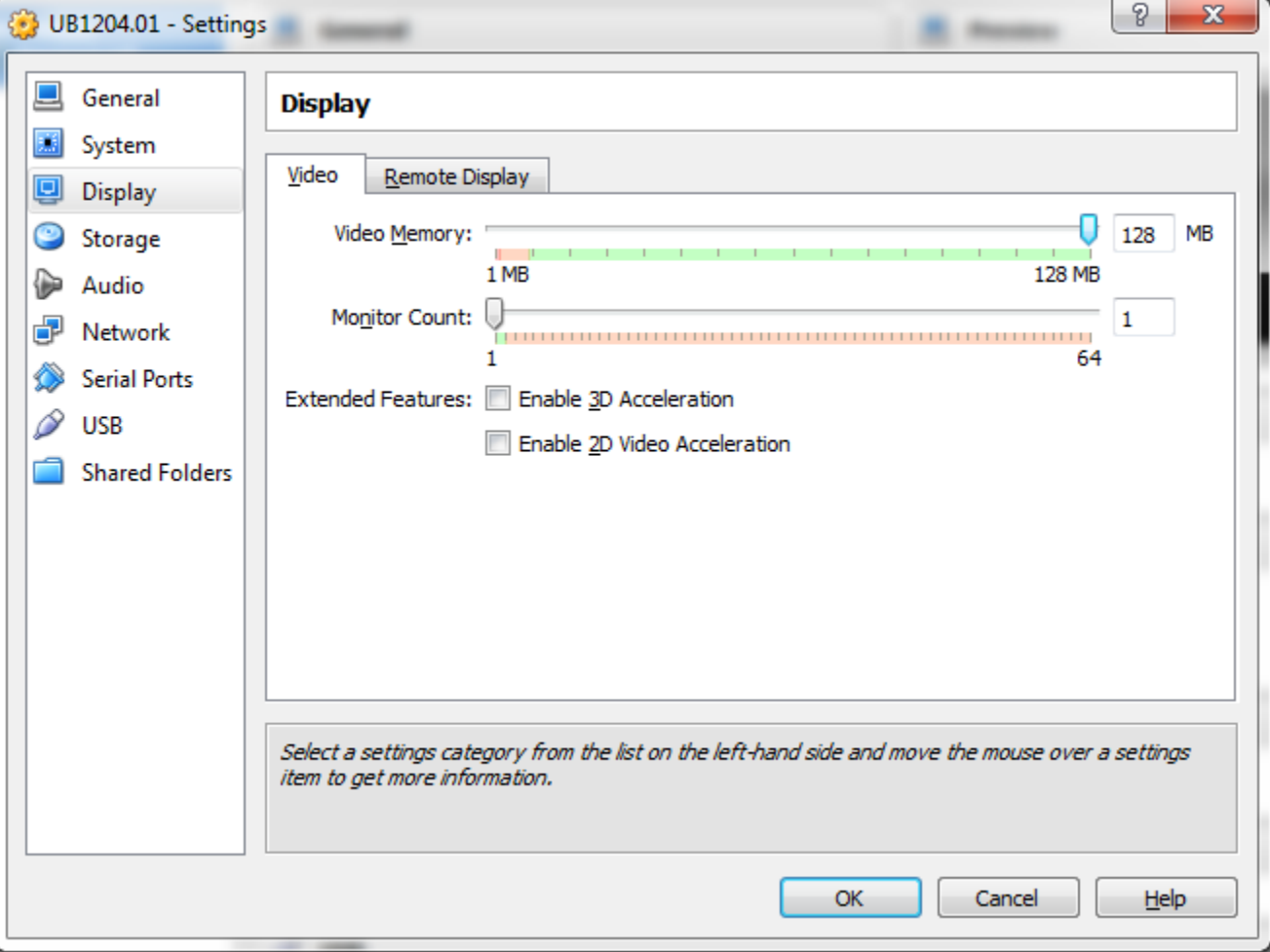
System

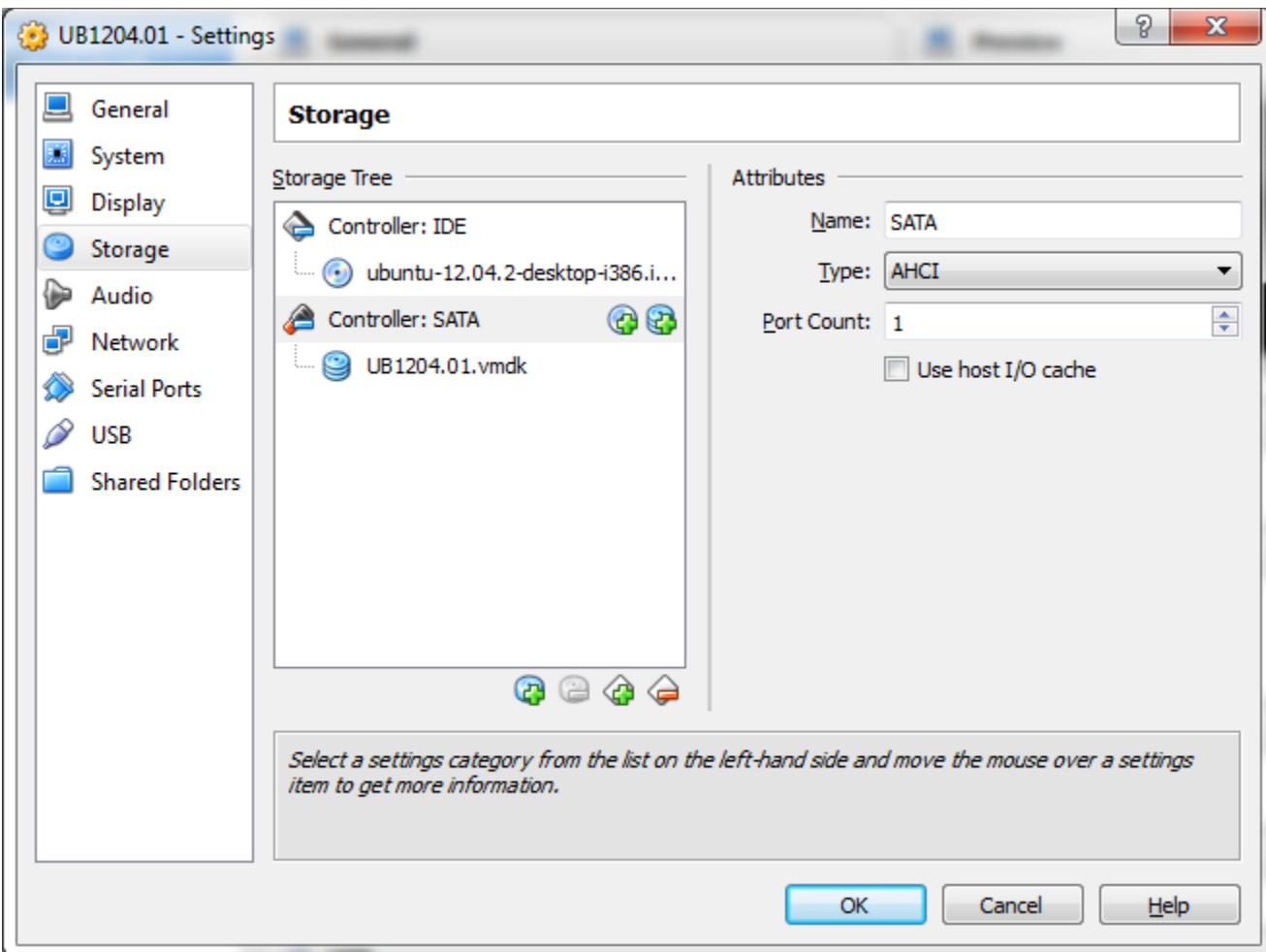


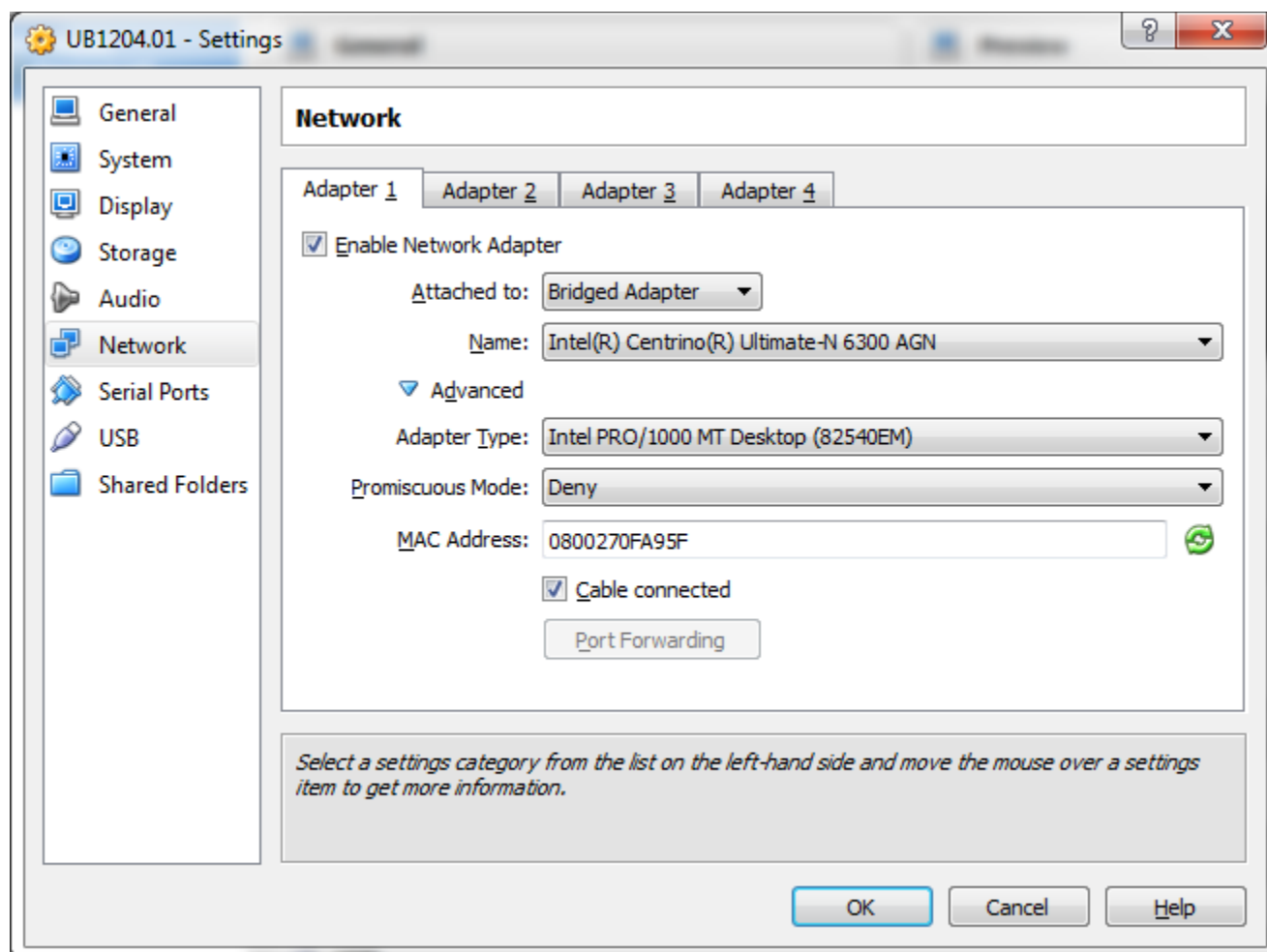




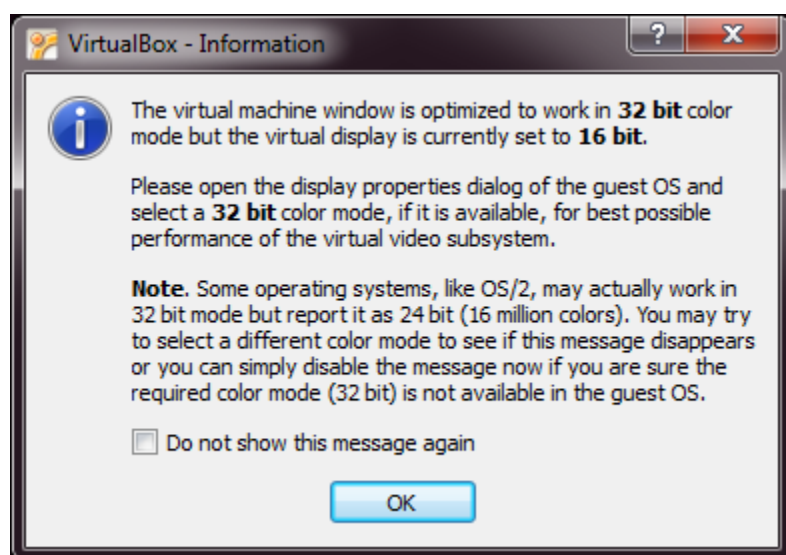


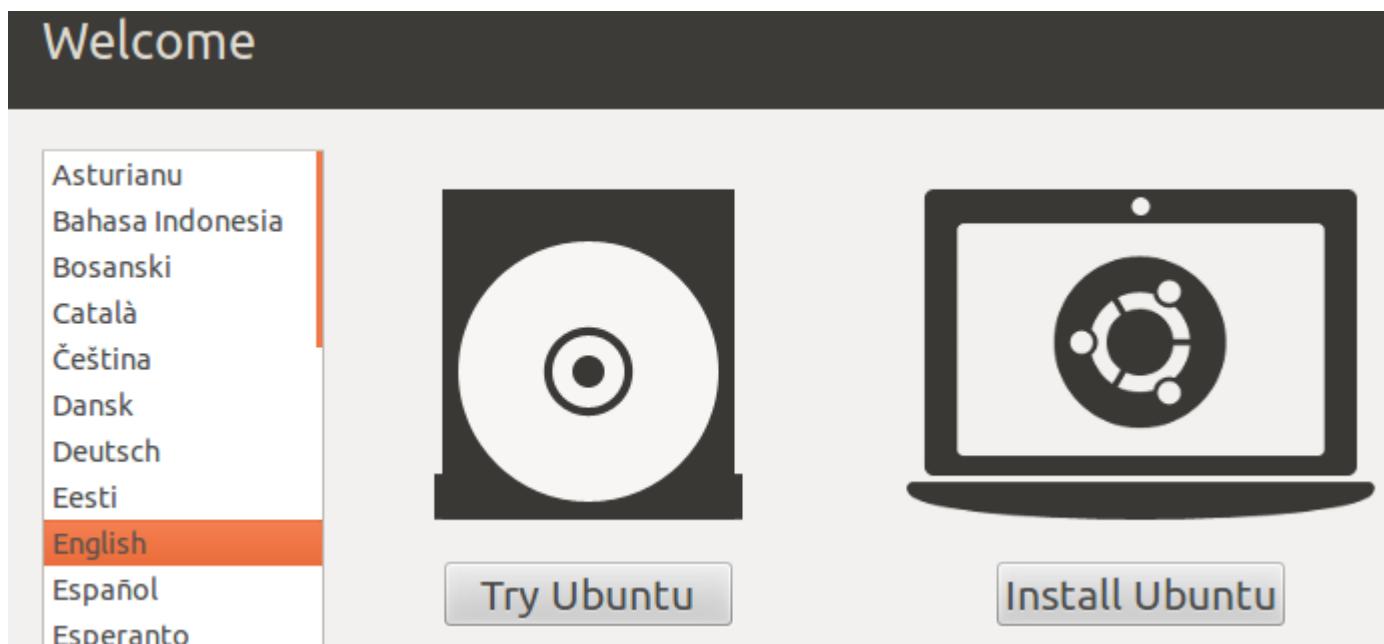
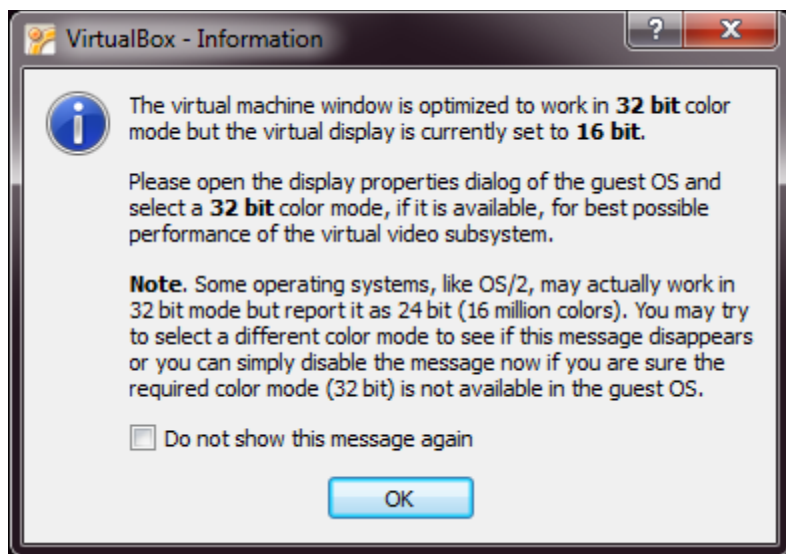






## Boot the OS CD and Install






## Preparing to install Ubuntu

For best results, please ensure that this computer:

 has at least 4.3 GB available drive space

 is plugged in to a power source

 is connected to the Internet

☒ Download updates while installing

Ubuntu uses third-party software to display Flash, MP3 and other media, and to work with some wireless hardware. Some of this software is closed-source. The software is subject to the license terms included with the software's documentation.

☒ Install this third-party software

Fluendo MP3 plugin includes MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Technicolor SA.


Quit


Back

Continue

## Installation type

This computer currently has no detected operating systems. What would you like to do?

☒  Erase disk and install Ubuntu  
**Warning:** This will delete any files on the disk.

☐  Something else  
You can create or resize partitions yourself, or choose multiple partitions for Ubuntu.

# Erase disk and install Ubuntu

Select drive: SCSI1 (0,0,0) (sda) - 8.6 GB ATA VBOX HARDDISK

The entire disk will be used:



**Ubuntu**  
/dev/sda (ext4)  
**8.6 GB**

► Creating ext4 file system for / in partition #1 of SCSI1 (0,0,0) (sda)...



Install

## Where are you?

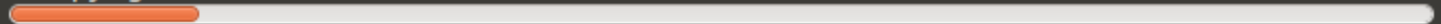


Chicago

Back

Continue

► Copying files...



# Keyboard layout

Choose your keyboard layout:

English (Ghana)

English (Nigeria)

English (South Africa)

English (UK)

English (US)

Esperanto

Estonian

Faroese

Filipino

English (US)

English (US) - Cherokee

English (US) - English (Colemak)

English (US) - English (Dvorak alternative international)

English (US) - English (Dvorak international with dead keys)

English (US) - English (Dvorak)

English (US) - English (Macintosh)

English (US) - English (US, alternative international)

English (US) - English (US, international with dead keys)

Type here to test your keyboard

Detect Keyboard Layout

# Who are you?

Your name: setup



Your computer's name: UB1204.01



The name it uses when it talks to other computers.

Pick a username: setup



Choose a password: ●●●●●

Short password

Confirm your password: ●●●●●



☒ Log in automatically

☐ Require my password to log in

☐ Encrypt my home folder



Install

# Welcome to Ubuntu 12.04 LTS

Fast and feature-packed, Ubuntu makes your PC a delight to use. And with the latest version of the Unity interface, it's now easier than ever. Here are a few more cool new things to look out for.



► Almost finished copying files...

## ✖ Installation Complete



Installation is complete. You need to restart the computer in order to use the new installation.

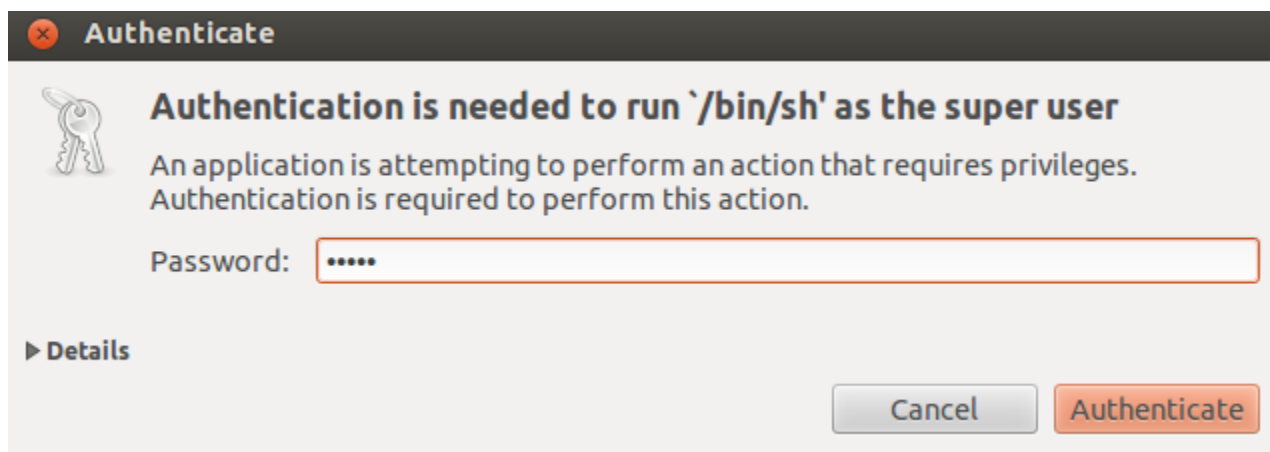
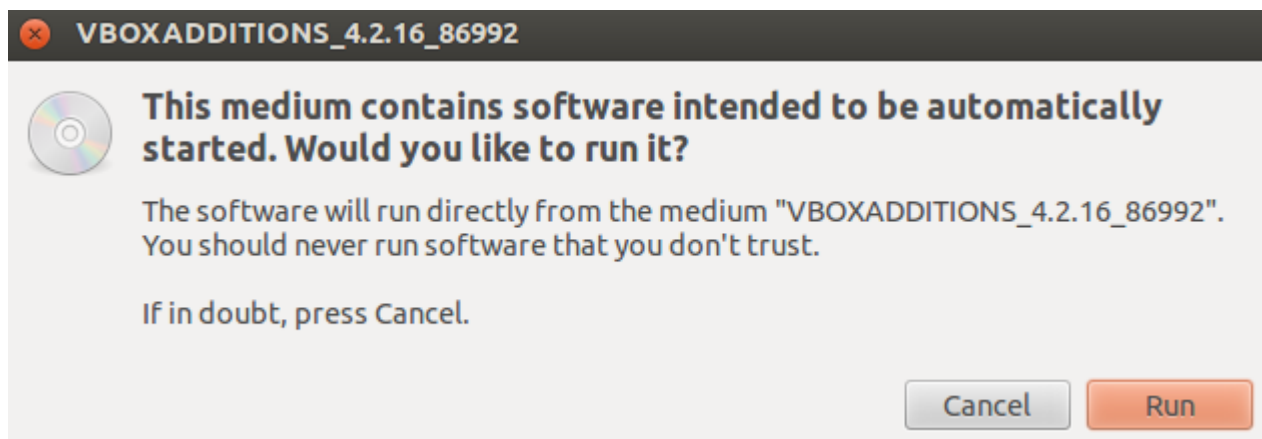
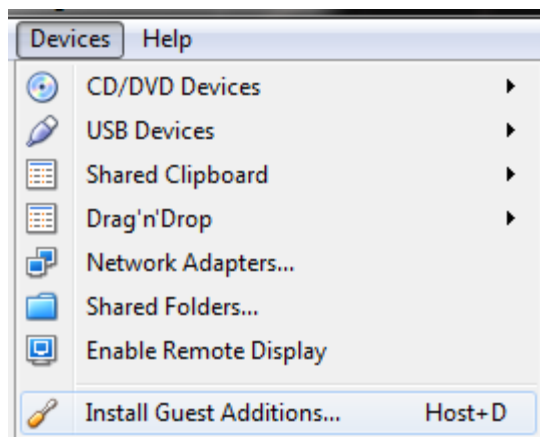
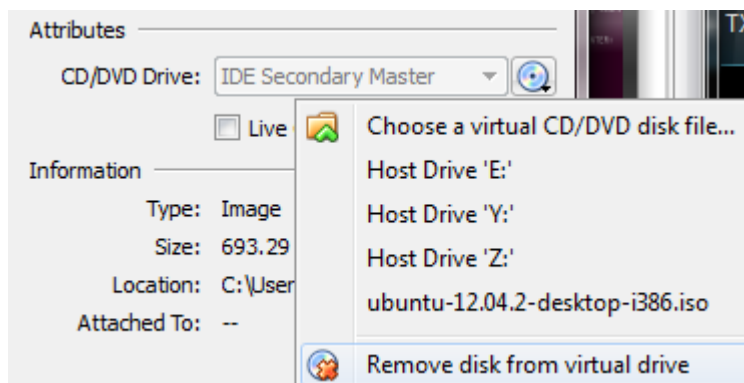
Restart Now

```
Welcome to Ubuntu 12.04.2 LTS (GNU/Linux 3.5.0-23-generic i686)
```

```
* Documentation:  https://help.ubuntu.com/
```

```
^\\ubuntu@ubuntu:~$ modem-manager[1398]: <info>  Caught signal 15, shutting down.  
..
```

```
Please remove installation media and close the tray (if any) then press ENTER:  
_
```



```
VirtualBox Guest Additions installation
Verifying archive integrity... All good.
Uncompressing VirtualBox 4.2.16 Guest Additions for Linux.....
VirtualBox Guest Additions installer
Copying additional installer modules ...
Installing additional modules ...
Removing existing VirtualBox non-DKMS kernel modules ...done.
Building the VirtualBox Guest Additions kernel modules
The headers for the current running kernel were not found. If the following
module compilation fails then this could be the reason.

Building the main Guest Additions module ...done.
Building the shared folder support module ...done.
Building the OpenGL support module ...done.
Doing non-kernel setup of the Guest Additions ...done.
Starting the VirtualBox Guest Additions ...done.
Installing the Window System drivers
Installing X.Org Server 1.13 modules ...done.
Setting up the Window System to use the Guest Additions ...done.
You may need to restart the hal service and the Window System (or just restart
the guest system) to enable the Guest Additions.

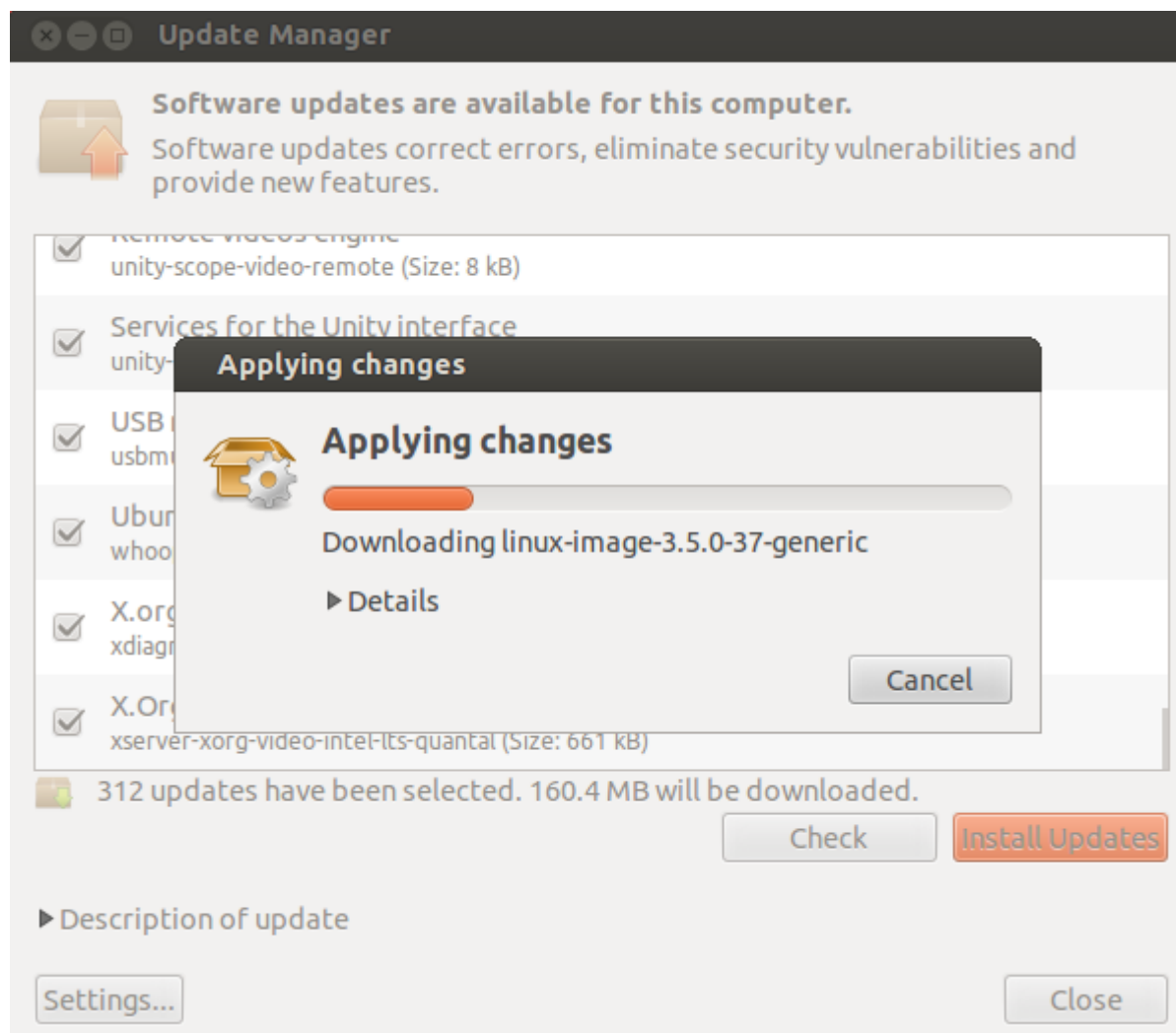
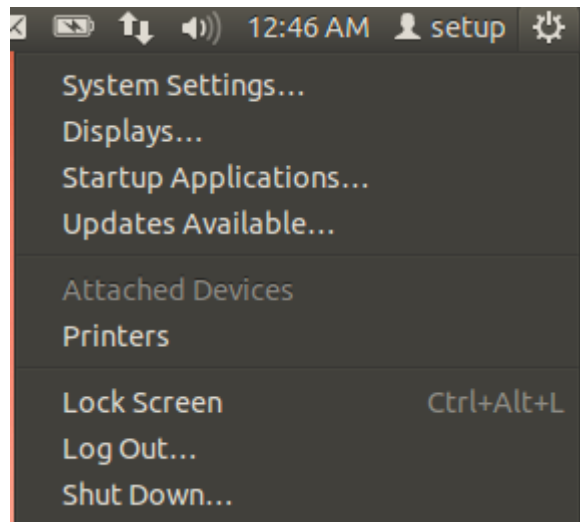
Installing graphics libraries and desktop services components ...done.
Press Return to close this window...
```

\$ sudo apt-get install build-essential dkms

```
setup@UB1204: ~
setup@UB1204:~$ sudo apt-get install build-essential dkms
[sudo] password for setup:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  dpkg-dev fakeroot g++ g++-4.6 libalgorithm-diff-perl
  libalgorithm-diff-xs-perl libalgorithm-merge-perl libdpkg-perl
  libstdc++6-4.6-dev libtimedate-perl
Suggested packages:
  debian-keyring g++-multilib g++-4.6-multilib gcc-4.6-doc libstdc++6-4.6-dbg
  libstdc++6-4.6-doc
The following NEW packages will be installed:
  build-essential dkms dpkg-dev fakeroot g++ g++-4.6 libalgorithm-diff-perl
  libalgorithm-diff-xs-perl libalgorithm-merge-perl libdpkg-perl
  libstdc++6-4.6-dev libtimedate-perl
0 upgraded, 12 newly installed, 0 to remove and 309 not upgraded.
Need to get 9,323 kB of archives.
After this operation, 27.8 MB of additional disk space will be used.
Do you want to continue [Y/n]? █
```

```
$ uname -r
```

```
setup@UB1204:~$ uname -r  
3.5.0-23-generic  
setup@UB1204:~$ apt-get install linux-headers-generic
```



## Networking Setup

```
sudo gedit /etc/hostname  
sudo gedit /etc/hosts  
sudo gedit /etc/samba/smb.conf
```

```
#===== Global Settings =====
```

```
[global]
```

```
## Browsing/Identification ###
```

```
# Change this to the workgroup/NT-domain name your Samba server will part of  
workgroup = SILOSIX
```

## Google Chrome

<https://www.google.com/intl/en/chrome/browser/>



**google-chrome-stable**  
The web browser from Google

### ✓ Installed

This program is run from a terminal:

```
google-chrome
```

Google Chrome is a browser that combines a minimal design with sophisticated technology to make the web faster, safer, and easier.



# google-chrome-stable

The web browser from Google

## Installing...

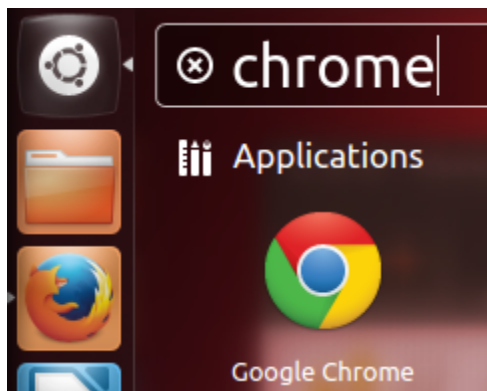
Google Chrome is a browser that combines a minimal design with sophisticated technology to make the web faster, safer, and easier.

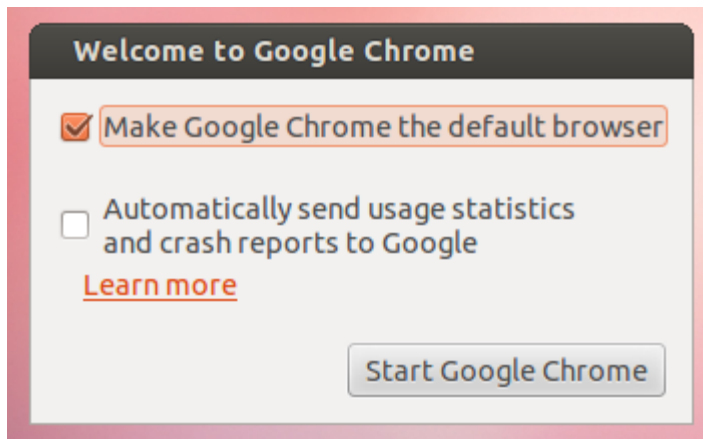
**Version** google-chrome-stable 28.0.1500.95-r213514

**Total size** 144.4 MB when installed

**License** Unknown

**Updates** Unknown





Don't sign in now - do it after completing basic utils and creating a snapshot

# Welcome to Chrome

Sign in to get your bookmarks, history, and settings on all your devices. [Learn more](#)

Sign in

Google

Email

Password

Sign in

[Can't access your account?](#)

[Create a Google account](#)

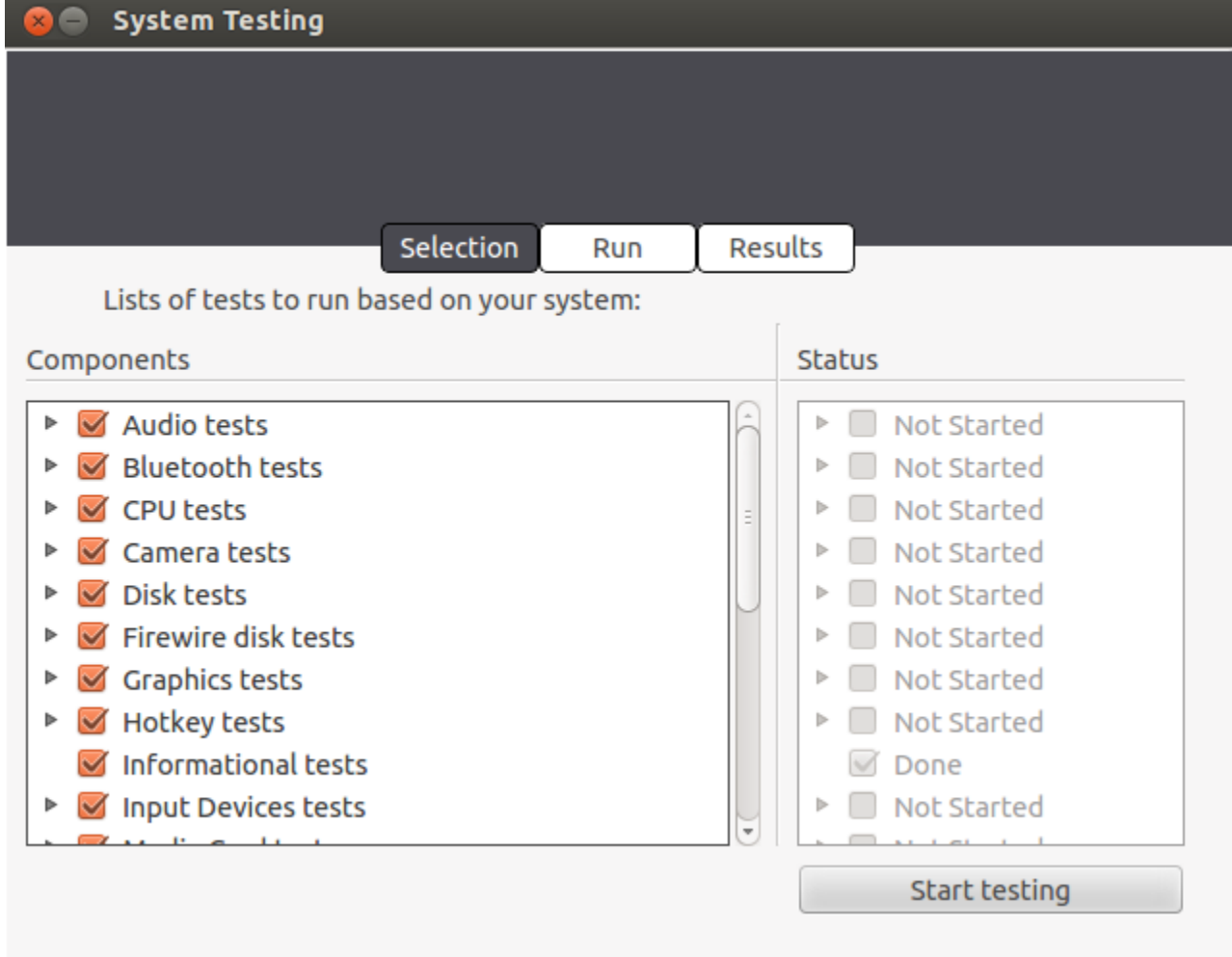
[Skip for now](#)

☐ Choose what to sync

## Software Add-Ons

- 7zip
- FileZille
- PuTTY SSH Client
- Samba
- Advanced Sttingsens
- Geany
- VLC
- KeePass2
- Ubuntu Restricted Extras
- GParted Partition Editor
- System Settings
-

System Testing



Create Snapshot

UB1204.01  
UB12.04.2 installed with basic applications  
1204.07.02 Save After Expand to 20G  
(this wipes SnapShots )

Add Validation Tools

Mockup in /home/Downloads/\*  
Deploy to /home/\*

- Development Add-Ons
- Java JRE1.7.0\_25
  - soapUI 4.5.2
  - Eclipse
  - Android ADT
  - PuTTY

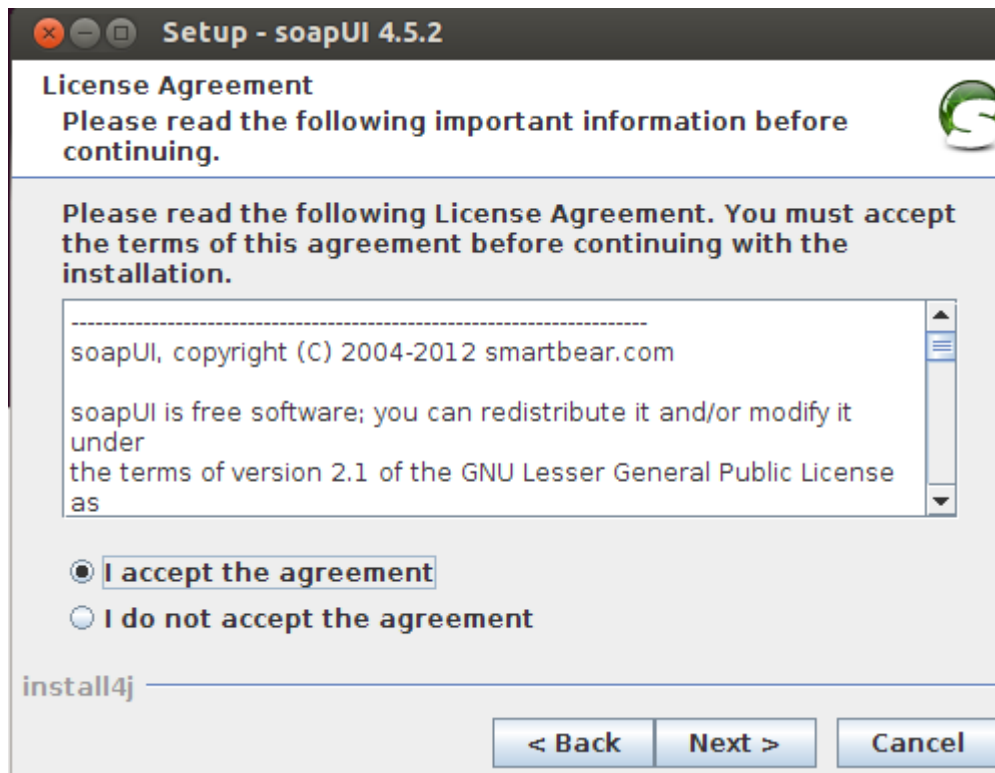
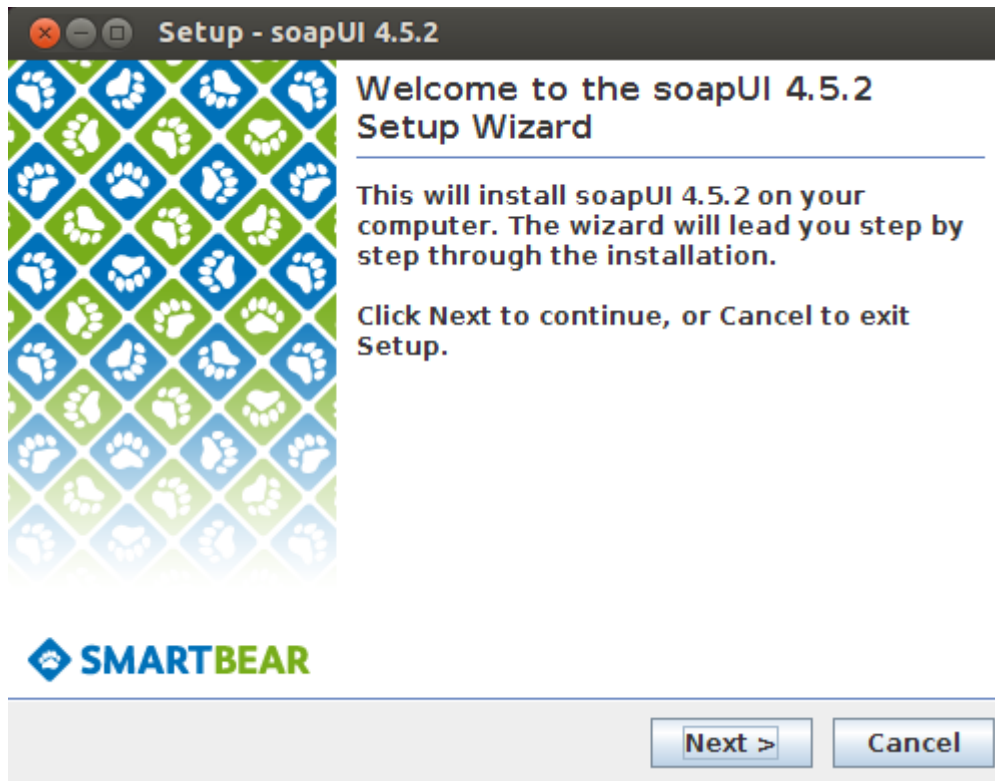
Google Chrome Add-Ons  
sudo sh soapui-\*

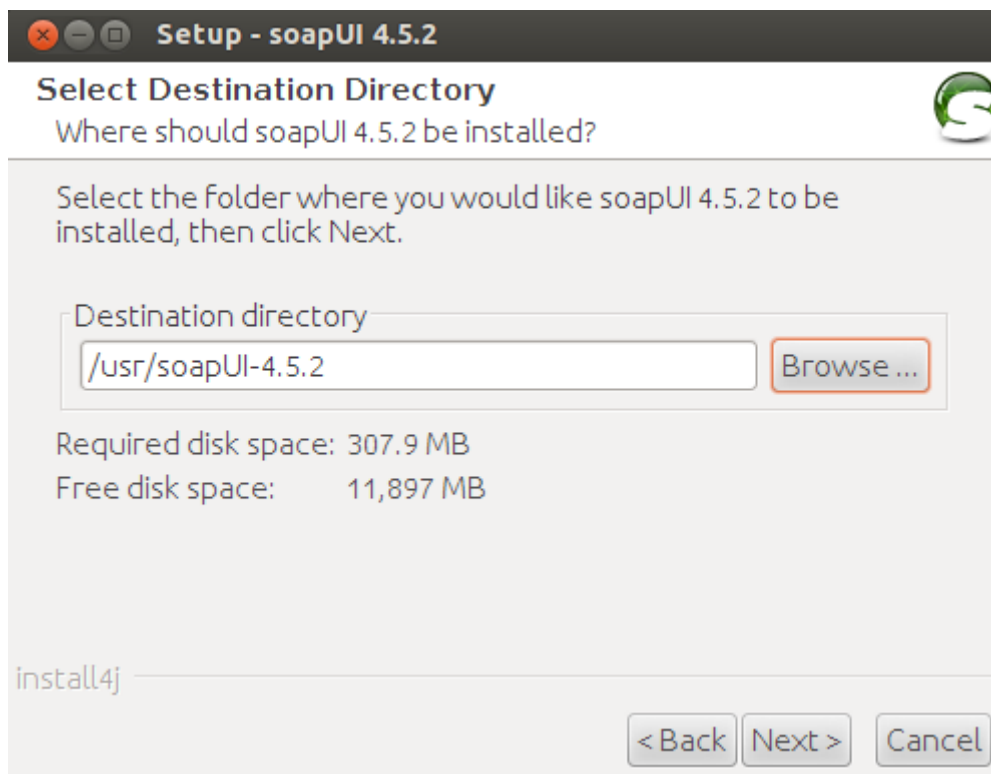
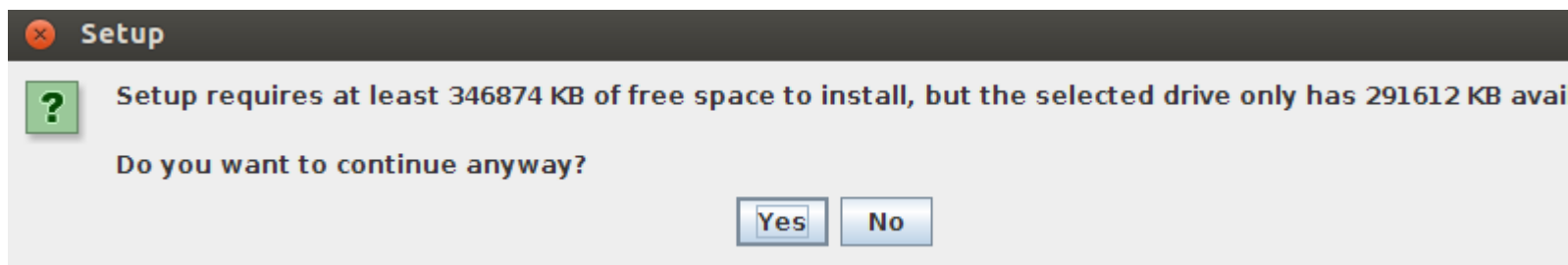
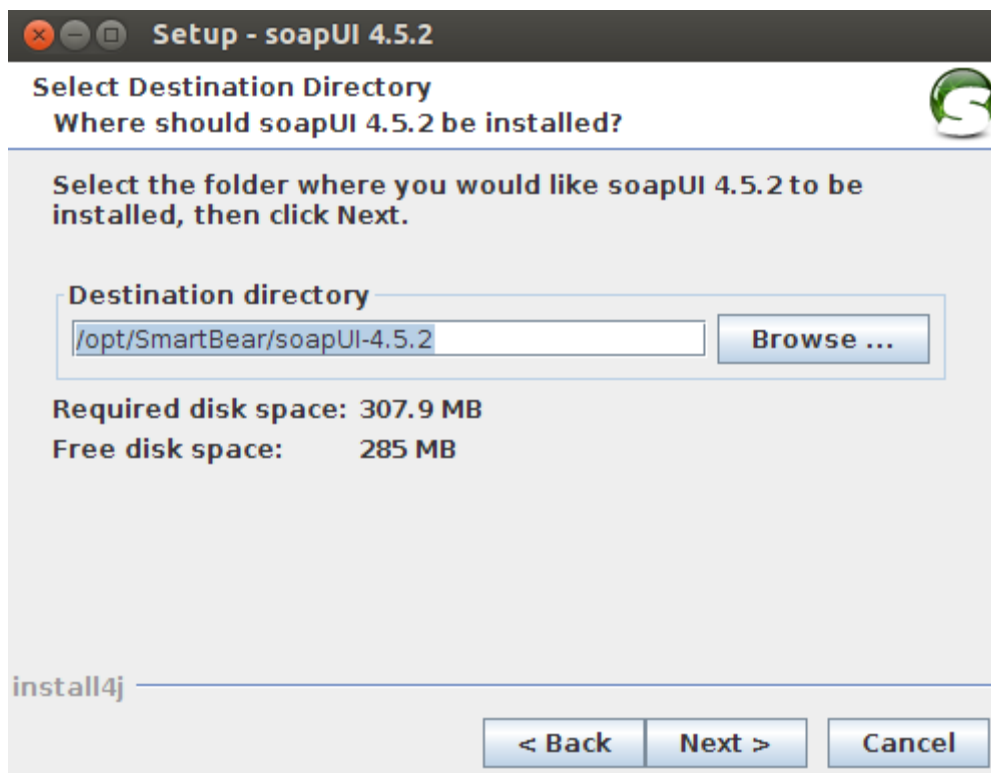


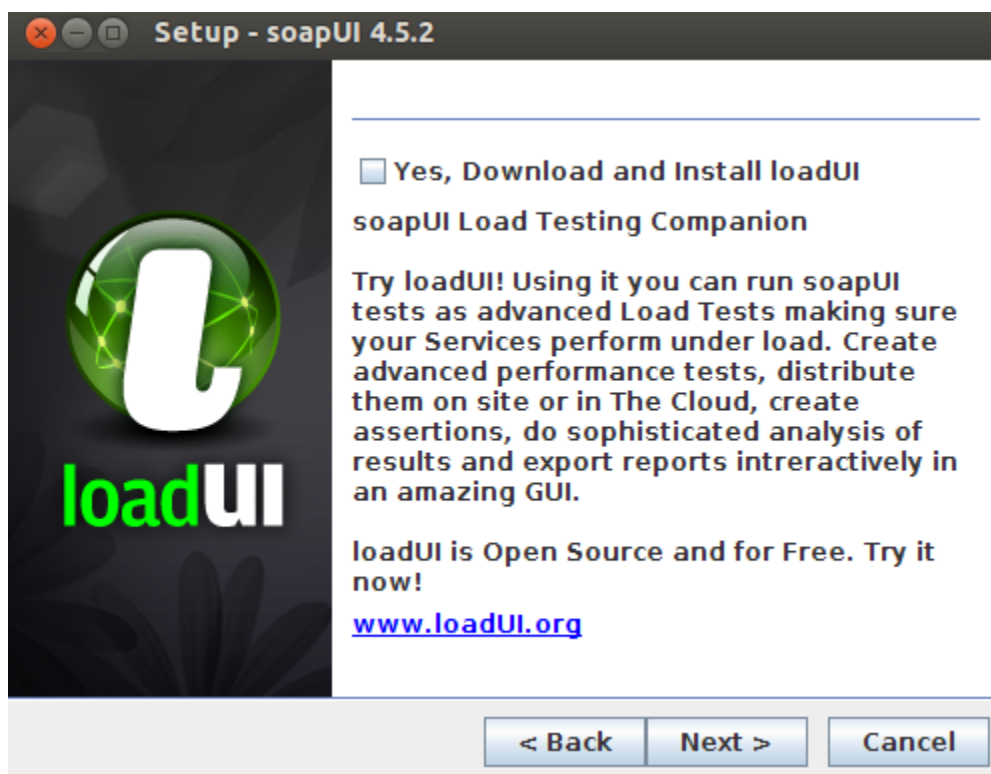
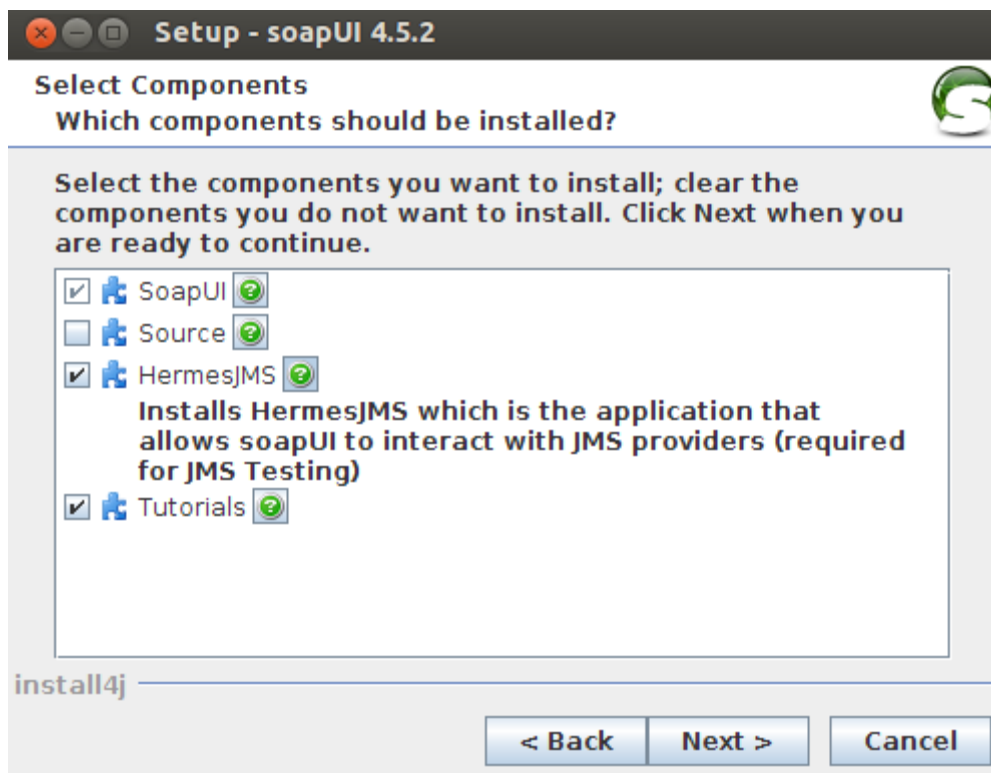
# soapUI 4.5.2

Download the package  
unpack to /opt/soapui-4.5.2

```
sudo sh soapUI-x32-4.5.2.sh
```







✕ ◯ ◻ Setup - soapUI 4.5.2

License Agreement



Please read the following important information before continuing.

Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.

License for HermesJMS

-----

Apache License, Version 2.0

Apache License

Version 2.0, January 2004

☒ I accept the agreement

☐ I do not accept the agreement

install4j

< Back

Next >

Cancel

✕ ◯ ◻ Setup - soapUI 4.5.2

Tutorials location



Please select the target directory for soapUI Tutorials.  
Be sure to have write permissions for this directory.

/home/setup/Downloads/soapUI-Tutorials

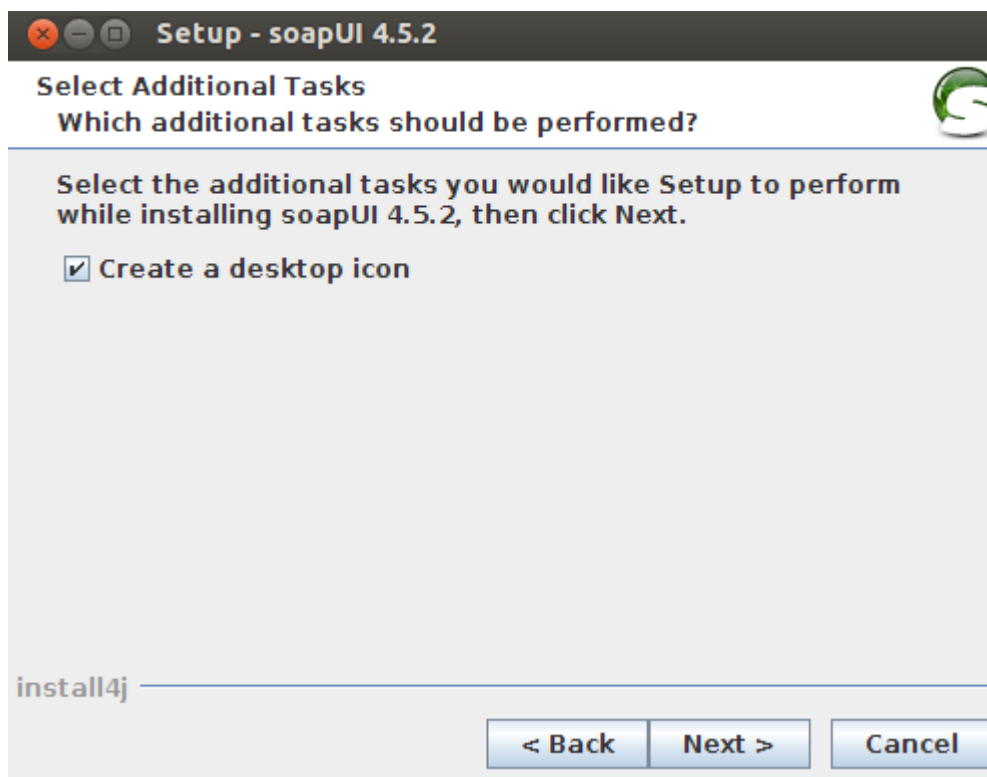
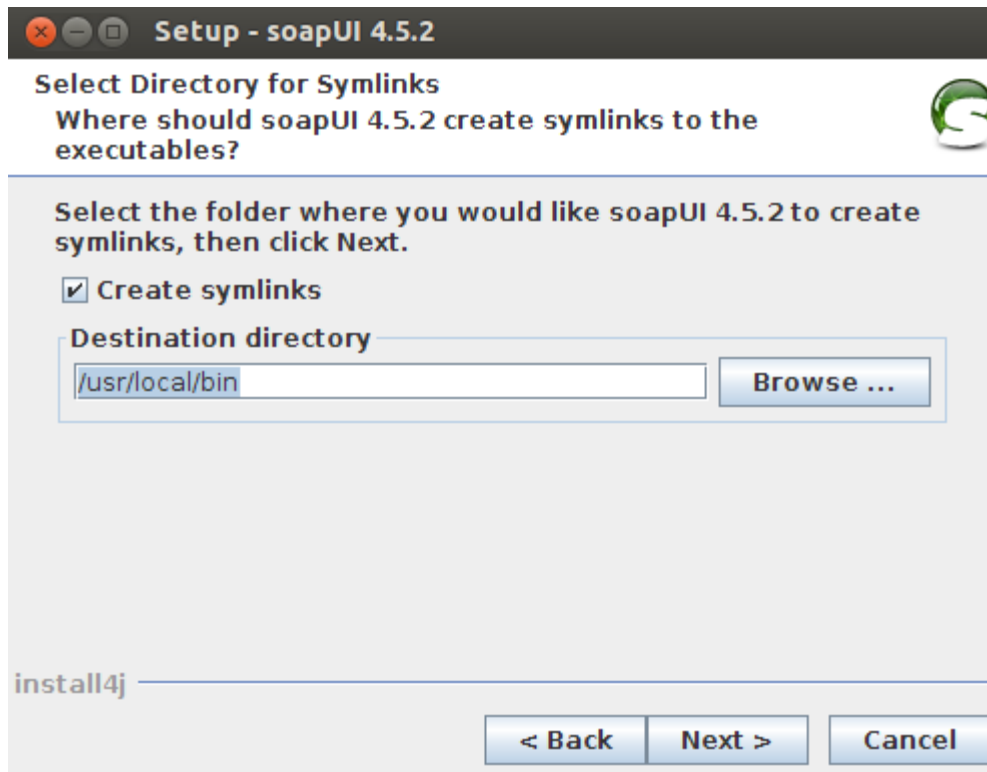
Browse ...

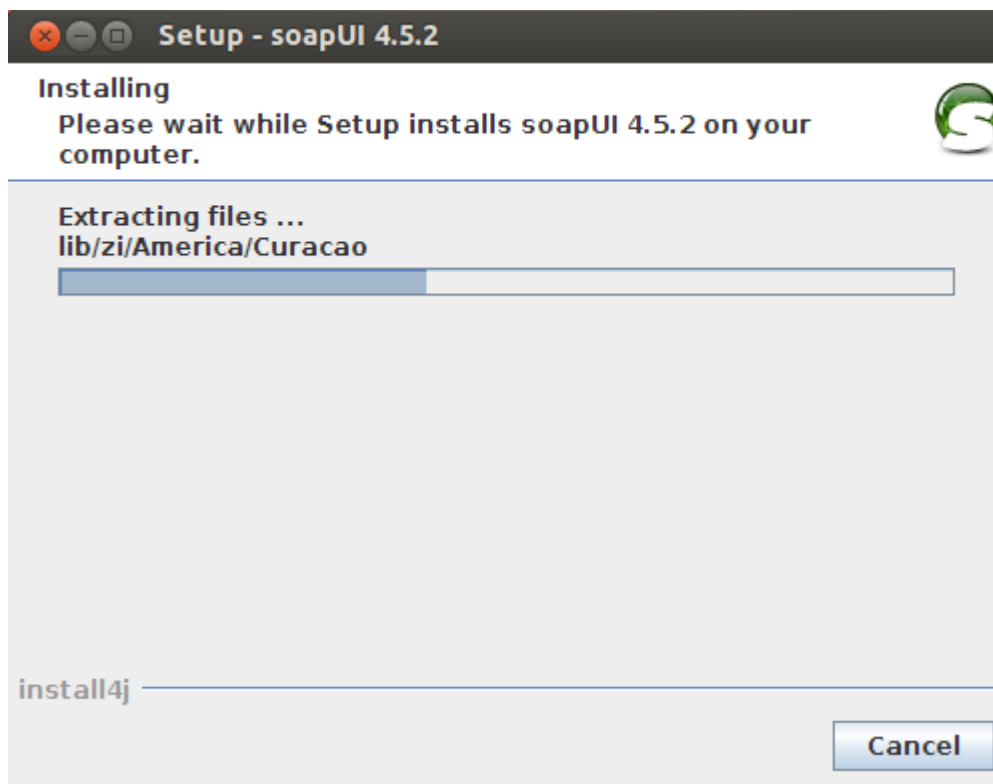
install4j

< Back

Next >

Cancel





- ☒ I have read and agree with the above terms and conditions
- ☒ 32-bit ☐ 64-bit

[Download the SDK ADT Bundle for Linux](#)

- `/opt/adt-bundle-linux-x86-20130729/eclipse/eclipse`
- copy `/usr/java JRE` to the `/eclipse/jre` folder.
- Eventually put ADT in user's HOME folder due to permissions headaches

## ✕ Welcome to Android Development

### Contribute Usage Statistics?

We know you just want to get started but please read this first.



By choosing to send certain usage statistics to Google, you can help us improve the Android SDK. These usage statistics lets us measure things like active usage of the SDK, and let us know things like which versions of the SDK are in use and which tools are the most popular with developers. This limited data is not associated with personal information about you, and is examined on an aggregate basis, and is maintained in accordance with the Google Privacy Policy.

Send usage statistics to Google?

☐ Yes

☒ No

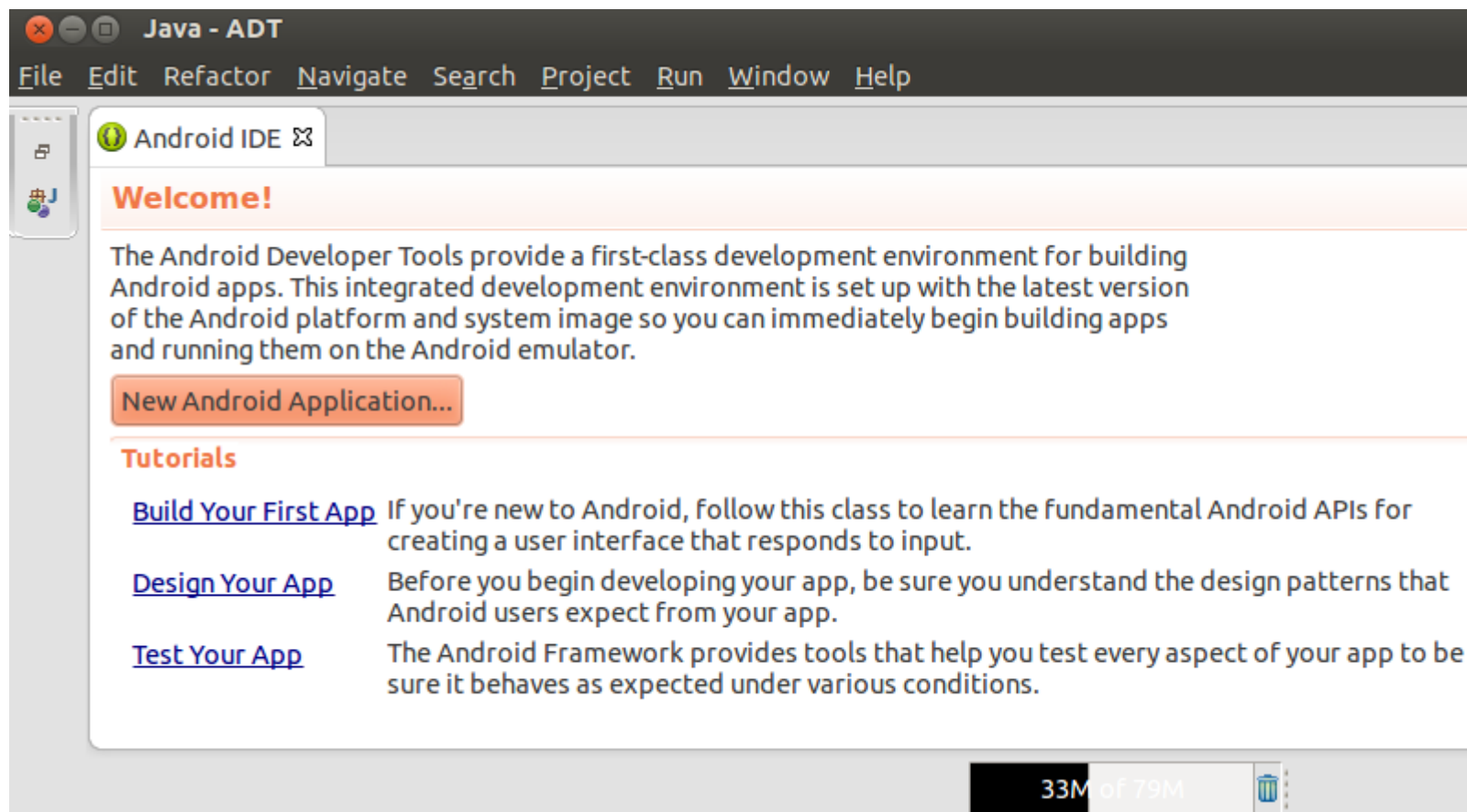
If you later decide to change this setting, you can do so in the options panel under Android > Usage Stats

[Google Privacy Policy](#)



Cancel

Finish



Back to Chrome

<https://accounts.google.com/ServiceLoginAuth>



# Welcome to Chrome

Sign in to get your bookmarks, history, and settings on all your devices. [Learn more](#)


Sign in

Google

Email

Password

The username or password you entered is incorrect.



Sign In

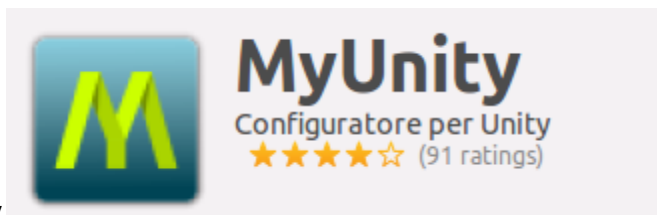
[Can't access your account?](#)

[Create a Google account](#)

[Skip for now](#)

☐ Choose what to sync

Sign in to Chrome  
Add Apps



MyUnity

## RPM for Linux Installation Notes

```
setup@UB1204:~$ rpm
```

The program 'rpm' is currently not installed. You can install it by typing:

```
sudo apt-get install rpm
```

```
setup@UB1204:~$ sudo apt-get install rpm
```

```
[sudo] password for setup:
```

# SQL Developer

## Folder Structure

```
/sqldeveloper
  /jre1.6
/eclipse
  /jdk1.6
/soapui
  /jdk1.6
```

## Java JDK 1.6

This download does not include the JDK. You can connect to and use any JDK 1.6.0\_11 or above.

To install and run:

- Ensure you have a JDK installed, if not, download [here](#)  
(click the Download for JDK 6 Update <xx>, where <xx> is the latest update)
- Download the file above
- rpm -Uhv sqldeveloper-3.1.07.42-1.noarch.rpm
- cd sqldeveloper - sqldeveloper

## Alien

First install alien:

```
sudo apt-get install alien
```

Then, convert the rpm file to a deb file:

```
sudo alien --scripts -d sqldeveloper-3.2.10.09.57-1.noarch.rpm
```

Then we run the deb file generated

```
sudo dpkg -i sqldeveloper-3.2.10.09.57-1.noarch.deb
```

Create the following directory in your home folder, this where it's going to store path to the jdk in the next step:

```
mkdir .sqldeveloper/
```

Run sqldeveloper once from the terminal

```
sudo /opt/sqldeveloper/sqldeveloper.sh
```

## Enter the full path to Java 6

If you've got the openjdk, it'll be:

```
/usr/lib/jvm/java-6-openjdk
```

For the official one it'll be:

```
/usr/lib/jvm/java-6-sun
```

And that's SQL Developer on Ubuntu 12.04. From here on out, you can now run SQL Developer by clicking the icon in you application menu.

---

```
setup@UB1204:~$ mkdir .sqldeveloper/
```

```
setup@UB1204:~$ sudo /opt/sqldeveloper/sqldeveloper.sh
```

Oracle SQL Developer

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Type the full pathname of a J2SE installation (or Ctrl-C to quit), the path will be stored in ~/.sqldeveloper/jdk  
/opt/sqldeveloper/jre

Error: Java home /opt/sqldeveloper/jre/bin/java is not a J2SE SDK.

Running SQL Developer under a JRE is not supported.

If the Java VM specified by the SetJavaHome is actually a full J2SDK installation

then add 'SetSkipJ2SDKCheck true' to /opt/sqldeveloper/sqldeveloper/bin/sqldeveloper.conf

---

# Install the Oracle JDK 6

Oracle themselves have the official guide to install their JDK - below is based upon those instructions.

Download the 32bit or 64bit Linux "compressed binary file" - it has a ".bin" file extension  
Give it permissions to execute and extract it

```
chmod a+x [version]-linux-i586.bin
```

```
./[version]-linux-i586.bin
```

During installation it will ask you to register - press ENTER. Firefox will open with the registration page. Registration is optional.

JDK 6 package is extracted into ./jdk1.6.0\_x directory, for example ./jdk1.6.0\_30.

Lets rename it:

```
mv jdk1.6.0_30 java-6-oracle  
Now move the JDK 6 directory to /usr/lib  
sudo mkdir /usr/lib/jvm
```

```
sudo mv java-6-oracle /usr/lib/jvm
```

witch to Oracle JDK 6

webupd8.googlecode.com hosts a nice-easy script to help with this.

```
wget http://webupd8.googlecode.com/files/update-java-0.5b  
chmod +x update-java-0.5b  
sudo ./update-java-0.5b  
don't worry - 0.5b refers to the script version - not the version of java!
```

An alternative to this is to use the webupd8 ppa and the update-java package.

enter image description here

Finally test the switch has been successful:

```
java -version  
javac -version  
These should display the oracle version installed - 1.6.0_30
```

## Install the Firefox/Chrome plugin

In a terminal:

```
mkdir ~/.mozilla/plugins
```

Remove the IcedTea plugin, if it has been installed.

```
sudo apt-get remove icedtea6-plugin
```

Remove a former version of the Java plugin (may or may not be present)

```
rm ~/.mozilla/plugins/libnjp2.so
```

Now you can install the plugin, by creating a symbolic link (you tell Firefox, where the plugin is located).

(32bit)

```
ln -s /usr/lib/jvm/java-6-oracle/jre/lib/i386/libnjp2.so ~/.mozilla/plugins/
```

(64bit)

```
ln -s /usr/lib/jvm/java-6-oracle/jre/lib/amd64/libnjp2.so ~/.mozilla/plugins/
```

Confirm that the JRE has been successful by using the official oracle website.

# Eclipse Plugin

SoapUI eclipse Update Site  
An eclipse update site is now available at <http://www.soapui.org/eclipse/update>, install the soapui-eclipse-plugin with the following steps:

1. Select Help > Install New Software...
2. In the Work with field, type <http://www.soapui.org/eclipse/update> and click Add...
3. Enter the following in the dialog that appears:  
entering the SoapUI update site in eclipse
4. Check the SoapUI checkbox and click Next. Then follow the dialogs to install the SoapUI feature

Read the Getting Started with SoapUI document and the SoapUI User Guide to get going!

Install

Available Software

Check the items that you wish to install.

Work with: SOAPUI Plugin - <http://www.soapui.org/eclipse/update/site.xml>

Add...

Find more software by working with the ["Available Software Sites"](#) preferences.

type filter text

Name	Version
<input checked="" type="checkbox"/> soapUI	
<input checked="" type="checkbox"/> soapUI Feature	4.0.1

Install

Install Details

Review the items to be installed.

Name	Version	Id
soapUI Feature	4.0.1	com.eviware.soapui.soapui_feature.

Size: Unknown

Details

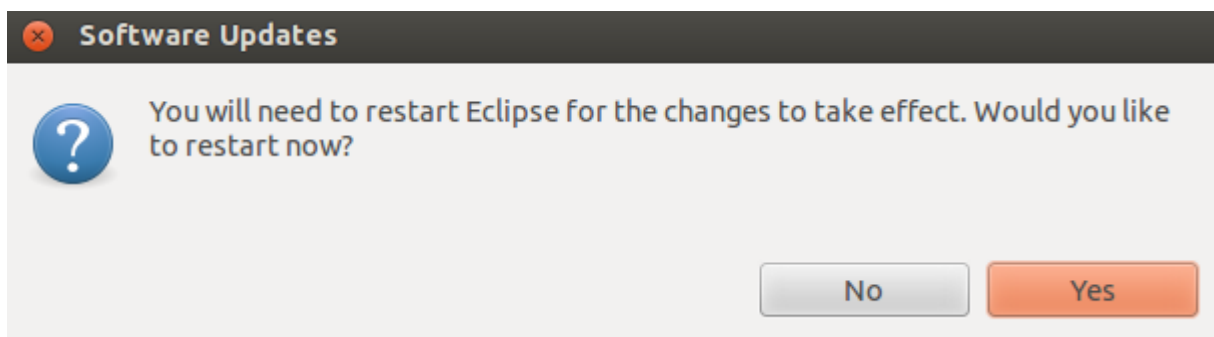
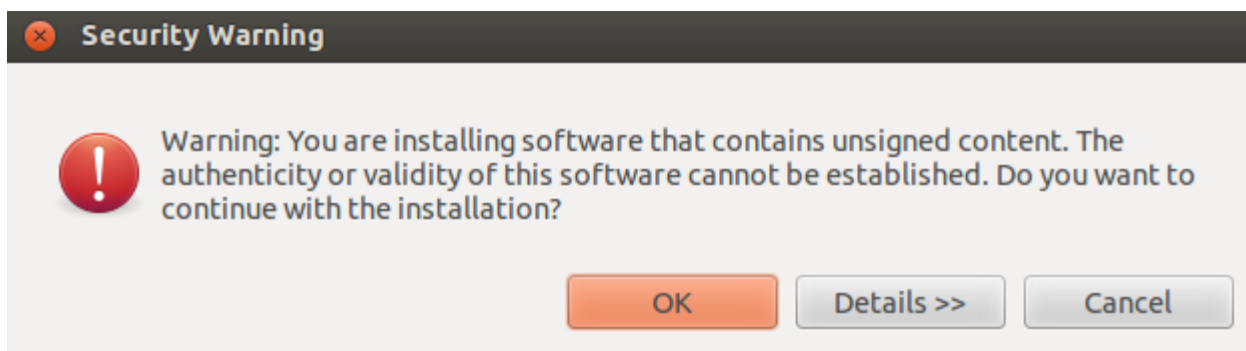
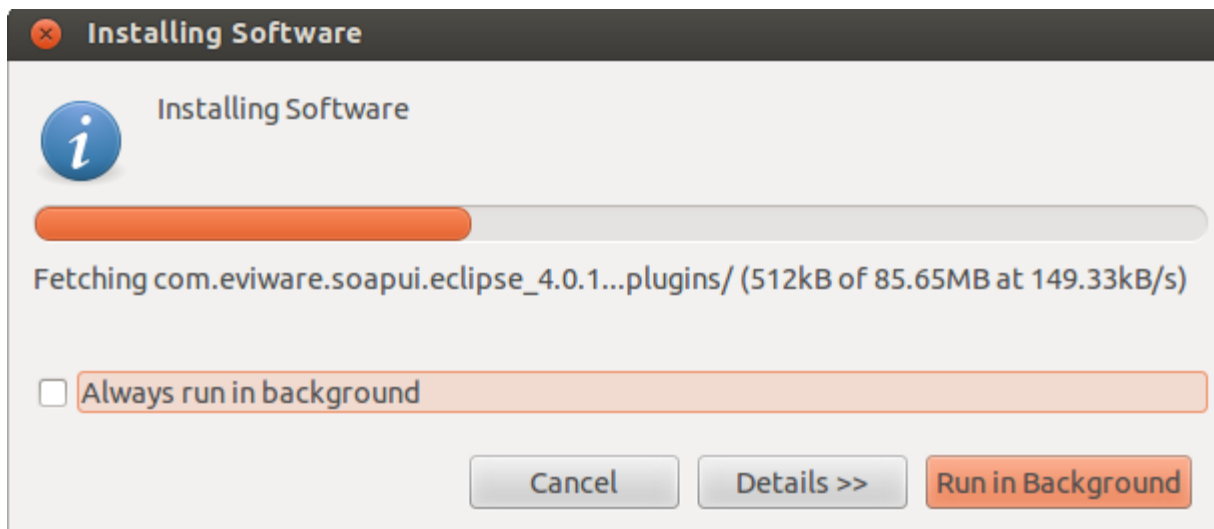
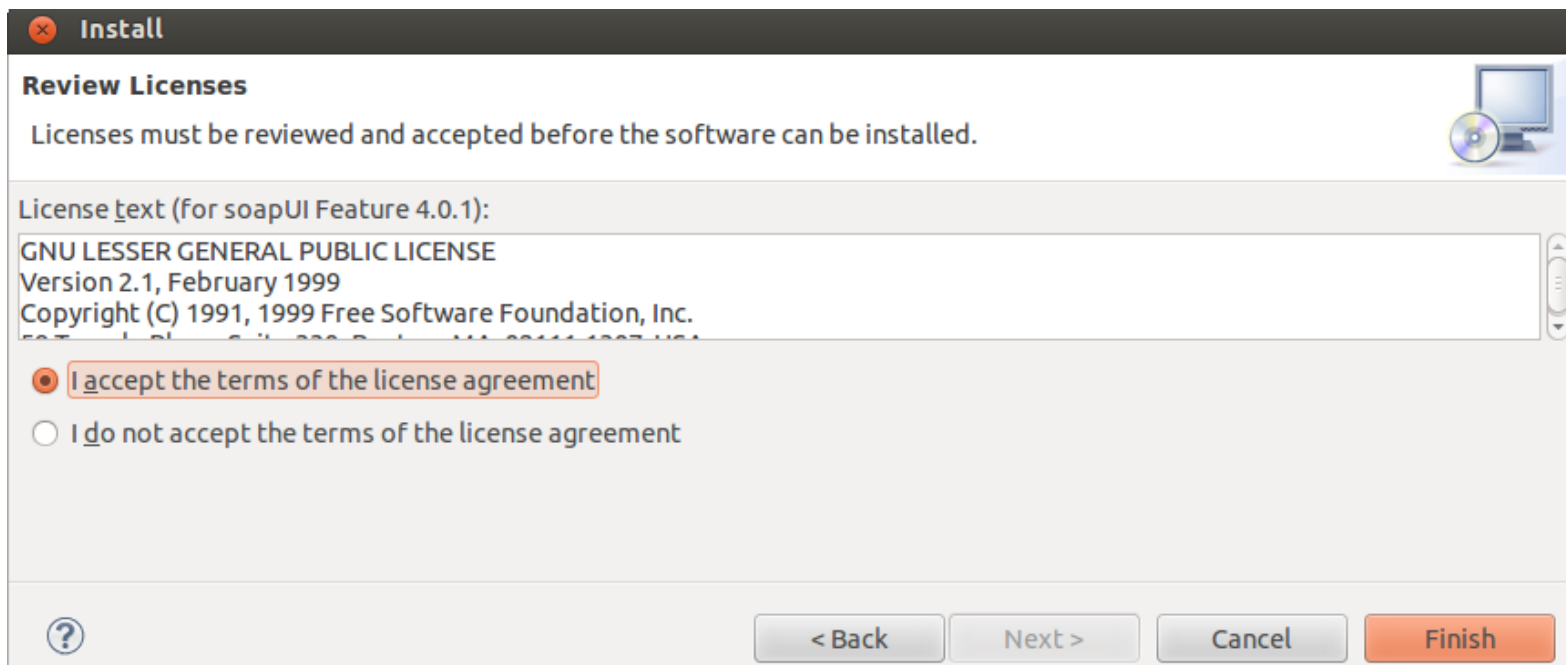
?

< Back

Next >

Cancel

Finish



# The SoapUI Perspective

---

Once installed, open the SoapUI Perspective by using the standard Window/Open Perspective/Other... Command and selecting "SoapUI" from the list. The perspective will open 2 views;

- \* A "SoapUI Navigator" view to the left containing the same Navigator and Details tab as the standalone SoapUI version.

- \* A "SoapUI Logs" view to the bottom containing the same log tabs as the standalone SoapUI version.

the SoapUI navigator in eclipse

Navigation/actions work the same as in the standalone version, windows are opened as tabs on the eclipse desktop and can be moved/docked around as usual

Of course, the above mentioned views can be added to any perspective using the Window/Show View/Other... Command and selecting either one of them in the SoapUI group.

the SoapUI navigator in eclipse

SoapUI Preferences

Most SoapUI Settings are available from the standard Window/Preferences dialog under the SoapUI node;

SoapUI preferences in eclipse

## TaskBar Launcher Resize

```
sudo add-apt-repository ppa:diesch/testing
sudo apt-get update
sudo apt-get install unsettings
```



## Change Unity 2D configuration files

The configuration files are located under `/usr/share/unity-2d/shell`. You will need `sudo` to edit the files contained therein. You should also create a backup of all the files before making any changes. The simplest way to backup would be:

```
tar cvfz ~/Documents/unity-2d-shell-backup.tar.gz
/usr/share/unity-2d/shell/*
```

Now, you can proceed to edit the files in any text editor. The paths listed below are all relative to the Unity 2D shell path above.

Shell.qml, change:

width: 65 to width: 50

common/IconTile.qml, change:

sourceSize.width: 48 to sourceSize.width: 32

sourceSize.height: 48 to sourceSize.height: 32

launcher/LauncherList.qml, change:

property int tileSize: 54 to property int tileSize: 38

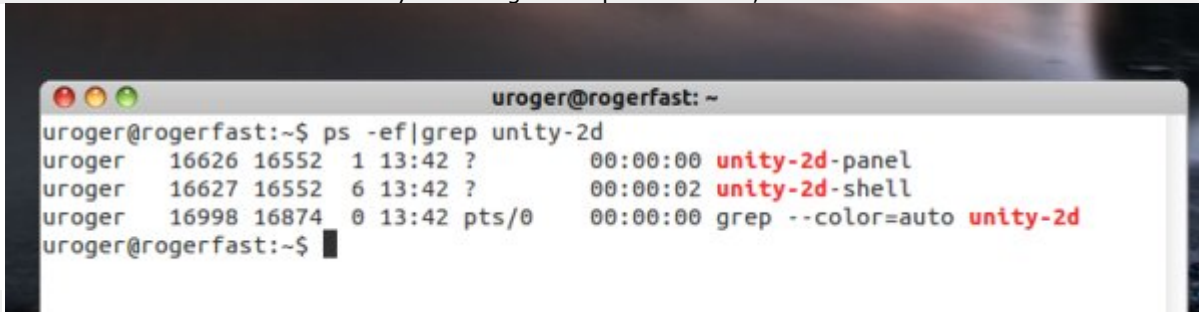
property int selectionOutlineSize: 65 to

property int selectionOutlineSize: 50

That would be all. Logout, log back in.

## How do I know I'm running Unity 2D?

This is a good question and probably merits a separate article. In general, on AskUbuntu, they tell you to look for various visual clues. The Launcher icons and right-click text have no transparency, there's no shadow under the menu and such. For me, the simplest way to distinguish between sessions is to look for `unity-2d` string in the process table, which then indicates I'm either running the 2D



```
uroger@rogerfast: ~
uroger@rogerfast:~$ ps -ef|grep unity-2d
uroger  16626 16552  1 13:42 ?        00:00:00 unity-2d-panel
uroger  16627 16552  6 13:42 ?        00:00:02 unity-2d-shell
uroger  16998 16874  0 13:42 pts/0    00:00:00 grep --color=auto unity-2d
uroger@rogerfast:~$
```

version or not.

```
setup@UB1204:~$ ps -ef|grep unity-2d
```

```
setup  1552 1306  0 08:40 ?        00:00:04 unity-2d-panel
```

```
setup  1553 1306  1 08:40 ?        00:00:27 unity-2d-shell
```

```
setup  3307 3248  0 09:20 pts/1    00:00:00 grep --color=auto unity-2d
```

## Cleaning & Resizing Drives

Cleaning up of partial package:

```
sudo apt-get autoclean
```

Cleaning up of the apt cache:

```
sudo apt-get clean
```

Cleaning up of any unused dependencies:

```
sudo apt-get autoremove
```

A good practice to avoid any left behind is to use the *autoremove* command whenever you want to uninstall an application.

```
sudo apt-get autoremove application-name
```

Install [fslint](#), or via the terminal:

```
sudo apt-get install fslint
```

Go to *Applications-> System Tools-> FSlint*. Add the file path that you want to search. On the left, click on the *Duplicate* tab and click *Find* at the bottom.

FSLint

Search path | Advanced search parameters

Add /bin /usr/bin /sbin /usr/lib

Remove

☒ recurse?

Duplicates	Name	Directory	Date
Bad names	2 * 237344		(237568 wasted)
Name clashes	libnssckbi.so	/usr/lib	Aug 27 07:37
	libnssckbi.so	/usr/lib/mozilla-1.1	Aug 27 07:21
Temp files	13 * 162		(49152 wasted)
Bad symlinks	Cn.pl	/usr/lib/perl5/5.6.0/unicode/ls	Aug 10 2001
	SylA.pl	/usr/lib/perl5/5.6.0/unicode/ls	Aug 10 2001
	SylC.pl	/usr/lib/perl5/5.6.0/unicode/ls	Aug 10 2001
Bad IDs	SylE.pl	/usr/lib/perl5/5.6.0/unicode/ls	Aug 10 2001
Empty directories	Syll.pl	/usr/lib/perl5/5.6.0/unicode/ls	Aug 10 2001
	SylO.pl	/usr/lib/perl5/5.6.0/unicode/ls	Aug 10 2001
Non stripped binaries	SylU.pl	/usr/lib/perl5/5.6.0/unicode/ls	Aug 10 2001
Redundant whitespace	SylV.pl	/usr/lib/perl5/5.6.0/unicode/ls	Aug 10 2001
	SylWA.pl	/usr/lib/perl5/5.6.0/unicode/ls	Aug 10 2001

Find Toggle Save Delete Merge

741,376 bytes wasted in 81 files (in 52 groups)

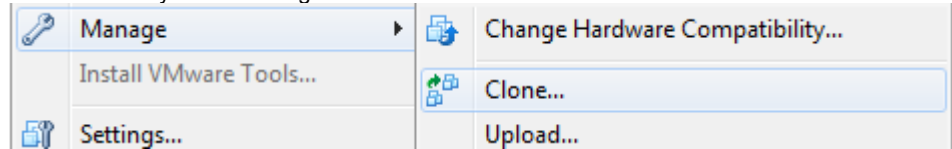
md5sum: /sbin/actctrl: Permission denied

md5sum: /sbin/innctrl: Permission denied

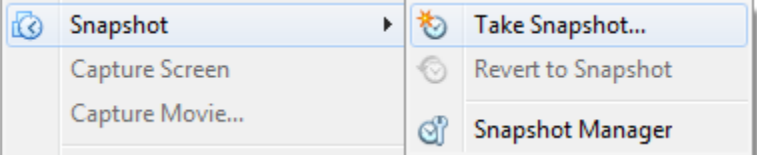
# GParted Partition Editor & Resizing VMDK Files

## VMWARE

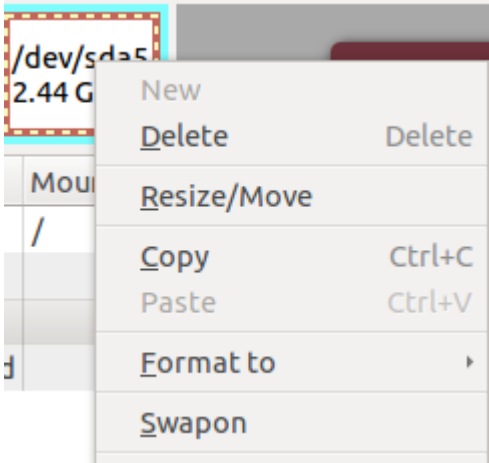
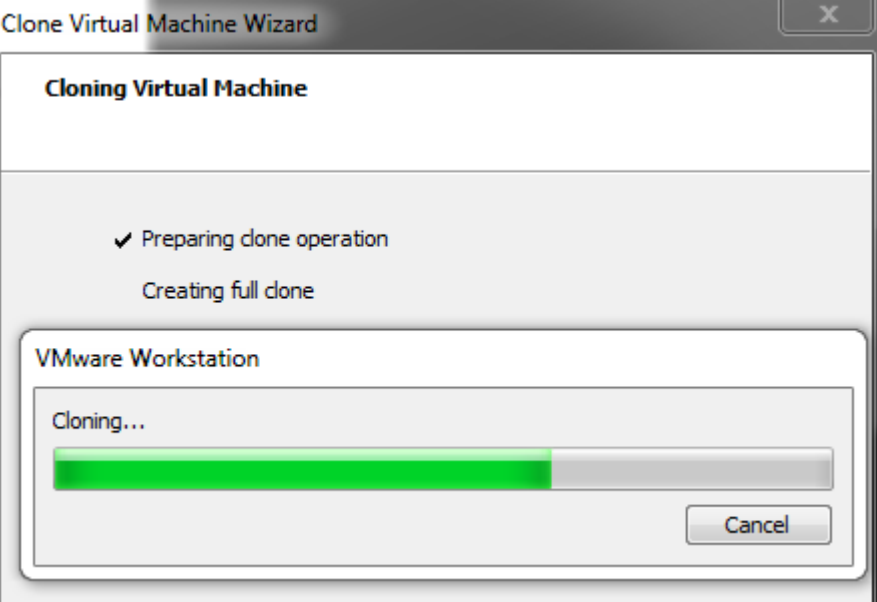
- Create NEW VM in NEW folder and mount OLD VMDK file
- Immediately select Manage\Clone...



- Select/Create a new folder C:\VM\UB1205.05 for the newly cloned VM
  - Note: Performing this operation across 2 drives will significantly reduce transfer time.
- Once Cloning is complete, immediately take a snapshot



- Then boot the VM to test



GParted Edit View Device Partition Help

/dev/sda (20.00 GiB)

Partition	File System	Mount Point	Size	Used	Unused	Flags
/dev/sda1	ext4	/	5.56 GiB	4.31 GiB	1.25 GiB	boot
/dev/sda2	ext4		2.44 GiB	—	—	
/dev/sda5			2.44 GiB	—	—	
unallocated			12.00 GiB	—	—	

New  
Delete  
Delete  
Resize/Move

gpartedbin

Minimum size: 2,498 MiB    Maximum size: 14,786 MiB

Free space preceding (MiB):

New size (MiB):

Free space following (MiB):

Align to:

Cancel    > Resize/Move

Resize/Move /dev/sda5

Minimum size: 1 MiB    Maximum size: 14,786 MiB

Free space preceding (MiB):

New size (MiB):

Free space following (MiB):

Align to:

Cancel    > Resize/Move



## 7zip

7zip compression/uncompression tool

★★★★★ (447 ratings)

\*



## FileZilla

Download and upload files via FTP, FTPS and SFTP

★★★★★ (421 ratings)



## PuTTY SSH Client

Connect to an SSH server with PuTTY

★★★★☆ (34 ratings)



## Samba

Create, modify, and delete samba shares

★★★★☆ (84 ratings)



## Advanced Settings

Tweak advanced GNOME 3 settings

★★★★☆ (97 ratings)



## Geany

A fast and lightweight IDE using GTK2

★★★★★ (381 ratings)



## VLC media player

Read, capture, broadcast your multimedia streams

★★★★★ (1578 ratings)



## KeePass2

Password manager

★★★★☆ (92 ratings)



## Ubuntu restricted extras

Commonly used applications with restricted copyright (mp3, avi, ...)  
★★★★★ (312 ratings)



**To install Ubuntu restricted extras, these items must be removed:**



Libav codec library  
libavcodec53



Libav utility library  
libavutil51

Cancel

Install Anyway

Debconf on UB1204

## Configuring ttf-mscorefonts-installer

TrueType core fonts for the Web EULA

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For



## GParted Partition Editor

Create, reorganize, and delete partitions  
★★★★★ (434 ratings)



# System Settings

System Settings

★★★★☆ (8 ratings)

## VBOX Configuration Settings

- General
  - Basic
    - Unique name
    - OS – Linux
    - Match the correct flavor – Ubuntu
  - Advanced
    - Snapshot folder – default
    - Clipboard – bidirectional
    - Removable Media – whatever you prefer
    - Mini ToolBar – whatever you prefer
  - Description – whatever you prefer
- System
  - Motherboard
    - Base memory – 768 to 3.5 GB depending on your desires. Always leave at least 1GB for the hostOS
    - Chipset – ICH9 this is important
    - Extended Features
      - Check – Enable IO APIC (absolutely critical)
      - Uncheck – Enable EFI this is important
      - Check – HW Clock in UTC
      - Check – Enable absolute Pointing device
  - Processor
    - 🔧 1 CPU; never allocate more CPU than you need. 2 vCPUs would be a max for a desktop VM and only if you have 3 or more physical Cores.
    - 🔧 Execution Cap: 100%
    - 🔧 Check – Enable PAE/NX
  - Acceleration
    - 🔧 Check – Enable VT-x/AMD-v (this must be supported by the CPU, MB and enabled in the BIOS)
    - 🔧 Check – Enable nested paging
- ▢ Display
  - Video
    - 🔧 128MB video RAM – this is for a desktop. Servers get 9MB
    - 🔧 1 monitor
    - 🔧 Extended Features – disable both 3D and 2D acceleration. Experiment later, if you like.
  - Remote Display – whatever you prefer
- ▢ Storage
  - IDE Controller – whatever.
  - SATA Controller – AHCI If the controller chipset is available, select the latest ICH model this is important – SATA is much, much, much faster than IDE. If your VM supports Virtio, that will be even more efficient AND faster than SATA. Recent Linuxen support virtio.
- ▢ Audio – whatever
- ▢ Network
  - Adapter 1
    - 🔧 Bridged – I've used NAT, but sometimes it just doesn't work. Start bridged and experiment later with NAT.
    - 🔧 Name – this is where you select which physical adapter the VM will use. If you have wired and wifi, you'll want to toggle between them here.
    - 🔧 Advanced
      - Adapter Type – Intel PRO/1000 MT this is important If your VM supports Virtio, that will be even more efficient AND faster than SATA. Recent Linuxen support virtio.
      - Promisc Mode – deny
      - MAC Address – default is ok.
      - Cable Connected – checked

- o Adapter 2, 3, 4 ... unused unless you are expert.
- Serial – I've never used these at all, ever.
- USB – Not covered here. Until the Guest Additions are installed, doesn't matter anyway.
- Shared Folders – I use this all the time, but not when making a fresh VM.

Ok, there you have it. The VBox settings for the best performance. Hopefully, the VirtualBox team hasn't Changed too many names for these settings in the newer versions.

## No Unity

Connect the Ubuntu ISO to the CDRom in Storage and start the install. Since we disabled the GPU advanced 2D and 3D acceleration, **Unity should not install. This is good.** Unity 2D might, which is fine. It doesn't seem to cause as many issues.

## Guest Addition Dependencies

After the OS install, a few things are needed to make VBox nicer. Mainly the **Guest Additions**.

```
$ sudo apt-get install build-essential dkms
```

One of three kernel header packages is required. Run

```
$ uname -r
```

and based on the returned string, install one of these:

```
()-generic-pae = apt-get install linux-headers-generic-pae  
()-generic = apt-get install linux-headers-generic  
()-server = apt-get install linux-headers-server
```

**Important:** Reinstalling Guest Additions must be performed manually if DKMS doesn't handle it automatically after a new kernel is installed.

Do not use kernel-version specific versions. You want one of the listed choices above so your system will automatically manage updates with every new kernel.

## Mount and Install Guest Additions

In the "machine menu", Select the Devices menu, then Install Guest Additions. For Linux, this just makes the device available. In Ubuntu, the device should be auto-mounted under /media/. Open in File Manager dialog will probably be displayed. It doesn't matter to me if you use this or not.

1. Open a terminal

2. 

```
$ cd /media/VB*
```

3. 

```
$ sudo sh ./VBoxLinuxAdditions.run
```

If there are any errors in this last step, look at the **log file** and resolve them. Reboot the VM to have the guest additions start working. The main thing these addons provide is nicer mouse integration, better video performance and resizing of the VM window. It really is worth the hassle for any GUI VM. For servers, I don't usually bother as the mouse and video don't matter at all.

Now your VM should work with about 95% of native performance. I wouldn't bother using VirtualBox with any CPU less than a Core 2 Duo or any amount of RAM less than 2GB. It just isn't worth it.



## Java for Linux Platforms

The instructions below are for installing version Java 7 Update 7 (7u7). If you are installing another version, make sure you change the version number appropriately when you type the commands at the terminal. Example: For Java 6u35 replace 7u7 with 6u35. Note that, as in the preceding example, the version number is sometimes preceded with the letter u, and sometimes it is preceded with an underbar, for example, jre1.7.0\_07.

Change to the directory in which you want to install. Type:

```
cd <directory path name>
```

For example, to install the software in the /usr/java/ directory, Type:

```
cd /usr/java/
```

Note about root access: To install Java in a system-wide location such as /usr/local, you must login as the root user to gain the necessary permissions. If you do not have root access, install the Java in your home directory or a sub directory for which you have write permissions

Move the .tar.gz archive binary to the current directory.

Unpack the tarball and install Java

```
tar zxvf jre-7u7-linux-i586.tar.gz
```

The Java files are installed in a directory called jre1.7.0\_07 in the current directory.

In this example, it is installed in the /usr/java/jre1.7.0\_07 directory.

Delete the .tar.gz file if you want to save disk space.

-----

## Enable and Configure

Firefox or Mozilla

To configure the Java Plugin follow these steps:

Exit Firefox browser if it is already running.

Uninstall any previous installations of Java Plugin.

Only one Java Plugin can be used at a time. When you want to use a different plugin, or version of a plugin, remove the symbolic links to any other versions and create a fresh symbolic link to the new one.

Create a symbolic link to the libnjp2.so file in the browser plugins directory

Go to the plugins sub-directory under the Firefox installation directory

```
cd <Firefox installation directory>/plugins
```

Create plugins directory if it does not exist.

Create the symbolic link

```
ln -s <Java installation directory>/lib/i386/libnjp2.so
```

Note: If you are upgrading your Java version then before creating new symbolic link you should remove old symbolic link to enable latest downloaded Java.

To remove old symbolic link:

```
type cd <Firefox installation directory>/plugins
```

```
rm libjavaplugin_oji.so
```

Example

If Firefox is installed at this directory:

```
/usr/lib/<Firefox installation directory>
```

And if the Java is installed at this directory:

```
/usr/java/<Java installation directory>
```

Then type in the terminal window to go to the browser plug-in directory:

```
/usr/lib/<Firefox installation directory>/plugins
```

Enter the following command to create a symbolic link to the Java Plug-in for the Mozilla browser.

```
ln -s /usr/java/<Java installation directory>/lib/i386/libnjp2.so
```

Start the Firefox browser, or restart it if it is already up.

In Firefox, type about:plugins in the Location bar to confirm that the Java Plugin is loaded. You can also click the Tools menu to confirm that Java Console is there.



# Mounting Drives

## Using mount

### Get the Information



Sometimes devices don't automount, in which case you should try to manually mount it. First, you must know what device we are dealing with and what filesystem it is formatted with. Most flash drives are FAT16 or FAT32 and most external hard disks are NTFS.

```
sudo fdisk -l
```

Find your device in the list, it is probably something like /dev/sdb1. For more information about filesystems, see [LinuxFilesystemsExplained](#).

### Create the Mount Point

Now we need to create a mount point for the device, let's say we want to call it "external". You can call it whatever you want, just please don't use spaces in the name or it gets a little more complicated - use an underscore to separate words (like "my\_external"). Create the mount point:

```
sudo mkdir /media/external
```

### Mount the Drive



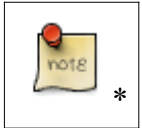
We can now mount the drive. Let's say the device is /dev/sdb1, the filesystem is FAT16 or FAT32 (like it is for most USB flash drives), and we want to mount it at /media/external (having already created the mount point):

```
sudo mount -t vfat /dev/sdb1 /media/external -o uid=1000,gid=1000,utf8,dmask=027,fmask=137
```

The options following the "-o" allow your user to have ownership of the drive, and the masks allow for extra security for file system permissions. If you don't use those extra options you may not be able to read and write the drive with your regular username.

Otherwise if the device is formatted with NTFS, run:

```
sudo mount -t ntfs-3g /dev/sdb1 /media/external
```



You must have the ntfs-3g driver installed. See [MountingWindowsPartitions](#) for more information.

### Unmounting the Drive



When you are finished with the device, don't forget to unmount the drive before disconnecting it. Assuming /dev/sdb1 mounted at /media/external, you can either unmount using the device or the mount point:

```
sudo umount /dev/sdb1
```

or:

```
sudo umount /media/external
```

You cannot unmount from the desktop by right clicking the icon if the drive was manually mounted.

# Using pmount

There is a program called pmount available in the [repositories](#) which allows unprivileged users to mount drives as if they were using sudo, even without an entry in [/etc/fstab](#). This is perfect for computers that have users without [RootSudo](#) access, like public terminals or thin clients.

pmount can be used with the same syntax as mount (but without sudo), or quite simply as follows:

```
pmount <device> [ label ]
```

Example:

- `pmount /dev/sdb1 flash_drive`
- This will mount the device `/dev/sdb1` at `/media/flash_drive`

If you leave off the label option, it will mount by default at `/media/device`

To unmount the device, use pumount, like so:

```
pumount <device>
```

Example:

- `pumount /dev/sdb1`
- 

For more help, you can see the man pages for [pmount](#) and [pumount](#).

## Network Configuration Issues

Found it! "To resolve this, all you need is to remove all other interface except lo from `/etc/network/interfaces`

```
sudo cat /etc/network/interfaces
```

```
#working config
auto lo
iface lo inet loopback
```

```
sudo cat /etc/network/interfaces
#previous non-working config
auto lo
iface lo inet loopback
auto eth0
iface eth0 inet manual
```

Once you are done with necessary changes:

```
restart network-manager
sudo service network-manager restart
```