

Ubuntu 7.10 VMware Fusion Virtual Machine Setup Install HOWTO

I created this document for the Users that do not have enough experience dealing with Linux OSes and or the Command Line for installing VMware Tools and are having some difficulties creating an Ubuntu 7.10 VMware Fusion Virtual Machine for the first time.

These instructions assume the following conditions, that of which where the configuration of my system and personal choices I made at the time I installed Ubuntu 7.10 on my Apple 15" MacBook Pro. As you setup the VM and install Ubuntu on your system, please feel free to substitute any values or steps that suite your system and personal needs or wants.

My System Specs: 15" MacBook Pro 2.33 GHz Intel Core 2 Duo, 2 GB DDR2 SDRAM, 120 GB HDD with Mac OS X 10.4.10

VMware Fusion 1.1 Release Candidate Build 61385 | 10/25/07

Ubuntu 7.10 - ubuntu-7.10-desktop-i386.iso - downloaded from one of the mirrors.

This install is done using the ISO Image booting to the Live Session and starting the install from there. The GUI Environment is used to perform as many steps as possible thus using the Command Line as little as possible. In other words part of the VMware Tools install, which in the official documentation presents it only from the command line when using the tar installer, was done while in the GUI and using the Mouse. This includes modify the vmware-config-tools.pl file to handle an issue that will most likely be corrected in an upcoming release of VMware Tools. While I was using Fusion 1.1 RC for this install the vmware-config-tools.pl file in VMware Fusion 1.1 Build 62573 Linux.iso of VMware Tools still needs to be modified as well. The issue with and the editing of the vmware-config-tools.pl file is thanks to a post made by **nospamboz**, **Ubuntu 7.10 (and other) mouse/display: Problem and solution** and can be viewed at: <http://communities.vmware.com/message/780167>

I also address an aesthetic issue of the VM's windows resizing itself with scroll bars during Startup and the Shutdown on the 15" MBP. While on larger screens this would probably not be an issue none-the-less what I did IMO makes it not as annoying while the window changes resolution several times during startup and shutdown. More about this after the install is started.

Lets get started...

Start VMware Fusion

Click **Finder > Applications > VMware Fusion**

Create the Ubuntu Virtual Machine

On the **Virtual Machine Library** dialog box click the **New...** button.

The **New Virtual Machine Assistant** dialog box appears.

Click the **Continue** button.

Choose Operating System

Operating System: **Linux**
Version: **Ubuntu**

Click the **Continue** button.

Name and Location

Save as: **Ubuntu**
Where: **Virtual Machines**

Click the **Continue** button.

Virtual Hard Disk

Disk size: 8 GB (If necessary, change this value to suite your needs.)

Note: If you need to apply custom disk settings click,

> **Advanced disk options** or...

Click the **Continue** button.

Finish

Note: I deselected the **Start virtual machine and install operating system now** check box in order to customize hardware settings before the install process started. This gives the opportunity to modify the hardware defaults and add additional hardware, like setting a different Memory value, adding and enabling Shared Folders and adding a Floppy disk, etc.

Select the **Use operating system installation disk image file:** radio button then click **None** and select **Other...** then choose the **ubuntu-7.10-desktop-i386.iso** file from its download saved location.

Click the **Finish** button.

The **Settings** dialog box now opens for you to modify the defaults. *

When done click the **OK** button. * (* If you followed the Note above.)

Start the Virtual Machine...

Click the Start button on the VM window and when the Ubuntu Boot Screen shows click into the VM window and press Enter. This boots Ubuntu to a Live Session for the Install.

Note: Although not necessary for the install, once at the Ubuntu Desktop if you want to change the Screen Resolution to something more comfortable than having it display off the screen if your on a 15" MBP or 13" MB... On the GNOME main menu bar (top panel) click, System > Preferences > Screen Resolution then on the Screen Resolution Preferences dialog box select an appropriate value in the Resolution: list box. Example: On my 15" MBP 1024x768 is my preference for the installation and use.

Installing a Default Install of Ubuntu to the VM is an extremely easy process as the install wizard has 7 simple steps. They are so simple I'm just barely going to elaborate on them. They are...

1. Language
2. Location
3. Keyboard layout
4. Prepare disk space *
5. Migrate Documents and Settings **
6. Who are you?
7. Ready to install

Notes: * In a VM with no other OS installed just accept the default and continue. (Obviously select the Hard Drive if you also have a Floppy disk showing.)

** On a clean install with nothing on the HDD, Step 5 is skipped.

Start the install by double-clicking the Install icon on the Desktop.

Walk through the wizard supplying the appropriate information and it's now installing.

Okay while it's installing lets review what's left to do.

Note: Under normal conditions during startup and shutdown the Ubuntu VM window undergoes several resizing operations and while it presents no ill effect on the actual running of the VM, none-the-less aesthetically its looks messy and it's annoying and yet it's very easy to change or modify this behavior to some degree so it's not so messy and annoying. The default resolution of the Ubuntu VM during its POST is 640x480 and during startup and shutdown aside from the resolution you set for your Desktop, the resolution switches from either the VM BIOS POST size of 640x480 to a Terminal window 720x400 to a window with scroll bars to the Desktop resolution that is set during the VMware Tools install, in one combination or another depending on whether one is starting up or shutting down and what size their screen is and the resolution of the Host. I personally find this annoying and to minimize the annoyance I set the Ubuntu Splash Screen Resolution to 640x480. Then the transition from the two lower resolutions to the Desktop set resolution appears more orderly as this eliminates one of the four different sizes. So after the install and reboot this issue can be addressed along with installing VMware Tools.

When the Install is done, reboot the Virtual Machine.

You have now rebooted and logged into the Ubuntu Desktop and need to install VMware Tools and make changes to the Ubuntu Splash Screen if you care to.

To reset the Splash Screen, in a Terminal (**Applications > Accessories > Terminal**) type the following commands.

`sudoedit /etc/usplash.conf` then press **Enter**; Type your password then press **Enter**.

Change the `xres` and `yres` values to 640 (`xres`) and 480 (`yres`) or your preferred size.

Press **Ctrl+O** then **Enter** to save the file and **Ctrl+X** to exit the editor.

Type `sudo dpkg-reconfigure -phigh usplash` then press **Enter** and when the Command Prompt returns you can close the Terminal window.

The splash screen will now use 640x480 resolution or whatever valid values you choose.

Next: Edit the `vmware-config-tools.pl` file and install VMware Tools.

Note: While it's not absolutely necessary you edit the `vmware-config-tools.pl` file it is highly recommended that you do edit this file until VMware patches it.

From the VMware Fusion menu bar click Virtual Machine > Install VMware Tools.

Click Install on the ensuing message box.

Ubuntu will display a VMware Tools DVD-ROM icon on the Desktop and should open it automatically however if it doesn't then double-click the VMware Tools DVD-ROM icon to open the `cdrom0 - File Browser` window. There should be two files a `*.rpm` and a `*.gz`.

Note: If the `cdrom0 - File Browser` window contains more than two files an error has occurred and you will need to cancel the VMware Tools install. First close the `cdrom0 - File Browser` window then right-click the VMware Tools DVD-ROM Icon on the Desktop and select Eject. Now cancel the VMware Tools install... (VMware Fusion menu > Virtual Machine > Cancel VMware Tools Installation) and then manually load the correct `.iso` file. On the VM's window status bar click the Optical Disc Icon and select Choose Disk Image... and navigate to `/Library/Application Support/VMware Fusion/isoimages/linux.iso`. If you have the Status Bar hidden either unhide it (VMware Fusion menu > View > Show Status Bar) or go to (VMware Fusion menu > Virtual Machine > CD/DVD > Choose Disk Image...) and choose the `linux.iso` file from the path above. (Note: Some of these steps are taken outside the VM)

Right-click the `VMwareTools-7.6.1-6138.tar.gz` (or `-62573.tar.gz`) file and select **Copy**.

On the Main Toolbar click the Up Arrow twice then double-click the `tmp` folder and then right-click and select **Paste**.

Right-click the `VMwareTools-7.6.1-6138.tar.gz` (or `-62573`) file and select **Extract Here**.

This creates the `vmware-tools-distrib` folder.

Double-click the `vmware-tools-distrib` folder.

Double-click the `bin` folder.

Right-click the `vmware-config-tools.pl` file and select **Properties**.

On the `vmware-config-tools.pl` **Properties** dialog box select the **Permissions** tab.

On the **Permissions** tab change the **Owner: Access:** from **Read-only** to **Read and write** then click **Close**.

Double-click the `vmware-config-tools.pl` file and select **Display** to load it in **gedit**.

In **gedit** click **Search > Go to Line...** or **Ctrl+I** and type **4961** and press **Enter**.

Change `$major = $1;` to `$major = $1 eq 1 ? 7 : $1;`

Click **Search > Go to Line...** or **Ctrl+I** and type **5130** and press **Enter**.

Change `} elsif ($major == 7 && ($minor >= 0 && $minor <= 2) &&` to
`} elsif ($major == 7 &&`

Click **Search > Go to Line...** or **Ctrl+I** and type **5135** and press **Enter**.

Change `if ($minor eq 2) {` to `if ($minor ge 2) {`

Click the **Save** button then click **X** to close **gedit**.

Note: If your planning additional installs I'd suggest copying the edited `vmware-config-tools.pl` file to another folder outside of the `tmp` folder, as the `vmware-tools-distrib` folder will be deleted from the `tmp` folder after installing VMware Tools and rebooting. You can then reuse this file later.

Close the **bin - File Browser** window and then right-click the **VMware Tools DVD-ROM** and select **Eject**. On the **VMware Fusion** menu click **Virtual Machines > Cancel VMware Tools Install...**

The next step has to be done in a **Terminal** without the **Gnome Desktop** running.

Press **Ctrl+Alt+F1** and then login to `tty1` and then process the following commands.

Type `sudo /etc/init.d/gdm stop` then press **Enter**. (This stops the **Gnome Desktop Manager**.)

Type `cd /tmp/vmware-tools-distrib` then press **Enter**.

It's now time to actually install **VMware Tools** and to accept the **Defaults** just press **Enter** to each question asked. If your are new to installing **VMware Tools**, with the exception of setting the display size that **X** will start with I suggest that you just accept all default answers by pressing **Enter** when prompted with each question during the install of **VMware Tools**. Note: A few operations take a while so be patient and wait for each prompt.

Type `sudo ./vmware-install.pl` then press **Enter**.

When the **VMware Tools** install is complete reboot the **VM** using the following command.

Type `sudo shutdown -r now` then press **Enter**. That's it, you're done! ☺