

Re: linux for beginners

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- *From:* Aragorn <aragorn@xxxxxxxxxxxxxxxxxxxxxx>
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Marlock wrote:

Hi ya all!!!

I'd like to install linux for the first time!

Congratulations! :p

Which one to take?

<http://www.distrowatch.com>

.... is a good place to start... ;-)

What to be careful about?

First and foremost, you need to be careful about realizing that you'd no longer be working on Windows. Not that GNU/Linux is so user-unfriendly – it isn't, it just wants the user to be a little more computer-friendly :-)
– but most people coming from the Windows world tend to take certain things about computers for granted that really only apply to Windows, such as the frequent reboots, the need for frequent filesystem defragmentation, running everything with system administrator privileges, etc.

GNU/Linux is a de facto UNIX system. It's multi-user, multi-tasking, secure, robust, scalable, flexible, portable, transparently configurable and very powerful.

I recommend that you would buy a shrinkwrapped, boxed GNU/Linux distribution – I would by the same token also recommend the Mandriva PowerPack – since it's your first time on the block.

The benefit of purchasing such a shrinkwrapped box is that you get a printed

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manual, limited support via fax, e-mail or phone, and all the proprietary software extensions that might be free of charge but still may not be distributed with the freely downloadable distributions because of their licenses, e.g. proprietary nVidia drivers, Adobe Flashplayer and plugins, Sun's Java Runtime Environment. With a freely downloadable distribution, you would have to download and install those tools yourself.

If however you decide to download a distribution and burn the CDs or DVDs yourself, then you should make sure that you check the `/md5sums/` or `/sha1sums/` on the downloaded `/.iso/` files before burning them to CD/DVD media, and that you use quality media and a low burning speed.

What about hardware support?

Wireless ethernet is problematic with a lot of chipsets. Anything with an Orinoco or Atheros chipset will work. Winmodems – i.e. most PCI modems – won't work, except for a few models. These devices are not real modems; they have all the modem work done via software and simply offer a connector for a phone cable. Avoid those.

Just about everything else is supported in a recent distribution. Linux is the only kernel that runs on just about every CPU platform in existence, from IBM mainframes and supercomputers over renderfarms down to wristwatches, satnav systems and smartphones.

Any standard hardware will work. Any "designed for Windows XP/designed for Vista" stuff is to be mistrusted, because nowadays hardware vendors are building their hardware around the software instead of the other way around, as it should be.

Either way, GNU/Linux supports more hardware out-of-the-box than Windows does, and all available approved and GPL'ed driver modules will be installed on your hard disk, so there is no juggling with driver disks afterwards if you plan on adding new hardware or changing something.

What about the software that comes with the distribution?

Freely downloadable distributions come with a fairly complete load of software for an average desktop experience and loads of different software that does the same thing. Commercially sold distributions come with the proprietary drivers needed to get the most out of your nVidia card, all the right browser and media player plug-ins, etc.

I would definitely not recommend Ubuntu/Kubuntu/Xubuntu/Edubuntu for a first distribution, because although you can technically install whatever you want on those distros, in their base form, they only support one desktop environment.

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So for instance, Kubuntu is the Ubuntu distribution with KDE as the desktop environment, and will – alongside the normal commandline utilities – only come with software that makes use of the Qt widgetset and runs fully integrated with KDE. Likewise, Ubuntu itself uses Gnome as the desktop environment and will only come with graphical applications that use the GTK widgetset and are integrated within Gnome.

However, it is perfectly possible to run KDE applications inside Gnome or to run Gnome applications inside KDE, as long as you have the base libraries of "the other" environment installed. This is something Ubuntu/Kubuntu does not offer you by default, so you would need to download and install those packages yourself.

A distribution like PCLinuxOS or Mandriva on the other hand goes out of its way to integrate the various applications very well, regardless of what desktop environment you're going to use. It'll just install them both – along with some other desktop environments, if that is what you've marked during installation – and allows you to choose what you will be using. As such, different users of the same machine could each run a different desktop environment and still have all the applications they need.

Lastly some technical advice...:

(1) GNU/Linux requires a bootloader. If you're going to be using Windows alongside GNU/Linux, install Windows first, and then GNU/Linux, and tell it to put the bootloader in the master boot record. You will then get the option of booting either Windows or GNU/Linux.

(2) You will need enough disk space for at least two partitions for GNU/Linux, i.e. one for the system itself – we call this the root filesystem – and one for swap. The Linux kernel uses a dedicated swap partition, which is not formatted like regular partitions, and which should be about 1–2 GB in size max, depending on how much RAM you have in your machine.

It may also be advisable to create a third partition for your personal configuration files and your daily work. GNU/Linux does not use drive letters, it uses /mountpoints,/ i.e. a directory – Windows users erroneously call those "folders" – onto which another filesystem is mounted. As such, with an additional partition for */home,* the contents of your home directory – e.g. */home/marlock* – would not be sitting on your root filesystem, and thus they would be safe from an eventual reformat if you want to install a newer or different distribution, and in turn they cannot foul up the filesystem of your operating system itself.

(3) GNU/Linux is case-sensitive. The file /letter.txt/ is not the same thing as /Letter.txt/ or /LETTER.TXT./ They can all exist side by side in the same directory.

(4) Reboots are seldom required. GNU/Linux is a layered operating system.

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The GUI (graphical user interface) is just another layer on top of the operating system and is not even mandatory, very much akin to how Windows 3.x ran on top of MS-DOS. Most graphical utilities are in fact only GUI frontends to commandline utilities.

(5) The root user is the equivalent of the Administrator in Windows. However, unlike in Windows, the idea is that you do all your normal, daily work from within an unprivileged user account. Only use the root account for system maintenance tasks. The root user has all access rights to the machine and can easily damage the system if you're not being careful.

(6) Unless you're on a high-profile internet connection, there is little or no need to run a firewall. In Windows, firewalling is handled by a user program, and Windows tends to be rather promiscuous by default in terms of connections. In GNU/Linux, the firewalling is handled by the Linux kernel directly, and unless you specifically have some service listening on a certain port, that port will not be available to the outside world.

(7) There is no need for anti-virus software in GNU/Linux. Such software does exist, but it only scans for _Windows_ viruses, e.g. if your GNU/Linux machine is a mailserver for Windows client machines, or if you have a dual-boot machine with Windows and GNU/Linux and you want to scan your Windows partition(s) for viruses from within GNU/Linux.

Likewise, there is no need for anti-spyware in GNU/Linux, if that even exists. GNU/Linux works entirely differently from Windows and being a de facto UNIX, it was designed from the ground up with security and stability in mind, unlike Windows, which is rather like the proverbial chick who'll sleep with anyone just because she's afraid of becoming an old maid if she doesn't. :p

(8) You may want to bookmark the following URLs...:

<http://www.linuxnewbies.org>

<http://www.tldp.org> (The Linux Documentation Project)

(9) Don't fear the Penguin! While every desktop-oriented distribution comes with a nice graphical user interface – which as I've explained basically runs as an application on top of the system – the commandline is a very powerful tool and may get certain tasks done a lot faster than if you were to do the equivalent operations via a set of "point & click" operations in a GUI. ;-))

That all said, have fun, and welcome to the club!

—

Aragorn

(registered GNU/Linux user #223157)

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