



ubuntu
linux for human beings

Ubuntu 10.04




The **Ubuntu Manual**

A beginner's guide

Created by the
Ubuntu Manual Team

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Prologue

Welcome

Welcome to the Ubuntu Manual.

This manual is intended to be an introductory guide to help new users get started with Ubuntu. Our goal is to cover the basics of Ubuntu — such as installation, desktop settings and popular applications — as well as provide an introduction to Linux and the power of open source. We designed the manual to be simple to follow, with step by step instructions and clear diagrams — allowing you to discover the potential of your new Ubuntu system even if you are a novice computer user, or migrating from another operating system for the first time.



Many people have contributed their time freely to this project. The manual is still a work in progress, and always will be. While we try to make sure that instructions are not limited to specific versions, it is unavoidable that some things will change over the life of Ubuntu. Every time a new version of Ubuntu is released, we will revise this manual and make the appropriate changes. At the time of writing, the current version is Ubuntu 10.04 LTS.

If you notice any errors or think we have left something out, feel free to contact us. We will do everything we can to make sure that this manual is current, informative and professional. Our contact details can be found below.

What this manual is not

This manual is not intended to be a comprehensive Ubuntu instruction book. It is more like a quick-start guide, which we hope will get you doing the things you need to do with your computer quickly and easily, without getting bogged down in technical details.

If you are after more detail, there are excellent resources available from help.ubuntu.com, produced by the Ubuntu Docs Team. The in-built system documentation in Ubuntu is also very useful for accessing help on specific topics. If something isn't covered here, chances are you will find the information you are looking for in one of those locations.

Contact Details


The Ubuntu Manual Team Launchpad Team page <https://launchpad.net/~ubuntu-manual>
Mailing List ubuntu-manual@lists.launchpad.net Project Wiki Page <https://wiki.ubuntu.com/ubuntu-manual>

More information on the online docs and the system docs can be found in [Chapter 10: Learning more about Linux](#).

Ubuntu Philosophy

The term ‘Ubuntu’ is a classical African concept that originated from the Bantu languages of southern Africa. It can be described as a way of connecting with others — living in community where your actions affect all of humanity. Ubuntu ~~as we know it~~ is more than just an operating system; it is a community of people that come together to collaborate on an international software project that aims to deliver the best possible user experience and feature-packed operating system available today.

The Ubuntu Promise

- Ubuntu will always be free of charge, along with its regular enterprise releases and security updates.
- Ubuntu comes with full commercial support from Canonical  hundreds of companies from across the world.
- Ubuntu provides the best translations and accessibility features that the free software community has to offer.
- Ubuntu core applications are all free and open source. We want you to use free and open source software, improve it and pass it on.

A Brief History of Ubuntu

Ubuntu was conceived in 2004 by Mark Shuttleworth, a successful South African entrepreneur, and his company **Canonical**. Shuttleworth recognized the power of Linux and open source, but was also aware of weaknesses that prevented mainstream use.

Shuttleworth set out with clear intentions to address these weaknesses and create a system that was easy to use, completely free, and could compete with other mainstream operating systems. With the Debian operating system as a code base, Shuttleworth began to build Ubuntu. Using his own funds, installation CD’s were freely pressed and shipped worldwide at no cost to the end user. Ubuntu spread quickly and the size of the community rapidly increased, and it soon rose to become the most popular Linux distribution.

Now with more people working on the project than ever before, Ubuntu has seen ~~continual~~ improvement to its core features and hardware support, and has ~~also~~ gained the attention of large organizations worldwide. For example in (year????), Dell began a collaboration with Canonical to sell computers with Ubuntu pre-installed. Additionally in 2005, the French Police began to transition their entire computer system to Ubuntu, a process which has reportedly saved them millions of Euro in Windows licensing fees.

By the year 2012, the French Police expect that all of their computers will be running Ubuntu. Canonical profits from this arrangement by providing technical support and custom-built software.

Canonical, the financial backer of Ubuntu, provides support for the core Ubuntu system. It has over 200 paid staff members worldwide who ensure that the foundation of the operating system is stable, as well as checking all the work submitted by volunteer contributors. To learn more about Canonical, go to <http://www.canonical.com>

Whilst large companies such as the Shuttleworth has promised that the Ubuntu desktop system will always be free. As of 2010, Ubuntu is installed on nearly 2% of the world's computers. ~~While this figure may seem small, it equates to millions of users worldwide — and is growing each year.~~

Linux

Ubuntu is built on the foundation of Linux, and is just one of many different Linux 'distributions'. Linux is a type of operating system, and is itself a member of the Unix family, one of the oldest types of operating systems dating back to the 1970s. Originating long before Microsoft Windows, the Unix operating systems have provided reliability and security in professional applications for almost half a century. Many servers around the world that hold information for popular websites, for example Facebook and Google run some variant of a Unix system.

Linux was designed from the ground up with security and hardware compatibility in mind, and is currently the most popular Unix-based operating system. Initially, Linux was entirely command-line based. Graphical User Interfaces (GUIs) began to emerge in the late 1980s, but they were difficult to configure and clunky at best, meaning that only seasoned computer programmers knew how to use them. In the past decade however, user-friendly graphical desktop environments have come a long way. Ubuntu uses GNOME, one of the more popular desktop environments.

Is Ubuntu right for you?

Ubuntu, and Linux in general, is very different from other common operating systems such as Microsoft Windows or Mac OS X. Before you decide whether or not Ubuntu is right for you, we suggest taking the following into account:

- Ubuntu is community-based — it runs on the community, it is made by the community and maintained by the community. Because of this, support is not available down the road at your local computer store — most likely the employees have never even heard of Ubuntu. If something breaks, you will probably have to fix it yourself! Thankfully, the community is there to help. There are a lot of articles, guides, manuals and users on various internet forums that are willing to help out beginners to Ubuntu — and this is where you should turn if something goes wrong.
- Windows or Mac applications will not run on Ubuntu. For the vast majority of applications that most people use, there are suitable free alternatives available in Ubuntu. The rest are generally professional applications (such as the Adobe Creative suite) — if you absolutely cannot live without the latest Adobe software, then Ubuntu may not be for you.
- Game developers usually design games for the largest market, where they can make the most money. Since Ubuntu is not as widely used as Windows or Mac, most game developers do not usually develop for Ubuntu as there would be little profit for them in

For information on Ubuntu Server Edition, and how you can use it in your company, visit <http://www.ubuntu.com/products/whatisubuntu/serveredition/features>

See [Chapter 2: Around your Desktop](#) to learn more about GNOME and other desktop environments.

You may want to consider dual-booting, which allows you to run Ubuntu side-by-side with another operating system. See [Chapter 1: Installation](#).

doing so. If you're a heavy gamer, then Ubuntu may not be for you. If you like to play the odd game, then certain popular games will work under a Windows Emulator called Wine (see chapter XX). Of course, Ubuntu has games developed for it as well, which are easily installed through the Software Center.

Part I

Start here

1 Installation

Getting Ubuntu

Ubuntu is available in many shapes and forms, allowing you to choose the version most specific to your needs. All Linux distributions, theoretically, are the same — just with different kernels and packages installed by default.

Server and Desktop editions will require different programs to suit the requirement, for example — a server will not require a media player, but a desktop system will. The user could configure their system themselves, but this would take time and effort — therefore Ubuntu ships several different versions that come with specific packages pre-installed, to make your life easier.

Downloading Ubuntu

You have several options when it comes to downloading Ubuntu, the easiest, and most common way is to download the CD image directly from <http://www.ubuntu.com>. At the time of new releases, it may be faster to download Ubuntu using a torrent — the servers get clogged up when everyone upgrades at release time.

After you've downloaded the CD image, all you have to do is burn it to a CD.

Ordering a free CD

You can order a free CD from Canonical if the above method seems too hard, or you have limited bandwidth or a slow connection. There is no shipping cost or charge to order a CD. Simply visit www.ubuntu.com and choose to get a free CD — you will have to create an account but this is very simple and not time consuming at all. Be warned, however — the CD usually takes about four weeks to ship, so if you need Ubuntu in a hurry, downloading it and burning it to a disc would be the best method.

Installing Ubuntu

Ubuntu is easy to install. Installation is a very streamlined and fast process and most people should not have any difficulty getting their system up and running. Even though it's easy to install, we still include a step-by-step guide to ensure nothing goes wrong! However, we do suggest using the Live CD to test out Ubuntu before installing to see if you like it, and also to ensure that it plays nice with your hardware.

The Live CD

Ubuntu has an excellent feature that allows you to test it out before you install, although it doesn't provide a full experience. It runs off the CD and your computer's RAM and so will

A **kernel** is the central portion of an operating system, responsible for running programs.

To find out more about different distributions, see Chapter 10

To find out how to burn a CD on your computer, refer to your operating system help or manufacturer help.

feel sluggish (because CD read speeds are a lot slower than a hard drive and a large chunk of your RAM is occupied by it), but it should give you an impression of what Ubuntu is like. The Live CD will let you test out all the default applications, play around with settings and surf the internet.

It's not only useful for you to get a feel for the OS, but also for you to check if it works properly with your computer hardware.

To boot from the Live CD, just insert the Ubuntu CD into your disk drive and boot into the CD. Boot priority is usually configurable in the BIOS, or most computers will give you the option of booting from CD by pressing a shortcut before the hard drive kicks in. See your manufacturers documentation for more information.

You will see a menu similar to this:

Choose the option "Try Ubuntu without any change to your computer" and press enter on your keyboard to boot into the Live CD off the disk itself.

Using Wubi

Wubi stands for Windows Ubuntu Installer, and it allows you to install Ubuntu inside Windows. Once installed, Ubuntu will appear in your Add/Remove programs like any other application. When it installs Ubuntu, it will set up a series of large files (called loop files), which you can specify in size, where it stores all of Ubuntu's data. It will also add an entry to the Windows boot loader, so when you reboot your computer you will be able to choose between Windows or Ubuntu.

It's a very simple way to dual-boot and test out Ubuntu running natively on your machine — and, if you don't like it, just uninstall Ubuntu. It won't harm your Windows installation in any way.

There are a couple of things to keep in mind, however:

- If you install Ubuntu using Wubi, and decide you like it but find yourself running out of hard drive space, it is very difficult to increase the hard drive space without having to completely reinstall Ubuntu.
- The read/write times will not be as fast as if Ubuntu was installed directly onto your hard drive, instead of having to access the data through a virtual hard drive. It won't be hugely noticeable, however.

Installing Ubuntu to the Hard Drive

To install Ubuntu directly to your hard drive, you will need to have at least 3GB free on a partition somewhere to install the base system. We recommend 10GB at least for extra programs and your own content. You can either install Ubuntu over Windows and erase Windows, or install it alongside Windows and choose to dual-boot. The option for this is given to you in the partitioning stage of the installation.

Recommended System Requirements:

Ubuntu should run reasonably well on a computer with the following minimum hardware specification.

- 700 MHz x86 processor
- 384 MB of system memory (RAM)
- 8 GB of disk space
- Graphics card capable of 1024x768 resolution
- Sound card
- A network or Internet connection

First steps of Installation

To get started, insert the Ubuntu CD into your disk drive and boot into the CD.

Choose your language with the arrow keys, and press enter to select one.

Press the down arrow so that `Install Ubuntu` is highlighted, then press enter on the keyboard.

Wait for a few seconds as the CD is loaded into your system memory.

Choose your native language and then click **forward** to continue.

Tell Ubuntu where you are located by clicking on your location. This will set the system clock for you. You can also use the **drop down list** at the bottom of the screen. Click **forward** to move on.

In this screen, you need to tell Ubuntu what keyboard you are using. For most people, the default option should be satisfactory. Click **forward** to continue once you have tested your keyboard.

Guided Partitioning

This screen will allow you to choose where you want to install Ubuntu. If you want to delete your existing operating system, or the hard drive is already empty and you want to let the installer automatically partition the hard drive for you, select the second option, **Use the entire disk**.

If you already have another Operating System installed on your hard drive, and want to install Ubuntu alongside it, choose **Install them side by side, choosing between them each startup**.

Ubuntu will run on computers with lower specifications than these, but you will need to use the **alternate CD** to install Ubuntu.

All 64-bit (x86-64) PCs should be able to run Ubuntu. Use the 64-bit installation CD for a 64-bit-optimised installation.

You can choose **Check disc for defects** to make sure no errors were encountered when burning your CD. You can also test your memory by choosing **Test memory**.

Specifying partitions manually

This option is for advanced users to create special partitions or format the hard drive with other filesystems than the default one. But it can also be used to create a separate /home partition, which is very useful in case you have to reinstall the whole system one day.

Who are you?

Here you need to tell Ubuntu:

- Your real name
- Your desired username
- Your desired password
- What you want to call your computer
- and how you want Ubuntu to log you in.

The first three steps are self explanatory. Choose a simple username, often just your first name, all lowercase. Your password should be strong so no one could easily guess it.

The name of your computer can be anything you like, although most people generally choose something like “john-desktop” or “john-laptop.” The main reason for this is to distinguish you from other computers on a network.

When choosing how to log in, you have three options:

Log in automatically

Ubuntu will log in for you when you start up the computer. It means you don't have to enter your password to get into your computer - not recommended due to security reasons.

Require my password to login

This option is the default - all you have to do is enter your password when you turn on your computer. It prevents unauthorized access to your computer.

Require my password to login and decrypt my home folder

Your home folder is where all of your personal details are stored. By choosing this option, Ubuntu will automatically enable encryption on your home folder, so that it cannot be accessed unless your password unlocks it. Even if someone had physical access to your hard drive, they would not be able to gain access without your password from your computer. It's very secure, and recommended.

Confirm your settings and begin installation

Nothing you have actually specified yet has been written to the disk, so you need to make sure they all your details are correct and then click **Install** to begin the installation process.

Ubuntu will now install, and, as it does so, you will be presented with a slideshow that gives you an introduction to some of the default applications included with Ubuntu.

After approximately twenty minutes, the installation will complete and you will be able to click **Restart Now** to restart your computer and boot into Ubuntu. The CD will be ejected, so remove it from your CD drive and press Enter to continue.

After the splash screen, you will see the login window:

Click your username and enter your password, then press enter or click **Log in** to log in to Ubuntu.

2 Around your Desktop

The GNOME environment

The GNOME desktop environment is the default environment used in Ubuntu. Most of the desktop you see in front of you will be part of GNOME.

Panels

Panels are the bars at the top and bottom of the screen. They are configurable, and can contain menus, notification areas, window lists, or a multitude of other widgets. To add, remove or move a widget, right click on the panel. Certain areas (such as icons in the notification area) may have their own right click menu.

As a simple example, we can go through adding a launcher to the panel. Let's say that you use the word processor from OpenOffice.org frequently and would like to be able to start it without going through the menu. The easy way is to just drag and drop the menu item onto an empty space in the panel. Alternatively, you can right click on the space you want the launcher to appear, select "Add to Panel...", then "Application Launcher..." and simply find the right application, in this case the OpenOffice.org Word Processor.

Notice that the "Add to Panel..." window does not close immediately after you select an item. This is a common behavior among GNOME configuration windows. They apply the settings immediately, without any need for clicking an "Apply" button, and only go away when you tell them to.

Appearance and themes

To change how your desktop looks, go to the "System" menu, choose "Preferences" and then the "Appearance" item.

3 Default Applications

Getting online

Before you can use your computer to its fullest, you must make sure that you are connected to the internet. This section of the manual will help you check or configure your internet connection.

Ubuntu can connect to the internet using a wired, wireless, or dialup connection. It also supports some more advanced connection methods.

A **wired** connection is used when your computer is physically connected to a router or an ethernet port via a cable. This is the most common connection for desktop computers.

A **wireless** connection is used when your computer is connected to the internet via a wireless radio network, also known as Wi-Fi. It is common for laptop computers to use wireless connections, especially when on the go. In order to connect to a wireless connection you must have a working wireless network. This is usually the case if you've previously purchased and installed a **wireless router** or **access point**, or if you are in a place where a wireless network is already established.

A **dialup** connection is when your computer uses a **modem** and a telephone line to connect to an internet service provider.

Ubuntu can also connect using mobile broadband, VPNs, or DSLs.

NetworkManager

In order to connect to the internet in Ubuntu, you need to use the **NetworkManager** utility. NetworkManager allows you to turn all networking on or off, and helps you manage your wired, wireless, and other connections.

You can access all the functions of NetworkManager using its icon in the main panel. Its icon may look different if you already have a connection, or if your connection is wired or wireless. If you hover your mouse over the icon, it should read "Wired connection..." or "No connection" or "Networking disabled" or something else related to networking or connections.

If you are currently connected to the internet, you can click on the icon. This will bring up a list of network connections that are available to you, with your current connection highlighted in bold.

You can also right click on the NetworkManager icon. This will bring up a menu where you can enable or disable networking, view technical details about your current connection, or edit all connection settings. In the figure, the check box next to "Enable Networking" is currently checked; you can uncheck it to disable all network connections. This may be useful when you must shut off all wireless communication, for example in an airplane.

While this manual discusses only the internet, connecting to office or other networks is usually performed in a similar manner.

Note: A VPN is a "Virtual Private Network", and is sometimes used to help secure connections. DSLs are "Digital Subscriber Lines", a type of a broadband connection.