

# Ubuntu MATE User Guide



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# Ubuntu MATE User Guide



## 1. What is Ubuntu MATE?

A detailed discussion of Ubuntu MATE and how to use its major applications.

## 2. About Ubuntu MATE

Why Ubuntu MATE? Objectives, hardware requirements, downloading, installing and getting support.

## 3. FAQ

Frequently asked questions.

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# 1. What is Ubuntu MATE?

## ubuntuMATE

Ubuntu MATE is an operating system -- the core software that runs your computer, similar to Microsoft's Windows, Apple's OS X and Google's Chrome OS.

If you are new to Ubuntu MATE, or only casually acquainted with Linux based distributions, it can be difficult to understand how a Linux operating system compares with other computer systems that you may already be familiar with. Hopefully this manual will help demystify Ubuntu MATE for new-comers and provide a reference for all users.

### **Modern and Full-Featured**

Ubuntu MATE is a modern computer operating system, with an attractive and easy to understand user interface. Its update manager keeps not only the operating system itself, but all of its installed applications updated to the current release. The operating system is more secure, and better supported than operating systems that come pre-installed on most home computer hardware today.

### **Pre-Configured Yet Flexible**

Using Ubuntu MATE provides you with the freedom to run a complete, full-featured operating system, pre-configured with most, if not all, of the applications you will need for your daily computing - or to change anything about the way it looks, the way it works, or the applications it runs to suit your taste.

### **Built-In Security**

Ubuntu MATE is designed with security in mind. Unlike operating systems that update only once a month, Ubuntu MATE receives updates continuously. The updates include security patches for Ubuntu MATE and all of its components. Security updates for all of its installed applications are also provided on the same schedule. This ensures that you have the latest protection for all of your computer's software -- as soon as it's available!

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# 1.1 Ubuntu



[Ubuntu](#) is one of, if not the, largest deployed [Linux](#) based desktop operating systems in the world. Linux is at the heart of Ubuntu and makes it possible to create secure, powerful and versatile operating systems, such as Ubuntu and Android. Android is now in the hands of billions of people around the world and it's also powered by Linux. Ubuntu is available in a number of different flavours, each coming with its own desktop environment. Ubuntu MATE takes the Ubuntu base operating system and adds the [MATE Desktop](#).

The name "*Ubuntu*" is pronounced *oo'boōntoō*. According to [The Ubuntu Story](#), "Ubuntu is an ancient African word meaning 'humanity to others'. It also means 'I am what I am because of who we all are'. The Ubuntu operating system brings the spirit of Ubuntu to the world of computers."

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# 1.2 The MATE desktop



Wikipedia says that a [Desktop Environment](#) is:

*...an implementation of the desktop metaphor made of a bundle of programs running on top of a computer operating system, which share a common graphical user interface (GUI)... Desktop GUIs help the user to easily access and edit files.*

- Wikipedia (09 Nov 2016)

The MATE Desktop is one such implementation of a desktop environment and includes a file manager which can connect you to your local and networked files, a text editor, calculator, archive manager, image viewer, document viewer, system monitor and terminal. All of which are highly customisable and managed via a control centre.

Complete documentation for the MATE Desktop Environment and its applications can be found in the *MATE Desktop User Guide*.

MATE Desktop provides an intuitive and attractive desktop environment using traditional metaphors, which means if you've ever used [Microsoft Windows](#) or [Apple Mac OS](#), it will feel very familiar.

The MATE Desktop has a rich history and is the continuation of the GNOME2 desktop, which was the default desktop environment on many Linux and Unix operating systems for over a decade. This means that MATE Desktop is tried, tested and very reliable.

The name "*MATE*" is pronounced *Ma-Tay*. It comes from the [yerba maté](#) plant, native to South America.

## File Browser (*Caja*)



The *Caja* application, found in the Ubuntu MATE menus at Applications ► System Tools ► Caja, lets you organise files and folders, both on your computer and online. For help topics on this application, see the *Caja* manual.

## Calculator (*galculator*)



The *galculator* application, found in the Ubuntu MATE menus at Applications ► Accessories ► Galculator, is a calculator with ordinary notation/reverse polish notation (RPN), a formula entry mode, different number bases (DEC, HEX, OCT, BIN) and different units of angular measure (DEG, RAD, GRAD). It supports quad-precision floating point and 112-bit binary arithmetic. Documentation for this application is available at the [galculator webpage](#).

## Text Editor (*Pluma*)

 The *Pluma* text editor, found in the Ubuntu MATE menus at Applications ► Accessories ► Pluma Text Editor, enables you to create and edit text files. The aim of Pluma is to be a simple and easy to use text editor. More powerful features can be enabled with different plugins, allowing a variety of tasks related to text-editing. For help topics on this application, see the *Pluma* manual.

## Archive Manager (*Engrampa*)

 You can use the *Engrampa* Archive Manager application, found in the Ubuntu MATE menus at Applications ► Accessories ► Engrampa Archive Manager, to create, view, modify, or unpack an archive. An archive is a file that acts as a container for other files. Sometimes referred to generically as "zipped files" or "compressed files," an archive can contain many files, folders, and subfolders, usually in compressed form. For help topics on this application, see the *Engrampa* manual.

## Image Viewer (*Eye of MATE*)

 The *Eye of MATE* Image Viewer application, found in the Ubuntu MATE menus at Applications ► Graphics ► Eye of MATE Image Viewer, enables you to view single image files, as well as large image collections. For help topics on this application, see the *Eye of MATE* manual.

## Document Viewer (*Atril*)

 The *Atril* Document Viewer, found in the Ubuntu MATE menus at Applications ► Office ► Atril Document Viewer, enables you to view documents of various formats like Portable Document Format (PDF) files and PostScript files. For help topics on this application, see the *Atril* manual.

## *MATE System Monitor*

 The *MATE System Monitor*, found in the Ubuntu MATE menus at Applications ► System Tools ► MATE System Monitor, enables you to display basic system information and monitor system processes, usage of system resources, and file systems. You can also use *MATE System Monitor* to modify the behaviour of your system. For help topics on this application, see the *MATE System Monitor* manual.

## ***MATE Terminal***



MATE Terminal is a terminal emulation application, found in the Ubuntu MATE menus at Applications ► System Tools ► MATE Terminal, that you can use to access a UNIX shell in the MATE environment. It interprets and executes the commands that you type at a command line prompt. For help topics on this application, see the *MATE Terminal* manual.

## ***Control Center***



The *Control Center* provides a single window from which to launch all preference tools. For help topics on this application, see the *Control Center* manual.

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# 1.3 Open Source



What Linux, Ubuntu and MATE Desktop all have in common is they are Open Source. Open source software is software that can be freely used, changed, and shared (in modified or unmodified form) by anyone. In a nutshell Ubuntu MATE is free, in the truest sense of the word.

Although you will find some versions (distributions) of Linux for purchase, the vast majority are provided free of charge, like Ubuntu MATE. Open Source software is licensed in a way that allows anyone to give it away for free, no strings attached. For example, the licence gives any member of the user community the freedom to use Linux for any purpose, to distribute, modify, redistribute, or even sell the operating system. If you do modify and then redistribute Linux with your modifications, you are required by the licence to submit your modifications for possible inclusion into future versions. There is no guarantee that this will ever happen, but if you have made it better, then your changes just might be included in the next release of Ubuntu MATE.

This is how we can continually improve and grow without having to charge our users money. Many of the users of Linux are corporations that use the operating system to run their businesses, or include it within their products. Many of these corporations provide fixes and new features for Linux as they use the software for their businesses. [These improvements are given back](#) to the Linux distribution and the software improves as a result.

Unlike Windows, and OSX, Linux is not created and supported by just one company. It is supported by Intel, Redhat, Linaro, Samsung, IBM, SUSE, Texas Instruments, Google, Canonical, Oracle, AMD, and Microsoft. Over 4,000 developers contributed to Linux over the last 15 years.

Whether you are a home user of Ubuntu MATE, a Ubuntu MATE software or application developer, or an employee of an organisation that uses the operating system, you are a member of the Linux and Open Source communities and benefit from the efforts of the developers who contribute to Ubuntu MATE and its related projects, Linux, MATE, and Ubuntu. Members of the community can and do run Linux on almost any hardware, from the prettiest Macbook to the cheapest netbook, from the newest Chromebook to some very old machines designed for Windows, and from the most powerful Internet servers to the smallest smart thermostat.

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# 1.4 Powerful Applications



While MATE Desktop provides the essential user interfaces to control and use a computer, Ubuntu MATE adds a collection of additional applications to turn your computer into a truly powerful workstation. Naturally you'll also find a firewall, backup application, document/photo scanner and printer management all included in Ubuntu MATE.

## Ubuntu MATE Welcome



*Ubuntu MATE Welcome* is a utility unique to Ubuntu MATE that helps orientate users with their new operating system. It guides users through post-install configuration such as installing drivers and adding language support. Welcome provides a one-click installation from a highly curated list of best-in-class software to "get stuff done".

## Productivity



*Firefox* delivers safe, easy web browsing.



*Thunderbird* is a full-featured email client with integrated spam filtering.



*LibreOffice* is a full-featured office productivity suite that is Microsoft(R) Office compatible.

## Document Management



Printing on Ubuntu MATE is simple and easy. In most cases you simply connect your printer via USB cable and Ubuntu MATE immediately configures it for use. Printing to a network printer is almost as easy.



The *Simple Scan* application, found in the Graphics menu, provides a simple and easy way to scan your documents. Once your scanner is connected via USB or over the network, configuration is usually automatic. Load your document, press **Scan**, then save the image.



Whether you are scanning a page, writing a book, or saving a web page, PDF creation on Ubuntu MATE is built-in. Most applications allow you to save or export a document as a PDF from the application menus. If the application you use doesn't offer that directly, you can always print the document as a PDF file.

## Entertainment



*Rhythmbox* is a very easy to use music playing and organiser.



*Shotwell* is a digital photo organiser.



With *VLC* you can play, capture, broadcast your multimedia streams.

## Games



Ubuntu MATE is fully compatible with *Steam* for Linux. There are also many high quality and enjoyable Open Source games titles available for Ubuntu MATE via the Ubuntu Software Centre.

## Security



Ubuntu MATE is designed with security in mind. Ubuntu MATE receives updates continuously, which ensures that you have the latest protection for all of your computer's software -- as soon as it's available!

## Accessibility



Making an accessible operating system was a key priority when the Ubuntu MATE founders initially set out the goals of the project.

## Software Centers



There is an abundance of additional software available for Ubuntu MATE. Some people may find that choice overwhelming, so Ubuntu MATE's Software Boutique has been created as a carefully curated selection of the best-in-class applications, chosen because they integrate well, complement Ubuntu MATE and enable you to self style your computing experience.

And this is just the start. If you can't find what you're looking for, install one of the software centers to explore the complete Ubuntu software catalog. For example, the [Ubuntu Software Centre](#) includes thousands of applications suitable for just about any professional or recreational pursuit.

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# 1.4.1 Ubuntu MATE Welcome

 Ubuntu MATE Welcome is a utility unique to Ubuntu MATE that helps orientate users with their new operating system. It guides users through post-install configuration such as installing drivers and adding language support. Welcome provides a one-click installation from a highly curated list of best-in-class software to "get stuff done".



## Introduce new users to the operating system

- Highlight key features of Ubuntu MATE and GNU/Linux.
- Provide quick guidelines on getting started.
- Provide quick installation guidance.
- Inform users of their system's specifications.

## **Grow the Ubuntu MATE Community**

- Links to the community forums and social networks.
- Inform of Ubuntu MATE branded products for sale.
- Provide details on donating to the project.

## **Software Boutique**

- From a pick of Ubuntu MATE's recommended software tested for the distribution.
- Simple tools to manage packages on the system.
- Install a package manager, such as Ubuntu Software Center.

The installation options include Steam, Google Chrome, Dropbox, Spotify, Syncthing, Telegram, uGet, Minecraft, Gimp (with CMYK support), InSync, SpiderOakONE, Skype, Google Music Manager, VeraCrypt, Ubuntu SDK, Codecs, libdvdcss2, VirtualBox 5.0, AppGrid, Ubuntu Software Centre and many others.

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## 1.4.2 Productivity Applications

 *Firefox* delivers safe, easy web browsing. A familiar user interface, enhanced security features including protection from online identity theft, and integrated search let you get the most out of the web. [Read more about Firefox.](#)

 *Thunderbird* is a full-featured email, RSS and newsgroup client that makes emailing safer, faster and easier than ever before. It supports different mail accounts (POP, IMAP, Gmail), has a simple mail account setup wizard, one-click address book, tabbed interface, an integrated learning spam filter, advanced search and indexing capabilities, and offers easy organization of mails with tagging and virtual folders. It also features unrivalled extensibility. [Read more about Thunderbird.](#)

 *LibreOffice* is a full-featured office productivity suite that provides a near drop-in replacement for Microsoft(R) Office; its clean interface and powerful tools let you unleash your creativity and grow your productivity. LibreOffice embeds several applications that make it the most powerful Free and Open Source Office suite on the market. [Read more about LibreOffice.](#)

-  *Writer*, the word processor.
-  *Calc*, the spreadsheet application.
-  *Impress*, the presentation engine.
-  *Draw*, the drawing and flowcharting application.
-  *Base*, the database and database frontend.
-  *Math*, for editing mathematics.

 Currently Ubuntu MATE has the essential mobile device support you'd expect. You can plug in a phone, media player or digital camera and the device is automatically detected and mounted, you can then access the files on it or sync content.

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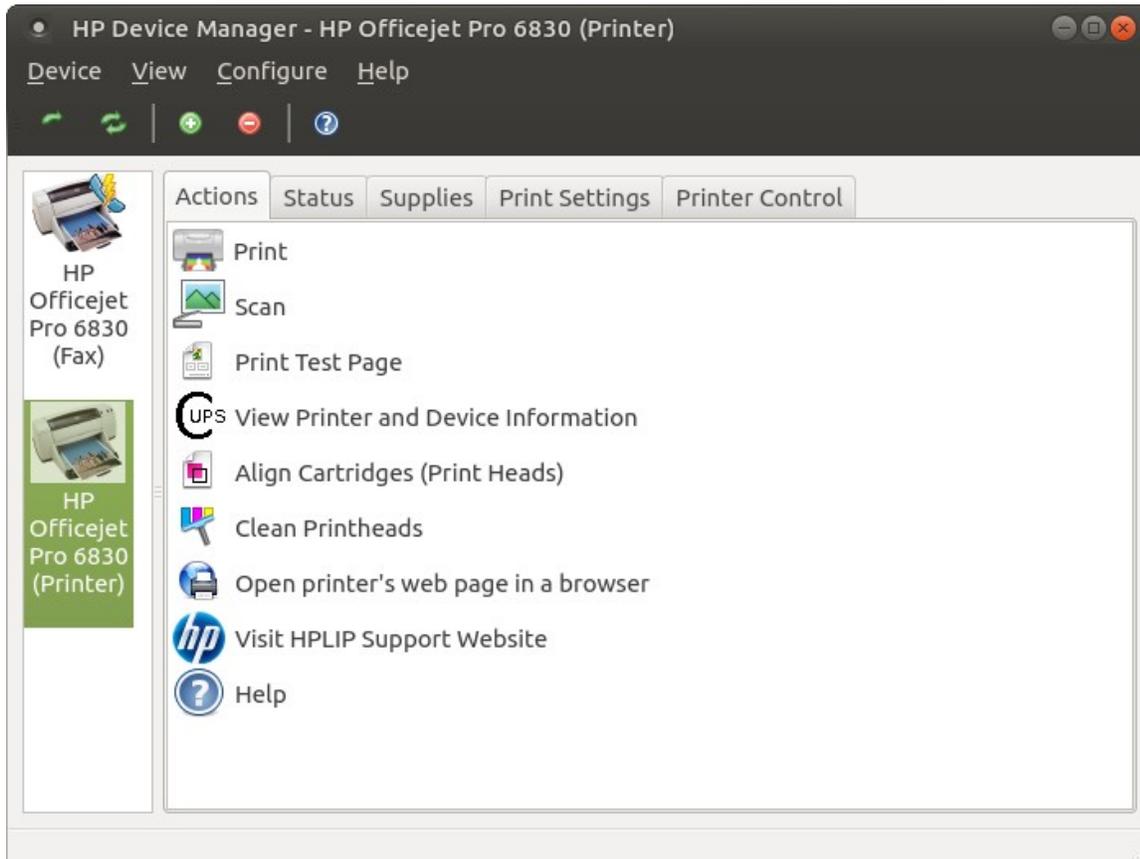
# 1.4.3 Document Management

 Ubuntu MATE makes printing, scanning and saving documents almost easier than creating them. All the software you are likely to need is pre-installed for the most popular printers and scanners, so setting up your hardware is easy, too.

## Printing

 Printing on Ubuntu MATE is simple and easy. The most popular printer drivers are already provided in Ubuntu MATE's Linux kernel. In most cases you simply connect your printer via USB cable and Ubuntu MATE immediately configures it for use. Printing to a network printer is almost as easy. [Read more about printing.](#)

 For added control, you can install the *HP Linux Imaging and Printing (HPLIP)* utility from the *Ubuntu MATE Welcome* application or from the Software Boutique. [Read more about HPLIP.](#)

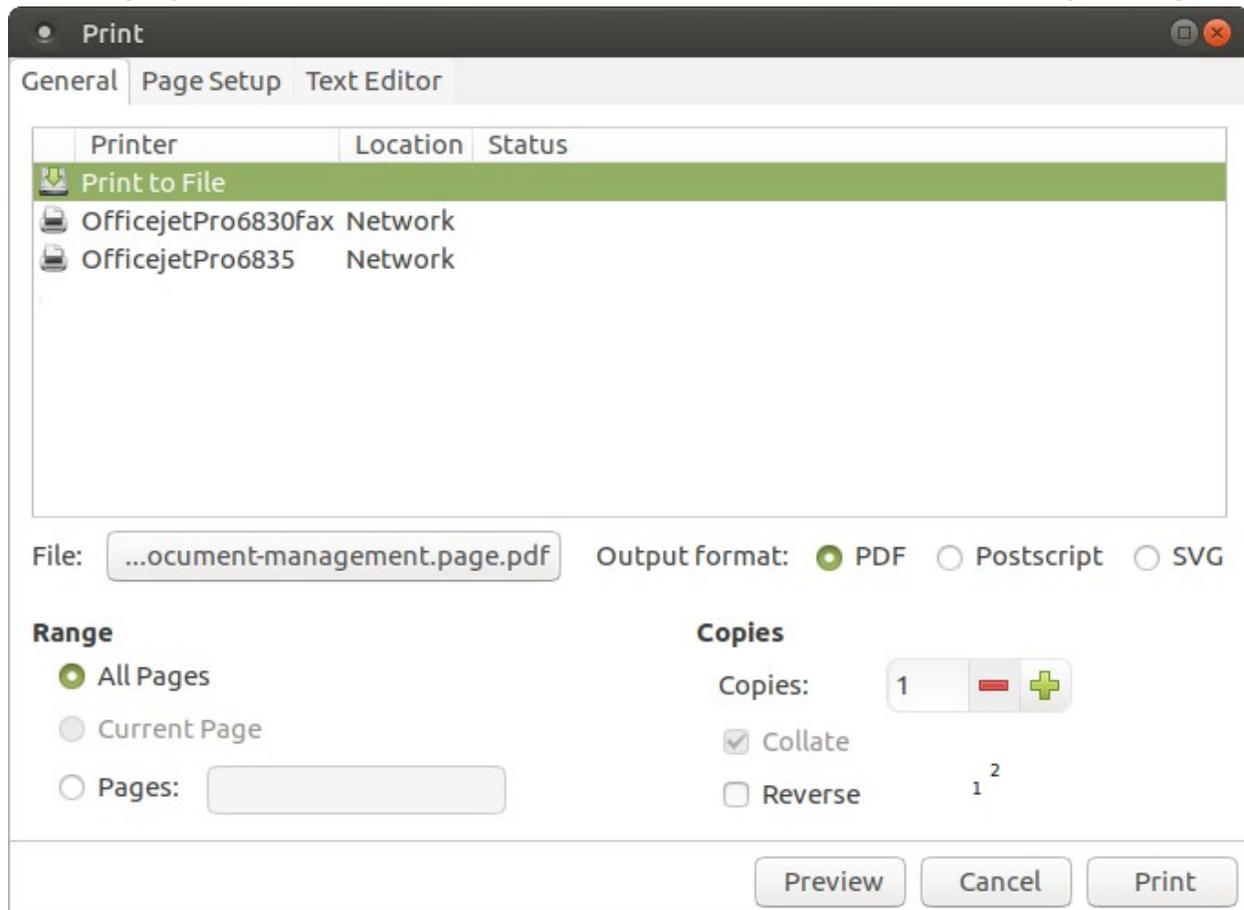


## Scanning

 The *Simple Scan* application, found in the Ubuntu MATE menus at Applications ► Graphics ► Simple Scan, provides a simple and easy way to scan your documents. Once your scanner is connected via USB or over the network, configuration is usually automatic. Load your document, press *Simple Scan's* **Scan** button, then save the image. For help topics on this application, see the *Simple Scan* manual.

## PDF Creation

 Whether you are scanning a page, writing a book, or saving a web page, PDF creation on Ubuntu MATE is built-in. Most applications provide a menu selection to Save As PDF or Export to PDF. If the application you use does not offer one of those options, you can always print the document as a PDF file. Ubuntu MATE has PDF printing built-in.



## 1.4.4 Entertainment Applications

Ubuntu MATE comes pre-installed with three significant applications for managing your entertainment and media files and subscriptions. If you need more, the [Software Centers](#) offer many, many more to choose from.

### ***Rhythmbox***



*Rhythmbox* is a very easy to use music playing and management program which supports a wide range of audio formats (including mp3 and ogg). Originally inspired by Apple's iTunes, the current version also supports Internet Radio, iPod integration and generic portable audio player support, Audio CD burning, Audio CD playback, music sharing, and Podcasts. For help topics on this application, see the *Rhythmbox* manual.

### ***Shotwell***



*Shotwell* is a digital photo organiser. It allows you to import photos from disk or camera, organise them in various ways, view them in full-window or full-screen mode, and export them to share with others. It is able to manage a lot of different image formats, also including raw CR2 files. For help topics on this application, see the *Shotwell* manual.

### ***VLC***



*VLC* is the VideoLAN project's media player. It plays MPEG, MPEG-2, MPEG-4, DivX, MOV, WMV, QuickTime, WebM, FLAC, MP3, Ogg/Vorbis files, DVDs, VCDs, podcasts, and multimedia streams from various network sources. VLC can also be used as a streaming server that duplicates the stream it reads and multi-casts them through the network to other clients, or serves them through HTTP. VLC has support for on-the-fly transcoding of audio and video formats, either for broadcasting purposes or for movie format transformations. For information about *VLC* see [VideoLan's VLC Introduction](#).

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# 1.4.6 Security

Ubuntu MATE is designed with security in mind. Ubuntu MATE is more secure, and better supported than operating systems that come pre-installed on most home computer hardware today.

## Updates



Unlike operating systems that update only once a month, Ubuntu MATE receives updates continuously. The updates include security patches for Ubuntu MATE and all of its components. Security updates for all of its installed applications are also provided on the same schedule. This ensures that you have the latest protection for all of your computer's software -- as soon as it's available!

## Infection Insulation



Ubuntu MATE can get viruses and other infections... but it doesn't. Rapid and timely updates ensure that there are very few, if any threats to Linux systems like Ubuntu MATE that persist in the wild. In reality, there have been very few "public" infections in the last 10 years that can affect Ubuntu MATE. They are no longer a threat to anyone installing or using a modern Linux distribution today. Ubuntu MATE is designed to make it difficult for viruses, root kits and other malware to be installed and run without conscious intervention by you, the user. Even if you do accidentally invite in an infection, chances are it's designed to attack Windows and won't do much, if any damage to Ubuntu MATE.

## Built-In Security



Another significant security feature of Ubuntu MATE is that its users are not administrators by default. Administrators ("root" users) on any computer system have permission to do anything they want, including the ability to damage the system. For example, other operating systems look at the name of a file to determine which program should open it, then immediately attempt to open it. That design makes it easy for an intruder to attack a computer. Ubuntu MATE opens a file based on what the file is, not based on its name. So even if a malicious program disguises its identity by using the name "Last Will and Testament.txt" Ubuntu MATE will recognise the file as a program. The system provides a warning that the file is not a text file, but that it is a program that will be run if you give it permission to continue. To be extra secure, Ubuntu MATE requires you to provide your administrator password before that permission is granted. Every single time.

## Trusted Software

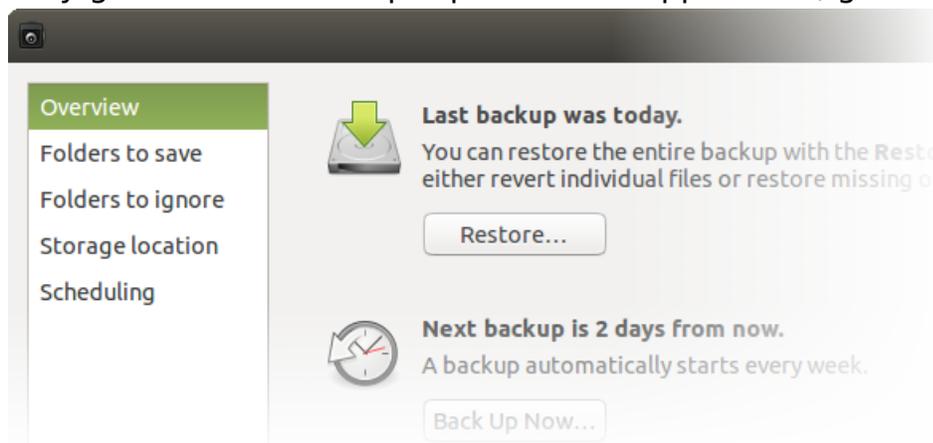
 There is an abundance of software applications available for Ubuntu MATE. When you use Ubuntu MATE, those applications as well as security updates, driver updates, application updates, software upgrades and operating system upgrades are all available from trusted sources. So you won't need to search the Internet for software. No more risking malware or junkware infections as a result of downloading from the wrong site. There are thousands of software titles in hundreds of categories available from Ubuntu's software catalogue -- the ultimate in a trusted source!

 The Software Boutique is a carefully curated selection of the best-in-class applications chosen because they integrate well, complement Ubuntu MATE and enable you to self style your computing experience. Other software centres are also available to explore the *complete* Ubuntu software catalogue. For example, the [Ubuntu Software Centre](#) includes thousands of applications suitable for just about any professional or recreational pursuit.

## Backups

 Ubuntu MATE comes pre-installed with a Backup utility called *Déjà Dup*. Reinstalling an operating system again after something goes horribly wrong is annoying at best, but losing your valuables photographs, emails and personal documents... these are priceless and cannot be replaced. If you are prepared to restore from a backup, then you are far more secure. It is important to make backups before certain risky operations like upgrading to a new version, moving a large number of files around, deleting files and folders, etc. *Déjà Dup* even lets you automate your backups for added convenience and safety.

In the event your computer has a digital disaster, or you are concerned that it has an infection, your backups will ensure that you can restore Ubuntu MATE to a known previously good state. For help topics on this application, go to the *Déjà Dup* manual.



# Firewall

 Ubuntu MATE's *Firewall Configuration* utility (Gufw), found in the Control Center at System ► Control Center ► Firewall Configuration, provides uncomplicated way to manage your firewall settings. The firewall is not enabled by default in Ubuntu MATE because, by default Ubuntu MATE does not open ports to the outside world. If you do choose to enable the firewall, and if you are a normal user, you will be safe with this setting (Status=On, Incoming=Deny, Outgoing=Allow). No need to set the firewall to autostart. After you change the settings they will remain in place until you change them again.



## 1.4.5 Games



In the last couple of years Linux has become a first class gaming platform thanks to [Valve](#) bringing the [Steam](#) platform to Linux. At the time of writing *Steam* has more than 1000 high quality indie and AAA titles available for Linux. Ubuntu MATE is fully compatible with Steam for Linux.

While *Steam* is a major step forward for gaming on Linux, there are also many high quality and enjoyable Open Source games titles available for Ubuntu MATE via the Ubuntu Software Centre. It doesn't matter if you like flight simulators, motor racing, first person shooters, jump and run or card games, you'll find something to keep you entertained.



## 1.4.7 Accessibility



Making an accessible operating system was a key priority when the Ubuntu MATE founders initially set out the goals of the project.

Ubuntu MATE is never going to be able to offer the comprehensive integration of assistive technologies that [Sonar GNU/Linux](#) provides. But Ubuntu MATE will continue to follow their lead so that Ubuntu MATE is a viable desktop solution where computer access is shared within a household or business where individual needs differ.

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## 2. About Ubuntu MATE

### ubuntuMATE

Ubuntu MATE is a stable, easy-to-use operating system with a configurable desktop environment. It is ideal for those who want the most out of their computers and prefer a traditional desktop metaphor. With modest hardware requirements it is suitable for modern workstations, single board computers and older hardware alike. Ubuntu MATE makes modern computers fast and old computers usable.

### Why Ubuntu MATE?

Ubuntu MATE is a desktop distribution (variation) of GNU/Linux -- a dependable, secure, capable, and modern computer system that rivals all others in popularity and usage.

Unlike other operating systems, Linux is used:

- on most of the world's fastest and most powerful supercomputers
- on many of, if not most of, the computers that make up the backbone of Internet
- and on corporate servers that require stability and reliability

The Ubuntu MATE operating system is more secure, and better supported than the operating system pre-installed on most home computer hardware today.

Using Ubuntu MATE provides you with the freedom to run a complete, full-featured operating system, pre-configured with most (if not all) of the applications you will need for your daily computing. Change anything about the way it looks, the way it works, or the applications it runs to suit your taste.

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# 2.1 Objectives

## Ubuntu MATE has a number of guiding objectives and goals.

- Accessible to all, regardless of language and physical ability.
  - Increase both Ubuntu and MATE Desktop user adoption.
  - Ubuntu alternative for computers that aren't powerful enough to run a composited desktop.
  - First choice Ubuntu platform for remote workstation solutions such as LTSP and X2Go.
  - Recreate the halcyon days of Ubuntu for users who prefer a traditional desktop metaphor.
  - Use themes and artwork similar to Ubuntu so that Ubuntu MATE is immediately familiar.
  - When possible contribute to Debian so both the Debian and Ubuntu communities benefit.
  - Software selection will favour functionality and stability over lightness and whimsy.
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## 2.2 Hardware Requirements



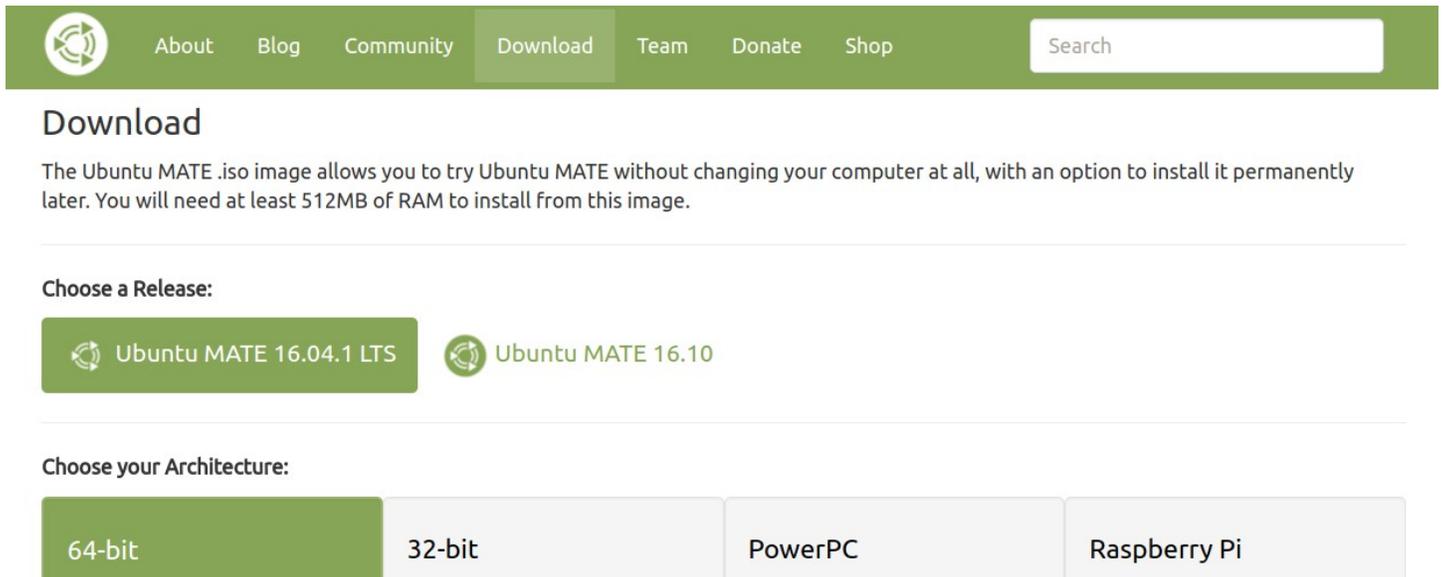
Ubuntu MATE is designed to run on almost any computer hardware. Of course Ubuntu MATE runs particularly well on the newest, fastest hardware, but it also runs well on almost any vintage of machine. In fact, an older computer designed during the Windows XP era, can easily be outfitted with the new, modern and fully-supported Ubuntu MATE and it will likely run better than it did with the previously installed operating system. Of course Ubuntu MATE will run much more efficiently if your computer meets or surpasses the recommended requirements.

<b>. . . MINIMUM . . .</b>	<b>. . . RECOMMENDED . . .</b>
Pentium M 1.0 gigahertz	Core 2 Duo 1.6 gigahertz
1 gigabyte (GB) of RAM	2 gigabytes (GB) RAM
9 gigabytes (GB) of available space on the hard disk	16 gigabytes (GB) of available space on the hard disk
Bootable DVD-ROM drive	Bootable USB flash drive
Keyboard and mouse (or other pointing device)	Keyboard and mouse (or other pointing device)
Video adaptor and monitor with 1024 x 768 or higher resolution	3D capable video adaptor and wide screen monitor with 1366 x 768 or higher resolution
Sound card	Sound card
Speakers or headphones	Speakers or headphones

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## 2.3 Downloading Ubuntu MATE

 The Ubuntu MATE website's [download page](#) gives you several options for downloading an ".iso image file" that you can use to create a CD, DVD or USB drive that allows you to try Ubuntu MATE without changing your computer at all, with an option to install it permanently later. You will need at least 512MB of RAM to install from this image.



The screenshot shows the Ubuntu MATE website's download page. At the top is a green navigation bar with the Ubuntu logo and links for About, Blog, Community, Download, Team, Donate, and Shop. A search bar is on the right. Below the navigation bar is the heading "Download" and a paragraph explaining that the .iso image allows for a trial without hardware changes, requiring at least 512MB of RAM. Under "Choose a Release:", two options are shown: "Ubuntu MATE 16.04.1 LTS" (selected) and "Ubuntu MATE 16.10". Under "Choose your Architecture:", four options are shown: "64-bit" (selected), "32-bit", "PowerPC", and "Raspberry Pi".

**Download**

The Ubuntu MATE .iso image allows you to try Ubuntu MATE without changing your computer at all, with an option to install it permanently later. You will need at least 512MB of RAM to install from this image.

Choose a Release:

Ubuntu MATE 16.04.1 LTS  Ubuntu MATE 16.10

Choose your Architecture:

64-bit  32-bit  PowerPC  Raspberry Pi

## Which Version Should I Choose?

Your first decision is between the version labelled Long Term Support (LTS) release, and a normal release. Here is some information about each that will help you choose the right release for you.

1. Ubuntu MATE releases a new version every six months. Every two years, the release is a Long Term Support Release.
2. Normal support releases are supported for *nine months* while LTS releases are supported for *five years*.
3. "Support" includes:
  - Updates for potential security issues and bugs (not new versions of software)
  - Availability of Commercial support contracts from Canonical
  - Support by Landscape, Canonical's server management tool set designed for enterprises
4. Ubuntu MATE's LTS release (five year support) is the best choice for most users. It is well-supported and will run all the software you depend on. It's regularly updated with new hardware support and performance improvements, so you don't need to be concerned that everything will work properly.
5. If you are a developer who needs the latest versions of certain packages, the "normal" six-month release cycle (nine month support) might be for you. If you want to be on the bleeding edge, have the latest versions of all your software, and use the latest features before they make it to the LTS version of Ubuntu MATE, choose the "normal" cycle of six-month releases. Note that the "bleeding edge" refers to the fact that some of these latest versions may not perform as reliably as the versions supported within the LTS releases.

You can make your second decision with some information about your computer. You will need to know a little about your computer's hardware specifications.

1. Choose *64-bit* if your computer has more than 3GB of RAM, with a 64-bit capable Intel or AMD processor. This is also a good choice for UEFI PCs booting in CSM mode and for modern Intel-based Apple Macs.
2. Choose *32-bit* if your computer has less than 2GB of RAM, and an Intel or AMD processor. This choice is good for ageing PCs with low-RAM resources, and older Intel-based Apple Macintosh systems.
3. Choose *PowerPC* if you have an older generation PowerPC-based hardware, like Apple Macintosh G3, G4 and G5; Apple iBooks and PowerBooks; and IBM OpenPower 7xx Machines.
4. The *Raspberry Pi* version is for aarch32 (ARMv7) computers, like: Raspberry Pi 2 and Raspberry Pi 3.

## Download

Once you have determined which version to download, scroll down the web page to the section labeled Via Direct Download.

1. Click on the link for the file name that ends in ".iso".



ubuntu-mate-16.04.1-desktop-amd64.iso

2. Select a location for your downloaded file, if prompted, and click Save to begin your download.

Now that you have the file, the next topic will discuss how to prepare installation media, and how to try Ubuntu MATE without changing your computer at all, or to install Ubuntu MATE permanently onto your computer.

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## 2.4 Installing Ubuntu MATE

### Creating Installation Media

 The .iso file you downloaded using the instructions in the previous topic doesn't do you much good on its own. You need to put that file in a form that will allow you to install it on your computer. This section describes how to create the installation media (CD, DVD or USB device) that will allow you to do just that. As a note, installable media is often referred to as "live" media because using this method you run Ubuntu MATE directly from the media, live. This allows you to try Ubuntu MATE on your computer without installing, and without changing *anything at all* on your computer. When you shut down and remove the "live" media, your computer is back to normal.

The quickest and easiest method of installation is using a USB drive, also referred to as a "thumb drive" "pen drive" or "USB stick." You can also use a CD or DVD to install Ubuntu MATE, but this method is recommended only for older computers or where the computer can not be configured to boot from a USB device. For information on how to make a CD or DVD for installation using Windows, OSX and Ubuntu, see the "[Burning ISO HowTo](#)" article on Ubuntu help.

Most likely, if you are considering a switch to Ubuntu MATE, you are using Windows. This is a link to the official Canonical (parent company behind Ubuntu) method for [Creating a bootable USB stick on Windows](#) using a tool called Rufus.

A popular cross-platform (Windows, OSX and Linux) app for creating a "live" USB drive is [UNetbootin](#). This excellent tutorial in the Ubuntu MATE community provides step-by-step instructions for using UNetbootin to create a "live" USB drive: "[How to use Unetbootin](#)."

## Preparing For Installation

Ubuntu MATE is relatively simple to set up, whether you're looking to replace your existing operating system or install Ubuntu MATE alongside an existing one - such as Microsoft Windows or another GNU/Linux distribution.

### Step one: *Backup!*

Back up any important data to another storage device before you start to install in case something goes horribly wrong! Save all of your important files and folders to an external USB drive or a 2nd hard drive. DO NOT save anything to the same drive you intend to use for Ubuntu MATE. Once you start, there is no going back! Here is an article with some considerations around backups: [Backup Strategies For Your Computer](#)

### Step two: *Plan for recovery*

If you have a recovery partition and your current system allows you to create recovery disks for your computer, stop reading and go do that now. If you decide that Ubuntu MATE is not for you, this will allow you to reinstall your original operating system. Then you can use the data backup you made in step one to restore all your data.

### Step three: *Decide what to do with the recovery partition.*

If your computer has a recovery partition, if you format over the recovery partition, you will not be able to recover your previous operating system. Only format or remove the recovery partition if you are certain that you don't want it anymore.

## Installing

Now that you've created the installation media, you've done your backup, and you've planned for recovery (you DID do all that right?) you are ready to install, or just try, Ubuntu MATE. For most relatively modern computer, the installation process will take well under an hour to complete. Stay connected to the Internet to install all available updates. Plug your device into a power source if it is running on battery power.

1. Completely shut down your computer.
2. Insert the USB stick.
3. Start the computer and watch the screen to determine which function key to press to change the boot device. The message flashes by quickly, right at the bottom edge of the screen, but the most frequently used keys are **F1**, **F2**, **F4**, **F12** and the **Del** key. It depends on your computer's manufacturer. If your computer boots up normally and you don't see Ubuntu MATE startup, shut down and try again.
4. When you get to the screen that lets you change the boot device, select the menu entry that represents the Ubuntu MATE live USB stick. Press the key that let's you boot using the USB stick. That's usually the **Enter** or **F10**. If you need help, try this article from How-To Geek: "[How to Boot Your Computer From a Disc or USB Drive](#)"
5. Once the computer has started loading Ubuntu MATE, you will be given some options. Select the option: Try Ubuntu MATE.
6. Once Ubuntu MATE has booted successfully, you will be able to use the computer as though Ubuntu MATE were installed. It's not. It is running from the USB stick. The live session you are currently in right now is a good opportunity to test Ubuntu MATE without modifying your computer, allowing you to test that all of your peripherals are working as intended before committing to installing it on your machine. Once you are ready, double click the installation icon on the desktop.
7. You don't need to connect to the Internet to complete the installation of Ubuntu MATE, but if you want to use the web browser, or if you want to install additional updates during the installation, you should connect your network cable, or connect to Wi-Fi. Click the Network Manager icon in the upper right corner of the screen (near the clock) and select your SSID for your wireless network. If prompted, enter the pass code, click the **Connect** button and you will be connected.
8. To begin the installation, double-click the *Install Ubuntu MATE* icon on the desktop.
9. Select your language. Press the **Continue** button.
10. If you have an Internet connection, choose the option to download updates while installing. For first time Ubuntu MATE users, you should also choose the option to install third-party software to ensure a smooth transition to your new operating system. Press the **Continue** button.

11. If you are sure that you want to completely erase every trace of your previous operating system, choose the option: Erase disk and install Ubuntu MATE. If you are not sure, then choose the option: Install Ubuntu MATE alongside your original operating system. This will allow you to choose which operating system to use when you start your computer. If you chose to install along side, the press the `Continue` button.
  12. Press the `Install Now` button.
  13. Read the message on the screen to confirm your choices, then press the `Continue` button to start the installation.
  14. Select your location. Press the `Continue` button.
  15. Choose your preferred keyboard layout. Press the `Continue` button.
  16. Enter your full name, a name for your computer, a user name and a password. You will use the username and password when you log into your computer. Press the `Continue` button.
  17. Now wait just a few minutes while the installation completes, and updates are downloaded and installed.
  18. Press the `Continue Testing` button if you wish to continue to use the live environment, or press the `Restart Now` button to reboot and log into your new installation of Ubuntu MATE!
  19. When prompted, remove the installation medium, then press `Enter`. Your computer will restart (if that's what you selected) and you will be prompted for your password to complete the log in process.
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## 2.5 Support



If you can't find the answer in this manual, many of the answers are available in the vast resource that is the Ubuntu MATE website. Often, the fastest and easiest way to get answers to your questions about how to use Ubuntu MATE is to ask the [Ubuntu MATE community](#). The next two topics in this guide describe the Ubuntu MATE website and community, and provide a bit more detail about the kind of support each can provide.

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## 2.5.1 The Ubuntu MATE Website

The Ubuntu MATE website, located at <https://ubuntu-mate.org> provides a wealth of information. It provides lots of details about the operating system and even a few screenshots to give you a feel for how it looks.



# Ubuntu MATE



### About

Click the [About](#) link for a page that breaks down what exactly Ubuntu MATE is in easy to understand language.

### Blog

The [Blog](#) link reveals the place where the Ubuntu MATE project leaders thank the community for its support of Ubuntu MATE, make announcements, and provide updates on planned releases.

### Community

Click the [Community](#) link for ways you can connect with the Ubuntu MATE community. For additional information [about the Ubuntu MATE Community](#) see the next topic in this guide.

### Download

Click the [Download](#) link to get the latest release of Ubuntu MATE to install on your computer, or give to your friends to try on their computers.

### Team

The [Team](#) link lists the troupe of all star international caberet artists responsible for making Ubuntu MATE a thing.

## Donate

The [Donate](#) page details a crowd funding campaign with three main objectives:

Fund the Ubuntu MATE project's hosting and bandwidth costs. These include domain name registrations, server hosting and bandwidth costs to provide a website and Discourse powered community space that is not reliant on social networks.

Fund the full time development of Ubuntu MATE and MATE Desktop and also be able to offer financial rewards to contributors of either project. Help subsidise the travel expenses of team members to represent MATE Desktop and Ubuntu MATE at FLOSS conferences.

Support other Open Source projects that Ubuntu MATE depends upon.

## Shop

The [Shop](#) link reveals the "Ubuntu MATE Boutique" where you can purchase Entroware computers, pre-installed with Ubuntu MATE, shirts, jackets, mugs, stickers and more!

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## 2.5.2 The Ubuntu MATE Community

 Posing your question to the Ubuntu MATE Community is the fastest and easiest way to get answers about how to use Ubuntu MATE.

The [Community page on the Ubuntu MATE website](#) provides options in three categories for getting involved.

### Discussion

Join the conversation and get involved. Stop by to share your experiences, ask questions and discuss topics with other users and developers in our growing community.

Ubuntu MATE also has its own IRC channel, [#ubuntu-mate](#), on the [Freenode](#) network. The [#ubuntu-mate](#) channel is also home to matey, probably the smartest IRC bot in the world, EVER!

### Social Networks

Ubuntu MATE is active on [Google+](#), [Twitter](#) and [Facebook](#).

### Development

This is where you can get involved with Ubuntu MATE development.

This is where you can get involved with and with MATE Desktop development.

Found a Bug? This is where you'll find a link to submit your detailed and reproducible bug reports to Launchpad so that the relevant developers can fix them in future updates.

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## 3. FAQ



### What is Ubuntu MATE exactly?

See our [What is Ubuntu MATE?](#) page.

### Is Ubuntu MATE an official Canonical project?

No, it is an Ubuntu community project.

### OK, so *who is behind Ubuntu MATE?*

Take a look at our [team page](#) on the website to see the all-star cast who have made Ubuntu MATE possible.

### Is Ubuntu MATE an official Ubuntu "flavour"?

Ubuntu MATE 15.04 and onward are *official* Ubuntu flavours.

Ubuntu MATE 14.04 and Ubuntu MATE 14.10 are *unofficial* builds.

### Will you be making a 14.04 LTS version of Ubuntu MATE?

We have, although it is not an official build. You can get it here:

· [Ubuntu MATE 14.04.2 LTS](#)

We have also posted a [HOW-TO for installing your own Ubuntu MATE 14.04 from scratch](#).

### Why is *xyz* application installed by default when I prefer *abc* application?

In general, the default application selection follows what shipped in Ubuntu 14.04. The only reason we deviate from the default Ubuntu applications is if they are not compatible with Ubuntu MATE or pull in lots of unnecessary dependencies.

The reason for using the default applications as shipped by Ubuntu is the Ubuntu staff support the default applications. The Ubuntu MATE team is rather small so sharing the support responsibility makes sense, both for us and our users.

### Why is *xyz* application installed default when *abc* application is better?

See the answer to the question above.

## **Will Ubuntu MATE run on my computer?**

If you have a computer from Entroware, System 76, ZaReason or Think Penguin then Ubuntu MATE will absolutely run on your computer. Computers from major vendors such as Acer, ASUS, Dell, HP and Lenovo will most likely run Ubuntu MATE just fine too. Ubuntu MATE is designed to run on almost any computer hardware. Of course Ubuntu MATE runs particularly well on the newest, fastest hardware, but it also runs well on almost any vintage of machine. In fact, an older computer designed during the Windows XP era, can easily be outfitted with the new, modern and fully-supported Ubuntu MATE and it will likely run better than it did with the previously installed operating system.

## **Can I use *iTunes* on Ubuntu MATE?**

No. This is one of those programs that is specifically designed by Apple NOT to run on Linux. Although Mac OS X has its roots in the same UNIX philosophy as Linux, OS X is not the same as Linux, and applications written for Apple's operating system do not automatically run on Linux. There are, however plenty of alternative media players that will play music, create play lists, sync with mobile devices, and retrieve, manage and play podcasts. *Rhythmbox* is provided with Ubuntu MATE and can play any of the music or podcasts in your *iTunes* library.

## **Is Ubuntu MATE secure and safe to use?**

Ubuntu MATE is designed with security in mind. Unlike operating systems that update only once a month, Ubuntu MATE receives updates continuously. The updates include security patches for Ubuntu MATE and all of its components. Security updates for all of its installed applications are also provided on the same schedule. This ensures that you have the latest protection for all of your computer's software, as soon as it's available!

## **Is Ubuntu MATE more secure than other operating systems?**

We think that security on Linux systems like Ubuntu MATE is superior. Ubuntu MATE users are not administrators by default. Administrators ("root" users) on any computer system have permission to do anything they want, including the ability to damage the system. For example, other operating systems look at the name of a file to determine which program should open it, then immediately attempt to open it! That design makes it easy for an intruder to attack a computer. Ubuntu MATE opens a file based on what the file is, not based on its name. So even if a malicious program disguises its identity by using the name "Last Will and Testament.txt" Ubuntu MATE will recognise the file as a program. The system provides a warning that the file is not a text file, but that it is a program that will be run if you give it permission to continue. To be extra secure, Ubuntu MATE requires you to provide your administrator password before that permission is granted. Every single time.

## Can Ubuntu MATE get computer viruses and malware?

Ubuntu MATE can get viruses and other infections... but it doesn't. Rapid and timely updates ensure that there are very few, if any threats to Linux systems like Ubuntu MATE that persist in the wild. In reality, there have been very few "public" infections in the last 10 years that can affect Ubuntu MATE. They are no longer a threat to anyone installing or using a modern Linux distribution today. Ubuntu MATE is designed to make it difficult for viruses, root kits and other malware to be installed and run without conscious intervention by you, the user. Even if you do accidentally invite in an infection, chances are it's designed to attack Windows and won't do much, if any damage to Ubuntu MATE.

## How can Ubuntu MATE be free?

What Linux, Ubuntu and MATE Desktop all have in common is they are Open Source. Open Source software is software that can be freely used, changed, and shared (in modified or unmodified form) by anyone. In a nutshell Ubuntu MATE is free, in the truest sense of the word.

Although you will find some versions (distributions) of Linux for purchase, the vast majority are provided free of charge, like Ubuntu MATE. Open Source software is licensed in a way that allows anyone to give it away for free, no strings attached. For example, the licence gives any member of the user community the freedom to use Linux for any purpose, to distribute, modify, redistribute, or even sell the operating system. If you do modify and then redistribute Linux with your modifications, you are required by the licence to submit your modifications for possible inclusion into future versions. There is no guarantee that this will ever happen, but if you have made it better, then your changes just might be included in the next release of Ubuntu MATE.

Many of the users of Linux are corporations that use the operating system to run their businesses, or include it within their products. Many of these corporations provide fixes and new features for Linux as they use the software for their businesses. These improvements are given back to the Linux community and Ubuntu MATE improves as a result.

This is how we can continually improve and grow without having to charge our users money.

## I've got a question. Where do I ask?

Ask the [Ubuntu MATE community](#).

## What has Ubuntu MATE got planned for the future?

Hopefully our [roadmap](#) outlines some of what we have planned. If you have any ideas yourself, we'd love to hear from you.

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