

What is Linux?

Linux is an independent Unix-like operating system that can be freely modified and redistributed. It works on all major 32-bit and 64-bit computer hardware platforms and is an implementation of the POSIX specification with which all true versions of Unix comply. Linux uses no code from proprietary Unix sources, and much of the software available for Linux is developed by the Free Software Foundation's GNU project. The result of efforts by thousands of programmers coordinating via the Internet, Linux is now recognized as one of the most stable and flexible operating systems available at any price.

What Systems Run Linux?

Desktops and Laptops

Linux graphical interfaces such as GNOME or KDE can replace Mac OS and Windows on the workstation for most users' needs. Runs on all major PC hardware platforms, and can likely run on the older hardware that you already have. Commands in a terminal are not required. Point and click friendly work flow.

Servers in the Cloud

Linux is an important part of the computer server market. It runs the large majority of the Web through the Apache server and provides email, FTP, SSH, News, file, printer, and proxy servers with efficient and scale-able solutions. Linux also supports many different databases (e.g. MySQL, PostgreSQL, and Oracle) which are the engines of enterprise-level servers.

Development Systems

Linux provides a powerful software development platform, with all standard languages being freely available. Since the source code to the OS, development tools, and most applications can be freely modified and redistributed, Linux is the perfect environment for developers.

Other Systems

An eclectic mix of systems all run on Linux including Mars Rovers, Space Stations, supercomputer clusters, mainframes, Android smartphones, wristwatches, consumer electronics, point-of-sale terminals, Google.com, Amazon.com, Hollywood animation studios, mall kiosks, miniature Raspberry Pi and similar.

Awesome Applications



Linux applications (apps) focus on doing one job well with communications between applications implemented using well-defined public protocols and file formats. This modular design has a number of advantages, including flexibility, simplicity, and stability. A particular application can be replaced by any equivalent which follows the same rules.

The resulting freedom of choice leads to friendly competition between different development teams, and often results in Linux applications that are best-of-breed through natural selection.

What Applications Run on Linux?

The short answer is lots! Your distribution of choice may generally have what you need to perform daily tasks. Many thousands of popular Linux applications that may suit your needs are available to optionally install from its software center. Included are web browsers, email clients, image and video editors, audio and video players, office suites and more. The following sites may help you find additional applications you might need:

Software apps: <https://www.linux-apps.com/>

General apps: www.icewalkers.com/

Free development site: www.sourceforge.net/

Windows equivalents or alternatives:

<https://alternativeto.net/>

<http://www.osalt.com/>

<http://alternatives.rzero.com/>

Compatibility mode for Windows apps:

www.winehq.com/

<https://www.playonlinux.com/en/>

Games: <https://lutris.net/>

Linux Manuals:

[Debian Handbook](#)

[Debian Users' Manuals](#)

[Arch Linux](#)

[Linux Handbook](#)

[Ubuntu Handbook](#)

Making Installation Media:

After downloading the .img or .iso file, install to and then boot from [USB flash drive](#). Or [burn](#) the .img or .iso file to disc. Burning is NOT just copying.

MS Windows® installation tools:

[RaWrite](#)

[balenaEtcher](#)

[Rufus](#)

[Universal USB Installer](#)

[UNetbootin](#)

Linux/Unix or Similar installation tools:

The **dd** command line program.

[balenaEtcher](#)

[Fedora Media Writer](#)

[K3b](#)

[MultiSystem](#)

[UNetbootin](#)

Purchase Installation Media:

[OSDisc CDs, DVDs, USB Flash Drives](#)

Alternative boot menus on PC start up:

Try DEL, F1, F2, F8, F10 or F12 key

Alter the BIOS/UEFI sequence.

Mailing Lists and Forums:

[SLUUG.org mailing lists](#)

[EzeeLinux.com/talk forum](#)

[Linux Mint Forums](#)

Podcast or Videos Sites:

[GoingLinux.com](#)

[MintCast.org](#)

[EzeeLinux.com](#)

[Freedom_Penguin.com](#)

[TheFrugalComputerGuy.com](#)

Local Resources:

Above videos on USB flash drives at most of our monthly [meetings](#)

Explore <https://newlug.sluug.org/menu.html>

This <https://www.sluug.org/pdf/Linux4Beginners.pdf>

Many Distributions



GNU/Linux distributions (distros) consist of the Linux Kernel, an installer and a combination of other software to make a complete Unix-like environment. Most distributions are available for free download via the Internet, and some can be purchased in supported form as a boxed set of CD/DVDs, or USB flash drive with printed documentation.

Some of the more popular distributions:

- AntiX – for old hardware (32 bit)
<http://antix.mepis.com/>
 - Debian GNU/Linux ~ basis for many others
www.debian.org/
 - elementaryOs ~ a [pay-what-you-want](http://elementary.io/) model
elementary.io/
 - Fedora [Core] basis for Red Hat Enterprise
www.fedoraproject.com/
 - * **LinuxMint** – classic desktop experience
www.linuxmint.com/
 - Manjaro ~ based on Arch Linux, popular
<https://manjaro.org/>
 - MX Linux ~mid-weight, simple, stable, solid
mxlinux.org/
 - PCLinuxOS – Good community
www.pclinuxos.com/
 - Puppy – easy, full featured, small
www.puppylinux.org/
 - Slackware – Oldest surviving Linux distro
www.slackware.com/
 - Solus ~home computing, 64 bit only
<https://getsol.us/home/>
 - openSUSE - consumers and small business
www.opensuse.org/
 - Ubuntu – Popular, multiple screen styles
www.ubuntulinux.org/
 - * **Ubuntu-Mate** ~ classic desktop experience
<https://ubuntu-mate.org/>
 - Zorin – Transition from Microsoft
www.zorin-os.com/
- * Recommended as Beginner Friendly

Listings of Linux distributions:

- www.distrowatch.com/
- www.livecdlist.com/
- www.lwn.net/Distributions/
- en.wikipedia.org/wiki/List_of_Linux_distributions

Other Resources:

- A Beginners Guide
www.lifewire.com/beginners-guide-to-linux-4090233
- The Linux Documentation Project
www.tldp.org/
- GNU Operating System – Free as in Freedom
www.gnu.org/
- Loads of Linux Links
<http://loll.sourceforge.net/linux/links/>
- Linux (the Operating System)
<http://en.wikipedia.org/wiki/Linux>
- Linux kernel
http://en.wikipedia.org/wiki/Linux_kernel
- Linux Guide
http://en.wikibooks.org/wiki/Linux_Guide
- Linux Online – Linux Information
www.linux.org/
- Linux Screen Shots
linuxscreenshots.org
- On Line Operating System Tester
<https://distrotest.net/>

News Websites:

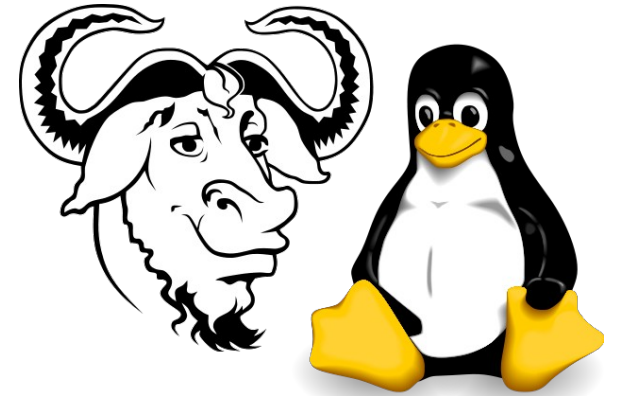
- Linux Weekly News (with daily updates)
www.lwn.net/
- Linux Today
www.linuxtoday.com/
- Slashdot: News for Nerds, Stuff That Matters
www.slashdot.org/
- The Free Software Foundation
www.fsf.org/
- It's Free Open Source Software (FOSS)
<https://itsfoss.com/>
- Opensource
<https://opensource.com/>

Online Magazines:

- Linux Journal – since 1994
www.linuxjournal.com/
- Linux Magazine
<http://www.linux-magazine.com/>

An introduction to GNU/Linux:

a secure, powerful, & free
operating system
for computers of all types.



GNU/Linux for Beginners

Brought to you by the
Newcomer Linux Users Group
newlug.sluug.org/

A Special Interest Group of the
St. Louis Unix Users Group (SLUUG)
www.sluug.org

Linux is the kernel initially created in 1991 as a hobby project by a young student, Linus Torvalds, at the University of Helsinki in Finland, and then released onto the Internet as an Open Source project. Since then thousands of people have contributed to make Linux (combined with GNU software) one of the easiest, most stable and full-featured operating systems available.

*Tux, the penguin shown above, is the official Linux mascot.
Gnu/Wildebeest/Ibex shown above, an unofficial mascot.*