

# Linux

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*This article is about the operating system. For the kernel, see [Linux kernel](#). For other uses, see [Linux \(disambiguation\)](#).*

## Linux



[Tux](#) the penguin, mascot of Linux<sup>[1]</sup>

<b><a href="#">Developer</a></b>	Community
<b><a href="#">Written in</a></b>	Primarily <a href="#">C</a> and <a href="#">assembly</a>
<b>OS family</b>	<a href="#">Unix-like</a>
<b>Working state</b>	Current
<b>Source model</b>	Mainly <a href="#">open-source</a> , <a href="#">proprietary software</a> is also available.
<b>Initial release</b>	September 17, 1991; 25 years ago
<b>Marketing target</b>	<a href="#">Personal computers</a> , <a href="#">mobile devices</a> , <a href="#">embedded devices</a> , <a href="#">servers</a> , <a href="#">mainframes</a> , <a href="#">supercomputers</a>
<b><a href="#">Available in</a></b>	Multilingual

<b>Platforms</b>	<a href="#">Alpha</a> , <a href="#">ARC</a> , <a href="#">ARM</a> , <a href="#">AVR32</a> , <a href="#">Blackfin</a> , <a href="#">C6x</a> , <a href="#">ETRAX CRIS</a> , <a href="#">FR-V</a> , <a href="#">H8/300</a> , <a href="#">Hexagon</a> , <a href="#">Itanium</a> , <a href="#">M32R</a> , <a href="#">m68k</a> , <a href="#">META</a> , <a href="#">Microblaze</a> , <a href="#">MIPS</a> , <a href="#">MN103</a> , <a href="#">Nios II</a> , <a href="#">OpenRISC</a> , <a href="#">PA-RISC</a> , <a href="#">PowerPC</a> , <a href="#">s390</a> , <a href="#">S+core</a> , <a href="#">SuperH</a> , <a href="#">SPARC</a> , <a href="#">TILE64</a> , <a href="#">Unicore32</a> , <a href="#">x86</a> , <a href="#">Xtensa</a>
<b>Kernel type</b>	<a href="#">Monolithic</a> ( <a href="#">Linux kernel</a> )
<b>Userland</b>	<a href="#">GNU</a> and various others <sup>[a]</sup>
<b>Default user interface</b>	Many
<b>License</b>	<a href="#">GPLv2</a> <sup>[7]</sup> and other free and open-source licenses, except for the "Linux" trademark <sup>[b]</sup>

**Linux** (pronounced <sup>[d]</sup>/ˈlɪnəks/ *[LIN-əks](#)*<sup>[9][10]</sup> or, less frequently, /ˈlaɪnəks/ *[LYN-əks](#)*<sup>[10][11]</sup>) is a [Unix-like](#) computer [operating system](#) assembled under the model of [free and open-source software](#) development and distribution. The defining component of Linux is the [Linux kernel](#),<sup>[12]</sup> an [operating system kernel](#) first released on September 17, 1991 by [Linus Torvalds](#).<sup>[13][14][15]</sup> The [Free Software Foundation](#) uses the name **GNU/Linux** to describe the operating system, which has led to some [controversy](#).<sup>[16][17]</sup>

Linux was originally developed for [personal computers](#) based on the [Intel x86](#) architecture, but has since been [ported](#) to more [platforms](#) than any other operating system.<sup>[18]</sup> Because of the dominance of [Android](#) on [smartphones](#), Linux has the [largest installed base](#) of all general-purpose operating systems.<sup>[19]</sup> Linux is also the leading operating system on [servers](#) and other [big iron](#) systems such as [mainframe computers](#), and is used on 99.6% of the [TOP500 supercomputers](#).<sup>[20][21]</sup> It is used by around 2.3% of [desktop computers](#).<sup>[22][23]</sup> The [Chromebook](#), which runs on [Chrome OS](#), dominates the US [K–12](#) education market and represents nearly 20% of the sub-\$300 [notebook](#) sales in the US.<sup>[24]</sup> Linux also runs on [embedded systems](#) – devices whose operating system is typically built into the [firmware](#) and is highly tailored to the system. This includes [TiVo](#) and similar [DVR](#) devices, network [routers](#), facility automation controls, televisions,<sup>[25][26]</sup> [video game consoles](#) and [smartwatches](#).<sup>[27]</sup> Many smartphones and [tablet computers](#) run Android and other Linux derivatives.<sup>[28]</sup>

The development of Linux is one of the most prominent examples of free and open-source software collaboration. The underlying [source code](#) may be used, modified and distributed—commercially or non-commercially—by anyone under the terms of its respective licenses, such as the [GNU General Public License](#). Typically, Linux is [packaged](#) in a form known as a [Linux distribution](#) (or *distro* for short) for both desktop and server use. Some of the most popular mainstream Linux distributions<sup>[29][30][31]</sup> are [Arch Linux](#), [CentOS](#), [Debian](#), [Fedora](#), [Gentoo Linux](#), [Linux Mint](#), [Mageia](#), [openSUSE](#) and [Ubuntu](#), together with commercial distributions such as [Red Hat Enterprise Linux](#) and [SUSE Linux Enterprise Server](#). Distributions include the Linux kernel, supporting [utilities](#) and [libraries](#), many of which are provided by the [GNU Project](#), and usually a large amount of application software to fulfil the distribution's intended use.

Desktop Linux distributions include a windowing system, such as [X11](#), [Mir](#) or a [Wayland](#) implementation, and an accompanying [desktop environment](#) such as [GNOME](#) or

the [KDE Software Compilation](#); some distributions may also include a less resource-intensive desktop, such as [LXDE](#) or [Xfce](#). Distributions intended to run on servers may omit all graphical environments from the standard install, and instead include other software to set up and operate a [solution stack](#) such as [LAMP](#). Because Linux is freely redistributable, anyone may create a distribution for any intended use.

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