What is Linux?

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Linux is an operating system that was initially created as a hobby by a young student, Linus Torvalds, at the University of Helsinki in Finland. Linus had an interest in Minix, a small UNIX system, and decided to develop a system that exceeded the Minix standards. He began his work in 1991 when he released version 0.02 and worked steadily until 1994 when version 1.0 of the Linux Kernel was released. The kernel, at the heart of all Linux systems, is developed and released under the GNU General Public License and its source code is freely available to everyone. It is this kernel that forms the base around which a Linux operating system is developed. There are now literally hundreds of companies and organizations and an equal number of individuals that have released their own versions of operating systems based on the Linux kernel. More information on the kernel can be found at our sister site, LinuxHQ and at the official Linux Kernel Archives. The current full-featured version is 2.6 (released December 2003) and development continues.

Apart from the fact that it's freely distributed, Linux's functionality, adaptability and robustness, has made it the main alternative for proprietary Unix and Microsoft operating systems. IBM, Hewlett-Packard and other giants of the computing world have embraced Linux and support its ongoing development. More than a decade after its initial release, Linux is being adopted worldwide as a server platform primarily. Its use as a home and office desktop operating system is also on the rise. The operating system can also be incorporated directly into microchips in a process called "embedding" and is increasingly being used this way in appliances and devices.

Throughout most of the 1990's, tech pundits, largely unaware of Linux's potential, dismissed it as a computer hobbyist project, unsuitable for the general public's computing needs. Through the efforts of developers of desktop management systems such as KDE and GNOME, office suite project OpenOffice.org and the Mozilla web browser project, to name only a few, there are now a wide range of applications that run on Linux and it can be used by anyone regardless of his/her knowledge of computers. Those curious to see the capabilities of Linux can download a live CD version called Knoppix . It comes with everything you might need to carry out day-to-day tasks on the computer and it needs no installation. It will run from a CD in a computer capable of booting from the CD drive. Those choosing to continue using Linux can find a variety of versions or "distributions" of Linux that are easy to install, configure and use. Information on these products is available in our distribution section and can be found by selecting the *mainstream/general public* category.

If you're interested in learning about Linux, need help with some aspect of its use or are enthusiastic about it and want to help foster its adoption, you may want to get in touch with a Linux User Group in your area. There are groups in practically every country, region and city in the world, so there is likely to be one near you.

Linux has an official mascot, [Tux](), the Linux penguin, which was selected by Linus Torvalds to represent the image he [associates]() with the operating system. Tux was created by Larry Ewing and Larry has generously given it to the community to be freely used to promote Linux. More information on use of the image can be found on his [webpage](). More links to variations on the image and alternative logos can be found on our [logo page]()

Many people are not sure of the pronunciation of the word *Linux*. Although many variations of the word exist, often due to native language factors, it is normally pronounced with a short " i " and with the first syllable stressed, as in **LIH-*nucks***. You can hear how Linux creator Linus Torvalds pronounces the word in [Swedish]() and in [English]().

About Linus Torvalds

Early Life

Linus Torvalds was born on December 28, 1969 in Helsinki, Finland. He is the son of Nils and Anna Torvalds. Both parents pursued careers in journalism. Linus took an early interest in computers mainly through the influence of his maternal grandfather. He excelled in math in secondary school. Linus and his family are part of a minority in Finland whose first language is not Finnish but *Swedish*, a fact which is not widely known. For this reason, early references to his pronunciation of Linux in *Swedish* were not understood or often cited as an error.

University Student

Linus Torvalds enrolled at the University of Helsinki in 1988 where he studied computer science. After buying a PC with an Intel 386 CPU, he began using Minix, an Unix-inspired operating system created by Andrew Tannenbaum for use as a teaching tool. Linus was not impressed with the system in general and in particular he lamented its inability to do terminal emulation, which he needed so he could connect to the university's computers. Linus decided to do the terminal emulation program himself, independently of Minix. These were the first steps toward creating Linux.

Linux Development

Linus quickly developed the terminal emulation program and it was sufficient for his needs for a while. However, Linus began thinking that it would be nice to be able to do other things with it like tranferring and saving files. This is where Linux was really born. Originally, Linus wanted to name his creation 'Freax' (pronounced like the English word *freaks*). He changed it to Linux at the prompting of a friend. In August, 1991, Linus announced on Usenet that he was working on this operating system:

```
From: torvalds@klaava.Helsinki.FI (Linus Benedict Torvalds)
Newsgroups: comp.os.minix
Subject: What would you like to see most in minix?
Summary: small poll for my new operating system
Message-ID: <1991Aug25.205708.9541@klaava.Helsinki.FI>
```

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Date: 25 Aug 91 20:57:08 GMT
Organization: University of Helsinki


Hello everybody out there using minix -

I'm doing a (free) operating system (just a hobby, won't be
big and
professional like gnu) for 386(486) AT clones.  This has
been brewing
since april, and is starting to get ready.  I'd like any
feedback on
things people like/dislike in minix, as my OS resembles it
somewhat
(same physical layout of the file-system (due to practical
reasons)
among other things).

I've currently ported bash(1.08) and gcc(1.40), and things
seem to work.
This implies that I'll get something practical within a few
months, and
I'd like to know what features most people would want.  Any
suggestions
are welcome, but I won't promise I'll implement them :-)

                Linus (torvalds@kruuna.helsinki.fi)

PS.  Yes - it's free of any minix code, and it has a multi-
threaded fs.
It is NOT protable (uses 386 task switching etc), and it
probably never
will support anything other than AT-harddisks, as that's
all I have :-(.
```

Linus uploaded the first version of Linux, version 0.01 in September of 1991. Then Linux belonged to the world.

Marriage and a Family

In 1993, Linus was teaching an introductory computer course at the University of Helsinki. A young woman in the class named Tove emailed him and asked him out on a date. She would later become his wife. Tove and Linus went on to have three daughters, Patricia, Miranda and Daniela.

To the USA and Transmeta

In late 1996 Linus accepted an invitation to visit the California headquarters of Transmeta, a start-up company in the first stages of designing an energy saving CPU. Linus was intrigued by their work and in early 1997 he accepted a position at Transmeta

and moved to California with his family. Along with his work for Transmeta, Linus continued to oversee kernel development.

Open Source Development Laboratory

In June of 2003, Linus left Transmeta in order to focus exclusively on the Linux kernel and began to work under the auspices of the *Open Source Development Labs (OSDL)* a consortium formed by high-tech companies which include IBM, Hewlett-Packard, Intel, AMD, RedHat, Novell and many others. The purpose of the consortium is to promote Linux development.

Difference Between Unix & Linux
Linux is licenced under the GNU/GPL, which makes it "OpenSource <u>Software</u>", so you can read, and modify the <u>Source Code</u>, recompile and make your own Linux 'Version', if you want, you can sell it, BUT you must give away the Source Code Again...

So this is what makes Linux (and the rest of the OpenSource Software) Great... Hundreds of Thousands of proggrammers around the world debuggin the code, tracking errors, fixing them and sending the patches to the author... for money, for fun, or just to help.

Besides Almost any commercial software (Including UNIXES like HP-UX, AIX, IRIX), that only gives away the compiled code.