

# The LINUX Operating System: An Introduction

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**Abstract:** *Linux is a Unix-like operating system for Intel 386/486/ Pentium based IBM-PCs and compatibles. The kernel of this operating system was written from scratch by Linus Torvalds and, although copyright by the author, may be freely distributed. A world-wide group of enthusiastic volunteers has collaborated in developing many aspects of Linux on the Internet.*

*Linux can run the powerful set of compilers and programming tools (the 'GNU' corpus) of the Free Software Foundation, and XFree86, a port of the X Window System from MIT. Most capabilities associated with high performance workstations, such as networking, shared file systems, electronic mail, TEX, I\*TE.X, etc. are freely available for Linux. It can thus transform cheap IBM-PC compatible machines into Unix workstations with considerable capabilities.*

*The author explains how Linux may be obtained, installed and networked. He also describes some interesting applications for Linux that are freely available. One useful feature of Linux is its ability to coexist with other operating systems. Thus a user who has made an investment in DOS/ MS Windows software, may continue running these applications on his machine and install Linux on a separate partition on his existing hard disk. If needed, files from DOS/ MS Windows partitions can be accessed by Linux.*

*The enormous consumer market for IBM-PC compatible machines continually drives down prices of CPU chips, memory, hard disks, CDROMs etc. Linux can convert such machines into powerful workstations that can be used for teaching, research and software development. For professionals who use Unix based workstations at work, Linux permits virtually identical working environments on their personal home machines. For cost conscious educational institutions (especially in developing nations), Linux can create world-class computing environments from cheap, easily maintained, PC clones. Finally, for university students, especially in science and engineering, Linux provides an essentially cost-free path away from DOS into the world of Unix and X Windows*

**Keywords:** Linux

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