

Brief Linux Presentation

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History

1965 - Bell Labs (AT&T), GE and MIT

- Project to develop a new (multiuser, multitasking) operating system - MULTICS. (not successful)

1969 - Ken Thompson and Dennis Ritchie implemented the first UNIX system for the PDP-7.

1973 - The UNIX system was rewritten in the C programming language.

1982 - University of California, Berkeley (UCB)

- Developed BSD UNIX because new commercial UNIX releases no longer included the source code.

History (continued)

1984 - Richard Stallman started the GNU project to create a free operating system.

- By 1991 they created a lot of the tools but no kernel.

Professor Andrew Tanenbaum wrote the operating system MINIX from scratch to teach his students the inner workings of a real operating system.

Apr 1991 - At age 21, Linus Torvalds starts working on a new operating system inspired by MINIX.

- September 1991 - Linux version 0.01 is released.

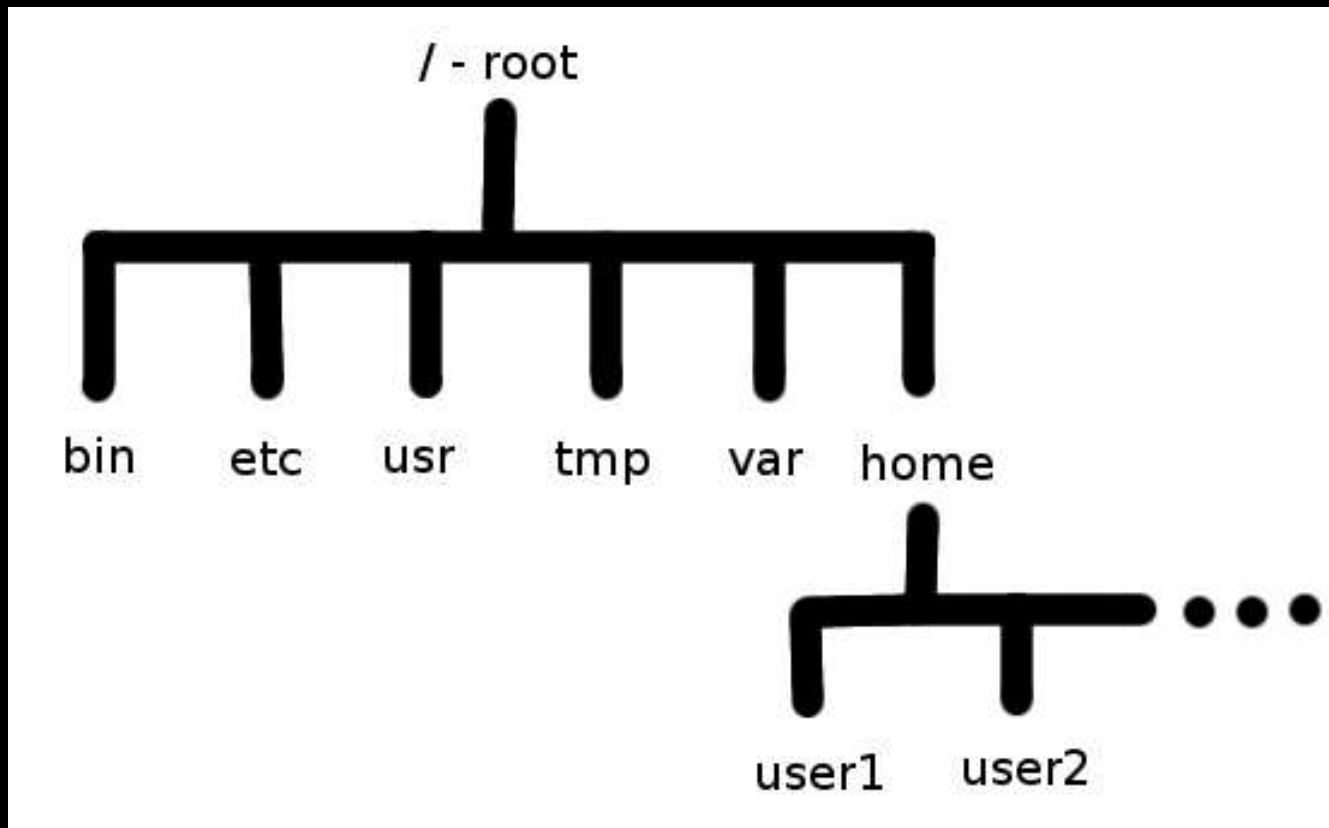
Overview

- GNU/Linux
 - Linux Kernel.
 - GNU tools
- Graphical User Interfaces (GUI)
 - Gnome
 - KDE
- Distributions
 - Debian
 - Mandrake
 - Red Hat
 - Ubuntu

Logging In and Out

- Need account on machine(s) you want to log in to:
 - username and password
- Local Login
- Remote Login
 - `ssh [-X] username@machineAddress`
- Opening a Terminal (command line prompt)
- Exiting and Logging Out
 - `exit`

The Unix Filesystem



Common Commands

- **pwd** - shows the current directory
- **cd** - changes directory
 - **/** - absolute path
 - **./** - relative path
 - **../** - directory one level up
 - **Tab Completion!**
- **ls** - lists files [-al]
 - permissions: **d|rw|rw|rw**
- **man** - manual (help)
- **less, more, cat** - examines files
- **emacs, gedit, vim ,...** - file editors

More Common Commands

- **mkdir** - makes directory
- **rmdir** - removes directory
- **cp** - copies
- **mv** - moves
- **rm** - removes [-r]
- **lpr -P** printername filename - prints file on selected printer
 - 4si
 - 5si

Even More Common Commands

- `command&` - runs command in background
- `|` - (pipe) links commands together (right side runs on output of left side)
- `grep` - finds matching expressions
 - selections
 - ▶ `*` - any number of characters
 - ▶ `?` - one character
- `up arrow` - previous commands

Finding and Killing Processes

- **ps** - shows running processes [-aux]
- **kill** - kills a process [-9]

GNOME

- Terminal
- Multiple Desktops
- Places
- Applications
 - Firefox Web Browser
 - Open Office
 - Maple (maple8 or xmaple8)
 - Matlab (matlab)
 - Ansys (launcher90 -runae fontsize 18)
 - Nessus (NESSUS)
- Quick Launcher

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