LINUX 101 CS 045

Computer Organization and Architecture

Prof. Donald J. Patterson

LINUX 101

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My groups Home Starred	comp.os.minix > What would you like to see most in minix? 289 posts by 266 authors G+1 Press	evious Page 1 - Next
 Favorites Newport Mesa Mi 	 Linus Benedict Torvaids 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 :-) 	6/25/91
 Recently viewed comp.os.minix Newport Mesa Mi TRANSITION-SB 		
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- The Big Three on Desktop
 - Windows
 - OS X
 - Linux
- The Big Two on Mobile
 - iOS
 - Android



- What is an operating system?
 - a layer of software that is between application programs and the hardware
 - it is "systems software"
 - the core is called the "kernel"



- Purposes of an operating system
 - Protect hardware from misuse by software
 - Abstract the hardware
 - So that applications appear to be using simple processes, memory and Input/Output Devices

- Other low-level software
 - By itself an operating system isn't very useful
 - Linux
 - Usually comes with GNU software
 - "GNU's not Unix"
 - Often comes with GUI software as well
 - Distributions
 - Debian
 - Ubuntu
 - Redhat
 - Gentoo







• Open-source

- You may have access to the source code that produced a program/application
- Free software
 - "Gratis"
 - It costs nothing
 - "Libre"
 - You may do whatever you would like with it
 - copy, modify, sell, redistribute
- FLOSS (Free/Libre and Open Source Software)
 - Enforced by copyright
 - GPL



- Benefits of open-source software
 - It is clear what the software is doing
 - privacy, security
- Benefits of free software
 - It is cheaper
 - It speeds up innovation
- Drawbacks of free software
 - You can't make money from producing the code or selling the programs that are made from it





Other resources

Cgit Patchwork Linux.com Wikis Kernel Mailing Lists Linux Foundation Bugzilla Mirrors Kernel Planet

Social

Site Atom feed Releases Atom Feed Linux on Google+

- Linux is opensource
- Android is open-source
- Windows, OSX, iOS are closed source



- Skill 0:
 - Getting help
 - <command> --help
 - man <command>
 - info <command>
 - Does a command exist?
 - which <command>

- Skill 1:
 - Finding where in the file hierarchy you are
 - pwd
 - shorthand for directories
 - . current location
 - .. up one directory
 - Moving around
 - cd

- Skill 2:
 - Examining files
 - ls {-a, -l ,-d}
 - cat
 - more/less
 - nano/vim

- Skill 3:
 - Manipulating files
 - **cp** copy
 - mv move
 - rm remove
 - Manipulating directories
 - mkdir
 - rmdir

- Skill 4:
 - Downloading files
 - wget "<url>"
 - Moving files
 - sftp
 - Compressing/decompressing archives
 - tar xvf <filename.tar>
 - unzip <filename.zip>

- Skill 5:
 - Examining processes
 - top
 - ps
 - Examining other users
 - who

- Skill 6:
 - Makeing software
 - make

- On beyond
 - Wherefore art thou penguin?
 - is ls and dir the same?
 - Why did Linux thrive?
 - How do I quit man?
 - How do I log out?
 - What is grep?
 - How do you make a CLI program that works anywhere?
 - Why are Linux CLI and Windows so different?
 - With so much flexibility in Linux how do you know you are getting what is advertised?

- Why doesn't Linux have games, movies, etc?
- What is sudo?
- What's apt-get?
- Why does Sam like Fedora?
- How does vim work?
- Linux is a person and an OS - discuss

