Brief Linux Presentation
July 10th, 2006
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1982 - University of California, Berkeley (UCB)
- Developed BSD UNIX because new commercial UNIX releases no longer included the source code.
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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
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- Graphical User Interfaces (GUI)
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- 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

/ - root

bin  etc  usr  tmp  var  home

user1  user2
Common Commands

- `pwd` - shows the current directory
Common Commands

- **pwd** - shows the current directory
- **cd** - changes directory
  - `./` - absolute path
  - `../` - relative path
  - `../../` - directory one level up
  - Tab Completion!
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  - permissions: d|rw|x|rw|x|rw|x
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- **less, more, cat, tail** - examines files
More Common Commands

- `mkdir` - makes directory
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- **mkdir** - makes directory
- **rmdir** - removes directory
More Common Commands

- mkdir - makes directory
- rmdir - removes directory
- cp - copies
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- `rmdir` - removes directory
- `cp` - copies
- `mv` - moves
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- **rmdir** - removes directory
- **cp** - copies
- **mv** - moves
- **rm** - removes [-r]
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- `rmdir` - removes directory
- `cp` - copies
- `mv` - moves
- `rm` - removes [-r]
- `lpr -P`printername filename - prints file on selected printer
  - `hp4si`
  - `hp5si`
Even More Common Commands

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`grep` - finds matching expressions
  - *selections*
    - `*` - any number of characters
    - `?` - one character
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- `up arrow` - previous commands
Finding and Killing Processes

- `ps` - shows running processes [-aux]
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- **kill** - kills a process [-9]
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- **ps** - shows running processes [-aux]
- **kill** - kills a process [-9]
- **find** - finds files whose name matches pattern [-name]
GNOME

- Terminal
- Multiple Desktops
- Places
- Applications
  - Firefox Web Browser
  - Open Office
  - Maple (maple or xmaple -cw)
  - Matlab (matlab)
  - Ansys (launcher90 -run ae fontsize 18)
  - Nessus (NESSUS)
- Quick Launcher
Acknowledgments

- Yuriy Gulak
- Haym Benaroya