

Linux

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Objectives

- Linux history
- Why Linux
- What boards use Linux
- Ubuntu
- How to run Ubuntu
- Ubuntu tour



Linux History

- Unix like, open source
- 1991, Linus Torvalds
- 1993, more programmers, Slackware and Debian
- 1994, Linux 1.0, GUI
- 1996-98, Version 2.0, IBM, Compaq and Oracle
- 2000, Dell prepares for Linux
- 2006, Novell and Microsoft cooperate with Linux
- 2011, Version 3.0
- 2014, 22,000,000 Ubuntu
- 2015, Version 4.0



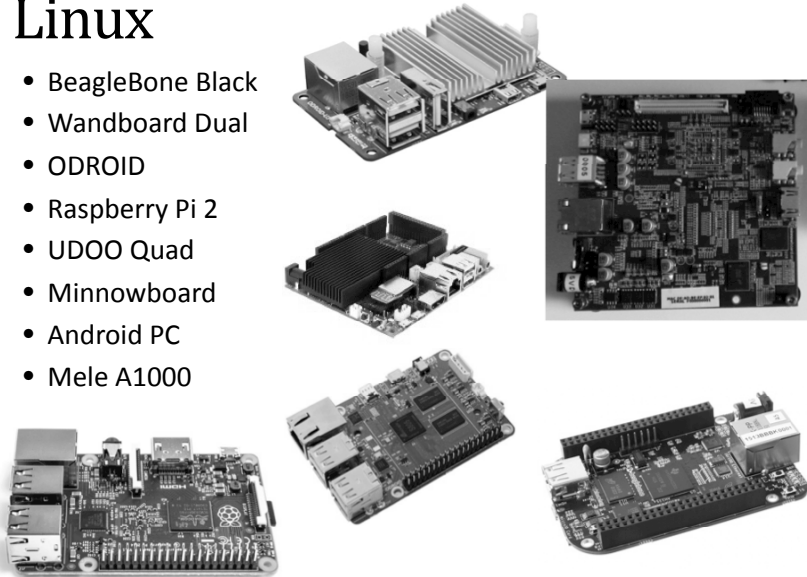
Why Linux?

- Reliability
- Linux runs on existing machines (efficiency, low overhead)
- Software is free
- Support
- No need for restarting the computer
- GUI is optional
- Multiplatform
- Used in Industry
- Robot Support



Hobby Grade Boards Using Linux

- BeagleBone Black
- Wandboard Dual
- ODROID
- Raspberry Pi 2
- UDOO Quad
- Minnowboard
- Android PC
- Mele A1000



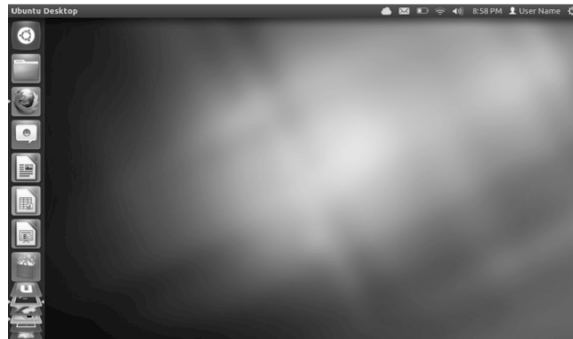
Linux Distro

- Many different flavors
- Operating system updates (Windows Vista, 7, 8, 10...)



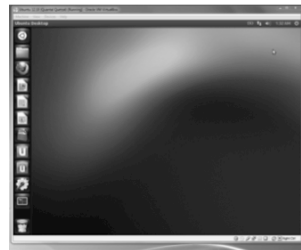
Ubuntu

- Most popular
- Largest selection of development tools
- Debian based
- Compatibility



Using Ubuntu

- Boot from Live USB
- Install Ubuntu on Windows with Wubi
- Run Ubuntu on a virtual machine
- Dual-Boot Ubuntu



Grub

```
GNU GRUB  version 1.97~beta4

Ubuntu
Windows

Other boot options:
Ubuntu, Linux 2.6.31-14-generic
Ubuntu, Linux 2.6.31-14-generic (recovery mode)
Memory test (memtest86+)
Memory test (memtest86+, serial console 115200)
Windows 7 (loader) (on /dev/sda1)

Use the + and - keys to select which entry is highlighted.
Press enter to boot the selected OS, 'e' to edit the
commands before booting or 'c' for a command-line.
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Questions