Beginning System Administration DeCal

So Far... (hopefully)

- History of UNIX

  - Design choices

- The shell and shell commands

- Communication on the Internet

- Using UNIX

  - Users and permissions

  - Accounts

  - Filesystem

So Far ... (cont.)

- Software

  - Downloading and extracting packages (wget, tar, gzip)

  - Configuring and compiling (./configure, make, make install)

  - Configuration (.conf files, /etc)

Software

- Two options
  - Compile from source
  - Download and install binaries
    - Download binaries directly
    - Use a package management system
- When to choose which?
  - Software release cycle
  - Security patches, feature patches

Package Management Systems

- A generic category of tools that:
  - Install, upgrade, configure, and remove software
  - Access thousands of packages with a few commands
- Why?
  - Verify packages (checksums, digital signatures)
  - Upgrade software easily (configuration files)
  - Manage dependencies

Package Management Systems (cont.)

- Handles binaries or sources

- Examples

  - Debian: dpkg, apt

    - .deb

  - Red Hat: YUM, YaST

    - .rpm

  - Gentoo: portage

  - FreeBSD: FreeBSD Ports

Debian's APT

- Set of tools for package management
  - apt-get
    - install, update, upgrade
  - apt-cache
    - search
  - apt-config
    - dump (/etc/apt)