Getting Started with Unix

- Unix overview
- Unix @cs.uoregon.edu
- Your account
- Logging in
- Running programs

History

- Developed by programmers at Bell Labs ca. 1970
  - Personal productivity tool
  - "Programmer’s workbench"
- Berkeley version (BSD) ca. 1982
- Adopted by several companies
  - Sun: Solaris
  - SGI: IRIX
  - DEC, IBM, HP, others
- Public domain (open source) versions
  - GNU (Gnu’s Not Unix)
  - Linux

System Components

- Kernel
  - Operations specific to each host, e.g. device drivers
- Shell
  - User interaction
  - Command line interface
- X window system
  - GUI with windows, menus, pointer, ...
  - Originally an MIT research project
  - Foundation for commercial versions
    - Sun’s Common Desktop Environment (CDE)

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- Workstations
  - Room 100 (obelix, ginandtonix, …)
  - Offices (silenix, …)
  - Labs (pyros, …)
- File server (vitalstatistix)
- Multi-user system (ix)
- Printers (lopez, …)
- All systems connected via 10- or 100-Mbps Ethernet

Your Account

- Each user has a home directory
- Files in your home directory are stored on vital
- When you log in, you will be connected to your home directory, no matter which machine you use
- All (local) users are given a default X environment
  - Later in the term you will learn how to modify your environment

Getting an Account

- If you need a CIS Unix login:
  - Fill out the "green sheet"
  - Available in CIS Office (Des 120) or on-line
  - Log in to any CIS Unix machine as "newuser" (no password required)
  - Follow the instructions on the back of the green sheet
  - Sign and return the green sheet to the CIS Office
Logging In

- If a machine is free, you will see a login window
- Enter your login name and password
- When you are logged in, you will see a "desktop"
- At the bottom of the window is a toolbar
  - Solaris CDE: "front panel"
- Explore
  - Start a shell (terminal window)
  - Read the on-line documentation
  - Launch some programs (e.g. calculator)

Running a Program

- For simple programs, type the program name in a shell window, e.g.
  - `date`
- For more complex programs, e.g. those that have their own GUI, put the process in the background
  - `netscape &`
- Programs can also be launched via menu operations
  - Toolbar buttons and menus
  - Right-click with mouse on desktop

Topics for This Class

- Configuring your environment
- Program editing -- xemacs
- Productivity with shell -- tcsh
- Common Unix commands -- grep, find, ...
- Organizing large projects -- make
- Archiving -- tar
- Scripts -- Perl and csh
- C++

To Do Before Wednesday (!)

- Get a CIS login if you don’t have a Unix account elsewhere
- Log in, send e-mail to me
  - `echo "hello from (name)" | mailx -s "CIS 399 Project 0" conery`
- Better: learn an e-mail client (exmh)
- Start netscape, browse the class home page:
  - `http://cs.uoregon.edu/classes/cis399`

Next….

- Unix Basics