SE 2A04 Fall 2000

s00. Unix

Instructor: W. M. Farmer

Revised: 13 September 2000

Principal Characteristics of Unix

- Preemptive multitasking
- Multiuser
- Shell-style user interface
- Virtual memory
- Good communication support
- Abundant software tools
- Emphasis on text editing

A Very Brief History of Unix

- In late 1960s, Ken Thompson developed UNIX at AT&T Bell Laboratories
- In 1973, Dennis Ritchie rewrote UNIX in C
- In late 1970s, the Berkeley Software Distribution (BSD) version of UNIX was produced by the University of California at Berkeley
- In 1980s Sun Microsystems started developing Unix systems (SunOS and Solaris)
- In 1991 Linus Torvalds released Linux

Some Useful Unix Shell Commands

- `cat`, `more`, `man`
- `cd`, `ls`, `mkdir`, `pwd`
- `mv`, `cp`, `rm`, `rmdir`, `ln`
- `df`, `du`
- `wc`, `diff`, `grep`, `awk`
- `ps`, `kill`
- `who`, `whoami`, `find`, `whereis`
- `date`, `lpr`
- `chmod`, `chgrp`, `chown`
- `passwd`, `su`

Steps for Setting Up a Unix Account

1. Use a good password and change it often
2. Choose a text editor (e.g., `xemacs`, `pico`, or `vi`)
3. Choose a Unix shell (e.g., `tcsh`)
4. Write a login file (`.login` file for `tcsh`)
   (a) Set your `umask` (e.g., to 002 for `rw-rw-r--`)
   (b) Define aliases
   ```
   alias rm 'rm -i'
   ```
   (c) Set environment variables
   ```
   setenv PATH :$HOME/bin:$PATH
   ```
5. If desired, write a shell setup file (`.tcshrc` file for `tcsh`)
6. If necessary, write a logout file (`.logout` file for `tcsh`)