Unix Tools

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Overview

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- ➲ Mail Tools
- ➲ Utilities
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Editors

- ➲ There are a variety of editors
  - ◻ vi and pico
  - ◻ emacs and xemacs
  - ◻ Nedit
- ➲ The line editors are vi (universal), pico (very simple), emacs (very powerful).
- ➲ The graphical editors are nedit (powerful but simple) and xemacs (very powerful and not too hard to learn)

Nedit as an editor

- ➲ You must be in an X Window System environment to run nedit
- ➲ It is relatively simple to use and has a little built in help
- ➲ It is important to keep in mind:
  - ▫ Preferences are at two levels, immediate and saved
  - ▫ Really useful for programming – syntax, braces, include files, indents, etc.

Nedit Preferences Menu

Nedit File Menu

vi as an editor

- ➲ vi is a modal editor
  - ▫ To shift between command and entry mode:
    - – Type "ESC" to get to command mode
    - – Type i(insert), a(append) R(replace), and others to go to edit mode
- ➲ vi is a very simple but powerful line editor
- ➲ There are 75+ commands, but a dozen will do
- ➲ Commands in vi can be:
  - ▫ character or sequence optionally preceded by a num
  - ▫ : command – a : followed by one or more characters
  - ▫ command preceded by a \ or !

Starting vi

- ➲ Type vi filename to edit a file
  - ▫ If file exits, it is opened, if not it is created
- ➲ vi displays lines beyond the end of file by using the "~" character
- ➲ The line at the bottom of the screen is used to enter commands
- ➲ For practice purposes, use a Unix command to generate fodder for a file to be edited
  - ▫ ls –la > testfile.dat
  - ▫ vi testfile.dat

Basic vi commands

- ➲ Some of the important file handling commands are:
  - ▫ :w (write) or :r (read) file
  - ▫ :q quit
  - ▫ :wq will save the file, if it had been named, and exit
  - ▫ :q! will quit abandoning any changes
- ➲ The basic movement commands are:
  - ▫ h – left
  - ▫ j – down
  - ▫ k – up
  - ▫ l – right
- ➲ PC cursor keys may work as well
- ➲ The command u undoes the last edit – it is only one deep

vi – getting around

- In command mode most commands can be preceded by a number
- Other movement commands include:
  - H top line, M middle line, L last line
  - ^F,^B one screen forward, backward
- Searching commands include:
  - /text – searches forward for text
  - &text – searches backward for text
  - /, & repeat last search, either forward of backward
- nG will take you to line n, G will take you to the last line

vi – entering text

- From command mode, a number of commands can be issued to enter text:
  - i will start text insert mode just before the current position – this is basically the only command you need
  - a will start append mode – right after the current position
  - r will replace the current character and return to command mode
  - R will go into replacement mode
- These modes (with the exception of r) continue until the user types the ESC key

Vi – deleting and modifying text

- Commands to delete text include:
  - x delete a single character
  - dd delete current line
  - D delete remainder of line
  - dw delete word
- Commands to copy text include
  - yy will copy a single line
  - p will put it down – works on both dd and yy
- Both yy and dd take number prefixes, p doesn't use a number

More commands

- Movement
  - 0 moves to the start of the current line
  - $ moves to the end of the current line
  - W, w, B, b move forward and backward words
- u will undo the last command
- . Will repeat the last command
- J will join two lines

vi – executing commands

- :! cmd will execute the command cmd presenting the output in vi. Hitting the enter key will return to vi
- :!! cmd will pipe the result of command into the current cursor location
- :%! cmd will pipe the current contents to cmd and replace the editor contents with the result
  - Take care in that a bad command will cause the error message to replace the current contents

The .exrc file

- vi is based on the ex editor
- The .exrc file thus defines resources or startup conditions for ex and vi
- Some common setting might include:
  - set number
  - set showmode
  - set ignorecase
  - set wm=10
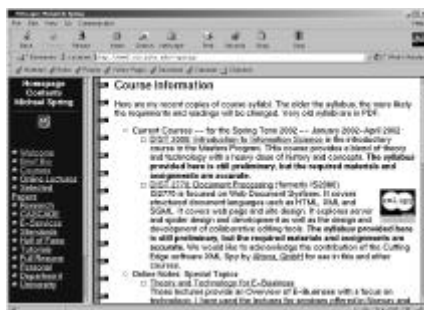 - ab tstr rstr
  - map c commandsequence

Browsers/HTML Editors

- ➲ Netscape is the default browser on Unix
- ➲ Hotjava also is installed on solaris
- ➲ Netscape can be used:
  - ▫ For viewing web sites
  - ▫ Editing webpages (composer)
  - ▫ Keeping address books
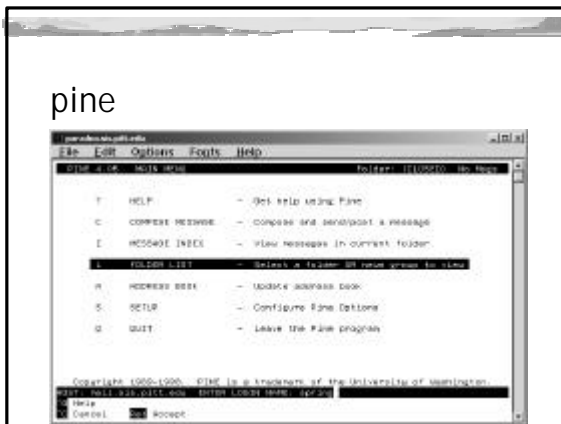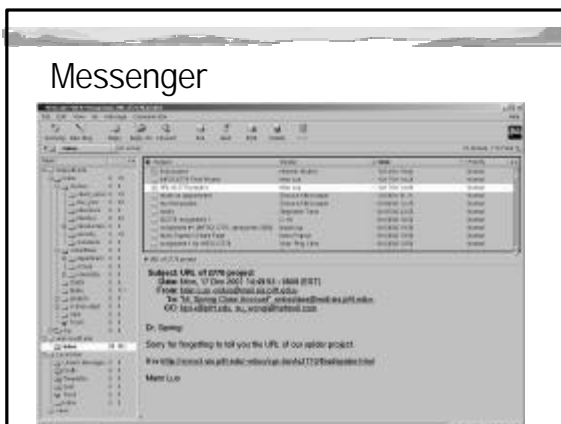 - ▫ Reading imap mail

Composer

Navigator

Mail Tools

➲ The mail tools used on Unix are multiple and all are imap and pop compliant
  □ pine exists as a command line mail tool
  □ mailtool is the default solaris mailtool
  □ netscape provides a powerful mail capability

pine

Messenger

Utilities

- There are numerous utilities on Unix
- Two of the command line utilities are:
  - grep
  - ftp
- Two of the graphical utilities are:
  - xv
  - xman

grep

- The General Regular Expression Program or grep is a program to search streams
  - allows the user to search a standard I/O stream for terms pr patterns
  - Allows the numbering or lines
  - Allows non matches to be displayed
  - Allows counts to be developed
- Helps with voluminous data streams

ftp

- ⊃ **ftp stands for file transfer protocol**
  - ▫ It was one of the first network programs in Unix
  - ▫ The ftp works through a client/server program set
  - ▫ The host system runs a server called ftpd
  - ▫ The client runs a client program normally called ftp
  - ▫ Some systems allow restricted "anonymous" ftp
- ⊃ **PC based interfaces tend to hide the underlying ftp commands, Unix ftp is normally command line**
  - ▫ ftp does automatic conversion of line endings as needed
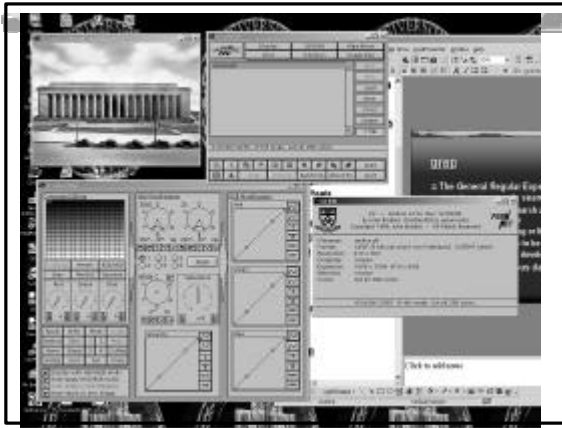 - ▫ To turn this feature off, use binary mode

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Common ftp Commands

- ⊃ **get will get a single file**
- ⊃ **put will put a single file**
- ⊃ **binary specifies that files are to me moved byte for byte**
  - ▫ text mode does pc to unix conversion of line endings
- ⊃ **prompt turns off prompting for mget and mput**
  - ▫ mget will get multiple files
  - ▫ Mput will put multiple files
  - ▫ hash prints a hash mark for each block moved
- ⊃ **Commands like cd and pwd operate on the remote system**
- ⊃ **"! Command" allows a command to be executed locally from within ftp**

XV

➲ **An image display and manipulation utility**
- ▢ **Allows editing of the color palette**
- ▢ **Allows display of image information**
- ▢ **Allows file type conversion**
- ▢ **Allows resizing and croping**

xman

➲ **A utility to view man pages**
- ▢ **Allows index and pages open simultaneously**
- ▢ **Allows easy browsing – recognition versus recall**
- ▢ **Allows scrolling back and forth**
- ▢ **Allows model of "sections"**