Working Remotely

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Links

- Software by course:
  - http://cs.gettysburg.edu/~cpresser/resources/software.html
- Resources from today's colloquium
  - http://cs.gettysburg.edu/~cpresser/resources/

Outline

- Skills
- Getting the software.
- Transferring files.
- Terminal access.
- GUI on the network.

Good Skills to Learn

- Operating a computer via terminal.
- Compiling and running programs outside of a development environment.
- Keyboard shortcuts.
- Changing environment variables.
- Juggling.

Java Development

- Java Development Kit (Oracle)
  - Command line tools
- Integrated Development Environment
  - Eclipse
  - Netbeans
  - Dr. Java
  - XCode

Good Text Editors

- Emacs (Windows and Mac)
- TextWrangler (Mac)
- Notepad2 (Windows)

Unix-like Tools

Windows
- Cygwin
- Mingw

Mac
- Applications -> Utilities -> Terminal

Transferring Files

- Samba (Windows Shares)
  - H-Drive:
    - smb://studenthome.ms.gettysburg.edu/username$
  - CS Files:
    - smb://dijkstra.cc.gettysburg.edu/username
    - Use College password.

  Domain: GETTYSBURG

Secure Transfer

Ssh (Windows) Fugu (Mac)

CS: dijkstra.cc.gettysburg.edu

H-Drive: ftp.gettysburg.edu

Port: 222 (not the default)

sftp: command line version

Using the Command Line

- Navigating
  - **~/** your home directory
  - **ls** list files in the current directory
    - ls -l
    - ls -a
  - **cd** change the directory
    - cd ..
    - cd   =   cd ~
  - **pwd** reports present working directory

Using the Command Line

- Other commands
  - **more** and **less** (read a text file)
    - SPACE – forward one page
    - ENTER – forward one line
    - q – quit
  - **cp**: copy
  - **mv**: move (rename)
  - **grep**: search a file for text
  - **apropos:** search commands
  - **man:** get help on a command

Command Line Editing

- Left/Right Arrows to edit
- <tab> for completion
- Ctrl-a   Ctrl-e   beginning and end
- Ctrl-k   kill (cut)
- Ctrl-y   yank (paste)
- !<letters> Use to repeat a command.

Command Line Development

- Editors
  - nano
  - emacs -nw
- Compile
  - javac MyFile.java
  - g++ MyFile.C
- Execute
  - java MyFile
  - a.out

Connecting Remotely

- ssh
  - Hosts: gbcs*N*.cc.gettysburg.edu
    - N=1..22
  - Port: 222

- Commands:
  - ssh gbcs3.cc.gettysburg.edu –p 222 –l user
  - ssh user@gbcs2.cc.gettysburg.edu:222

Displaying Remotely (X11)

- X Server: your screen
- X Client: program running at the lab.

- Software: Xming, cygwin

- ssh tunnel:
  - ssh user@gbcs5.cc.gettysburg.edu -p 222 **–X**

Last Notes

- A word of warning.
- Ask for help.

- exit(0)

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