

Announcements

- Location of dispatch window in AVW so you can pick up printouts
- Image and photo editing software
 - <http://www.freeserifsoftware.com/software/PhotoPlus/download.asp>

Project #2

- Any questions?

FTP

- FTP
 - another part of TCP/IP
 - File Transfer Protocol
- Both machines must be on the Internet
 - both have IP addresses
 - be reachable by the other
 - have client/server applications

FTP and Telnet

- FTP has several elements in common with telnet
- They are both protocols which define a set of rules which allow two machines to transfer data between them
- Both have a default port
 - port 21 for FTP
 - port 23 for telnet
- There is a client/server relationship
 - A client application must be started on the local machine
 - A server (daemon) must be listening on the remote machine
- The FTP application is also commonly named after the protocol, but not always.

Transfer Modes in ftp

- Files can be transferred either as ASCII text or as binary data.
 - you must indicate choice
 - wrong choice may cause the new file to be bad
- ASCII mode:
 - for transferring ASCII text
 - the actual character is transferred, rather than the binary value of it; translation takes place if needed
- Binary mode:
 - when you don't want the character based translation
 - data files of an application for example

ftp Commands

- How you *issue* commands depends on the FTP program you are using. The types of commands are the same across all platforms.
- It is important to remember that the machine on which you ran the FTP program is the client.
- The basics abilities you want are :
 - PUT : When I want to take a local file and transfer it to the remote host
 - GET : When I want to receive a file from the remote host
 - setting the Mode of transfer ascii or binary
- From now on we will discuss the ftp command that you can find in Unix systems and PC (via cmd)

ftp in Windows

- Start → command prompt
- Type ftp <Host>
- Commands
 - help – list of available commands
 - help <commandName> - information about commands
 - dir – contents of directory
 - cd <directoryName> - changes to directory
 - quit - exit

ftp File Systems

- There are two file systems which you are working with during a file transfer, the local one and the remote one.
 - local file system's "current working directory"
 - Use lcd to find the local current working directory
 - remote system's "current working directory"
 - Use pwd to find the current remote working directory
 - changing remote directory: cd
 - changing local directory: lcd
 - listing remote directory: dir
 - listing local directory: !dir

Data Transfer Commands

- **GET COMMANDS**

- ftp> get r_filename
 - ftp> get r_filename l_filename
 - ftp> mget list_of_remote_filenames
 - ftp> recv r_filename
 - ftp> recv r_filename l_filename

- **PUT COMMANDS**

- ftp> put l_filename
 - ftp> put l_filename r_filename
 - ftp> mput list_of_local_filenames
 - ftp> send l_filename
 - ftp> send l_filename r_filename

Anonymous ftp

- allows people to access files made publicly available.
- these FTP server programs allow
 - a user named “anonymous”
 - often any E-Mail address as a password,
 - access to a certain subset of the files available on the machine
- Example: let's connect to **ftp.cs.umd.edu**