COMET BACKGROUND

COMET: The Cornell Macintosh Terminal Emulator.

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Cornell's Comet terminal communication package allows you to connect to the two major types of host computer using either serial/modem lines or a Telnet network to make the physical connection; Comet, as of version 2.1, requires Apple's MacTCP TCP/IP driver to make Telnet TCP/IP connections. The Info menus offer some background information, along with descriptions of the menu items; Comet versions later than 2.1 allow you to dump the Info menu text into the top session's edit window by holding down the Option key as you select the menu item.   You can then bring up the window using the Window menu "Toggle .edit window" command to review and print the help text.

Using Comet, you can connect to either an IBM mainframe running an operating system such as VM/CMS or MVS, which uses the EBCDIC character set, or other hosts, which almost invariably use the ASCII character set.

COMET DOCUMENTS

Comet uses Comet documents to retain session configuration information between launches.   If you create macros after launching from a document or saving a configuration, they are automatically saved in the document.   The "Comet Default" document is a special document which is automatically created in your System Folder when you first launch Comet; in addition to ordinary session configuration data which is used as a default when Comet is launched directly, it also saves Global Configuration data which applies to all sessions.

TRANSFERRING PROGRAMS AND TEXT

Comet supports three different techniques for transferring files.   Comet is capable of functioning as a Trivial File Transfer Protocol (TFTP) server, so you can run TFTP on the host to connect to your workstation and transfer files.   A special protocol, "FT3270," was also developed for transferring files over 7-bit connections (such as Sytek).   This protocol allows the use of the same user interface for file transfer when the user's computer is connected by either the serial port or a network interface (the current Macintosh version functions only with IBM mainframes).

The folder in which the session document is located is the default folder for up- and down-loading, unless "Comet Default" is the document being used, in which case the default download folder is the application's home directory. You can use the "Type file name at cursor" command in the File menu to switch folders and insert a file name at the cursor position.   This command uses the standard file interface.

FILE TRANSFER USING TFTP

Comet includes a TFTP file transfer server, so the TFTP file transfer protocol can also be used to transfer files with any host which runs the TCP/IP protocols.

To use TFTP (the Trivial File Transfer Protocol) to exchange files with a UNIX (or other) host while running Comet, you must connect to the host and run TFTP on the host.   First, however, you must enable Comet TFTP transfers by turning on the "TFTP Server on" item in the "Global..." dialog under the "Control" menu.

While connected to the host, enter the command "tftp" and type Return to execute the host's TFTP application.   When the host TFTP responds with a prompt, type "connect ", and use the "Type my address at cursor" command in the "Telnet" menu to enter your address on the command line.   Now you are ready to transfer a file.

To transfer text files you will need to put the host TFTP into "netascii" mode by giving the host TFTP the command "mode ascii", which will guarantee that newlines are interpreted properly.   (The mode "binary" can be used to transfer files literally.)   You can then use the "put" and "get" commands to transfer files from your current directory (one at a time only, e.g. "put myfile hd/download/myfile"--the slashes will be translated into colons for the Macintosh on the Mac end.)   If you want to disable the Alert box that asks you whether a file transfer is OK, you can turn off the "Request approval of TFTP transfers" item in the "Global" dialog in the Control menu.   You can also disable the TFTP server, for security's sake, by using the "TFTP server on" menu item.

When you're finished, typing "quit" and a Return will exit TFTP.

USING FT3270 FOR FILE TRANSFER WITH IBM HOSTS

The FT3270 file transfer protocol can also be used to transfer files between the Macintosh (or PC) and an IBM mainframe.   To perform a file download, log on to the IBM host, and use the command "exec download".   To upload, use "exec upload".   If you try these commands without file names, you will be shown a help screen.   The file name needs to be surrounded by quotation marks to handle the case where the filename contains blanks.   (Note that if

you have not set TERMINAL ESC OFF or otherwise changed your escape character from '"', the up- or down-load program will not receive the command-line correctly.)

Files may be transferred in either "text" or "binary" mode.   In "text" mode characters are translated between IBM's EBCDIC character encoding and ASCII character encoding using the same translate tables as KERMIT, and translation of Carriage Returns is handled as appropriate for the Macintosh. In binary mode bytes are transferred without translation.

Syntax:

DOWNLOAD filename filetype <vol <filename | "file name">>
<(<REPlace><BINary>>

UPLOAD <filename | "file name"> <filename <filetype <vol>>>
<(<REPlace> <BINary>>

The default volume on the host is your A disk.   The default directory on the microcomputer is the directory from which the application was launched. The default microcomputer target filename for downloading is "filename.filetype"; uploading reverses this default name mapping, so "filename.type" becomes "filename filetype a".   Slashes in the microcomputer filename are interpreted at the Macintosh end as colons, so they function as directory path specifiers.   On the Macintosh file system, you need to place a colon before a path name to specify the current directory; additional leading colons specify parent directories.   If a Macintosh file name has spaces in it, enclose the name in quotation marks.