

# **Emcee File Server**

**For use with the TRS-80 MC-10 and MCX Basic**

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## OVERVIEW

The Emcee File Server allows your Mac or Windows PC to host files for an MC-10 equipped with MCX Basic. It requires a connection between the serial ports of the MC-10 and the host machine. Macs and PCs without built-in serial ports will require either a serial interface card or a USB serial adapter.

The minimum OS requirement for a Windows PC is Windows 2000 or later. The Mac OS version requires Mac OS X 10.4 (Tiger) or later.

The serial cable used must be wired such that the host's TxD output is connected to the MC-10's RxD input and vice-versa. The GND pin of the MC-10's serial port must also be connected to Signal GND on the host. No handshaking signals are used. DriveWire cables for the TRS-80 Color Computer are compatible with this system.

### MC-10 to Host Cabling

MC-10	Host DB-9	Host DB-25
Pin 2 (RxD)	Pin 3 (TxD)	Pin 2 (TxD)
Pin 3 (GND)	Pin 5 (GND)	Pin 7 (GND)
Pin 4 (TxD)	Pin 2 (RxD)	Pin 3 (RxD)



MC-10 Serial Connector

## SETUP



Run the Emcee Server application on the host machine and use the *Port Selection* button in the top panel of the window to select the serial port which is connected to the MC-10. On a Windows PC you can directly enter a COM port number in the dialog if the server fails to find the port description in the registry. On a Mac you can select the *Find Ports* command in the *File* menu to update the list of available ports after connecting or disconnecting a USB adapter.

# DIRECTORIES

The server allows you to designate any number of file system directories on the host machine as access points for the MC-10. Each directory you designate must also be given a *Client Name*. The client name is the name used to identify the directory from MCX Basic.



To add a directory to the list, click on the *Add Directory* icon button in the server window. A standard Folder Selection window will appear allowing you to browse the directories on the host system. After selecting a directory, its path will appear in the server window along with a default client name. You may click on the client name in the list and enter a different name if desired.

## NOTE:

*You can also drag-and-drop folders from the Windows shell or Mac Finder into the server window while the Directories panel is displayed.*



You can deny write access to the directory by clicking in the *Read Only* column to the left of the client name. This will cause a ?WP ERROR to occur in MCX Basic when an attempt is made to save a file to this directory or open a data file in output mode.

## NOTE:

*The Read Only option in the server is separate from any locks or permission settings on the host file system. Those settings will also affect the ability to access the directory from the MC-10.*

To remove a directory, click on its path name in the list and press the *Delete* or *Backspace* keys.

To change the path of a directory already in the list, double-click on the path name. The standard Folder Selection window will appear allowing you to browse for a different location.

## FILE SPECIFICATIONS

The commands in MCX Basic which operate on files require you to provide a file name string to identify the file. The file name string may consist solely of the file's name or it may include both a directory and file name separated by a slash (/). If no slash is present then the string is assumed to be the name of a file in the *current* directory.

The DIR and SETDIR commands in MCX Basic allow you to specify the name of the directory to be listed or made current. No slash should be included when using these commands.

Examples:

LOAD "PROGRAM"	Loads the PROGRAM file from the current directory.
RUNM "GAMES/PAC-MAN"	Loads and runs PAC-MAN from the GAMES directory.
DIR	Lists the contents of the current directory.
DIR "UTILS"	Lists the contents of the UTILS directory.
SETDIR "ASSMBLR"	Sets ASSMBLR as the current directory.

The file name string used in the MCX Basic commands may be up to 255 characters in length and should not include any double quotation marks ("), asterisks (\*) or any other character disallowed by the host file system.

# FILE TYPES and FORMATS

There are five distinct file types used in MCX Basic:

- \* Basic Program files (LOAD, SAVE, RUN, CHAIN, MERGE)
- \* Machine Language / Binary files (LOADM, SAVEM, RUNM)
- \* Data files (OPEN)
- \* Screen Images (LOAD SCREEN, SAVE SCREEN)
- \* Numeric Array files (LOAD\*, SAVE\*)

The server uses the file type associated with the particular command along with the extension included in the file name to determine the file's format. If the file name does not include any extension then the server either assigns the default extension when writing, or searches for a file with one of the supported extensions when reading. The default extensions and formats for each file type are:

File Type	Default Extension	Default Format
Basic Programs	.bas	ASCII text
ML / Binary	.bin	Binary data with CoCo style preamble(s)
Data files	.dat	ASCII text (carriage return for delimiter)
Numeric Arrays	.ary	MC-10 cassette file format (C10)
Screen Images	.gra	Raw screen data

The server can perform format translation when operating on file types other than screen images. The server will search for files with these optional extensions (after failing to find one with the default extension) if no extension was specified in the file name:

Optional Format	Extension	
MC-10 cassette	.c10	<i>this format does not support Data files</i>
CoCo cassette	.cas	
WAV audio	.wav	
Apple AIFF audio	.aif	

When saving a Basic program in one of the optional file formats, the program is stored as crunched (tokenized) data by default. You can instruct the server to save the program as ASCII text (except in .c10 files) by using a preliminary extension of either .txt or .asc as shown in the examples below.

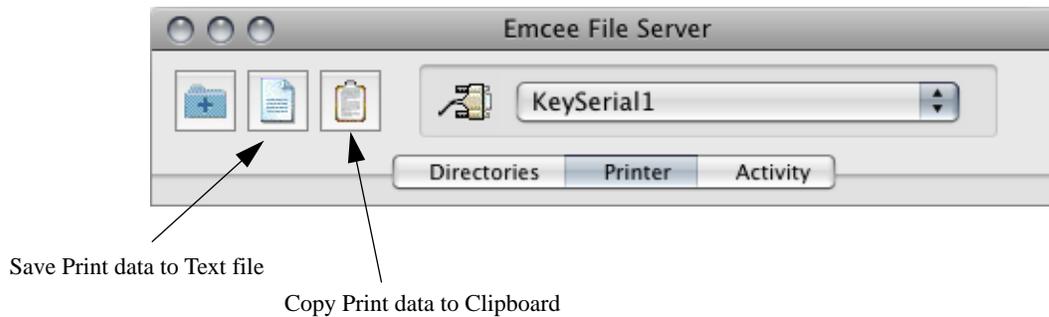
SAVE "PROGRAM"	Saves as plain ASCII text to "PROGRAM.BAS"
SAVE "PROGRAM.C10"	Saves crunched program as an MC-10 cassette file.
SAVE "PROGRAM.ASC.CAS"	Saves program as ASCII text within a CoCo cassette file.
SAVE "PROGRAM.AIF"	Saves crunched program as an AIFF audio file.
SAVE "PROGRAM.TXT.WAV"	Saves program as ASCII text in a WAV audio file.

**NOTE:** *The MC-10's CLOAD command does not support ASCII text files and the CoCo does not support Numeric Array files.*

## PRINT CAPTURE

The Emcee Server will capture data from LLIST, LPRINT and PRINT#-2 statements when virtual printing is enabled in MCX Basic. Virtual printing can be enabled or disabled in MCX Basic by entering the PRINT ON or PRINT OFF commands respectively. Virtual printing is enabled by default when the computer is turned on.

Select the *Printer* tab in the server window to display any printer data that has been captured. The Emcee server only supports the capture of textual output. Graphics sent to the printer will appear as garbled text in the server window.



You can either save the captured data to a text file or copy it to the clipboard by clicking in the appropriate icon button in the server window. To delete the captured printer data choose the *Delete* command (*Clear* on Mac OS) from the *Edit* menu while the *Printer* panel is displayed.

## ACTIVITY LOG

Selecting the *Activity* tab in the server window will allow you to see a list of the File I/O requests being sent from the MC-10. This may be useful for troubleshooting purposes.