

Multichannel Communications System

by Yves Lempereur
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(Fourth Draft: 08/26/88)

A bit of history:

MCS was developed to satisfy an in-house communication need at Mainstay. They frequently need to transfer files to and from Europe quickly, reliably and in a cost-effective manner.

File transfers to and from Europe are made via a satellite link which has a high noise level, long return time and high cost. Xmodem file transfers are not effective because of these problems. MCS uses X.MS, a Mainstay proprietary protocol, which is similar to the CCITT X.25 protocol. This eliminates any noise and the problem of the long return time. In addition, MCS uses a higher level protocol which allows a simultaneous upload, download and chat using different channels. This all takes place in the same time as would an Xmodem operation (upload or download), making MCS especially cost-effective.

Please note that the MacBinary II format is used for file transfers, permitting any kind of application or document to be transferred.

MCS was developed to meet the express in-house Mainstay needs and possesses a corresponding level of user-friendliness. In particular, MCS does not verify adequate space on a target disk; also, if a file is received with the same name as an existing file, the prior is overwritten.

MCS is offered as shareware personally, based upon my suggestion that it would be useful to the telecommunication public. Although this shareware offering is agreed to by Mainstay, all shareware payments will be received by the author.

Mainstay has agreed to support MCS as a public service and plans to make future commercial use of the X.MS protocol and multi-channel technology. They would appreciate your comments on potential applications or "host" partners. Please respond to Mainstay at (818) 991-6540, MCI Mail: 284-4985 or CIS 76004,1525.

Settings Modification:

Select "Settings..." from the "File" menu to modify the serial port selection, the baud rate, the number to be called and the modem initialization string. The serial port default is the modem port. The baud rate self adapts to a calling modem and should be set to the highest baud rate of your modem. The phone number can include modem commands like a comma to delay a dial sequence. Note that the ATDT (tone) or ATDP (pulse) modem commands are automatically generated. The default modem initialization string is for a Hayes compatible modem. If you don't understand what this is all about, it's best not to modify it. See your modem manual for further information.

Operating Instructions:

MCS is easiest used if viewed as an upload program only. Two persons, each using MCS, must establish a link and then each MCS simultaneously uploads a series of files to the other MCS. The two MCS operators may chat while the transfers take place without measurably affecting the time of the transfers.

Open the MCS icon. A file selection window will appear. A list of uploads can now be specified. Select a file name by clicking it; then click "Open". Repeat this procedure for all files that you wish to upload. The uploads will be done in the order that you select the files. If you don't want to do an upload, ignore this step. Now make sure that the modem is connected to the selected serial port, and turned "on". Then click "Cancel". The MCS window will then open. Your Mac and modem are now "waiting for a call". You can initiate a call to another waiting MCS by selecting "Dial" from the "File" menu. After a call has been made by one of the two MCSs, the modem link-up will be signaled by a "CONNECT" message and the protocol "lock-on" will be signaled by a "LOCK" message. The file transfers will automatically begin and continue, file by file, until all specified files have been transferred.

The MCS operators can chat during the file transfer by entering lines from the keyboard. A line can be up to 80 characters long, can contain any Macintosh character (like çèé...) and is sent by pressing the "return" or "enter" keys. The line being typed can be edited using "backspace", "tab", the arrow and the "clear" keys. In addition, the mouse can be used to position the caret within a line.

When all the transfers and "chatting" are completed, select "Hang Up" in the "File" menu to terminate a session. Please note that the modem/computer on the other side of the "Hang Up" must be equipped with a cable with a "Carrier Detect" line for an automatic hang up to occur there. If not, the other MCS operator must also select "Hang Up" from the "File" menu.

Choose "Quit" to return to the Finder. Note: if this is done while "on-line", an automatic "Hang Up" will be performed prior to return to Finder.

Wishing you all good communicating with MCS.

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