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IEEE-488 Interface Card: Time-Saving Hints (11/96)

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Security: Everyone

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TOPIC -----

Keep the following hints in mind when using the Apple IEEE-488 Interface:

DISCUSSION -----

1. Use the IEEE card only from within an Applesoft program. If you try to use it in command mode, a SYNTAX ERROR will result, since the Applesoft prompt "]" will be sent to the interface. If you do not reset the I/O at the end of your program, a "CMD ERR" will result.
2. Issue the command "SC1" as one of the first commands in any new program. This command will cause the IEEE commands to be echoed to the screen for easier debugging. When the device works properly, the "SC1" can then be removed.
3. Ascertain whether the IEEE device you're using requires the REMOTE ENABLE command before it will accept anything you send it. (Many IEEE devices do require this command.) If the device requires the command and does not receive it, the device will not be enabled: it will handshake properly but won't recognize its address on the bus, and will therefore return a BUS ERROR the next time it's accessed. In some cases, the "RA" command can be used to turn on all remote devices on the bus; likewise, the "RM address list" command can sometimes be used to enable selected devices.
4. Understand the convention for listener and talker addresses. All devices on the bus have a device number in the range of \$00 to \$1E. If you want the device to act as a listener, use the address range \$20 to \$3E--that is, add \$20 to the device number. If you want the device to act as a talker, use \$40 to \$5E--that is, add \$40 to the device number. For example: If an HP 3438A has a device number of 3 and if you want it to be a listener you must use address \$23. From the keyboard, \$23 is a , so you could use (for example) PRINT "TG ". If the device is to be a talker, you must use address

\$43, which is an upper case C from the keyboard; an appropriate command to use would be PRINT "RDC".

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