

# **Miscellaneous UniFLEX™ Documents**



## Using a Modem with UniFLEX™

Version 1.02 of UniFLEX will support the connection of an 'answer mode' modem to any one of the standard terminal ports. All of the necessary handshaking is implemented as follows.

A. RTS (Request To Send) - Pin 8 (output). This output may also be called DTR (Data Terminal Ready) and is used to inform the modem it is OK to answer the line. UniFLEX will make this output high only in multi-user mode, and only if the system is attempting to run the login program for this terminal. The modem should not answer the line if this line is low.

B. CTS (Clear To Send) - Pin 20 (input). This input should be driven low by the modem until the line has been answered and the carrier has been established. UniFLEX will not output any data through the port until this line is brought to a high level by the modem.

C. DCD (Data Carrier Detect) - Pin 12 (input). This input should be driven high by the modem whenever a successful connection has been made. If the carrier is ever lost, the modem should take this line to a low level. The transition from high to low (carrier to no carrier) will cause an interrupt within UniFLEX. This hardware interrupt will be converted into the program interrupt 'HANGI' by UniFLEX and sent to all tasks associated with this terminal.

The HANGI interrupt will normally cause a task to terminate. It will always cause a user to be logged off. Several UniFLEX programs have been changed to 'catch' this interrupt and perform special actions. Those which do not catch the interrupt will be terminated in a manner similar to that caused by a control C type interrupt. The modified programs are as follows:

A. 'edit'. The editor will perform all of the actions of the 'stop' command upon receiving the HANGI interrupt. This will insure no loss of data.

B. 'basic'. BASIC will do one of two things upon receipt of HANGI. If there is no program source in the buffer (i.e. doing a 'list' will not display any program lines), BASIC will simply terminate. If there is program source in the buffer, it will be written out to a file named 'basic.hangup' in the current directory. This action is identical to typing the command: save "basic.hangup". Any previous 'basic.hangup' file will be overwritten without notice. Once the file has been saved, BASIC is terminated.

The above programs will keep you from losing data as a result of loss of carrier while accessing UniFLEX through a modem.



Notes

