

UNICOM

Release 2.0

U N I C O M

Communications for Microsoft Windows



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Introduction

UNICOM is a data communications application specifically designed for users of the Microsoft Windows operating environment versions 2 and 3.

UNICOM will perform all data communication tasks in the *background* while other applications are running. You may switch to another Windows application at any time.

UNICOM Release 2.0 includes the following features:

Built-in file transfer protocols that include XMODEM Checksum, XMODEM CRC, XMODEM 1K (old YMODEM), YMODEM G, YMODEM Batch, ZMODEM, ZMODEM Resume, Kermit, CompuServe B, Quick B and ASCII.

Color ANSI-BBS, VT52 and TTY Terminal Emulation supporting user selectable terminal fonts that span ANSI and OEM character sets.

A 250 line Scrollback Buffer is easily operated with the use of a vertical scroll bar.

A user configurable Utility Menu allows instant access to your favorite Windows or Dos applications.

A new Script Language supports more than 35 commands with a Trace Mode for debugging.

A Script Scheduler allows pre-programmed execution of up to eight script files each at specific days and times.

Directory assisted batch dialing and redialing is supported for users with Hayes compatible modems.

An Online Help System allows instant access to general help and script command topics. The user manual is also available for direct reference from the online help.

A unique journaling feature lets you record mouse and keyboard operations for later playback.

UNICOM's Chat Mode makes keyboard communication simple. Two separate windows appear. Type your message in one window and view received characters in another.

User definable Hot Keys can allow any UNICOM menu selection to be assigned to a function key for one button access to UNICOM program options.

Keyboard macros, File logging, Printer Logging, File Paste and Print Screen.

UNICOM provides some unique features that support the Windows environment. You can:

Transfer the contents of a Clipboard from one computer directly into the Clipboard of another. This provides you with the ability to transfer many types of Windows-unique data formats between computers. Some of these formats include:

Excel Spreadsheets (SYLK, DIF), Bitmap Images (from Paint), Metafile Pictures (from Designer), Text (from Notepad) and any format that can be placed on the Clipboard.

Operate your computer in a multi-user mode with UNICOM's host mode. A built-in command processor allows a validated remote user to examine or transfer files on a designated disk drive.

This operation is transparent to any user who may be at the keyboard directly operating other Window applications.

Operate multiple program instances. Advanced users with the appropriate hardware configuration may initiate simultaneous background file transfers with multiple remote systems.

Send a Screen Snapshot directly to the Clipboard.

About this Manual

This manual is your reference to installing and operating UNICOM on a computer equipped with Microsoft Windows.

The manual is divided into 10 sections:

- 1, "Getting Started" describes how to install and start UNICOM on your computer.
- 2, "Setting Up UNICOM" details all user configurable program options.
- 3, "Operating UNICOM" describes the purpose and use of all operating features.
- 4, "Using the Dialing Directory" explains how to automatically dial (and re-dial) remote host systems. This section also includes information on how to maintain the dialing directory.
- 5, "Transferring Files" will illustrate how to send and receive text or binary files using XMODEM, YMODEM, ZMODEM, Kermit CompuServe B, Quick B and ASCII file transfer protocols.
- 6, "Transferring the Clipboard" describes the steps necessary to transmit and receive Clipboard formats between two computers equipped with UNICOM software.
- 7, "Using Script Files" describes how to automate manual communication tasks with UNICOM's script command language.
- 8, "Host Mode Operation" will detail built-in features that support remote password protected access to your files.
- 9, "Advanced Operation" describes how UNICOM may be operated to perform simultaneous multiple file transfers between multiple remote computers.
- 10, "Command Summary" lists and describes all menu commands.

Hardware and Software Requirements

UNICOM requires Microsoft Windows version two or three to be installed and properly configured on your computer. Before installing UNICOM on your computer check the following:

- 1) If a BUS mouse is installed in your computer, make sure the mouse interrupt level does not conflict with interrupts reserved for serial port operation. The BUS mouse interrupt is set via a jumper on the interface board. Consult your mouse installation manual.
- 2) Your serial port(s) (COM1 and COM2) or (COM3 and COM4) should be set for interrupt operation using IRQ4 and IRQ3 respectively. The interrupt levels are typically selected via jumpers located on your serial interface board or on the motherboard. Consult your computer reference manual.
- 3) Microsoft Windows version 2 may contain a BUG in the communication port driver. If your version of Windows is dated before April 1989, you should update to Windows 3 or obtain a replacement communication port driver (named COMM.DRV) from Microsoft and reinstall Windows 2 using this replacement file.
- 4) A Hayes compatible modem must be present to support UNICOM's directory assisted dialing and call hang-up features.

The modem dip switch settings should be set to the manufacturers DEFAULT positions. The modem must be configured to return VERBOSE responses.

Also, please note that certain operations such as Clipboard to Clipboard transfers require enough temporary memory and disk storage to hold the data being transferred. This storage is released after the transfer operation is completed.

Section One - Getting Started

Installing UNICOM Software

The UNICOM 2.0 distribution disk should contain the following files:

<u>File</u>	<u>Description</u>
UNICOM.EXE	- The UNICOM executable program.
UCLIB.DLL	- UNICOM Runtime Support library.
UNICOM.DIR	- A sample dialing directory.
UNICOM.KEY	- A sample keyboard macro file
UNICOM.CFG	- A default program configuration file.
UNICOM.WRI	- UNICOM online manual.
UNICOM.HLP	- Online Help Text File.
UCSCRIPT.HLP	- Script Online Help Text File.
UC-READ.ME	- UNICOM release notes.
CMPUSR.V.SCR	- An example UNICOM login script file

To install UNICOM,

1) UNICOM requires that Microsoft Windows 2.x or 3.x be installed and working on your computer.

If you are upgrading from a previous version of UNICOM, do not mix your old UNICOM.CFG with that of a new UNICOM release. UNICOM configuration files are not compatible across releases.

2) Insert the distribution disk in your floppy disk drive.

3) Copy the files to any directory on the destination drive where you wish to store UNICOM. You will need to remember this directory path and enter it into the UNICOM file path window from within the program setup menu.

The support file: **UCLIB.DLL** must be placed in a directory listed in your search path as defined by your MS-DOS PATH environment variable. This PATH environment variable is set in the MS-DOS AUTOEXEC.BAT file. Consult your DOS operating manual for more information about the DOS PATH environment variable.

4) Before running UNICOM, it is a good idea to check the items listed in the previous Hardware and Software Requirements section.

5) Activate UNICOM and enter your license number by pressing the ENTER LICENSE NO. button that appears on an opening start-up screen. The license number is printed on your receipt and **should be saved for future reference**

should the program need to be re-installed. Licensing disables the opening startup screens and prevents their return during program operation.

Should UNICOM be moved to another computer, or if Windows was reinstalled, it may be necessary to enter the license number again to disable the built-in nagware screens should they reappear.

Running UNICOM

UNICOM may be activated from DOS using the following syntax:
UNICOM [configfile]

By omitting the optional [configfile] parameter, UNICOM will look for a default configuration file named UNICOM.CFG.

From DOS, type the command (depending upon your windows version):

```
WIN UNICOM  
-or- WIN386 UNICOM
```

To activate UNICOM from the Microsoft Executive or File System, doubleclick (using a mouse) on the file: UNICOM.EXE.

When invoked without a configuration file parameter, additional UNICOM instances will attempt to access a configuration file named UNICOM2.CFG. If this file cannot be located, the port settings will default to COM2, 1200, N, 8, 1.

When UNICOM is activated for the first time, a file path setup window will appear (shown in Figure 1) prompting you to enter a UNICOM files, upload and download directory.

Figure 1. File Path Setup Window

The files directory should be set to the drive and directory where UNICOM has been installed. The download directory should be set to the drive and directory where files received from data transfers are to be stored. The upload directory should be set to the drive and directory where UNICOM will first look to locate files for upload selection.

Enter the pathnames into the edit fields within the dialog box. Paths defined here are valid only for the current UNICOM session. To make the paths permanent, activate the SAVE SETUP option from within the SETUP menu. Paths are stored in your Windows WIN.INI file.

An error message will be displayed if any of the path fields contain an invalid directory or if UNICOM could not locate its executable files in the directory specified in the FILES DIRECTORY field.

At the start of each program run, the configuration file 'UNICOM.CFG' is accessed (from the file path set previously) to determine what

communication port will be used and other operating parameters. If UNICOM cannot locate this file, the port will default to COM2, 1200 baud, No Parity, 8 data bits and 1 stop bit.

Should a communication port fail to open, UNICOM will display a message box to indicate the failure. The port configuration dialog window will be displayed automatically. A valid communication port should be selected.

When a communication port is successfully opened, UNICOM will try to initialize the Hayes compatible modem if the port was configured for a modem connection. Should the message "Modem Not Responding" appear, this means UNICOM could not get the modem's attention. Make sure the communications port and modem are configured properly. Ensure that the modem is set to return VERBOSE responses.

Section Two - Setting Up UNICOM

Communication Port Settings

To select and configure a communications port, select the COMM PORT option from the Setup menu. A setup window will appear displaying the current port configuration as shown below in Figure 2.

Figure 2. Communication Port Setup Window

Select the communication characteristics desired from this window using a mouse or keyboard.

COM1 through COM4 are shown as available options. If your computer or version of Windows does not support a particular port, an error message will be displayed if an attempt is made to configure it.

Configuration Option Descriptions:

Port: Physical Communication Device: Com1 - Com4

Baud Rate: Port Operating Speed (Bits Per Second)
(300 bps to 19,200 bps)

Parity: Specifies the character parity for the currently selected port. NONE means no parity bit is provided. EVEN, ODD, MARK, SPACE specify that parity operation as follows:

EVEN - Parity bit set to provide an even number of set bits.

ODD - Parity bit set to provide an odd number of set bits.

MARK - Parity bit always set.

SPACE- Parity bit always clear.

Stop: 1 or 2 Stop Synchronization Bits

Word: Defines the number of data bits that make up the character size.

Handshake: Is a means by which your computer (and the remote host) will control incoming and outgoing data. Most computers require a handshake to avoid losing data. Handshakes may be performed using hardware (RS-232 pins) or special ASCII control characters. UNICOM provides selection of the following handshake types as supported by the Windows comm port driver:

EIA: specifies that RS-232 pin 4: Request to Send (RTS) performs receive flow control and pin 5: clear to send (CTS) for transmit flow control. RTS will be dropped when the receive queue is full and raised otherwise. Character transmission will be suspended when CTS is dropped by the external device and resumed when it is raised.

None: specifies no handshake. A software specific handshake is up to the application program (such as an XMODEM protocol transfer) driving each end of the communication link.

Xon/Xoff: interprets DC1 (CTL Q) and DC3 (CTL S) characters as special flow control characters. When UNICOM receives a DC3, it will suspend any transmission until a DC1 (Xon) is encountered. Likewise, when UNICOM's receive buffer is full, a DC3 (Xoff) is transmitted to the remote computer to cause it to suspend (provided the remote recognizes XON/XOFF) transmission. UNICOM resumes the suspended remote transmission (when ready) by transmitting a DC1.

Connection: Instructs UNICOM to treat the remote connection as a modem or a direct computer-to-computer link. If set to MODEM, UNICOM will assume that a modem is connected and try to initialize it during program startup, host and modem configuration operations.

Disable Error Report: Controls the reporting of hardware detected communication errors from the communication port driver built-in to Windows.

Parity - When selected, disables reporting of parity errors detected in received characters.

Framing- When selected, disables reporting of improperly synchronized transmissions due to poor line quality or mismatched communication settings.

Overrun- When selected, disables reporting of a UNICOM transmit or receive buffer overflow.

Select the port and the desired characteristics from the above options and press the CONFIGURE button to activate the port. To restore the port settings to the original configuration (as stored in the program configuration file), press the DEFAULT button then press CONFIGURE.

*Note: COM3 and COM4 are not supported by the Microsoft port driver provided in release 2.x of Windows.

Terminal Settings

Terminal characteristics may be modified by selecting the TERMINAL option. A terminal setup window will appear displaying current options as shown below in Figure 3.

Figure 3. Terminal Setup Window

Terminal: ANSI-BBS, VT52 or TTY emulation.

Color: When this feature is enabled, color ANSI-BBS emulation will be used. Color terminal escape sequences received from a remote host control foreground and background colors displayed on your screen.

Newline : This option will automatically generate a linefeed upon receipt of a carriage return. If characters seem to wrap around on a single line with your particular host, enable this option.

Local Echo: Some hosts do not echo characters back when typed from the keyboard. Half duplex systems typically operate this way (such as GENie). Enable this option to instruct UNICOM to echo characters that are typed from the keyboard. Should characters appear double on your screen, disable this option.

Autowrap: Some remote hosts do not generate a linefeed after reaching the end of line. Should characters fail to wrap around to the next line, enable this option.

Erase on Backspace: Once enabled, backspace characters received will be translated into BS-SPACE-BS to erase the character on your screen. This translation is normally performed by the remote host. If characters are not erased using backspace with your particular host, enable this option.

Font Selection: One listbox contains the name of all available fixed and variable length fonts found in your installed version of Windows. The size listbox contains the available size(s) for the font highlighted in the font name listbox.

Hayes Compatible Modem Settings

UNICOM provides a modem setup window containing user selectable options for Hayes compatible modems. Select the MODEM option from the Setup menu. A Modem Setup window will appear (shown in Figure 4.) containing the current modem settings.

Figure 4. Modem Setup Window

The purpose of this window is to construct a modem init string that will be sent to the modem upon activating UNICOM or by pressing Accept. The modem setup window supports two types of init strings: User Entered and Selected. The init string type is selected using the two radio buttons located at the top of the window.

When selected, the User Entered radio button will instruct UNICOM to transmit the modem init string defined in the edit box for modem initialization. If the Selected radio button is chosen, UNICOM will use a modem init string constructed from the menu selections in the Selected Init String section.

User Entered Init String: An edit box is provided so that you may define your own modem init string. UNICOM appends a terminating carriage return to the end of the string placed here.

Selected Init String: A modem init string is constructed automatically based upon the configurable modem options contained in the Selected Init String section. These options are defined as follows:

Wait for dial tone: (2-255 seconds) DEFAULT = 2 determines the maximum time the modem will wait for a dial tone during dialing operations.

Wait for answer: (1-255 seconds) DEFAULT = 30 determines the time the modem will wait for an answer after dialing has commenced.

Dial Type: Tone or Pulse operation.

Speaker Control: Always OFF, ON for dialing or ON while the phone is off hook.

Auto Answer: ON or OFF.

Answer on ring [x]: If Auto Answer is enabled, the modem will pick up the phone on ring x (if x > 0).

Dialer Speed: Slow, Medium or Fast. This affects the dialing rate for tone operation only.

Call Waiting Protection: ON or OFF. When enabled, this feature will prevent the modem from breaking a phone connection because of a call waiting 'click' associated with incoming calls. The loss of carrier time is extended to 100ms to prevent the modem from hanging up during this type of interruption. This method does not instruct the phone system to block waiting calls.

For more detailed information regarding these (and other) modem settings, refer to your modem reference manual.

Hayes compatible modems may differ in modem responses when attempting a connection or hanging up by dropping the RS-232 data terminal ready signal.

A modem-specific setup window has been provided to describe responses and timing behavior that can vary from one Hayes compatible brand of modem to another.

To activate the modem-specific setup window, press the MORE pushbutton from the modem setup window shown in Figure 4a.

Figure 4a. Modem Specific Setup Window

Connect String: This field should contain your modems response upon making a successful connection. When dialing, UNICOM examines modem responses to determine the result. The typical default string is uppercase CONNECT for most Hayes compatible modems. Some modems respond with CARRIER [baud].

No Connect Responses: Enter the possible responses produced by your modem that indicate unsuccessful dialing. If UNICOM encounters one of these strings during dialing, the specific response will be reported to the user. Consult your modem reference manual for these response strings.

Hang Up String: Should UNICOM fail to hang up by dropping DTR, it will perform a software hang up procedure. This involves sending the escape to command character sequence '+++ ' to bring the modem into command mode. Once in command mode, the modem is instructed to hang up using the string defined in this field.

Escape Guard Time: (0.5,1.0,1.5 Sec) This is the amount of time UNICOM will

delay before and after sending the modem attention '+++' sequence to bring the modem into command mode during a software hangup attempt.

Response to DTR drop: Modems typically produce a response string once a connection is dropped for reasons that include loss of DTR. UNICOM drops DTR (RS-232 pin 20) for hang up operations and watches for the response defined here to determine if the attempt was successful.

To allow UNICOM to hang up quickly using the DTR drop method, you must provide this hardware signal to your modem using an RS-232 cable that supports pin 20. The modem must also be commanded to drop the line upon loss of DTR. This command is typically provided from the modem init string which is loaded at program initialization. Consult your modem reference for the particular modem command.

Command Speed: (Slow,Med,Fast) Some Hayes compatible modems become confused when commands arrive too quickly to the modem. This option controls the amount of time to delay per character when commands are issued to the modem. A Fast setting means no character delay. Medium introduces a 30 msec delay and Slow introduces a 60 msec delay. For most modems, the Command Speed can be set to Fast.

Keyboard Settings

You may define the meaning of your keyboard by selecting the KEYBOARD option from the Setup menu. The Keyboard Macro Editor window will appear containing edit fields for 12 function keys and the keypad keys as shown in Figure 5.

Program Hot Keys or user defined keystrokes (up to 80 characters in length) may be assigned to individual function keys as displayed in the Macro Editor window below.

Figure 5. Keyboard Macro Editor

To store a keyboard macro, place the keystrokes into the definition editbox for the particular key to be defined. Control characters can be inserted and are denoted with the ^ character prefix. For example: ^C will output a control-C (ASCII 03). Control characters may be mixed with printable ASCII characters. Each macro is limited to a maximum of 80 characters.

Hot Keys are function keys that can be user defined to activate any UNICOM menu pick. For example, I wish to assign Chat Mode activation to function

key F6. Use the Hot Key prefix ^^ to prefix the menu column and pulldown row for the item to activate. The Chat Mode option is in the Control menu (menu column 5) and located in the 5th row in the pulldown menu.

The constructed Hot Key prefix looks like this ^^55. Spaces are not allowed between digits.

For pulldowns that are in positions greater than 9, position 10 or greater must be designated with reference to the characters that follow 9 in the ASCII character set. Position 10 = ':', 11 = ';', 12 = '<' and so on. Please refer to an ASCII table.

Hot Keys may also be assigned to user defined application entries within the Utility menu. With one button press, any application may be activated.

Keyboard macros may be activated by pressing the corresponding key. A screen button can also be used to activate your macro with a single mouse click. Screen buttons containing user defined labels assigned to each function key are displayed at the bottom of the screen above the status line. To toggle display of these buttons on or off, select the User Keys item from the Control Menu. The example screen buttons are shown below (Figure 6) that reflect the keyboard setup in Figure 5.

Figure 6. Macro Screen Buttons

By moving the mouse cursor and clicking on a given screen button, the corresponding Hot Key or keyboard macro will be activated.

Each button may be labeled by entering the button name into the corresponding label editbox (within the keyboard macro editor). The buttons contained in the Key Macro Window are updated immediately to reflect changes made.

Host Mode Settings

Host mode allows a remote user to access a specified disk drive for purposes of uploading and downloading files. Before using host mode, it is a good idea to set a System Password, User Login Drive and a Host Identification String. Additional options are available.

The Host Setup window is activated by selecting the Host Setup option from the setup menu. The following options will be displayed in the Host Setup window with their current values.

Figure 7. Host Mode Setup Window

Host Identification String (80 chars max): This field contains the string that identifies your system to a remote user who is attempting to login.

System Password (20 chars max): is the password a remote user must enter to gain access to your system. If this field is not defined, a carriage return should be entered when prompted for the password. The password is case sensitive.

User Login Drive (drive letter): is the drive that a remote user will be confined to when logged in. A remote user may move between any

directory within this drive, but cannot reference any other drive.

Greeting File: This file contains text information that will be transmitted to the remote user once a connection has been established. This file may contain embedded escape codes to format the remote terminal screen. At each screenfull of text (23 lines), the remote user is prompted: More? (Y/n).

A blank entry or invalid filename in this field will disable this option.

UNICOM will look for this file to be located in the UNICOM Files Directory as defined in the File Path Setup Window.

Bulletin File: This file is transmitted to the remote user after each successful user login. At each screenfull of text, the remote user is prompted: More? (Y/n).

A blank entry or invalid filename in this field will disable this option.

UNICOM will look for this file to be located in the UNICOM Files Directory as defined in the File Path Setup Window.

Menu Filename: UNICOM provides a default remote user menu. You may define your own menu and cause UNICOM to display it to the remote user. The menu can be created using a text editor. Special control characters may be embedded in the file.

A blank entry or invalid filename in this field will cause UNICOM to display a default menu.

UNICOM will look for this file to be located in the UNICOM Files Directory as defined in the File Path Setup Window.

UNICOM File Path

To allow UNICOM to locate its operating files, a pathname must be provided anytime the program is installed or moved to another directory area.

Select the FILE PATH option from the Setup menu. A file path setup window will appear as shown in Figure 8.

Enter the complete pathname of the location where UNICOM has been installed. By pressing CONFIGURE, UNICOM will use the path for the current operating session only.

TO MAKE THIS CHANGE PERMANENT, select the SAVE SETUP option from the Setup menu. The UNICOM file path is stored in the Windows win.ini file under the 'FilePath=' entry.

Figure 8. File Path Setup Window

Download Directory Path

A Download Directory may also be set by accessing the file path option from the setup menu. UNICOM refers to the pathname you enter when storing files received from file transfers from remote systems. This path is stored in the Windows WIN.INI file under the [UNICOM] 'DownloadPath=' entry.

This download path may be overridden for transfers that require a user entered filename. If a drive and directory reference is specified in an XMODEM download filename, the pre-defined download path will be ignored.

Upload Directory Path

The Upload Directory Path determines the default directory for file selection(s) when prompted for a file to be transferred to a remote computer. Shown below is an upload file selection window that contains directory entries from a defined upload directory.

Figure 9. File Upload Selection Window

The default upload directory in Figure 9 is **C:\WIN30**.

ASCII Transfer Setup

The ASCII transfer setup is divided into operating parameters for uploading and downloading operations. To access the ASCII transfer options, select the ASCII Xfer option from the setup menu. A setup window will appear as shown in Figure 10 below.

Figure 10. ASCII File Transfer Setup Window

ASCII Upload Parameters

Echo Locally: If enabled, the file data being transferred will be echoed to your screen.

Pace Character: [0-99] The pace character is the numeric value of an ASCII character that is transmitted by the remote host receiving the file. This character is interpreted by UNICOM as 'send the next line'. UNICOM will wait for the remote to sent this character for each line transmitted.

Char Pacing: [0-999] Represents a delay time (in milliseconds) between transmission of each character to the remote host computer. Setting this value to zero, disables any time delay.

Line Pacing: [0-999] Represents the time (in 1/10 seconds) to delay after the transmission of each line or carriage return. A zero value in this field disables line pacing.

CR Translation: [None, Strip or Add LF] Carriage return translation can be used to strip carriage returns or insert linefeeds (after carriage returns) for the file being transmitted. Selecting none disables any translation.

LF Translation: [None, Strip or ADD CR] Linefeed translation will strip linefeeds or add carriage returns after linefeeds to the file being transmitted. Selecting none disables any translation.

ASCII Download Parameters

CR translation and LF translation as described above will filter and control these characters received during ASCII file downloads from remote host computers. The selection and definition (as described above) for downloading is the same as for uploading.

Figure 10a. Kermit Setup Window

Kermit Transfer Setup

The Kermit is a configurable protocol and you may not want to change these values unless you are an advanced user. Assuming you are, here are the field definitions:

Max Packet Size: This is the maximum length for outbound packets, regardless of what was negotiated with the other Kermit. Normally, you would change this field (from the default) only to send shorter packets than the other Kermit requests, because you know something the other Kermit doesn't know, e.g. there's a device on the communication path with small buffers.

Timeout: This can be used to adjust the normal Kermit timeout parameter for both local and remote systems. Timeout will occur if a packet is not received after the number of seconds specified in this field.

of pad chars: This value controls the number of pad chars to be requested from the remote Kermit to precede each packet it sends. Padding is not usually required but may be necessary to keep some intervening communication happy.

Padding Char: Use the specified control character for interpacket padding. Some hosts may require padding characters (normally NULL or DEL) before a packet, and certain front ends or other communication equipment may need certain control characters to put them in the right mode. The number is the ASCII decimal value of the padding character, (0 - 31, or 127).

EOL Char: This field contains the ASCII value of the packet terminator to put on outbound packets. Normally a carriage return (13). Change this field if the other Kermit requires a nonstandard packet terminator.

Quote Char: This field contains the ASCII value of the character to be used to prefix control and other prefix characters. The only reason to change this would be for sending a very long file that contains many '#' characters (the normal control prefix) as data.

Port: (Switch to N-8-1 or No Switch) This option determines if UNICOM will automatically set the port for binary operation before Kermit is initiated. Selecting N-8-1 (the normal default) will allow Kermit to transfer binary data. No Switch should be used if the remote Kermit does not switch automatically to 8 data bits, No parity and 1 stop bit.

The fixed attribute definitions are not described here. Refer to the Kermit Users Guide from Columbia University.

General Setup Window

The general setup window allows user configuration of the initial UNICOM window style, the editor for creating and modifying script files, the name of the autostart script file, default transfer protocol, default keyboard macro file, default dialing directory and general program behavior.

To activate the General Setup window, select General from the setup menu. A window will appear containing the current option settings as shown in Figure 11 below.

Figure 11. General Setup Window

Definitions of General Setup Options

UNICOM Startup Window: Controls the appearance of the UNICOM window upon program activation. **Normal** causes Windows to determine the window size and screen position. **Full Screen**, when set, will ZOOM the UNICOM window to occupy the entire screen. An **Iconic** setting will activate UNICOM without opening a window. Instead, the UNICOM icon will be displayed at the bottom of the screen.

Scroll Bars: When checked, UNICOM will display the user defined function key buttons at the bottom of the screen above the status line upon each program activation.

User Keys: When checked, UNICOM will display both horizontal and vertical scroll bars at each program activation. This allows you to use the 10-page scrollback capability built-in to UNICOM.

General Behavior: These checkboxes determine how UNICOM will behave for operations that include verification, automatic iconization and event logging.

Verification Prompts: When enabled, will cause UNICOM to display a messagebox to prompt for verification during end of transfers, program termination and modem hangup.

Log Events: Events such as dialing, hanging up, executing scripts and other program activities may be recorded to an ASCII for later review. Each event is time-stamped.

Auto Minimize on File Transfers: When checked, UNICOM will automatically iconize itself at the start of every file transfer. This can be useful for clearing the screen quickly so you may resume operating another windows application. UNICOM will pop back up to the screen after the transfer completes.

Auto Minimize on Repeat Dialing: Enable this feature to quickly remove UNICOM from the screen when batch dialing systems that are typically busy. UNICOM will pop back up to the screen when dialing is successful.

Default File Transfer Protocol: Choose the protocol to be selected within the upload and download protocol selection window when transferring files.

Dialing Directory File: Enter the name of the default dialing directory to be loaded each time you activate the Dial option.

Script Editor: The filename of the script language editor of your choice should be entered here. UNICOM activates this editor when the Edit, Edit Last or Create items are selected from the script menu. If this field is empty, UNICOM will activate Notepad by default.

AutoStart Script File: A script filename entered in this edit box will automatically execute upon each initial activation of UNICOM. A blank entry or invalid filename in this field will disable the autostart feature. Script command files must be located in the directory defined by the UNICOM files path.

Keyboard Macro File: The filename of the default keyboard macro file should be entered here. The keyboard macro file defines the meaning of the keyboard function keys either as macros or program Hot Keys.

END OF UNICOM ONLINE MANUAL

The complete and fully illustrated UNICOM documentation is available in printed form from Data Graphics. Documentation has been provided in this truncated form so that it may be easily distributed with the executable program.