

New in QmodemPro for Windows 95

- Put a shortcut to QmodemPro for Windows 95 on your desktop. A **shortcut** can be created to QmodemPro for Windows 95 and placed on the desktop.
- Send mail or compose a letter with text or graphics from your terminal window. [MAPI](#) (messaging application program interface) support allows you to send text directly from the terminal window to mail applications (like Microsoft Exchange).
- A [file clipboard](#) has been added, allowing you to drag filenames from the terminal window directly to a download list. You can save groups of filenames, ready for download. You will never need to manually copy a filename again.
- Put a favorite phonebook entry right on your desktop. The [OLE 2](#) “**drag and drop**” feature is supported throughout QmodemPro for Windows 95 in the phonebook, terminal window, editor, and File Clipboard.
- With fully multithreaded protocols, even when your PC is very busy, the protocol will be able to continue.
- QmodemPro for Windows 95 allows multiple translation tables to be defined and a different one selected for each phonebook entry.
- QmodemPro for Windows 95 supports international dialing and credit card billing numbers automatically, using Windows 95’s dialing features.
- Added [MD5](#) (RSA Data Security, Inc.’s MD5 Message Digest Algorithm). This feature lets you send encrypted passwords for greater security when logging on to Internet sites, Telnet sites and BBSs supporting MD5.
- When making voice calls, a dialog box has been added that shows you the length of your call, allows you to hang up, and logs all the information to a log file.

A Guided Tour of QModemPro for Windows 95

Take a few minutes to get some practical experience with QmodemPro for Windows 95. It's not required, it's just a fast, easy way for you to become familiar with QmodemPro for Window 95 and with Bulletin Board Systems.

Mustang Software, Inc. operates a Wildcat! BBS (Bulletin Board System) to support our customers and provide access to files and messages that can help you use QmodemPro for Windows 95. We call it the MSI HQ BBS.

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The Terminal Window

This is the main screen of QmodemPro for Windows 95. The top section of the Terminal window is the Command Menu. Beneath that is the Toolbar. The main screen, below the toolbar, is where all your online data will appear. Beneath the main screen is the Macrobar Menu, and below the Macrobar menu is the Statusbar.

QmodemPro for Windows 95's terminal window is, in a sense, the main control panel used to communicate with your the modem and, once you're on-line, to interact with the remote modem.

This window is surrounded by QmodemPro's main screen which provides information about the status of your connection, a menu bar with command options, a toolbar with buttons for frequently-used functions, and at the bottom of the window, a macrobar and a status line, showing current parameters. You can customize your toolbar or hide it. Click on the toolbar with the right mouse button and choose **Hide** to hide your toolbar or **Properties** to customize it.

Dialing the MSI HQ BBS

Click on the **Dialing Directory** button near the top left corner of your Qmodem for Windows 95 screen. A new window will open, containing your **Phonebook**.

The QmodemPro for Windows 95 Phonebook is a list of all the Bulletin Board Systems and Online Services you call regularly.

Qmodem for Windows 95 comes with a sample phonebook. The first entry on the list is the MSI HQ BBS. QmodemPro for Windows 95 also includes phonebook entries for some popular online services.

To select the entry you wish to dial, Mustang Software, move the mouse pointer to the entry, and click the left mouse button. When you do that, your selected entry is highlighted — that is, it changes color on your screen.

Now you're ready to dial the entry you just selected. Move your mouse to the **Dial** button near the top left corner of the Phonebook window, and press the left mouse button. You can also double-click on an entry to dial it.

Another window will pop up, showing the name of the system you're calling and details about the entry. These details include how many times you've called, and a status report which shows the number you dialed, and the response from the modem — ringing, busy, connected, and so on.

If the number you're dialing is busy, Qmodem for Windows 95 will pause for a few seconds and try again. The MSI HQ BBS has over two dozen phone lines, so it should only take a few tries to get through if the line is busy on your first try.

Next, we'll [connect to the BBS](#).

Connecting

When your modem connects successfully with the modem at the other end, you may hear some beeps and squawks as the modems “handshake” or establish a connection. At this point, the modems are exchanging information about the baud rates and connect speeds they support, along with additional information about error correction protocols.

When the modems have completed their handshaking, the phonebook window and status window will disappear, returning you to the terminal window. At this point, the remote system (in this case the MSI HQ BBS) will begin sending data, which you will see on your screen.

Most bulletin board systems have a **command line** interface. That is, they display a menu of available commands, and the user types the letter highlighted on the menu to execute the command.

Next, [log on](#) to the system.

Logging on

The first screen of information you see on the screen will normally be a brief message identifying the name of the system you've called. You'll then be asked to **log on**.

Logging on means typing your **user ID** (usually your first and last name) at the prompt asking you for this information. Type your first name at the prompt, and press [ENTER] to continue.

You'll then be asked to enter your last name. Type your last name, and once again press [ENTER] to continue.

The BBS will then search its user database for your user ID. Since you're a new user on the BBS, you won't yet be in the database and the BBS will say something like

```
Your name was not found in the user database.  
Is your name spelled correctly?
```

Answer **Yes** to this question if you spelled your name correctly. The BBS will then create a new user record for you, and you'll be asked to select a password.

Think carefully about the password you select. It should be one you can remember easily, but would be difficult for someone else to guess, since this password is your key to the Bulletin Board System. Do NOT use your first name, your spouse's name, or names or words easily associated with you.

The best passwords are a combination of two unrelated words separated by a punctuation mark, for instance

```
RAINBOW$GARBAGE
```

Later on, we'll show you how to enter your password in the phonebook for each system you call, and recall it instantly with a function key.

Sometimes you may be asked for a password and you've never logged on before. [Click here for a possible solution](#), or [continue](#).

A common password problem

Some people with common names (like “Bill Williams” or “Jenny Johnson”) may find that someone else with the same first and last names has already set up a user account on the BBS. If you logged on with the same name as a user already on the system, you’ll be asked to enter your password. Since you obviously don’t know the password, the easiest thing to do right now is hang up and try again. Use the **Hang Up** button on the right-hand side of the toolbar (it looks like a little telephone that’s off the hook) to do this.

Since each user name must be unique, you might want to consider using first name plus your middle initial and last name to identify you. To log on with a middle initial, enter your name like this, at the “What is your first name” prompt:

```
Bill M;Williams [ENTER]
```

Note the semicolon after your middle initial — this notifies the Bulletin Board System that the text “Bill M” should be treated as the first name, and the text “Williams” should be treated as the last name.

Next, you will be asked for [New User Information](#).

New User Information

As part of the new user logon procedure, the operators of the BBS may ask you for some demographic information — your mailing address, phone number, and your QmodemPro for Windows 95 registration number. You will find this number stamped on the card bound inside the cover of this manual.

MSI (the makers of QmodemPro for Windows 95 and other communication software) uses this information to determine customer needs and preferences when planning future product releases. The information you provide is confidential, and is not made public.

[Now you can explore the BBS.](#)

Exploring the BBS

When your new user information has been stored, you will see several welcome screens, with information of interest to MSI customers. After you read these screens, the system will look for any personal mail for you. If there is new mail for you, the system will let you know. You can read your mail now or wait until you've been explored the BBS.

When the BBS finds new mail, it will ask you if you want to (R)ead new mail, (L)ist new mail, or (C)ontinue. Press **R** to read any new mail messages.

Next, you will arrive at the main Bulletin Board System menu. This is the point from which you can select all the options the BBS has to offer: file transfers, e-mail, doors to other applications, and more. Take a minute or two to look at your options in the main menu.

You can access all the other sections from here. Press the letter of the section you want to visit. You may want to change your settings. Type "**Y**" to see and change your settings.

You can enter your personal information, like what type of computer you're using, determine the Help Level that's best for you (for now, Novice is probably the best. Later, you may want to change it to Regular), turn on auto spell checking, and many other options.

The next thing we'll do is check for new mail. If you chose not to read your new mail when you first logged on to the BBS, you can read it at any time. To check for personal mail:

From the **BBS Main Menu**, select **Read All New Personal Mail**. Type ! (an exclamation point) at the prompt. The system will search all the conferences for any new mail for you.

Downloading a file is easy! Let's [continue](#).

For More Information

If you're interested in learning more about modem communications and the on-line community, we recommend the following publications:

"Using Computer Bulletin Boards", 3rd edition, by John V. Hedtke (1995, MIS Press, ISBN 1-55828-391-9). This book explains in easy to understand terms how to log on to a BBS, how to read and answer e-mail messages, how to transfer files, and much more. Ideal for the beginner who wants practical, non-technical information.

"Modems for Dummies", by Tina Rathbone (1993, IDG Books Worldwide, Inc., ISBN 1-56884-001-2). This book gives you a good overview of modems and telecommunications basics. It explains in plain, easy to understand language how modems work.

"BBSs for Dummies", by Beth Slick and Steve Gerber (1995, IDG Books Worldwide, Inc., ISBN 156884-900-1). An in-depth, easy to understand book, written in plain English, that explains BBSs, cyberspace, and more.

"Boardwatch" magazine, published monthly by Jack Rickard. Call 1-800-933-6038 for subscription information. A witty, well written, sometimes opinionated overview of BBS issues. Many good BBS lists, by region and theme.

Most cities and towns have a PC User Group. These groups serve the non-professional computer user by providing social and educational meetings, special interest groups, informal classes for beginners, and guest speakers from the computer industry. Most also provide a Bulletin Board System (BBS) for their members.

Your local computer store or public library can provide information on PC User Groups in your area. If you work for a large corporation or government agency, your employer may also sponsor a PC User Group — ask your PC support people for more information.

The on-line community is as close as your nearest Bulletin Board System. To help get you started, we've included a text file containing a list of bulletin board systems using Wildcat! BBS software from MSI. When you installed QmodemPro for Windows 95, it added an icon named "BBS List" in your program menu. Click on the icon to view the file.

Besides the Bulletin Board Systems in your own area, there are several national and international commercial on-line services. Your QmodemPro for Windows 95 package may contain informational brochures on how to subscribe to one or more of these on-line services.

Downloading

The final part of our on-line tutorial will be to **download** (receive) a file. Downloading means copying a file from the remote computer (the host, or BBS, or Online Service) to your computer over the modem, using a file transfer protocol.

Press **F** at the **Main Menu**. The BBS will then show you the **File Menu**. This menu has a list of selections having to do with file transfers. For instance, you can search for a file, list the names and descriptions of files on the system, or view the contents of a file you're interested in.

We have created a special file for this tutorial. It contains a selection of sample scripts and other useful tools for Qmodem for Windows 95 users. The name of the file is Q95INFO.EXE.

The most important thing to remember about transferring a file is that you need to tell the computers at both ends of the connection what you want to do. The **host** computer (the BBS or Online Service) needs to be told first. You do this by selecting **Download** from the file menu — as with our previous examples, type the first letter of the command, in this case **D**.

The BBS will ask you the name of the file you want to download. Type

```
Q95INFO.EXE [ENTER]
```

The BBS gives you the option to select several files, and download them in a batch. Since we are only going to download one file during this session, press your [ENTER] key again when prompted for the second file. The BBS will then ask you if you would like to logoff automatically when the download has finished. Since we're just about finished with this tutorial, answer **Yes** to this question.

Zmodem, the most commonly used protocol, is used automatically for new users of the MSI HQ BBS. It is also the default protocol used for QmodemPro for Windows 95 phonebook entries. The BBS will begin sending the file, and QmodemPro for Windows 95 will begin receiving it automatically. Below is a picture of the File Transfer Status window, showing information about the file transfer in progress.

We will explain more about each part of this window later on in this book. When the file transfer is complete, the download status window will disappear, and you will once again see the terminal screen.

Since you selected **Logoff after transfer** before you began downloading your file, the BBS will now display a 10-second countdown. This countdown gives you the opportunity to change your mind and stay on-line by pressing a key. For now, let the countdown finish. The BBS will automatically log you off and hang up the phone.

[Expand your new file.](#)

Expanding your file

The file you just downloaded is a self-extracting archive — that is, it acts as a container for smaller files inside, which unpack automatically when you execute the file. To remove the files from their container, click on the **Explore Download** button on the macrobar. This macro launches Explorer in your download directory.

Drag the file from the **Download** directory to the **Scripts** directory. It will be in the QmodemPro for Windows 95 download directory (C:\QMWIN\DOWNLOAD, if you have used the default settings).

Before closing Explorer, double-click on the QMWIN.EXE file in the SCRIPTS directory to extract the files from their container. Then close Explorer.

Next, from the QmodemPro for Windows 95 main menu, select **Scripts/Execute**. A dialog box will appear, asking you to choose a file. The new script files should appear in the list of files. Double click on a filename, or mark the filename and then click Open.

Use Explorer to delete Q95INFO.EXE. The script file you downloaded will run without this file, once it has been extracted from the container.

Now that we've completed the tutorial, it's time to shut down QmodemPro for Windows 95. Use your mouse to go to the **File** menu, and select **Exit**, or click the (close) button in the top right- corner of the screen.

Click [here](#) for more information about modems, BBSs, and the electronic community.

Macro System Functions

Macros can be used to perform many functions automatically. These can be assigned to buttons located at the bottom of the terminal window. Click on the macro you want to know more about:

[@ADDLFTOCR \[on | off\]](#)

[@AUTOANSWER \[on | off\]](#)

[@BREAK](#)

[@CAPTURE \[filename | off\]](#)

[@CLS](#)

[@DIAL \[ENTRY | GROUP | SEARCH | MANUAL\] string](#)

[@DIALMANUAL\[NNN-NNNN,AAA,CCC\]](#)

[@DIRECTCONNECT](#)

[@DOORWAY \[on | off\]](#)

[@DOWNLOAD \[filename/dir \[protocol\]\]](#)

[@DUPLEX \[on | off\]](#)

[@EDIT \[filename\]](#)

[@EMULATION \[emulation\]](#)

[@EXIT](#)

[@EXPLOREDOWNLOAD](#)

[@EXPLOREUPLOAD](#)

[@HANGUP](#)

[@HELP](#)

[@HOST](#)

[@MANUALDIAL\[NNN-NNNN,AAA,CCC\]](#)

[@MODEMPROPERTIES](#)

[@PASSWORD](#)

[@PHONEBOOK \[phonebookname\]](#)

[@PRINTER \[on | off\]](#)

[@QUICKLEARN \[scriptname\]](#)

@RESETEMULATION

@SCRIPT [scriptname]

@SCRIPTCOMPILE [scriptname]

@SCRIPTDEBUG [scriptname]

@SCRIPTEDIT [filename]

@SCROLLBACK [on | off]

@SCROLLBACKRECORD [on | off]

@SHELL [filename]

@SPLITSCREEN [on | off]

@STAMP [string]

@STRIPHIBIT [on | off]

@TRAPSCREEN [filename]

@UPLOAD [filenames [protocol]]

@USERID

@VIEW [filename]

@VIEWPICTURE [filenames]

@XONXOFF [on | off]

@ADDLFTOCR [on | off]

This is the same as menu command Connection/Add LF to CR.

@AUTOANSWER [on|off]

This is the same command as Auto Answer on/off.

@BREAK

This is the same as menu command Connection/Break.

@CAPTURE [filename | off]

Toggles the capture file on and off.

@CLS

Clears the terminal screen.

@DIAL [entry|group|search|manual] string

Dials the entry specified on the command line, either explicitly by entry number, a group by name, by searching for text within phonebook entries, or prompting for a phone number.

@DIALMANUAL [NNN-NNNN,AAA,CCC]

This is the same as the menu command Dial/Manual Dial. N is the phone number, A is the area code, C is the country code. IF you do not specify an area or country code, the dialer will use your default.

@DIRECTCONNECT

Opens a direct connection, bypassing TAPI. Any valid COM port may be specified. If no parameter is specified, a direct connection dialog box is opened. This is the same as the menu command Connection/Direct Connect.

@XONXOFF [on|off]

Changes XON/XOFF flow control to specified parameter. Same as menu command Phonebook/Edit Phonebook Entry/Connect Using/ Advanced/Xon/Xoff.

@VIEWPICTURE [filenames]

Opens the Picture Viewer and loads in specified filenames.

@VIEW [filename]

Opens the text editor and loads in the specified file.

@USERID

Extracts the user ID from the USERID field in the current phonebook entry. This is valid only when dialed from the phonebook.

@UPLOAD [filenames [protocol]]

Uploads the file or files specified on the command line, using the specified protocol.

@TRAPSCREEN [filename]

Saves the current screen to the specified filename. This is the same command as menu command Edit/Screen to File.

@DOORWAY [on|off]

Same as menu command Connection/Doorway. This command can only be used if the remote system supports it.

@DOWNLOAD [filename/dir [protocol]]

Downloads the specified file, using the specified protocol.

@DUPLEX [on | off]

Turns full duplex on or off. Same as menu command Connection/Full Duplex.

@EDIT [filename]

Opens the Editor and loads the requested file.

@EMULATION [emulation]

Sets the emulation as specified. Same as menu command Connection/Emulation.

@EXIT

Exits QmodemPro for Windows 95 completely. This command cannot be used to close the phonebook, editor, or picture viewer.

@EXPLOREDOWNLOAD

Opens the Windows Explorer in your download directory.

@EXPLOREUPLOAD

Opens the Windows Explorer in your upload directory

@HANGUP

Sends a hangup command. Same as menu command Connection/Hangup.

@HELP

Opens the QmodemPro for Windows 95 Help System in the terminal window.

@STRIPHIBIT [on |off]

Turns the 8th bit strip feature on or off. Same as menu command Connection/8th bit strip.

@STAMP [string]

Records an entry into the log file.

@SPLITSCREEN [on | off]

Turns the split screen terminal view on or off. Same as menu command View/Split Screen.

@HOST

Executes the Host Mode script

@MANUALDIAL [NNN-NNN,AAA,CCC]

Dials a number manually. N is number, A is area code, C is country code. If no parameters are set, the Manual Dialog Box is opened.

@SHELL

Go to a Command Line prompt and execute the requested application.

@SCROLLBACKRECORD [on | off]

Turns the scrollback record option on or off. Same as the menu command View/Scrollback Record.

@MODEMPROPERTIES

Opens a property sheet allowing the configuration of modem properties. This is the same as the menu command Phonebook/Edit Phonebook Entry/Connect Using/Configure.

@SCROLLBACK [on | off]

Opens the scrollback log for viewing or closes it.

@PASSWORD

Extracts the Password field from the current phonebook entry. This only works when the number is dialed from the phonebook.

@SCRIPTEDIT [filename]

Opens the scripts editor and loads the requested script.

@PHONEBOOK [phonebookname]

Opens the requested phonebook. Same as menu command Phonebook/File/Open.

@SCRIPTDEBUG [scriptname]

Opens the script debugger and loads in the requested file.

@PRINTER [on | off]

Toggles the print capture option on or off. Same as menu command File/Printer Toggle.

@QUICKLEARN [scriptname]

Executes the QuickLearn script and saves it with the specified filename.

@RESETEMULATION

Resets the current emulation to its default configuration.

@SCRIPT [scriptname]

Executes the requested script. Same as menu command Scripts/Execute.

@SCRIPTCOMPILE [scriptname]

Compiles the requested script. Same as menu command Scripts/Compile.

Troubleshooting Guide

Sometimes QmodemPro for Windows 95 may not work for you the way you believe it should. If your troubleshooting efforts are to have any meaning, do not change more than one software setting at a time because you won't be able to tell which new setting actually solved the problem. If you believe the modem is not working properly, check all connections first. Be sure the telephone line is plugged into the wall outlet and the modem. Always turn **off** the power before opening your PC! If the modem was turned off when you turned your computer on, you may need to reboot with the modem turned on in order for Windows 95 to detect it.

If your modem still doesn't work the way it should after you've verified that it is connected properly, refer to your Windows 95 User Guide or the modem manufacturer's documentation for help with modem problems.

Here are some other possible causes:

[Line Noise](#)

[Flow Control](#)

[Serial Ports](#)

[Software Settings](#)

[Transfer Problems](#)

[GP Faults](#)

[Lockups](#)

[Call Waiting](#)

Line Noise

Are your telephone lines exceptionally noisy? Noise over the phone line can interfere with data communications, and many modems give up and disconnect when line noise becomes very severe. Check with your phone company's repair service to see if they can fix poor line quality.

Did someone pick up an extension phone in your home, while you were on-line? This frequently causes data calls to disconnect abruptly.

Flow Control

Incorrect flow control settings can also cause the modem to disconnect when it gets more data than it can handle. If you have a high speed (9600 baud or faster) or error correcting (MNP) modem, verify that CTS/RTS flow control is turned **on**. Verify also that the port speed or DTE is LOCKED at the appropriate value — generally 19200 or 38400 for most 9600 baud or faster modems). Windows 95 defaults to Hardware Flow control. If you wish to change this setting, it can be changed either in the QmodemPro for Windows 95 phonebook properties settings (through **Edit/Entry/Properties/ Advanced**) or in the Windows 95 Control Panel.

Serial Ports

Sometimes characters are dropped on the way from the modem to the computer. This problem is far more common with external modems than internal ones, which should already have the correct type of serial port chip installed on the modem itself.

The end result of character dropping is that letters are missing from words, graphic screens are messed up, with some lines shorter than they should be, and raw ANSI code appears on the screen instead of being interpreted as colors. During uploads and downloads, the same problem causes transfer errors and resent blocks.

This is because for one reason or another, the modem is too fast for the serial port. If you have a high speed modem (9600 baud or faster), but the serial port is not designed to handle speeds higher than about 2400 baud or so, characters will be lost from time to time.

One possible way to correct this might be to check the FIFO settings in **Modems/Port Settings/Advanced** in the Windows 95 Control Panel. This may data to flow into the processor more rapidly. Refer to the Windows 95 manual for more information about this setting.

Software settings

Software settings are another possible cause for garbled screens. There are a couple of settings in the QmodemPro for Windows 95 configuration itself which might cause problems. The typical symptom here is that you see letters and numbers instead of lines and block graphics, or odd high-ASCII characters in words.

One possible cause is that you're logging on at 7 bits instead of 8 bits (since the letters and numbers you see are the graphic characters without the 8th bit). These properties must be changed in Windows 95 **Settings/Control Panel/Modems**.

Another possibility is that you've got **8th bit strip** turned **on**. When you're connected to a system that is doing this, select **Connection/8th bit strip** and see if the screens look better.

Finally, it could be that you are using TTY terminal emulation instead of ANSI, and QmodemPro for Windows 95 is thus not interpreting the ANSI escape sequences (a lot of [brackets and numbers) as graphics and color. Try changing the emulation by selecting **Connection/Emulations** and select ANSI.

You should suspect an error in the way you have set up QmodemPro for Windows 95 if you have the same problems on every remote host you call.

Some modems have separate flow control settings for sending and receiving. Check your modem manual for information, and be sure both sending and receiving flow control are turned on properly.

If uploads work and downloads don't, this is an indication of a flow control or buffer overrun problem. Check your flow control settings in QmodemPro for Windows, 95 and if the modem itself if it has flow control settings, check them. Refer to your modem manufacturer's documentation.

Another thing that you might check is the modem properties in the Windows 95 **Settings/Control Panel/Modems**

If downloads work and uploads don't, the problem most likely originates with the remote computer — especially if the problem is not evident on more than one system you call. There is not much you can do at your end, other than leaving a message to the system operator indicating you're having upload problems. Always include as much detail as you can in your message — the transfer protocol you used, the baud rate, any error messages you saw while uploading, and the approximate number of bytes transferred before the errors occurred.

File Transfer Problems

File transfer problems can be difficult to trace, since there is as much likelihood the problem is on the remote system as on your own system.

Some conditions which commonly contribute to file transfer errors are phone line noise (static on the line interpreted as data by the modems), incorrect flow control settings, and UART overruns. The protocols are designed to terminate (abort) the transfer after a certain number of consecutive errors.

File transfers may abort because too many errors were detected by the transfer protocols, as discussed above. There are other reasons a transfer may terminate unexpectedly, however.

Someone in your house might pick up an extension phone while you are on-line — this almost always causes a file transfer to abort, and may break the connection altogether! Call Waiting service on your phone line will almost certainly cause a file transfer to stop if an incoming call comes during an on-line session. Or the system operator on the remote computer may abort the transfer manually.

Another possible cause might be a sudden burst of line noise, although this is more likely to be a problem with non-error correcting modems. Modem error correction helps a tremendous amount with noisy phone lines, but it is not infallible, and extreme line noise can interrupt file transfers whether or not your modem has error correction built in.

Some hardware related causes for aborted transfers include standard Windows 95 errors such as "File not found" or "Disk full", and problems with your memory and drives. Check your available disk space before receiving a large file, and check the spelling of a filename and path before trying to upload.

If you have a problem, check the system properties in the Windows 95 Control Panel. There could be a conflict causing one of the ports to be disabled. Refer to your Windows 95 documentation, and the manual for your modem, serial card and communication.

If you make changes to the setup, you should change only one thing at a time. This allows you to determine exactly what needs to be changed, and if you make a change that doesn't work, it can be easily corrected.

GP Fault

A General Protection or GP fault is only caused by a break or fault in Windows 95, by a driver failure, or a failure in a currently running application, like QmodemPro for Windows 95.

Lockup

If your computer seems to have locked up, press CNTRL+ALT+ DEL. A menu pops up showing all programs currently running. If a program, such as QmodemPro for Windows 95, has locked up or become busy, there will be a message next to that program telling you that the program is not responding. Highlight that program and click the **End Task** button. You will lose any unsaved work in the program, but ending the task will free the rest of the system.

If you are able to make QmodemPro for Windows 95 crash or lock up your computer repeatedly, please convey this information to MSI Technical Support, with as much detail as possible about your system configuration and the exact sequence of keystrokes and operations which led to the lockup.

Call Waiting

Does your phone line have Call Waiting or Call Alert service to inform you of incoming phone calls while you're talking to someone else? The click or beep sound notifying you of an incoming call is often enough to break a modem connection. Find out if your phone company offers "cancel call waiting" service — this is usually accomplished by dialing a special code before placing an outgoing call, and is active for the current call only. You can disable this option by editing either **Edit/Phonebook Entry/Dialing Properties** in the QmodemPro for Windows 95 phonebook or the Windows 95 Control Panel settings. Check the box to toggle the disable option **on**, and choose the appropriate number to dial to disable it.

The Phonebook

The dialing directory, or **Phonebook**, contains information including the system name, telephone numbers, your logon name, password and communication parameters. You can add a note file to each entry, to record more detailed information and comments, and mark and organize entries into groups, for multiple dialing sessions.

Each Phonebook stores 1024 entries, and you can have an unlimited number of Phonebook files. The default phonebook filename is QMWIN.PHN. The filename and path of the current phonebook is printed on the title bar at the top of the Phonebook window.

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[The Connection Property Sheet](#)

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[About modems in QmodemPro for Windows 95](#)

Organizing The Phonebook

Entries may be shown as large or small icons, or in rows with details about each entry displayed across the screen. If you choose to view by large icons, no details will be available in the window. You must switch views to [show details](#). To change the Phonebook view, click the right mouse button on any unused area of the phonebook and select **View**, or choose the **View** menu. Select the view you want to see.

Like the Terminal window, the Phonebook window has a menu bar and a toolbar. You can change the look of QmodemPro for Windows 95 by clicking the right mouse button on the desktop area (between the terminal window and the frame), and selecting **Properties**.

Click the **New** button on the phonebook toolbar to add new directory entries, or click the right mouse button on an unused area of the phonebook and choose **New**. You can also use the **Edit/New** command from the phonebook menu, or press **INS**. To edit an existing entry, click the right mouse button on the entry and select **Properties**, or choose the **Properties** toolbar button, or from the menu select **Edit/Properties**. The **Edit Phonebook Entry** property sheet will pop up, allowing you to edit or add information about the selected Phonebook entry.

QmodemPro for Windows 95 allows you to set the dialing properties for each entry in your Phonebook. To customize dialing on your specific phone system, just start from the phonebook and click the right mouse button on the entry you want to change and select **Properties**. Enter the information for **My Locations**. Click on **OK** when you are satisfied that the information is correct. Following is an example of the Dialing Properties property sheet:

You can use this information to send long distance access code numbers, PBX codes, extension numbers, and more. Note that these can be placed anywhere in the phone number. For instance, if you dial 9 from your PBX to get an outgoing phone line, you may wish to add "9" (dial 9 first).

If you need to enter a phone credit card number after dialing a number, you can store the card number, to save having to type the card number into every phonebook entry.

Do not define a phone number using its alpha representation. A number such as "1800DECDEMO" may be a valid telephone number, but TAPI will not translate the letters into numbers.

Special control characters may also be entered, if necessary.

Connection Property Sheet

The Connections property sheet contains information used to dial phonebook entries.

[System Name](#)

[Primary Number](#)

[Country Code](#)

[Dialing Properties](#)

[Connect Using](#)

Options Property Sheet

The Options property sheet contains values used during connection:

[Emulation](#)

[File Transfer Protocol](#)

[User ID](#)

[Password](#)

[Notes](#)

[Macros](#)

[Script](#)

[RIPIcon](#)

[Dial Retries](#)

[Translate Tables](#)

The Statistics Property Sheet

QmodemPro for Windows 95 keeps track of statistics for each entry in the [Statistics](#) property sheet: the number of calls to a system, plus the date and time of your last call, the number of uploads and downloads. The **Clear** button will reset the statistics for this system to zero.

Recording Your Data

You may wish to keep a temporary or permanent record of your on-line connection. QmodemPro for Windows 95 provides several ways to capture this data: a [Capture File](#), [Scrollback](#), [Screen to](#), [Selection to](#), or a [Log file](#).

The Capture File

The [Capture File](#) saves a record of all characters received to a disk file. As new information appears on the screen, that information is appended to the capture file. If you save your on-line sessions in a capture file, you can go back and refer to them later. This is a handy way to save information as it scrolls across the terminal window, including bulletins, messages and other information to review after you've disconnected from the BBS or on-line service.

To open the Capture File, click on the **Capture** button on the toolbar above the terminal window. A Windows common dialog box will pop up, allowing you to assign a name, directory and drive letter to your capture file. The default for this feature is the name you assign to the capture file.

The Scrollback File

The [Scrollback](#) is very similar to the Capture File, except that your session is recorded in a memory (RAM) buffer instead of a disk file. You can view the Scrollback buffer and save copies on disk of the current screen, or the entire scrollback session.

To activate Scrollback, select **View/Scrollback** or click the **Scrollback** button on the toolbar. When Scrollback is activated, a set of scroll bars appear on the right side of the screen, allowing you to look back over the recorded session.

There is a limit to how much data the scrollback buffer can store in memory during a session, and once that limit is reached, the oldest data is removed to make way for new incoming data. The limit can be set by opening the **Tools/Options/Emulations/Properties/General** property sheet and entering a number for Scrollback.

Screen/Scrollback/Selection to Printer

There are several kinds of data that can be sent to the printer.

Select **Edit/Screen to** and then click on **Printer** to send the contents of the current screen to the printer.

To send the contents of the scrollback area to the printer, choose **Edit/Scrollback to** and then **Printer**.

You can send selected text on the terminal screen to the printer by choosing **Edit/Selection To** and then **Printer**. This can also be done by highlighting your selection, then dragging it to a printer desktop shortcut.

When you choose this method, Print works in the same way as the Capture function, in that the entire on-line session is recorded, in this case to the printer. Click on the **Printer** button on the toolbar or select **File/Printer Toggle** to enable printer toggle and select it again to disable it.

If you need just a quick way to record a specific screen to disk, rather than recording an entire session in the Capture File, use the **Edit/Screen to File** command. An image of the screen will be saved in a disk file. A Windows common dialog box will pop up, allowing you to select the default file name or enter your own.

You can also mark the screen or the section of it that you need and drag the information directly to the desktop, to an open file, or to another open application.

The Log File

The **Log File** is a condensed report of your on-line session. When you set the **File/Log Toggle** ON, the log file records dates, times, names of files uploaded and downloaded, certain internal program events and error messages. The log file also records your disconnect time. A complete list of log file messages is in the Appendix at the end of this book.

Uploading and Downloading

Uploading and Downloading refer to the act of copying a file from one computer to another over a modem connection, using a transfer protocol. When you are sending a file from your computer to another computer, the process is called Uploading. A file is Downloaded when it is sent from another computer to your computer.

[Batch Transfers](#)

[Batch Uploads](#)

[Transfer Protocol](#)

[Using the File Clipboard](#)

[Canceling A Transfer](#)

The Editor

QmodemPro for Windows 95 has a built-in text editor, which can also be used as a standalone program. For more information on the editor, open the editor and activate the help engine.

Click this button {button QMEDITOR,JI('QMEDITOR.HLP','IDH_CONTENTS')} to find out more about the QmodemPro for Windows 95 Editor.

The Picture Viewer

You can use the Picture Viewer to look at graphic files. Select the [Tools](#) menu option, and then **Picture Viewer** to pop up the viewer window. From there, you can select one or more GIF, BMP, or JPEG files to view, either one at a time, or multiple files.

If you have turned on the **View Picture** option in your **Tools/Options/Protocols** setup (from the QmodemPro for Windows 95 main menu), QmodemPro for Windows 95 will automatically open the Picture Viewer when you begin downloading a .GIF, .BMP or .JPG file. If the View Pictures option is turned on, a check will appear beside it. You can view the file as it is downloading. The Picture Viewer allows multiple pictures to be viewed consecutively as they are being downloaded. Use the **Tools/Options** menu choice and select the **Protocols** Sheet to check or change your settings.

Click this button {button QMVIEWER,JI('QMVIEWER.HLP','IDH_CONTENTS')} to find out more about the QmodemPro for Windows 95 Picture Viewer.

Compressed Files

Most on-line services and Bulletin Board Systems compress program and document files in their library to save space on disk and reduce transfer time. These file compression programs analyze the contents of a file, and replace repetitive patterns of characters with simpler patterns, thus making the file smaller. Another function of file compression is to create an envelope containing more than one file inside it.

Since most programs or applications actually consist of several files, this is the most reliable way to ensure that when you download a program or application, you get the complete program, on-line documentation, manuals, information files, and so on.

But before you can actually install and run the program, you will need to uncompress the file. That means you'll need a copy of the same program used to create the compressed file in the first place. Most of these compression programs are shareware or freeware, and can be downloaded from your favorite local BBS or on-line service.

One of the most popular file compression utilities is PKZIP from PKWARE. You can always download the latest version (currently PKZ204G.EXE) of this and other compression utilities, from MSI HQ BBS and most local Bulletin Board Systems. To use this file, copy it to a directory in your Windows 95 path, and run it in that directory by typing

```
PKZ204G [ENTER]
```

This file is a self-extracting archive containing the program, utility, and documentation files you need to use PKZIP and PKUNZIP. Most other compression utilities, such as WinZip or Norton Navigator, work in the same way.

If you need help understanding the use of commands such as COPY and PATH, refer to your Windows 95 manual.

The Scripts Menu

There are several options available in the Scripts menu. Click on one of the topics below or refer to the Scripts section of the online help or your SLIQ Script Guide in your documentation for detailed information.

[QuickLearn](#)

[Execute](#)

[Edit](#)

[Debug](#)

[Compile](#)

[Host Mode](#)

[SERVICES.QSC](#)

Command Line Access

To access a command line prompt, click on the DOS selection of the default macrobar, or select **Start/DOS Prompt** from the Windows 95 taskbar.

Modems

Because [TAPI](#) allows the sharing of COM ports, modems are configured in Windows 95, and placed in a registry. Rather than having to specify all the necessary communication parameters manually, these parameters are associated with a modem. Modems are then associated with Phonebook entries. When you add or edit a phonebook entry in QmodemPro for Windows 95, all you need to do is choose the modem you want to use for that specific phonebook entry.

To choose a modem, go to [File/Dialing Directory/Edit/Properties](#). Click on the down arrow next to the [Connect Using](#) field. A list of available modems will drop down. Click on the modem you want to use, and QmodemPro for Windows 95 takes care of the rest.

Most of the time, the default settings registered in Windows 95 will be correct. If you need to change these settings, simply change the necessary parameters associated with the modem from the **Dialing Directory** menu. Highlight the phonebook entry, select **Edit/Properties**, and edit your **Connect Using** settings. Save your changes, and the work is done!

If you determine that you need to change the default settings for your modem, refer to Chapter 4, Advanced Operations, in your QmodemPro for Windows 95 User Guide for more detailed information.

QuickLearn

Records commands sent to and from the keyboard while on line. This is then compiled and automatically creates a script from the recorded session.

File Menu Options

The File menu in the main terminal screen has several options. These options allow you to open a phonebook, begin downloads and uploads, and toggle recording options on and off. The options opened from the File menu are:

[Dialing Directory](#) This command brings up the Phonebook, or dialing directory.

[Upload](#) Opens an upload dialog box.

[Download](#) Opens a download dialog box.

[Capture](#) Toggles the Capture log on and off.

[Log Toggle](#) Toggles the Session log on and off.

[Log View](#) Opens the Session Log for viewing.

[Printer Toggle](#) Toggles the Printer log on and off.

Edit Menu Options

The Edit Menu allows you to manipulate data on and off screen, saving it to other applications, finding text, and viewing screens from the scrollback feature. The options opened from the Edit menu are:

Copy Copies marked text to the clipboard

Paste Pastes copied text to the cursor location.

Screen to Sends data on the current screen to the clipboard, capture file, a named file, the printer, or a mail message.

Scrollback to Sends data in the scrollback log to the clipboard, capture file, a named file, the printer, or a mail message.

Selection to Sends marked data to the clipboard, capture file, a named file, the printer, or a mail message.

Find Searches for specified text.

View Menu Options

The View Menu controls how your terminal screen looks, and what you can see from it. The following options are available through the View Menu:

Toolbar Toggles the toolbar view on and off.

Macrobar Toggles the macrobar view on and off.

[Statusbar](#) Toggles the statusbar view on and off.

Split Screen Toggles the split-screen view on and off.

[File Clipboard](#) Opens the file clipboard.

Scrollback Toggles the scrollback view on and off.

Scrollback Record Toggles the scrollback record feature on and off.

Clear Scrollback Clears the scrollback buffer.

Connection Menu Options

The Connection Menu gives you the ability to make minor settings corrections and set emulation options. The following options are available through the Connection Menu:

[Emulation](#) Brings up an Emulation Selection dialog box.

Clear Screen Clears the current terminal screen.

Reset Emulation Resets the current emulation to its default settings.

Hangup Sends a hangup command to the remote system, canceling the connection.

Break Sends a break command to the remote system.

Clear Xoff Clears the XOFF flow control.

Full Duplex If this is checked, full duplex is turned **on**.

Add LF to CR If this option is checked, a line feed character is added to carriage returns sent.

8 Bit Strip Toggles the 8th bit strip option on or off. A check mark beside this option indicates that the 8th bit strip feature is turned **on**.

Doorway Mode Turns the doorway mode feature on or off. If this option is checked, the doorway is turned on.

Auto Answer Toggles the Auto Answer option on and off. If this option is checked, AutoAnswer is turned **on**.

[Direct Connection](#) Brings up a Direct Port Connection dialog box. This option allows a direct connection to your modem.

Properties Displays the properties used by the current connection.

Scripts Menu Options

The following options are available through the Scripts Menu command.

[QuickLearn](#) This option toggles the QuickLearn option off and on. This allows Qmodem to “learn” a script by recording an online session.

[Execute](#) Brings up a dialog box allowing you to choose and run a script.

[Edit](#) Brings up a dialog box allowing you to choose and edit a script.

[Compile](#) Brings up a dialog box allowing you to choose and compile a script.

[Debug](#) Brings up a dialog box allowing you to choose and debug a script.

[Host Mode Script](#) Turns the Host Mode on, allowing you to accept remote calls. This is actually a mini-BBS.

Tools Menu Options

Several tools can be accessed and customized through the Tools Menu. The options available from the tools menu are listed below.

[Picture Viewer](#) Opens the graphics file viewer.

[Editor](#) Opens the text editor.

[Customize](#) Allows you to customize the toolbar and macrobar.

[Translate Tables](#) Opens a dialog box allowing you to select various translation tables.

Options Allows you to set options that customizes the look of QmodemPro for Windows 95

Detail View

In the **Detail** view, the first field, Service, is the name of the service — for example, Mustang Software BBS, GENie, etc.

The next group of fields contain information about the service; for instance, the phone number and modem to use for the service, your User ID, the name of a note file associated with the service, the date and time of your last connection, and so on. Use the scroll bars at the bottom of the window to view these fields, or you can resize the fields by holding the mouse at the edge of each field.

When a sizer appears, click the mouse button on the sizer, and drag the field to the size you want.

You can also rearrange the entries in large or small views by dragging them to the location you desire.

You can also rearrange the entries in large or small views by dragging them to the location you desire.

The Script Editor

If you choose the [Scripts/Edit](#) command from the main menu to open the Qmodem Editor, the Editor will open with special features used especially for creating and editing scripts.

The primary differences between the two versions of the Editor deal with scripting manipulation. The Script Editor has a built-in Compiler feature, to allow quick compiling while you are editing.

It also offers a Syntax Highlight option. This option allows you to show specific types of script language (syntax) in user-defined colors. This allows you to visually differentiate syntax at a glance. For a detailed list of these features, refer to Book 2 of the QmodemPro for Windows 95 documentation, the SLIQ guide.

System Name

This is the name of the service you call — for instance “MSI HQ BBS” or “CompuServe”. When you have entered the system name, press your tab key to move to the next field.

You can change the **Icon** associated with the new entry. To see a list of available icons, click **Change Icon**. Some icons are included with QmodemPro for Windows 95. You can also look in other directories for other icons that may be available. Choose the one you want, and press **OK** to accept. This icon will also appear with your entry if you view it from the Windows 95 Explorer or My Computer.

Primary Number

There are five possible entries for telephone numbers. If the system you call has only one telephone number, enter it in the **Primary Number** field. TAPI requires that you add the area code for any country that uses area codes, even for systems in your dialing area. Windows 95 will correctly dial local numbers without using the area code, but the field must be entered in the phonebook.

In rare cases where the alternate number for a phonebook entry may have a different area code, a separate entry must be created for that number. If the alternate dialing numbers all have the same area code, you do not need to make any additional entries.

Country Code

To see a list of available country codes, highlight the **Country Code** section and press the first letter of the country you want. A list of available countries (beginning with that letter) will appear. Or you can click on the down arrow to the right of the dialog box. Select the appropriate country for the entry.

Dialing Properties

Dialing Properties is used to modify Windows 95 settings used to configure alternate dialing locations and any special dialing instructions for each location. It includes support of international dialing and credit card billing numbers.

By selecting **Phonebook/Properties/Edit Dialing Properties**, you can add billing information, special dialing codes, and other information about your phone system.

Connect Using

The **Connect Using** field allows you to select which modem to use for the phonebook entry. QmodemPro for Windows 95 uses modems that are registered in Windows. Click on the **Connect Using** down arrow for a list of registered modems, and select your choice. **Configure** lets you access and modify Windows 95 settings for the modem you've selected.

One field in the **Connect Using** section is **Type**. Choose the type of communication you want to use for the phonebook entry. If you will be calling a BBS, an online service, or another type of data-based connection, choose **Data**. If you want to use the QmodemPro for Windows 95 phonebook to dial a voice line, select **Voice** type. One possible advantage of using QmodemPro for Windows 95 to dial for you is the automatic display dialog box, which shows you the length of your call, allows you to hang up, and can log all the information to a log file.

The **Telnet** connection type should be selected exclusively for telnet connections.

Emulation

Your PC emulates, or imitates, a terminal during a communications session, and many different types of terminals are supported by Windows 95. **Terminal Emulation** controls the way your computer sends, interprets and receives keyboard and video information from the host computer. This option allows you to select the terminal emulation you wish to use for this system. In most cases, the best choice is **ANSI**.

On host systems that support RIP (Remote Imaging Protocol) graphics, try the **RIPscrip** emulation. On mini or mainframe systems, ask the system administrator for guidance on which terminal emulation is best for the applications you want to run.

The following emulations are supported by *QmodemPro for Windows 95*: [ADDS VP60](#), [ADM3A](#), [ANSI](#), [Avatar](#), [Debug ASCII](#), [Debug Hex](#), [DG 100](#), [DG 200](#), [DG 210](#), [Hazeltine 1500](#), [Heath 19](#), [IBM 3101](#), [IBM 3270](#), [RIPscrip](#), [TTY](#), [TVI 910](#), [TVI 912](#), [TVI 922](#), [TVI922](#), [TVI 925](#), [TVI 950](#), [TVI 955](#), [Vidtex](#), [VT 52](#), [VT 100](#), [VT 102](#), [VT 220](#), [VT 320](#), [Wyse 30](#), [Wyse 50](#), [Wyse 60](#), [Wyse 75](#), [Wyse 85](#), [Wyse 100](#), and [Wyse 185](#)

File Transfer Protocol

Select the default **File Transfer Protocol** you wish to use with this system. In almost all cases, the best choice is **Zmodem**. You'll find a more detailed discussion of transfer protocols later on in the QmodemPro for Windows 95 User Guide.

User ID

User ID is the next field. Enter the name or logon ID you use to connect with the service you are calling. The information in this field can be sent with a @USERID macro command. This command is useful when creating logon scripts. See Chapter 4, Advanced Operation for more information on macros.

Password

Enter the password you use to connect with this service. This information stays hidden until you select the [Password](#) field to edit, and your password can be sent with a @PASSWORD macro command. If you store your password here, you can recall it easily during logon with a keyboard macro or a logon script. This saves you the trouble of remembering many different passwords, and providing a measure of security for your on-line activities.

Notes

QmodemPro for Windows 95 allows you to attach a file to a phonebook entry. This is usually a text file, and the same file may be attached to more than one phonebook entry. The name and path of the attached file are stored in this field. You can create your notes using the QmodemPro for Windows 95 Editor, Windows 95 Notepad, or any plain text editor.

QmodemPro for Windows 95 uses the Notes file in a special way. When you attach a note file to a phonebook entry and use the **Find** command on the Phonebook menu to locate and tag entries for dialing, the contents of the note file are searched along with the text in the System, UserID, Password and other text fields for matching text.

Macros

Macros is the name of the Macro file associated with this entry. The Macro file contains a set of macro assignments for the buttons below the terminal window. This option allows you to customize your button bar for each system.

RIP Icons

RIP Icons is the path for RIP (Remote Imaging Protocol) icons associated with this phonebook entry. Bulletin Board Systems making use of the RIPscrip terminal emulation may have their own set of icons, which are stored on your hard drive, and which are displayed automatically when you view the BBS menus and screens.

Dial Retries

Dial Retries tells QmodemPro for Windows 95 how many times to redial an entry if it does not connect on the first call. Set this value to 0 (zero) for continuous dialing until a connection is established, or until you manually abort the redial. To change the number of **Dial Retries**, type the new value into the text box. Use this option with discretion — your local telephone company may have rules limiting the number of times you may dial a number within a certain period.

Scripts

Script is the name of the script file QmodemPro for Windows 95 will execute whenever you dial and connect with this Phonebook entry. If the script file does not exist on disk, QmodemPro for Windows 95 will create one for you automatically if a script name is entered in this field, in [QuickLearn](#) mode. QuickLearn is a feature that allows QmodemPro for Windows 95 to learn a simple script by remembering the keystrokes used in a specific sequence.

Translate Tables

Some terminal emulations use special keymaps and characters. These are generally stored as translation tables to allow an emulation to interact with the host system correctly. [Translate Table](#) allows you to choose translation tables. These are not needed by most users.

QuickLearn

The **QuickLearn** Script Recorder allows QmodemPro for Windows 95 to learn repetitive tasks, such as how to log onto a BBS or Online Service for you. It does this by recording your response to data that comes from the host system, and writing the incoming data and your responses as a simple script, or program.

There are four ways to begin QuickLearning a script. The first is to go to the [Scripts](#) menu and select **QuickLearn**. The second way is to go to the Phonebook, and click on **Properties** for the entry you want to dial. Enter a filename in the Scripts field in the Phonebook entry. The next time you dial this entry, QmodemPro for Windows 95 will automatically record a script file.

The third way to launch QuickLearn is to click on the **Learn** macro available on the default macrobar.

You can also use a toolbar icon to launch QuickLearn, if you have configured the toolbar to include this icon. To add a QuickLearn icon, click **Tools/Customize** and select Toolbar, or click the right mouse button on the toolbar and select Properties. Highlight the QuickLearn option in the Available Buttons section, and double click or click Add to add it to Toolbar Buttons. The icon will be added to the toolbar.

After "learning", many QuickLearn scripts are ready to run without further editing or modification. If your newly-learned script requires editing or debugging, use the [Edit](#), [Compile](#), or [Debug](#) feature of the Scripts menu.

Execute

To start running a script file, use the Execute Script button or the **Scripts/Execute** command. This command allows you to launch a script at any time.

Debug

Once a script has been compiled, loading a script into the debugger allows you remove any runtime errors from your script. You can also use the debugger to correct incorrect syntax.

Compile

Some scripts must be compiled before they can be run. The **Compile** command automatically compiles the script file you request. If there is an error in the script file, the compiler will load the script file into the editing window at the point of error.

Host Mode

Selecting the [Host Mode Script](#) starts the script file that sets up your host mode. The host mode allows other computers to dial in to your machine.

Edit Script

To edit or create existing script files, choose **Edit** and select the script you wish to change. The script will be opened in the Script Editor.

SERVICES.QSC

The QmodemPro for Windows 95 default phonebook provides you with icons for several of the most popular online services, ready to go.

If your favorite online service is not already in the phonebook, or if your phonebook entry was mistakenly removed, you can set up an automatic script file with SERVICES.QSC. This is a special script provided with QmodemPro for Windows 95 that automatically creates phonebook entries with logon scripts for a number of online services. To use this script, select **Scripts** from the QmodemPro for Windows 95 menu bar.

Select Execute, and in the directory dialog box that pops up, select SERVICES.QSC. QmodemPro for Windows 95 will compile the script automatically, and put a dialog box on the screen:

Select the service you would like to add, and fill in the fields in the next dialog box. We will use CompuServe as an example — the others are similar in layout.

Enter your CompuServe User ID or "PIN", your password, and your local CompuServe phone number, if you know it. You can look it up by selecting the **View Numbers** button and searching for your city.

When you have finished filling in the information on the screen, select **OK**. QmodemPro for Windows 95 will create a phonebook entry for you automatically, with an auto-executing script that will log you into your online service.

Batch Transfers

Some file transfer protocols allow you to transfer a batch of files during a single session. These protocols include Ymodem and Zmodem.

Although the exact procedure for starting a batch download on a remote computer varies from one system to another, it generally goes like this: First, select the files you want to download, by marking them or typing their names when prompted. If the remote system does not allow you to mark or tag files, go to the [Download](#) command on the remote system, select a batch transfer protocol (if you haven't selected one already), then type the names of the files you want to download.

You can also use the QmodemPro for Windows 95 [File Clipboard](#) to save filenames to a list as you encounter them on the screen. When viewing long lists of filenames, like the files available for download on your favorite BBS, you can select the files you want without having to copy the filename for each. A **Send** command sends all marked text to the terminal screen.

When your list of files is complete, you are ready to signal the remote computer to begin sending the files. Follow the instructions on the screen carefully.

Batch protocols can, of course, be used to transfer one file at a time. In all cases, you and the remote computer must use the same protocol, or the transfer will most likely fail.

Transfer Protocol

A transfer protocol is a set of signals and responses combined with the data being transferred. Protocols provide error checking and correction, and monitor the progress of the file transfer.

A number of file transfer protocols have been developed for personal computers, but the industry standard is **Zmodem**. This is the popular public domain streaming protocol.

Both Windows 95 and QmodemPro for Windows 95, as well as many BBSs and online services, use Zmodem as the default protocol. Unless you need to use a different protocol, Zmodem should work well for you. It is fast and easy.

Zmodem does not require you to send a command to it to start a download, it's automatic.

Zmodem uses a variable sized block to transfer data over even the noisiest phone lines. Zmodem was designed as a Batch transfer protocol, and is able to send multiple files during a single session without operator intervention.

If an error is detected during a file transfer, Zmodem can tell the sending computer exactly where to restart the transmission.

If you need to use an alternative to Zmodem, other protocols are discussed in the QmodemPro for Windows 95 User Guide.

Batch Uploads

An easy way to create a list of files for a batch upload is to use the Windows Explorer. The Explorer allows you to view the contents of drives and subdirectories, and when it is used with QmodemPro for Windows 95, you can drag and drop files from Explorer right into your Batch Upload window.

If you accidentally drop the files into the upper window, it will be copied to the directory shown in that window. To undo this mistake, click the right mouse button and select **Delete** to remove the file from the directory. You can also grab the files and drag them back, or, if you used Explorer to move the original files, you can choose **Edit/Undo** from the Explorer menu.

Note that the files in the QmodemPro for Windows 95 file list are sorted alphabetically, and also note that you can't add the same file more than once to the upload list.

Canceling a Transfer

You can cancel (abort) a file transfer by clicking the [Cancel](#) button on the Upload or Download Status Dialog Box.

Canceled uploads are handled smoothly — the host system will recognize within a few seconds that the transfer has failed, and you be back where you were before you began the upload.

If you cancel a download, the host system may not immediately recognize the transfer failure, and may continue to send binary text to the screen. Hold down the CTRL key and tap the X key several times to signal the host to cancel the transfer and return to the normal prompt.

MD5

If you have entered your password into the phonebook entry, the next time you connect to that system, you may not be asked for a password. The reason for this is MD5 (RSA Data Security, Inc.'s MD5 Message Digest Algorithm). This is an encryption system that reads your password from the phonebook entry, encrypts it, and sends it automatically to the remote system. On systems that support MD5, the remote system will unencrypt your password, so no password need actually be typed in. This affords a much higher level of security than typing in your password.

ADDS VP60

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (F1)	^B1^M
F2	Function 2 (F2)	^B2^M
F3	Function 3 (F3)	^B3^M
F4	Function 4 (F4)	^B4^M
F5	Function 5 (F5)	^B5^M
F6	Function 6 (F6)	^B6^M
F7	Function 7 (F7)	^B7^M
F8	Function 8 (F8)	^B8^M
Backspace	Backspace	^H
Enter	Return	^M
Gray Insert	Insert Character	^[F
Gray Delete	Delete Character	^[E
Gray Home	Home Cursor	^A
Gray End	Erase End of Line	^[K
Gray Up	Cursor Up	^Z
Gray Down	Cursor Down	^J
Gray Left	Cursor Back	^U
Gray Right	Cursor Forward	^F
Numlock	Cursor Down (Line Feed)	^J
Pad /	Cursor Back	^U
Pad *	Cursor Forward	^F
Pad -	Cursor Up	^Z
Pad Enter	Enter	^M
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Delete Character	^[E
Pad Insert	Insert Character	^[F
Pad End	Erase End of Line	^[K
Pad Down	Cursor Down	^J
Pad Pagedown	3	3
Pad Left	Cursor Back	^U
Pad Clear	5	5
Pad Right	Cursor Forward	^F
Pad Home	Cursor Home	^A
Pad Up	Cursor Up	^Z
Pad Pageup	9	9
Shift+Tab	Back Tab	^[O
Shift+F1	Shift-Function 1 (Shift F1)	^B!^M
Shift+F2	Shift-Function 2 (Shift F2)	^B"^M
Shift+F3	Shift-Function 3 (Shift F3)	^B#^M
Shift+F4	Shift-Function 4 (Shift F4)	^B\$^M

Shift+F5	Shift-Function 5 (Shift F5)	^B%^M
Shift+F6	Shift-Function 6 (Shift F6)	^B&^M
Shift+F7	Shift-Function 7 (Shift F7)	^B'^M
Shift+F8	Shift-Function 8 (Shift F8)	^B(^M
Shift+Enter	Enter	^M
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End	1	1
Shift+Pad Down	2	3
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	7	7
Shift+Pad Up	8	8
Shift+Pad Pageup	9	9
Control+F5	Insert Line	^[M
Control+F6	Delete Line	^[I
Control+F7	Insert Character	^[F
Control+F8	Delete Character	^[E
Control+F9	Erase All (E All)	^[L
Control+F10	Erase End of Field/Line	^[K
Control+Backspace	Ctrl-Backspace	Δ

ADM 3A

QmodemPro Key	Terminal Key	Characters Sent
Tab	Horizontal Tab	^I
Backspace	Backspace	^H
Enter	Enter	^M
Gray Delete	Character Delete	Δ
Gray Home	Cursor Home	^^
Gray End	Erase End of Line	^[K
Gray Up	Cursor Up	^K
Gray Down	Cursor Down	^J
Gray Left	Cursor Left	^H
Gray Right	Cursor Right	^L
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4

Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Character Delete	Δ
Pad End	Erase End of Line	^[K
Pad Down	Cursor Down	^J
Pad Left	Cursor Left	^H
Pad Right	Cursor Right	^L
Pad Home	Cursor Home	^^
Pad Up	Cursor Up	^K
Shift+Enter	Enter	^M
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End	1	1
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	7	7
Shift+Pad Up	8	8
Shift+Pad Pageup	9	9
Control+Backspace	Character Delete	Δ

ANSI

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Program Function 1 (PF1)	^[OP
F2	Program Function 2 (PF2)	^[OQ
F3	Program Function 3 (PF3)	^[OR
F4	Program Function 4 (PF4)	^[OS
Backspace	Backspace	^H
Enter	Return	^M
Gray Delete	Delete Character	Δ
Gray Home	Home Cursor	^[[H
Gray End	Erase End of Line	^[[K
Gray Pageup	Mapped by QmodemPro	@UPLOAD
Gray Pagedown	Mapped by QmodemPro	@DOWNLOAD
Gray Up	Cursor Up	^[[A
Gray Down	Cursor Down	^[[B
Gray Left	Cursor Left	^[[D
Gray Right	Cursor Right	^[[C
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0

Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Delete Character	Δ
Pad End	Erase End of Line	^[[K
Pad Down	Cursor Down	^[[B
Pad Pagedown	Mapped by QmodemPro	@DOWNLOAD
Pad Left	Cursor Left	^[[D
Pad Right	Cursor Right	^[[C
Pad Home	Home Cursor	^[[H
Pad Up	Cursor Up	^[[A
Pad Pageup	Mapped by QmodemPro	@UPLOAD
Shift+Backspace	Delete Character	Δ
Shift+Enter	Enter	^M
Shift+Gray Delete	Delete Character	Δ
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	-
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End	1	1
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	7	7
Shift+Pad Up	8	9
Shift+Pad Pageup	9	9
Control+Backspace	0	^X
Control+Enter	Enter	^M
Control+Gray Home	Insert Line	^[[L
Control+Gray Pageup	Delete Line	^[[M
Control+Gray Pagedown	Clear Screen	^[[H^[[2J
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	Keypad Application MINUS	^[[Om
Control+Pad +	Keypad Application COMMA	^[[OI
Control+Pad Enter	Keypad Application Enter	^[[OM
Control+Pad .	Keypad Application PERIOD	^[[On
Control+Pad 0	Keypad Application 0	^[[Op
Control+Pad 1	Keypad Application 1	^[[Oq
Control+Pad 2	Keypad Application 2	^[[Or
Control+Pad 3	Keypad Application 3	^[[Os
Control+Pad 4	Keypad Application 4	^[[Ot
Control+Pad 5	Keypad Application 5	^[[Ou

Control+Pad 6	Keypad Application 6	^[Ov
Control+Pad 7	Keypad Application 7	^[Ow
Control+Pad 8	Keypad Application 8	^[Ox
Control+Pad 9	Keypad Application 9	^[Oy
Control+Pad Delete	Keypad Application PERIOD	^[On
Control+Pad Insert	Keypad Application 0	^[Op
Control+Pad End	Keypad Application 1	^[Oq
Control+Pad Down	Keypad Application 2	^[Or
Control+Pad Pagedown	Keypad Application 3	^[Os
Control+Pad Left	Keypad Application 4	^[Ot
Control+Pad Clear	Keypad Application 5	^[Ou
Control+Pad Right	Keypad Application 6	^[Ov
Control+Pad Home	Keypad Application 7	^[Ow
Control+Pad Up	Keypad Application 8	^[Ox
Control+Pad Pageup	Keypad Application 9	^[Oy
Shift+Control+Enter	Enter	^M
Shift+Control+Pad Enter	Enter	^M
Shift+Control+Pad Home	Insert Line	^[[L

Avatar

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Program Function 1 (PF1)	^[OP
F2	Program Function 2 (PF2)	^[OQ
F3	Program Function 3 (PF3)	^[OR
F4	Program Function 4 (PF4)	^[OS
Backspace	Backspace	^H
Enter	Enter	^M
Gray Delete	Delete Character	Δ
Gray Home	Home Cursor	^[[H
Gray End	Erase End of Line	^[[K
Gray Pageup	Mapped by QmodemPro	@UPLOAD
Gray Pagedown	Mapped by QmodemPro	@DOWNLOAD
Gray Up	Cursor Up	^[[A
Gray Down	Cursor Down	^[[B
Gray Left	Cursor Left	^[[D
Gray Right	Cursor Right	^[[C
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8

Pad 9	9	9
Pad Delete	Delete Character	Δ
Pad End	Erase End of Line	^[[K
Pad Down	Cursor Down	^[[B
Pad Pagedown	Mapped by QmodemPro	@DOWNLOAD
Pad Left	Cursor Left	^[[D
Pad Right	Cursor Right	^[[C
Pad Home	Home Cursor	^[[H
Pad Up	Cursor Up	^[[A
Pad Pageup	Mapped by QmodemPro	@UPLOAD
Shift+Backspace	Delete Character	Δ
Shift+Enter	Enter	^M
Shift+Gray Delete	Delete Character	Δ
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End	1	1
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	7	7
Shift+Pad Up	8	9
Shift+Pad Pageup	9	9
Control+Backspace	Ctrl-Backspace	^X
Control+Enter	Enter	^M
Control+Gray Home	Insert Line	^[[L
Control+Gray Pageup	Delete Line	^[[M
Control+Gray Pagedown	Clear Screen	^[[H^[[2J
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	Keypad Application MINUS	^[Om
Control+Pad +	Keypad Application COMMA	^[OI
Control+Pad Enter	Keypad Application Enter	^[OM
Control+Pad .	Keypad Application PERIOD	^[On
Control+Pad 0	Keypad Application 0	^[Op
Control+Pad 1	Keypad Application 1	^[Oq
Control+Pad 2	Keypad Application 2	^[Or
Control+Pad 3	Keypad Application 3	^[Os
Control+Pad 4	Keypad Application 4	^[Ot
Control+Pad 5	Keypad Application 5	^[Ou
Control+Pad 6	Keypad Application 6	^[Ov
Control+Pad 7	Keypad Application 7	^[Ow
Control+Pad 8	Keypad Application 8	^[Ox
Control+Pad 9	Keypad Application 9	^[Oy
Control+Pad Delete	Keypad Application PERIOD	^[On
Control+Pad Insert	Keypad Application 0	^[Op
Control+Pad End	Keypad Application 1	^[Oq
Control+Pad Down	Keypad Application 2	^[Or

Control+Pad Pagedown	Keypad Application 3	^[Os
Control+Pad Left	Keypad Application 4	^[Ot
Control+Pad Clear	Keypad Application 5	^[Ou
Control+Pad Right	Keypad Application 6	^[Ov
Control+Pad Home	Keypad Application 7	^[Ow
Control+Pad Up	Keypad Application 8	^[Ox
Control+Pad Pageup	Keypad Application 9	^[Oy
Shift+Control+Enter	Enter	^M
Shift+Control+Pad Enter	Enter	^M
Shift+Control+Pad Home	Insert Line	^[[L

Debug Ascii

This is a custom emulation for debugging connections. It resembles the TTY emulation with the exception that ASCII codes 0-31 and 255 are displayed in mnemonics surrounded by square brackets. The list is as follows:

CODE	MNEMONIC	CODE	MNEMONIC	CODE	MNEMONIC
0	[NUL]	11	[VT]	22	[SYN]
1	[SOH]	12	[FF]	23	[ETB]
2	[STX]	13	[CR]	24	[CAN]
3	[ETX]	14	[SO]	25	[EN]
4	[EOT]	15	[SI]	26	[SUB]
5	[ENQ]	16	[DLE]	27	[ESC]
6	[ACK]	17	[DC1]	28	[FS]
7	[BEL]	18	[DC2]	29	[GS]
8	[BS]	19	[DC3]	30	[RS]
9	[HT]	20	[DC4]	31	[US]
10	[LF]	21	[NAK]	255	[0xFF]

Debug Hex

This is also a custom Emulation for debugging connections. All data received is displayed as hexadecimal numbers between square brackets.

A sample looks like this:

```
[61] [74] [0D] [0A] [4F] [4B] [0D] [0A]
```

The above is the result of typing AT **[Enter]** and the modem responding with "OK".

DG 100

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (Cmd-1)	^^q
F2	Function 2 (Cmd-2)	^^r
F3	Function 3 (Cmd-3)	^^s
F4	Function 4 (Cmd-4)	^^t
F5	Function 5 (Cmd-5)	^^u
F6	Function 6 (Cmd-6)	^^v
F7	Function 7 (Cmd-7)	^^w
F8	Function 8 (Cmd-8)	^^x
F9	Function 9 (Cmd-9)	^^y
F10	Function 10 (Cmd-10)	^^z
Backspace	Carriage Return	^M
Enter	New Line	^J
Gray Delete	Delete	Δ
Gray Home	Home Cursor	^H
Gray Up	Cursor Up	^W
Gray Down	Cursor Down	^Z
Gray Left	Cursor Left	^Y
Gray Right	Cursor Right	^X
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	New Line	^J
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Delete	Δ
Pad Down	Cursor Down	^Z
Pad Left	Cursor Left	^Y
Pad Right	Cursor Right	^X
Pad Home	Home Cursor	^H
Pad Up	Cursor Up	^W
Shift+F1	Shift-Function 1 (Cmd-Shift-1)	^^a
Shift+F2	Shift-Function 2 (Cmd-Shift-2)	^^b
Shift+F3	Shift-Function 3 (Cmd-Shift-3)	^^c
Shift+F4	Shift-Function 4 (Cmd-Shift-4)	^^d
Shift+F5	Shift-Function 5 (Cmd-Shift-5)	^^e
Shift+F6	Shift-Function 6 (Cmd-Shift-6)	^^f
Shift+F7	Shift-Function 7 (Cmd-Shift-7)	^^g
Shift+F8	Shift-Function 8 (Cmd-Shift-8)	^^h
Shift+F9	Shift-Function 9 (Cmd-Shift-9)	^^i

Shift+F10	Shift-Function 10 (Cmd-Shift-10)	^j
Control+Enter	Carriage Return	^M
Control+Pad Enter	Carriage Return	^M
Control+Pad .	Delete	Δ
Control+Pad 2	Cursor Down	^Z
Control+Pad 4	Cursor Left	^Y
Control+Pad 6	Cursor Right	^X
Control+Pad 7	Home Cursor	^H
Control+Pad 8	Cursor Up	^W
Control+Pad Delete	.	.
Control+Pad Insert	0	0
Control+Pad End	1	1
Control+Pad Down	2	2
Control+Pad Pagedown	3	3
Control+Pad Left	4	4
Control+Pad Clear	5	5
Control+Pad Right	6	6
Control+Pad Home	7	7
Control+Pad Up	8	8
Control+Pad Pageup	9	9

DG 200

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1	^^q
F2	Function 2	^^r
F3	Function 3	^^s
F4	Function 4	^^t
F5	Function 5	^^u
F6	Function 6	^^v
F7	Function 7	^^w
F8	Function 8	^^x
F9	Function 9	^^y
F10	Function 10	^^z
Backspace	Carriage Return	^M
Enter	New Line	^J
Gray Delete	Delete	Δ
Gray Home	Home	^H
Gray Up	Cursor Up	^W
Gray Down	Cursor Down	^Z
Gray Left	Cursor Left	^Y
Gray Right	Cursor Right	^X
Pad /	Erase Page	^L
Pad *	*	*
Pad -	Erase End of Line	^K
Pad +	+	+
Pad Enter	New Line	^J
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3

Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Delete	Δ
Pad End	C3	^^^
Pad Down	Cursor Down	^Z
Pad Pagedown	C4	^^_
Pad Left	Cursor Left	^Y
Pad Clear	Home	^H
Pad Right	Cursor Right	^X
Pad Home	C1	^^\
Pad Up	Cursor Up	^W
Pad Pageup	C2	^^]
Shift+F1	Shift-Function 1	^^a
Shift+F2	Shift-Function 2	^^b
Shift+F3	Shift-Function 3	^^c
Shift+F4	Shift-Function 4	^^d
Shift+F5	Shift-Function 5	^^e
Shift+F6	Shift-Function 6	^^f
Shift+F7	Shift-Function 7	^^g
Shift+F8	Shift-Function 8	^^h
Shift+F9	Shift-Function 9	^^i
Shift+F10	Shift-Function 10	^^j
Shift+Gray Up	Shift-Cursor Up	^^^W
Shift+Gray Down	Shift-Cursor Down	^^^Z
Shift+Gray Left	Shift-Cursor Left	^^^Y
Shift+Gray Right	Shift-Cursor Right	^^^X
Shift+Pad End	Shift-C3	^^Z
Shift+Pad Down	Shift-Cursor Down	^^^Z
Shift+Pad Pagedown	Shift-C4	^^[
Shift+Pad Left	Shift-Cursor Left	^^^Y
Shift+Pad Clear	Shift-Home	^^^H
Shift+Pad Right	Shift-Cursor Right	^^^X
Shift+Pad Home	Shift-C1	^^X
Shift+Pad Up	Shift-Cursor Up	^^^W
Shift+Pad Pageup	Shift-C2	^^Y
Control+F1	Ctrl-Function 1	^^1
Control+F2	Ctrl-Function 2	^^2
Control+F3	Ctrl-Function 3	^^3
Control+F4	Ctrl-Function 4	^^4
Control+F5	Ctrl-Function 5	^^5
Control+F6	Ctrl-Function 6	^^6
Control+F7	Ctrl-Function 7	^^7
Control+F8	Ctrl-Function 8	^^8
Control+F9	Ctrl-Function 9	^^9
Control+F10	Ctrl-Function 10	^^:
Control+Enter	Carriage Return	^M
Control+Pad Enter	Carriage Return	^M
Control+Pad .	Delete	Δ
Control+Pad 2	Cursor Down	^Z
Control+Pad 4	Cursor Left	^Y

Control+Pad 6	Cursor Right	^X
Control+Pad 7	Home	^H
Control+Pad 8	Cursor Up	^W
Control+Pad Delete	.	.
Control+Pad Insert	0	0
Control+Pad End	1	1
Control+Pad Down	2	2
Control+Pad Pagedown	3	3
Control+Pad Left	4	4
Control+Pad Clear	5	5
Control+Pad Right	6	6
Control+Pad Home	7	7
Control+Pad Up	8	8
Control+Pad Pageup	9	9
Shift+Control+F1	Shift Ctrl-Function 1	^^!
Shift+Control+F2	Shift Ctrl-Function 2	^^"
Shift+Control+F3	Shift Ctrl-Function 3	^^#
Shift+Control+F4	Shift Ctrl-Function 4	^^\$
Shift+Control+F5	Shift Ctrl-Function 5	^^%
Shift+Control+F6	Shift Ctrl-Function 6	^^&
Shift+Control+F7	Shift Ctrl-Function 7	^^'
Shift+Control+F8	Shift Ctrl-Function 8	^^(
Shift+Control+F9	Shift Ctrl-Function 9	^^)
Shift+Control+F10	Shift Ctrl-Function 10	^^*

DG 210

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1	^^q
F2	Function 2	^^r
F3	Function 3	^^s
F4	Function 4	^^t
F5	Function 5	^^u
F6	Function 6	^^v
F7	Function 7	^^w
F8	Function 8	^^x
F9	Function 9	^^y
F10	Function 10	^^z
Backspace	Carriage Return	^M
Enter	New Line	^J
Gray Delete	Delete	Δ
Gray Home	Home	^H
Gray Up	Cursor Up	^W
Gray Down	Cursor Down	^Z
Gray Left	Cursor Left	^Y
Gray Right	Cursor Right	^X
Pad /	Erase Page	^L
Pad *	*	*
Pad -	Erase End of Line	^K
Pad +	+	+
Pad Enter	New Line	^J
Pad .	.	.

Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Delete	Δ
Pad End	C3	^^^
Pad Down	Cursor Down	^Z
Pad Pagedown	C4	^^_
Pad Left	Cursor Left	^Y
Pad Clear	Home	^H
Pad Right	Cursor Right	^X
Pad Home	C1	^^\
Pad Up	Cursor Up	^W
Pad Pageup	C2	^^]
Shift+F1	Shift-Function 1	^^a
Shift+F2	Shift-Function 2	^^b
Shift+F3	Shift-Function 3	^^c
Shift+F4	Shift-Function 4	^^d
Shift+F5	Shift-Function 5	^^e
Shift+F6	Shift-Function 6	^^f
Shift+F7	Shift-Function 7	^^g
Shift+F8	Shift-Function 8	^^h
Shift+F9	Shift-Function 9	^^i
Shift+F10	Shift-Function 10	^^j
Shift+Gray Up	Shift-Cursor Up	^^^W
Shift+Gray Down	Shift-Cursor Down	^^^Z
Shift+Gray Left	Shift-Cursor Left	^^^Y
Shift+Gray Right	Shift-Cursor Right	^^^X
Shift+Pad End	Shift-C3	^^Z
Shift+Pad Down	Shift-Cursor Down	^^^Z
Shift+Pad Pagedown	Shift-C4	^^[
Shift+Pad Left	Shift-Cursor Left	^^^Y
Shift+Pad Clear	Shift-Home	^^^H
Shift+Pad Right	Shift-Cursor Right	^^^X
Shift+Pad Home	Shift-C1	^^X
Shift+Pad Up	Shift-Cursor Up	^^^W
Shift+Pad Pageup	Shift-C2	^^Y
Control+F1	Ctrl-Function 1	^^1
Control+F2	Ctrl-Function 2	^^2
Control+F3	Ctrl-Function 3	^^3
Control+F4	Ctrl-Function 4	^^4
Control+F5	Ctrl-Function 5	^^5
Control+F6	Ctrl-Function 6	^^6
Control+F7	Ctrl-Function 7	^^7
Control+F8	Ctrl-Function 8	^^8
Control+F9	Ctrl-Function 9	^^9
Control+F10	Ctrl-Function 10	^^:
Control+Enter	Carriage Return	^M

Control+Pad Enter	Carriage Return	^M
Control+Pad .	Delete	Δ
Control+Pad 2	Cursor Down	^Z
Control+Pad 4	Cursor Left	^Y
Control+Pad 6	Cursor Right	^X
Control+Pad 7	Home	^H
Control+Pad 8	Cursor Up	^W
Control+Pad Delete	.	.
Control+Pad Insert	0	0
Control+Pad End	1	1
Control+Pad Down	2	2
Control+Pad Pagedown	3	3
Control+Pad Left	4	4
Control+Pad Clear	5	5
Control+Pad Right	6	6
Control+Pad Home	7	7
Control+Pad Up	8	8
Control+Pad Pageup	9	9
Shift+Control+F1	Shift Ctrl-Function 1	^^!
Shift+Control+F2	Shift Ctrl-Function 2	^^"
Shift+Control+F3	Shift Ctrl-Function 3	^^#
Shift+Control+F4	Shift Ctrl-Function 4	^^\$
Shift+Control+F5	Shift Ctrl-Function 5	^^%
Shift+Control+F6	Shift Ctrl-Function 6	^^&
Shift+Control+F7	Shift Ctrl-Function 7	^^'
Shift+Control+F8	Shift Ctrl-Function 8	^^(
Shift+Control+F9	Shift Ctrl-Function 9	^^)
Shift+Control+F10	Shift Ctrl-Function 10	^^*

Hazeltine 1500

No key substitution performed.

Heath 19

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Program Function 1 (PF1)	^[s
F2	Program Function 2 (PF2)	^[t
F3	Program Function 3 (PF3)	^[u
F4	Program Function 4 (PF4)	^[v
F5	Program Function 5 (PF5)	^[w
F6	Program Function 6 (PF6)	^[P
F7	Program Function 7 (PF7)	^[Q
F8	Program Function 8 (PF8)	^[R
F9	Program Function 9 (PF9)	^[O
F10	Program Function 10 (PF10)	^[1
Backspace	Backspace	^H
Enter	Enter	^M
Gray Delete	Delete Character	Δ
Gray Home	Home Cursor	^[Y_
Gray End	Erase ENd of Line	^[T
Gray Up	Cursor Up	^[A
Gray Down	Cursor Down	^[B
Gray Left	Cursor Left	^[D
Gray Right	Cursor Right	^[C
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Del	Δ
Pad End	Erase End of Line	^[T
Pad Down	Cursor Down	^[B
Pad Left	Cursor Left	^[D
Pad Right	Cursor Right	^[C
Pad Home	Home Cursor	^[Y_
Pad Up	Cursor Up	^[A
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0

Shift+Pad End	1	1
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	7	7
Shift+Pad Up	8	8
Shift+Pad Pageup	9	9
Control+Backspace	Del	Δ
Control+Gray Home	Insert Line	^[L
Control+Gray Pageup	Delete Line	^[M
Control+Gray Pagedown	Clear Screen	^[E
Control+Pad Pagedown	Clear Screen	^[E
Control+Pad Home	Insert Line	^[L
Control+Pad Pageup	Delete Line	^[M

IBM 3101

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	PF1	^[a^M
F2	PF2	^[b^M
F3	PF3	^[c^M
F4	PF4	^[d^M
F5	PF5	^[e^M
F6	PF6	^[f^M
F7	PF7	^[g^M
F8	PF8	^[h^M
Backspace	Backspace	^H
Enter	Enter	^M
Gray Home	Cursor Home	^[H
Gray End	Erase Input	^[K
Gray Up	Cursor Up	^[A
Gray Down	Cursor Down	^[B
Gray Left	Cursor Left	^[D
Gray Right	Cursor Right	^[C
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9

Pad End	Erase Input	^[K
Pad Down	Cursor Down	^[B
Pad Left	Cursor Left	^[D
Pad Right	Cursor Right	^[C
Pad Home	Home Cursor	^[H
Pad Up	Cursor Up	^[A
Shift+F1	Erase EOL/EOF	^[I
Shift+F2	Erase Input	^[K
Shift+F3	Erase EOS	^[J
Shift+F4	Clear	^[L
Shift+Enter	Enter	^M
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End	1	1
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	7	7
Shift+Pad Up	8	8
Shift+Pad Pageup	9	9
Control+Backspace	Delete Character	Δ
Control+Gray Home	Clear	^[L
Control+Gray End	Erase EOL/EOF	^[I
Control+Gray Pagedown	Erase EOS	^[J
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	-	-
Control+Pad +	+	+
Control+Pad .	.	.
Control+Pad 1	PF1	^[a^M
Control+Pad 2	PF2	^[b^M
Control+Pad 3	PF3	^[c^M
Control+Pad 4	PF4	^[d^M
Control+Pad 5	PF5	^[e^M
Control+Pad 6	PF6	^[f^M
Control+Pad 7	PF7	^[g^M
Control+Pad 8	PF8	^[h^M
Control+Pad End	Erase EOL/EOF	^[I
Control+Pad Pagedown	Erase EOS	^[J
Control+Pad Home	Clear	^[L

RIPscrip

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Program Function 1 (PF1)	^[OP

F2	Program Function 2 (PF2)	^[OQ
F3	Program Function 3 (PF3)	^[OR
F4	Program Function 4 (PF4)	^[OS
Backspace	Backspace	^H
Enter	Return	^M
Gray Delete	Delete Character	Δ
Gray Home	Home Cursor	^[[H
Gray End	Erase End of Line	^[[K
Gray Pageup	Mapped by QmodemPro	@UPLOAD
Gray Pagedown	Mapped by QmodemPro	@DOWNLOAD
Gray Up	Cursor Up	^[[A
Gray Down	Cursor Down	^[[B
Gray Left	Cursor Left	^[[D
Gray Right	Cursor Right	^[[C
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Delete Character	Δ
Pad End	Erase End of Line	^[[K
Pad Down	Cursor Down	^[[B
Pad Pagedown	Mapped by QmodemPro	@DOWNLOAD
Pad Left	Cursor Left	^[[D
Pad Right	Cursor Right	^[[C
Pad Home	Home Cursor	^[[H
Pad Up	Cursor Up	^[[A
Pad Pageup	Mapped by QmodemPro	@UPLOAD
Shift+Backspace	Delete Character	Δ
Shift+Enter	Enter	^M
Shift+Gray Delete	Delete Character	Δ
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	-
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End	1	1
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5

Shift+Pad Right	6	6
Shift+Pad Home	7	7
Shift+Pad Up	8	9
Shift+Pad Pageup	9	9
Control+Backspace	0	^X
Control+Enter	Enter	^M
Control+Gray Home	Insert Line	^[[L
Control+Gray Pageup	Delete Line	^[[M
Control+Gray Pagedown	Clear Screen	^[[H^[[2J
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	Keypad Application MINUS	^[Om
Control+Pad +	Keypad Application COMMA	^[OI
Control+Pad Enter	Keypad Application Enter	^[OM
Control+Pad .	Keypad Application PERIOD	^[On
Control+Pad 0	Keypad Application 0	^[Op
Control+Pad 1	Keypad Application 1	^[Oq
Control+Pad 2	Keypad Application 2	^[Or
Control+Pad 3	Keypad Application 3	^[Os
Control+Pad 4	Keypad Application 4	^[Ot
Control+Pad 5	Keypad Application 5	^[Ou
Control+Pad 6	Keypad Application 6	^[Ov
Control+Pad 7	Keypad Application 7	^[Ow
Control+Pad 8	Keypad Application 8	^[Ox
Control+Pad 9	Keypad Application 9	^[Oy
Control+Pad Delete	Keypad Application PERIOD	^[On
Control+Pad Insert	Keypad Application 0	^[Op
Control+Pad End	Keypad Application 1	^[Oq
Control+Pad Down	Keypad Application 2	^[Or
Control+Pad Pagedown	Keypad Application 3	^[Os
Control+Pad Left	Keypad Application 4	^[Ot
Control+Pad Clear	Keypad Application 5	^[Ou
Control+Pad Right	Keypad Application 6	^[Ov
Control+Pad Home	Keypad Application 7	^[Ow
Control+Pad Up	Keypad Application 8	^[Ox
Control+Pad Pageup	Keypad Application 9	^[Oy
Shift+Control+Enter	Enter	^M
Shift+Control+Pad Enter	Enter	^M
Shift+Control+Pad Home	Insert Line	^[[L

TTY

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
Backspace	Backspace	^H
Enter	Enter	^M
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0

Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9

TVI 910

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (F1)	^A@^M
F2	Function 2 (F2)	^AA^M
F3	Function 3 (F3)	^AB^M
F4	Function 4 (F4)	^AC^M
F5	Function 5 (F5)	^AD^M
F6	Function 6 (F6)	^AE^M
F7	Function 7 (F7)	^AF^M
F8	Function 8 (F8)	^AG^M
F9	Function 9 (F9)	^AH^M
F10	Function 10 (F10)	^AI^M
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Character Insert	^[Q
Gray Delete	Character Delete	^[W
Gray Home	Home Cursor	^^
Gray End	Erase End of Line	^[T
Gray Up	Cursor Up	^K
Gray Down	Cursor Down	^V
Gray Left	Cursor Left	^H
Gray Right	Cursor Right	^L
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Character Delete	^[W
Pad Insert	Character Insert	^[Q
Pad End	Erase End of Line	^[T

Pad Down	Cursor Down	^V
Pad Left	Cursor Left	^H
Pad Right	Cursor Right	^L
Pad Home	Home Cursor	^^
Pad Up	Cursor Up	^K
Shift+Tab	Back Tab	^[I
Shift+F1	Function 12 (F12)	^A^M
Shift+F2	Function 13 (F13)	^Aa^M
Shift+F3	Function 14 (F14)	^Ab^M
Shift+F4	Function 15 (F15)	^Ac^M
Shift+F5	Function 16 (F16)	^Ad^M
Shift+F6	Function 17 (F17)	^Ae^M
Shift+F7	Function 18 (F18)	^Af^M
Shift+F8	Function 19 (F19)	^Ag^M
Shift+F9	Function 20(F20)	^Ah^M
Shift+F10	Function 21 (F21)	^Ai^M
Shift+Gray Delete	Line Delete	^[R
Shift+Gray Home	Clear Page	^{[
Shift+Gray End	Erase End of Page	^[Y
Shift+Gray Pageup	Line Insert	^[E
Shift+Gray Up	Shift Cursor Up	^[j
Shift+Gray Down	Shift Cursor Down	^[J
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End		^[Y
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	Clear Page	^{[
Shift+Pad Up	8	8
Shift+Pad Pageup	9	9
Control+F7	Character Insert	^[Q
Control+F8	Character Delete	^[W
Control+F9	Line Insert	^[E
Control+F10	Line Delete	^[R
Control+Backspace	Delete Character	^Δ
Control+Gray Delete	Shift Character Delete	^[r
Control+Gray Home	Clear All	^Z
Control+Pad Delete	Line Delete	^[R
Control+Pad Insert	Line Insert	^[E
Control+Pad Home	Clear All	^Z
Shift+Control+F7	Shift Character Insert	^[q
Shift+Control+F8	Shift Character Delete	^[r
Shift+Control+F9	Shift Line Insert	^[N
Shift+Control+F10	Shift Line Delete	^[O
Shift+Control+Pad End	1	1
Shift+Control+Pad Home	7	7

TVI 912

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (F1)	^A@^M
F2	Function 2 (F2)	^AA^M
F3	Function 3 (F3)	^AB^M
F4	Function 4 (F4)	^AC^M
F5	Function 5 (F5)	^AD^M
F6	Function 6 (F6)	^AE^M
F7	Function 7 (F7)	^AF^M
F8	Function 8 (F8)	^AG^M
F9	Function 9 (F9)	^AH^M
F10	Function 10 (F10)	^AI^M
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Character Insert	^[Q
Gray Delete	Character Delete	^[W
Gray Home	Home Cursor	^^
Gray End	Erase End of Line	^[T
Gray Up	Cursor Up	^K
Gray Down	Cursor Down	^V
Gray Left	Cursor Left	^H
Gray Right	Cursor Right	^L
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Character Delete	^[W
Pad Insert	Character Insert	^[Q
Pad End	Erase End of Line	^[T
Pad Down	Cursor Down	^V
Pad Left	Cursor Left	^H
Pad Right	Cursor Right	^L
Pad Home	Home Cursor	^^
Pad Up	Cursor Up	^K
Shift+Tab	Back Tab	^[I
Shift+F1	Function 12 (F12)	^A^M
Shift+F2	Function 13 (F13)	^Aa^M
Shift+F3	Function 14 (F14)	^Ab^M

Shift+F4	Function 15 (F15)	^Ac^M
Shift+F5	Function 16 (F16)	^Ad^M
Shift+F6	Function 17 (F17)	^Ae^M
Shift+F7	Function 18 (F18)	^Af^M
Shift+F8	Function 19 (F19)	^Ag^M
Shift+F9	Function 20(F20)	^Ah^M
Shift+F10	Function 21 (F21)	^Ai^M
Shift+Gray Delete	Line Delete	^[R
Shift+Gray Home	Clear Page	^[{
Shift+Gray End	Erase End of Page	^[Y
Shift+Gray Pageup	Line Insert	^[E
Shift+Gray Up	Shift Cursor Up	^[j
Shift+Gray Down	Shift Cursor Down	^[J
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End		^[Y
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	Clear Page	^[{
Shift+Pad Up	8	8
Shift+Pad Pageup	9	9
Control+F7	Character Insert	^[Q
Control+F8	Character Delete	^[W
Control+F9	Line Insert	^[E
Control+F10	Line Delete	^[R
Control+Backspace	Delete Character	^P
Control+Gray Delete	Shift Character Delete	^[r
Control+Gray Home	Clear All	^Z
Control+Pad Delete	Line Delete	^[R
Control+Pad Insert	Line Insert	^[E
Control+Pad Home	Clear All	^Z
Shift+Control+F7	Shift Character Insert	^[q
Shift+Control+F8	Shift Character Delete	^[r
Shift+Control+F9	Shift Line Insert	^[N
Shift+Control+F10	Shift Line Delete	^[O
Shift+Control+Pad End	1	1
Shift+Control+Pad Home	7	7

TVI 920

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (F1)	^A@^M
F2	Function 2 (F2)	^AA^M
F3	Function 3 (F3)	^AB^M

F4	Function 4 (F4)	^AC^M
F5	Function 5 (F5)	^AD^M
F6	Function 6 (F6)	^AE^M
F7	Function 7 (F7)	^AF^M
F8	Function 8 (F8)	^AG^M
F9	Function 9 (F9)	^AH^M
F10	Function 10 (F10)	^AI^M
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Character Insert	^[Q
Gray Delete	Character Delete	^[W
Gray Home	Home Cursor	^^
Gray End	Erase End of Line	^[T
Gray Up	Cursor Up	^K
Gray Down	Cursor Down	^V
Gray Left	Cursor Left	^H
Gray Right	Cursor Right	^L
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Character Delete	^[W
Pad Insert	Character Insert	^[Q
Pad End	Erase End of Line	^[T
Pad Down	Cursor Down	^V
Pad Left	Cursor Left	^H
Pad Right	Cursor Right	^L
Pad Home	Home Cursor	^^
Pad Up	Cursor Up	^K
Shift+Tab	Back Tab	^[I
Shift+F1	Function 12 (F12)	^A^M
Shift+F2	Function 13 (F13)	^Aa^M
Shift+F3	Function 14 (F14)	^Ab^M
Shift+F4	Function 15 (F15)	^Ac^M
Shift+F5	Function 16 (F16)	^Ad^M
Shift+F6	Function 17 (F17)	^Ae^M
Shift+F7	Function 18 (F18)	^Af^M
Shift+F8	Function 19 (F19)	^Ag^M
Shift+F9	Function 20(F20)	^Ah^M
Shift+F10	Function 21 (F21)	^Ai^M
Shift+Gray Delete	Line Delete	^[R
Shift+Gray Home	Clear Page	^[{

Shift+Gray End	Erase End of Page	^[Y
Shift+Gray Pageup	Line Insert	^[E
Shift+Gray Up	Shift Cursor Up	^[j
Shift+Gray Down	Shift Cursor Down	^[J
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End		^[Y
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	Clear Page	^[{
Shift+Pad Up	8	8
Shift+Pad Pageup	9	9
Control+F7	Character Insert	^[Q
Control+F8	Character Delete	^[W
Control+F9	Line Insert	^[E
Control+F10	Line Delete	^[R
Control+Backspace	Delete Character	^Δ
Control+Gray Delete	Shift Character Delete	^[r
Control+Gray Home	Clear All	^Z
Control+Pad Delete	Line Delete	^[R
Control+Pad Insert	Line Insert	^[E
Control+Pad Home	Clear All	^Z
Shift+Control+F7	Shift Character Insert	^[q
Shift+Control+F8	Shift Character Delete	^[r
Shift+Control+F9	Shift Line Insert	^[N
Shift+Control+F10	Shift Line Delete	^[O
Shift+Control+Pad End	1	1
Shift+Control+Pad Home	7	7

TVI 922

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	PF1	^[OP
F2	PF2	^[OQ
F3	PF3	^[OR
F4	PF4	^[OS
F6	F6	^[[17~
F7	F7	^[[18~
F8	F8	^[[19~
F9	F9	^[[20~
F10	F10	^[[21~
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Insert Here	^[[2~

Gray Delete	Remove	^[[3~
Gray Home	Find	^[[1~
Gray End	Select	^[[4~
Gray Pageup	Prev Screen	^[[5~
Gray Pagedown	Next Screen	^[[6~
Gray Up	Cursor Up	^[[A
Gray Down	Cursor Down	^[[B
Gray Left	Cursor Left	^[[D
Gray Right	Cursor Right	^[[C
Numlock	PF1	^[[OP
Pad /	PF2	^[[OQ
Pad *	PF3	^[[OR
Pad -	PF4	^[[OS
Pad +	Keypad MINUS	-
Pad Enter	Enter	^M
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	.	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	6	6
Pad Home	7	7
Pad Up	8	8
Pad Pageup	9	9
Shift+F1	F11	^[[23~
Shift+F2	F12	^[[24~
Shift+F3	F13	^[[25~
Shift+F4	F14	^[[26~
Shift+F5	Help	^[[28~
Shift+F6	Do	^[[29~
Shift+F7	F17	^[[31~
Shift+F8	F18	^[[32~
Shift+F9	F19	^[[33~
Shift+F10	F20	^[[34~
Shift+Gray Delete	Delete	Δ
Shift+Gray Home	Home Cursor	^[[H
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Delete	Delete	Δ
Shift+Pad End	Erase End of Line	^[[K

Shift+Pad Down	Cursor Down	^[[B
Shift+Pad Pagedown	Clear Screen	^[[H^[[2J
Shift+Pad Left	Cursor Left	^[[D
Shift+Pad Right	Cursor Right	^[[C
Shift+Pad Home	Home Cursor	^[[H
Shift+Pad Up	Cursor Up	^[[A
Shift+Pad Pageup	Delete Line	^[[M
Control+F6	Shifted F6	^[[37~
Control+F7	Shifted F7	^[[38~
Control+F8	Shifted F8	^[[39~
Control+F9	Shifted F9	^[[40~
Control+F10	Shifted F10	^[[41~
Control+Backspace	Delete	Δ
Control+Gray Insert	Insert Line	^[[L
Control+Gray Delete	Delete Line	^[[M
Control+Gray End	Erase End of Line	^[[K
Control+Gray Pagedown	Clear Screen	^[[H^[[2J
Control+Gray Up	Application Cursor Up	^[[OA
Control+Gray Down	Application Cursor Down	^[[OB
Control+Gray Left	Application Cursor Left	^[[OD
Control+Gray Right	Application Cursor Right	^[[OC
Control+Pad /	Keypad Application 00	^[[Oo
Control+Pad -	Keypad Application MINUS	^[[Om
Control+Pad +	Keypad Application COMMA	^[[OI
Control+Pad Enter	Keypad Application Enter	^[[OM
Control+Pad .	Keypad Application PERIOD	^[[On
Control+Pad 0	Keypad Application 0	^[[Op
Control+Pad 1	Keypad Application 1	^[[Oq
Control+Pad 2	Keypad Application 2	^[[Or
Control+Pad 3	Keypad Application 3	^[[Os
Control+Pad 4	Keypad Application 4	^[[Ot
Control+Pad 5	Keypad Application 5	^[[Ou
Control+Pad 6	Keypad Application 6	^[[Ov
Control+Pad 7	Keypad Application 7	^[[Ow
Control+Pad 8	Keypad Application 8	^[[Ox
Control+Pad 9	Keypad Application 9	^[[Oy
Control+Pad Delete	Keypad Application PERIOD	^[[On
Control+Pad Insert	Keypad Application 0	^[[Op
Control+Pad End	Keypad Application 1	^[[Oq
Control+Pad Down	Keypad Application 2	^[[Or
Control+Pad Pagedown	Keypad Application 3	^[[Os
Control+Pad Left	Keypad Application 5	^[[Ot
Control+Pad Clear	Keypad Application 6	^[[Ou
Control+Pad Right	Keypad Application 7	^[[Ov
Control+Pad Home	Keypad Application 8	^[[Ow
Control+Pad Up	Keypad Application 9	^[[Ox
Control+Pad Pageup	Keypad Application 0	^[[Oy
Shift+Control+F1	Shifted F6	^[[43~
Shift+Control+F2	Shifted F7	^[[44~
Shift+Control+F3	Shifted F8	^[[45~
Shift+Control+F4	Shifted F9	^[[46~
Shift+Control+F5	Shifted Help	^[[48~
Shift+Control+F6	Shifted Do	^[[49~
Shift+Control+F7	Shifted F17	^[[51~

Shift+Control+F8	Shifted F18	^[52~
Shift+Control+F9	Shifted F19	^[53~
Shift+Control+F10	Shifted F20	^[54~
Shift+Control+Pad Down	Application Cursor Down	^[OB
Shift+Control+Pad Left	Application Cursor Left	^[OD
Shift+Control+Pad Right	Application Cursor Right	^[OC
Shift+Control+Pad Home	Insert Line	^[[L
Shift+Control+Pad Up	Application Cursor Up	^[OA

TVI 925

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (F1)	^A@^M
F2	Function 2 (F2)	^AA^M
F3	Function 3 (F3)	^AB^M
F4	Function 4 (F4)	^AC^M
F5	Function 5 (F5)	^AD^M
F6	Function 6 (F6)	^AE^M
F7	Function 7 (F7)	^AF^M
F8	Function 8 (F8)	^AG^M
F9	Function 9 (F9)	^AH^M
F10	Function 10 (F10)	^AI^M
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Character Insert	^[Q
Gray Delete	Character Delete	^[W
Gray Home	Home Cursor	^^
Gray End	Erase End of Line	^[T
Gray Up	Cursor Up	^K
Gray Down	Cursor Down	^V
Gray Left	Cursor Left	^H
Gray Right	Cursor Right	^L
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Character Delete	^[W
Pad Insert	Character Insert	^[Q
Pad End	Erase End of Line	^[T
Pad Down	Cursor Down	^V

Pad Left	Cursor Left	^H
Pad Right	Cursor Right	^L
Pad Home	Home Cursor	^^
Pad Up	Cursor Up	^K
Shift+Tab	Back Tab	^[I
Shift+F1	Function 12 (F12)	^A^M
Shift+F2	Function 13 (F13)	^Aa^M
Shift+F3	Function 14 (F14)	^Ab^M
Shift+F4	Function 15 (F15)	^Ac^M
Shift+F5	Function 16 (F16)	^Ad^M
Shift+F6	Function 17 (F17)	^Ae^M
Shift+F7	Function 18 (F18)	^Af^M
Shift+F8	Function 19 (F19)	^Ag^M
Shift+F9	Function 20(F20)	^Ah^M
Shift+F10	Function 21 (F21)	^Ai^M
Shift+Gray Delete	Line Delete	^[R
Shift+Gray Home	Clear Page	^{[
Shift+Gray End	Erase End of Page	^[Y
Shift+Gray Pageup	Line Insert	^[E
Shift+Gray Up	Shift Cursor Up	^[j
Shift+Gray Down	Shift Cursor Down	^[J
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End		^[Y
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	Clear Page	^{[
Shift+Pad Up	8	8
Shift+Pad Pageup	9	9
Control+F7	Character Insert	^[Q
Control+F8	Character Delete	^[W
Control+F9	Line Insert	^[E
Control+F10	Line Delete	^[R
Control+Backspace	Delete Character	^Δ
Control+Gray Delete	Shift Character Delete	^[r
Control+Gray Home	Clear All	^Z
Control+Pad Delete	Line Delete	^[R
Control+Pad Insert	Line Insert	^[E
Control+Pad Home	Clear All	^Z
Shift+Control+F7	Shift Character Insert	^[q
Shift+Control+F8	Shift Character Delete	^[r
Shift+Control+F9	Shift Line Insert	^[N
Shift+Control+F10	Shift Line Delete	^[O
Shift+Control+Pad End	1	1
Shift+Control+Pad Home	7	7

TVI 950

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (F1)	^A@^M
F2	Function 2 (F2)	^AA^M
F3	Function 3 (F3)	^AB^M
F4	Function 4 (F4)	^AC^M
F5	Function 5 (F5)	^AD^M
F6	Function 6 (F6)	^AE^M
F7	Function 7 (F7)	^AF^M
F8	Function 8 (F8)	^AG^M
F9	Function 9 (F9)	^AH^M
F10	Function 10 (F10)	^AI^M
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Character Insert	^[Q
Gray Delete	Character Delete	^[W
Gray Home	Home Cursor	^^
Gray End	Erase End of Line	^[T
Gray Up	Cursor Up	^K
Gray Down	Cursor Down	^V
Gray Left	Cursor Left	^H
Gray Right	Cursor Right	^L
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Character Delete	^[W
Pad Insert	Character Insert	^[Q
Pad End	Erase End of Line	^[T
Pad Down	Cursor Down	^V
Pad Left	Cursor Left	^H
Pad Right	Cursor Right	^L
Pad Home	Home Cursor	^^
Pad Up	Cursor Up	^K
Shift+Tab	Back Tab	^[I
Shift+F1	Function 12 (F12)	^A^M
Shift+F2	Function 13 (F13)	^Aa^M
Shift+F3	Function 14 (F14)	^Ab^M
Shift+F4	Function 15 (F15)	^Ac^M

Shift+F5	Function 16 (F16)	^Ad^M
Shift+F6	Function 17 (F17)	^Ae^M
Shift+F7	Function 18 (F18)	^Af^M
Shift+F8	Function 19 (F19)	^Ag^M
Shift+F9	Function 20(F20)	^Ah^M
Shift+F10	Function 21 (F21)	^Ai^M
Shift+Gray Delete	Line Delete	^[R
Shift+Gray Home	Clear Page	^[{
Shift+Gray End	Erase End of Page	^[Y
Shift+Gray Pageup	Line Insert	^[E
Shift+Gray Up	Shift Cursor Up	^[j
Shift+Gray Down	Shift Cursor Down	^[J
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End		^[Y
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	Clear Page	^[{
Shift+Pad Up	8	8
Shift+Pad Pageup	9	9
Control+F7	Character Insert	^[Q
Control+F8	Character Delete	^[W
Control+F9	Line Insert	^[E
Control+F10	Line Delete	^[R
Control+Backspace	Delete Character	^P
Control+Gray Delete	Shift Character Delete	^[r
Control+Gray Home	Clear All	^Z
Control+Pad Delete	Line Delete	^[R
Control+Pad Insert	Line Insert	^[E
Control+Pad Home	Clear All	^Z
Shift+Control+F7	Shift Character Insert	^[q
Shift+Control+F8	Shift Character Delete	^[r
Shift+Control+F9	Shift Line Insert	^[N
Shift+Control+F10	Shift Line Delete	^[O
Shift+Control+Pad End	1	1
Shift+Control+Pad Home	7	7

TVI 955

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (F1)	^A@^M
F2	Function 2 (F2)	^AA^M
F3	Function 3 (F3)	^AB^M
F4	Function 4 (F4)	^AC^M

F5	Function 5 (F5)	^AD^M
F6	Function 6 (F6)	^AE^M
F7	Function 7 (F7)	^AF^M
F8	Function 8 (F8)	^AG^M
F9	Function 9 (F9)	^AH^M
F10	Function 10 (F10)	^AI^M
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Character Insert	^[Q
Gray Delete	Character Delete	^[W
Gray Home	Home Cursor	^^
Gray End	Erase End of Line	^[T
Gray Up	Cursor Up	^K
Gray Down	Cursor Down	^V
Gray Left	Cursor Left	^H
Gray Right	Cursor Right	^L
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Character Delete	^[W
Pad Insert	Character Insert	^[Q
Pad End	Erase End of Line	^[T
Pad Down	Cursor Down	^V
Pad Left	Cursor Left	^H
Pad Right	Cursor Right	^L
Pad Home	Home Cursor	^^
Pad Up	Cursor Up	^K
Shift+Tab	Back Tab	^[I
Shift+F1	Function 12 (F12)	^A^M
Shift+F2	Function 13 (F13)	^Aa^M
Shift+F3	Function 14 (F14)	^Ab^M
Shift+F4	Function 15 (F15)	^Ac^M
Shift+F5	Function 16 (F16)	^Ad^M
Shift+F6	Function 17 (F17)	^Ae^M
Shift+F7	Function 18 (F18)	^Af^M
Shift+F8	Function 19 (F19)	^Ag^M
Shift+F9	Function 20(F20)	^Ah^M
Shift+F10	Function 21 (F21)	^Ai^M
Shift+Gray Delete	Line Delete	^[R
Shift+Gray Home	Clear Page	^[{
Shift+Gray End	Erase End of Page	^[Y

Shift+Gray Pageup	Line Insert	^[E
Shift+Gray Up	Shift Cursor Up	^[j
Shift+Gray Down	Shift Cursor Down	^[J
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End		^[Y
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	Clear Page	^[{
Shift+Pad Up	8	8
Shift+Pad Pageup	9	9
Control+F7	Character Insert	^[Q
Control+F8	Character Delete	^[W
Control+F9	Line Insert	^[E
Control+F10	Line Delete	^[R
Control+Backspace	Delete Character	^Δ
Control+Gray Delete	Shift Character Delete	^[r
Control+Gray Home	Clear All	^Z
Control+Pad Delete	Line Delete	^[R
Control+Pad Insert	Line Insert	^[E
Control+Pad Home	Clear All	^Z
Shift+Control+F7	Shift Character Insert	^[q
Shift+Control+F8	Shift Character Delete	^[r
Shift+Control+F9	Shift Line Insert	^[N
Shift+Control+F10	Shift Line Delete	^[O
Shift+Control+Pad End	1	1
Shift+Control+Pad Home	7	7

Vidtex

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Program Function 1 (PF1)	^[P
F2	Program Function 2 (PF2)	^[Q
F3	Program Function 3 (PF3)	^[R
F4	Program Function 4 (PF4)	^[S
Backspace	Horizontal Backspace	^H
Enter	Enter	^M
Gray Delete	Character Delete	^Δ
Gray Home	Home Cursor	^[H
Gray End	Erase End of Line	^[K
Gray Up	Cursor Up	^[A
Gray Down	Cursor Down	^[B
Gray Left	Cursor Left	^[D
Gray Right	Cursor Right	^[C

Numlock	Program Function 1 (PF1)	^[P
Pad /	Program Function 2 (PF2)	^[Q
Pad *	Program Function 3 (PF3)	^[R
Pad -	Program Function 4 (PF4)	^[S
Pad +	Keypad COMMA	,
Pad Enter	Enter	^M
Pad .	Keypad PERIOD	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Keypad PERIOD	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	6	6
Pad Home	7	7
Pad Up	8	8
Pad Pageup	9	9
Shift+Enter	Enter	^M
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	Keypad MINUS	-
Shift+Pad +	Keypad MINUS	-
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	Character Delete	Δ
Shift+Pad End	Delete End of Line	^[K
Shift+Pad Down	Cursor Down	^[B
Shift+Pad Pagedown	Clear Screen	^[H^[J
Shift+Pad Left	Cursor Left	^[D
Shift+Pad Right	Cursor Right	^[C
Shift+Pad Home	Home Cursor	^[H
Shift+Pad Up	Cursor Up	^[A
Shift+Pad Pageup	Delete Line	^[M
Control+Backspace	Character Delete	Δ
Control+Enter	Enter	^M
Control+Gray End	Erase End of Page	^[J
Control+Gray Pageup	Delete Line	^[M
Control+Gray Pagedown	Clear Screen	^[H^[J
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	Keypad Application MINUS	^[?m
Control+Pad +	Keypad Application COMMA	^[?l
Control+Pad Enter	Keypad Application Enter	^[?M
Control+Pad .	Keypad Application PERIOD	^[?n

Control+Pad 0	Keypad Application 0	^[?p
Control+Pad 1	Keypad Application 1	^[?q
Control+Pad 2	Keypad Application 2	^[?r
Control+Pad 3	Keypad Application 3	^[?s
Control+Pad 4	Keypad Application 4	^[?t
Control+Pad 5	Keypad Application 5	^[?u
Control+Pad 6	Keypad Application 6	^[?v
Control+Pad 7	Keypad Application 7	^[?w
Control+Pad 8	Keypad Application 8	^[?x
Control+Pad 9	Keypad Application 9	^[?y
Control+Pad Delete	Keypad Application PERIOD	^[?n
Control+Pad Insert	Keypad Application 0	^[?p
Control+Pad End	Keypad Application 1	^[?q
Control+Pad Down	Keypad Application 2	^[?r
Control+Pad Pagedown	Keypad Application 3	^[?s
Control+Pad Left	Keypad Application 4	^[?t
Control+Pad Clear	Keypad Application 5	^[?u
Control+Pad Right	Keypad Application 6	^[?v
Control+Pad Home	Keypad Application 7	^[?w
Control+Pad Up	Keypad Application 8	^[?x
Control+Pad Pageup	Keypad Application 9	^[?y
Shift+Control+Enter	Enter	^M
Shift+Control+Pad Enter	Enter	^M

VT 52

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Program Function 1 (PF1)	^[P
F2	Program Function 2 (PF2)	^[Q
F3	Program Function 3 (PF3)	^[R
F4	Program Function 4 (PF4)	^[S
Backspace	Horizontal Backspace	^H
Enter	Enter	^M
Gray Delete	Character Delete	Δ
Gray Home	Home Cursor	^[H
Gray End	Erase End of Line	^[K
Gray Up	Cursor Up	^[A
Gray Down	Cursor Down	^[B
Gray Left	Cursor Left	^[D
Gray Right	Cursor Right	^[C
Numlock	Program Function 1 (PF1)	^[P
Pad /	Program Function 2 (PF2)	^[Q
Pad *	Program Function 3 (PF3)	^[R
Pad -	Program Function 4 (PF4)	^[S
Pad +	Keypad COMMA	,
Pad Enter	Enter	^M
Pad .	Keypad PERIOD	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4

Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Keypad PERIOD	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	6	6
Pad Home	7	7
Pad Up	8	8
Pad Pageup	9	9
Shift+Enter	Enter	^M
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	Keypad MINUS	-
Shift+Pad +	Keypad MINUS	-
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	Character Delete	Δ
Shift+Pad End	Delete End of Line	^[K
Shift+Pad Down	Cursor Down	^[B
Shift+Pad Pagedown	Clear Screen	^[H^J
Shift+Pad Left	Cursor Left	^[D
Shift+Pad Right	Cursor Right	^[C
Shift+Pad Home	Home Cursor	^[H
Shift+Pad Up	Cursor Up	^[A
Shift+Pad Pageup	Delete Line	^[M
Control+Backspace	Character Delete	Δ
Control+Enter	Enter	^M
Control+Gray End	Erase End of Page	^[J
Control+Gray Pageup	Delete Line	^[M
Control+Gray Pagedown	Clear Screen	^[H^J
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	Keypad Application MINUS	^[?m
Control+Pad +	Keypad Application COMMA	^[?l
Control+Pad Enter	Keypad Application Enter	^[?M
Control+Pad .	Keypad Application PERIOD	^[?n
Control+Pad 0	Keypad Application 0	^[?p
Control+Pad 1	Keypad Application 1	^[?q
Control+Pad 2	Keypad Application 2	^[?r
Control+Pad 3	Keypad Application 3	^[?s
Control+Pad 4	Keypad Application 4	^[?t
Control+Pad 5	Keypad Application 5	^[?u
Control+Pad 6	Keypad Application 6	^[?v
Control+Pad 7	Keypad Application 7	^[?w
Control+Pad 8	Keypad Application 8	^[?x
Control+Pad 9	Keypad Application 9	^[?y
Control+Pad Delete	Keypad Application PERIOD	^[?n
Control+Pad Insert	Keypad Application 0	^[?p

Control+Pad End	Keypad Application 1	^[?q
Control+Pad Down	Keypad Application 2	^[?r
Control+Pad Pagedown	Keypad Application 3	^[?s
Control+Pad Left	Keypad Application 4	^[?t
Control+Pad Clear	Keypad Application 5	^[?u
Control+Pad Right	Keypad Application 6	^[?v
Control+Pad Home	Keypad Application 7	^[?w
Control+Pad Up	Keypad Application 8	^[?x
Control+Pad Pageup	Keypad Application 9	^[?y
Shift+Control+Enter	Enter	^M
Shift+Control+Pad Enter	Enter	^M

VT 100

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Program Function 1 (PF1)	^[OP
F2	Program Function 2 (PF2)	^[OQ
F3	Program Function 3 (PF3)	^[OR
F4	Program Function 4 (PF4)	^[OS
Backspace	Backspace	^H
Enter	Return	^M
Gray Delete	Delete Character	Δ
Gray Home	Home Cursor	^[[H
Gray End	Erase End of Line	^[[K
Gray Up	Cursor Up	^[[A
Gray Down	Cursor Down	^[[B
Gray Left	Cursor Left	^[[D
Gray Right	Cursor Right	^[[C
Numlock	PF1	^[OP
Pad /	PF2	^[OQ
Pad *	PF3	^[OR
Pad -	PF4	^[OS
Pad +	Keypad COMMA	,
Pad Enter	Enter	^M
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	.	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	6	6

Pad Home	7	7
Pad Up	8	8
Pad Pageup	9	9
Shift+Backspace	Delete Character	Δ
Shift+Enter	Enter	^M
Shift+Gray Delete	Delete Character	Δ
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	Keypad MINUS	-
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	Δ
Shift+Pad End	Erase End of Line	^[[K
Shift+Pad Down	Cursor Down	^[[B
Shift+Pad Pagedown	Clear Screen	^[[H^[[2J
Shift+Pad Left	Cursor Left	^[[D
Shift+Pad Right	Cursor Right	^[[C
Shift+Pad Home	Home Cursor	^[[H
Shift+Pad Up	Cursor Up	^[[A
Shift+Pad Pageup	Delete Line	^[[M
Control+Backspace	Ctrl-Backspace	^X
Control+Enter	Enter	^M
Control+Gray Home	Insert Line	^[[L
Control+Gray Pageup	Delete Line	^[[M
Control+Gray Pagedown	Clear Screen	^[[H^[[2J
Control+Gray Up	Application Cursor Up	^[[OA
Control+Gray Down	Application Cursor Down	^[[OB
Control+Gray Left	Application Cursor Left	^[[OD
Control+Gray Right	Application Cursor Right	^[[OC
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	Keypad Application MINUS	^[[Om
Control+Pad +	Keypad Application COMMA	^[[OI
Control+Pad Enter	Keypad Application Enter	^[[OM
Control+Pad .	Keypad Application PERIOD	^[[On
Control+Pad 0	Keypad Application 0	^[[Op
Control+Pad 1	Keypad Application 1	^[[Oq
Control+Pad 2	Keypad Application 2	^[[Or
Control+Pad 3	Keypad Application 3	^[[Os
Control+Pad 4	Keypad Application 4	^[[Ot
Control+Pad 5	Keypad Application 5	^[[Ou
Control+Pad 6	Keypad Application 6	^[[Ov
Control+Pad 7	Keypad Application 7	^[[Ow
Control+Pad 8	Keypad Application 8	^[[Ox
Control+Pad 9	Keypad Application 9	^[[Oy
Control+Pad Delete	Keypad Application PERIOD	^[[On
Control+Pad Insert	Keypad Application 0	^[[Op
Control+Pad End	Keypad Application 1	^[[Oq
Control+Pad Down	Keypad Application 2	^[[Or
Control+Pad Pagedown	Keypad Application 3	^[[Os
Control+Pad Left	Keypad Application 4	^[[Ot
Control+Pad Clear	Keypad Application 5	^[[Ou
Control+Pad Right	Keypad Application 6	^[[Ov
Control+Pad Home	Keypad Application 7	^[[Ow

Control+Pad Up	Keypad Application 8	^[Ox
Control+Pad Pageup	Keypad Application 9	^[Oy
Shift+Control+Enter	Enter	^M
Shift+Control+Pad Enter	Enter	^M
Shift+Control+Pad Down	Application Cursor Down	^[OB
Shift+Control+Pad Left	Application Cursor Left	^[OD
Shift+Control+Pad Right	Application Cursor Right	^[OC
Shift+Control+Pad Home	Insert Line	^[[L
Shift+Control+Pad Up	Application Cursor Up	^[OA

VT 102

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Program Function 1 (PF1)	^[OP
F2	Program Function 2 (PF2)	^[OQ
F3	Program Function 3 (PF3)	^[OR
F4	Program Function 4 (PF4)	^[OS
Backspace	Backspace	^H
Enter	Return	^M
Gray Delete	Delete Character	Δ
Gray Home	Home Cursor	^[[H
Gray End	Erase End of Line	^[[K
Gray Up	Cursor Up	^[[A
Gray Down	Cursor Down	^[[B
Gray Left	Cursor Left	^[[D
Gray Right	Cursor Right	^[[C
Numlock	PF1	^[OP
Pad /	PF2	^[OQ
Pad *	PF3	^[OR
Pad -	PF4	^[OS
Pad +	Keypad COMMA	,
Pad Enter	Enter	^M
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	.	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	6	6
Pad Home	7	7
Pad Up	8	8

Pad Pageup	9	9
Shift+Backspace	Delete Character	Δ
Shift+Enter	Enter	^M
Shift+Gray Delete	Delete Character	Δ
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	Keypad MINUS	-
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	.	Δ
Shift+Pad End	Erase End of Line	^[K
Shift+Pad Down	Cursor Down	^[B
Shift+Pad Pagedown	Clear Screen	^[H^[2J
Shift+Pad Left	Cursor Left	^[D
Shift+Pad Right	Cursor Right	^[C
Shift+Pad Home	Home Cursor	^[H
Shift+Pad Up	Cursor Up	^[A
Shift+Pad Pageup	Delete Line	^[M
Control+Backspace	Ctrl-Backspace	^X
Control+Enter	Enter	^M
Control+Gray Home	Insert Line	^[L
Control+Gray Pageup	Delete Line	^[M
Control+Gray Pagedown	Clear Screen	^[H^[2J
Control+Gray Up	Application Cursor Up	^[OA
Control+Gray Down	Application Cursor Down	^[OB
Control+Gray Left	Application Cursor Left	^[OD
Control+Gray Right	Application Cursor Right	^[OC
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	Keypad Application MINUS	^[Om
Control+Pad +	Keypad Application COMMA	^[OI
Control+Pad Enter	Keypad Application Enter	^[OM
Control+Pad .	Keypad Application PERIOD	^[On
Control+Pad 0	Keypad Application 0	^[Op
Control+Pad 1	Keypad Application 1	^[Oq
Control+Pad 2	Keypad Application 2	^[Or
Control+Pad 3	Keypad Application 3	^[Os
Control+Pad 4	Keypad Application 4	^[Ot
Control+Pad 5	Keypad Application 5	^[Ou
Control+Pad 6	Keypad Application 6	^[Ov
Control+Pad 7	Keypad Application 7	^[Ow
Control+Pad 8	Keypad Application 8	^[Ox
Control+Pad 9	Keypad Application 9	^[Oy
Control+Pad Delete	Keypad Application PERIOD	^[On
Control+Pad Insert	Keypad Application 0	^[Op
Control+Pad End	Keypad Application 1	^[Oq
Control+Pad Down	Keypad Application 2	^[Or
Control+Pad Pagedown	Keypad Application 3	^[Os
Control+Pad Left	Keypad Application 4	^[Ot
Control+Pad Clear	Keypad Application 5	^[Ou
Control+Pad Right	Keypad Application 6	^[Ov
Control+Pad Home	Keypad Application 7	^[Ow
Control+Pad Up	Keypad Application 8	^[Ox
Control+Pad Pageup	Keypad Application 9	^[Oy

Shift+Control+Enter	Enter	^M
Shift+Control+Pad Enter	Enter	^M
Shift+Control+Pad Down	Application Cursor Down	^[OB
Shift+Control+Pad Left	Application Cursor Left	^[OD
Shift+Control+Pad Right	Application Cursor Right	^[OC
Shift+Control+Pad Home	Insert Line	^[[L
Shift+Control+Pad Up	Application Cursor Up	^[OA

VT 220

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	PF1	^[OP
F2	PF2	^[OQ
F3	PF3	^[OR
F4	PF4	^[OS
F5	Next Screen	^[[6~
F6	F6	^[[17~
F7	F7	^[[18~
F8	F8	^[[19~
F9	F9	^[[20~
F10	F10	^[[21~
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Insert Here	^[[2~
Gray Delete	Remove	^[[3~
Gray Home	Find	^[[1~
Gray End	Select	^[[4~
Gray Pageup	Prev Screen	^[[5~
Gray Pagedown	Next Screen	^[[6~
Gray Up	Cursor Up	^[[A
Gray Down	Cursor Down	^[[B
Gray Left	Cursor Left	^[[D
Gray Right	Cursor Right	^[[C
Numlock	PF1	^[OP
Pad /	PF2	^[OQ
Pad *	PF3	^[OR
Pad -	PF4	^[OS
Pad +	Keypad MINUS	-
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	.	.
Pad Insert	0	0

Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	6	6
Pad Home	7	7
Pad Up	8	8
Pad Pageup	9	9
Shift+F1	F11	^[23~
Shift+F2	F12	^[24~
Shift+F3	F13	^[25~
Shift+F4	F14	^[26~
Shift+F5	F15	^[28~
Shift+F6	F16	^[29~
Shift+F7	F17	^[31~
Shift+F8	F18	^[32~
Shift+F9	F19	^[33~
Shift+F10	F20	^[34~
Shift+Enter	Enter	^M
Shift+Gray Delete	Delete	Δ
Shift+Gray Home	Home Cursor	^[H
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	Delete	Δ
Shift+Pad End	Erase End of Line	^[K
Shift+Pad Down	Cursor Down	^[B
Shift+Pad Pagedown	Clear Screen	^[H^[2J
Shift+Pad Left	Cursor Left	^[D
Shift+Pad Right	Cursor Right	^[C
Shift+Pad Home	Home Cursor	^[H
Shift+Pad Up	Cursor Up	^[A
Shift+Pad Pageup	Delete Line	^[M
Control+F1	Find	^[1~
Control+F2	Insert Here	^[2~
Control+F3	Remove	^[3~
Control+F4	Select	^[4~
Control+F5	Prev Screen	^[5~
Control+Backspace	Delete	Δ
Control+Enter	Enter	^M
Control+Gray Insert	Insert Line	^[L
Control+Gray Delete	Delete Line	^[M
Control+Gray End	Erase End of Line	^[K
Control+Gray Pagedown	Clear Screen	^[H^[2J
Control+Gray Up	Application Cursor Up	^[OA
Control+Gray Down	Application Cursor Down	^[OB
Control+Gray Left	Application Cursor Left	^[OD
Control+Gray Right	Application Cursor Right	^[OC
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	Keypad Application MINUS	^[Om

Control+Pad +	Keypad Application COMMA	^[OI
Control+Pad Enter	Keypad Application Enter	^[OM
Control+Pad .	Keypad Application .	^[On
Control+Pad 0	Keypad Application 0	^[Op
Control+Pad 1	Keypad Application 1	^[Oq
Control+Pad 2	Keypad Application 2	^[Or
Control+Pad 3	Keypad Application 3	^[Os
Control+Pad 4	Keypad Application 4	^[Ot
Control+Pad 5	Keypad Application 5	^[Ou
Control+Pad 6	Keypad Application 6	^[Ov
Control+Pad 7	Keypad Application 7	^[Ow
Control+Pad 8	Keypad Application 8	^[Ox
Control+Pad 9	Keypad Application 9	^[Oy
Control+Pad Delete	Keypad Application .	^[On
Control+Pad Insert	Keypad Application 0	^[Op
Control+Pad End	Keypad Application 1	^[Oq
Control+Pad Down	Keypad Application 2	^[Or
Control+Pad Pagedown	Keypad Application 3	^[Os
Control+Pad Left	Keypad Application 4	^[Ot
Control+Pad Clear	Keypad Application 5	^[Ou
Control+Pad Right	Keypad Application 6	^[Ov
Control+Pad Home	Keypad Application 7	^[Ow
Control+Pad Up	Keypad Application 8	^[Ox
Control+Pad Pageup	Keypad Application 8	^[Oy
Shift+Control+Pad Down	Application Cursor Down	^[OB
Shift+Control+Pad Left	Application Cursor Left	^[OD
Shift+Control+Pad Right	Application Cursor Right	^[OC
Shift+Control+Pad Home	Insert Line	^[[L
Shift+Control+Pad Up	Application Cursor Up	^[OA

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QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	PF1	^[OP
F2	PF2	^[OQ
F3	PF3	^[OR
F4	PF4	^[OS
F5	Next Screen	^[[6~
F6	F6	^[[17~
F7	F7	^[[18~
F8	F8	^[[19~
F9	F9	^[[20~
F10	F10	^[[21~
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Insert Here	^[[2~
Gray Delete	Remove	^[[3~
Gray Home	Find	^[[1~
Gray End	Select	^[[4~
Gray Pageup	Prev Screen	^[[5~
Gray Pagedown	Next Screen	^[[6~
Gray Up	Cursor Up	^[[A

Gray Down	Cursor Down	^[[B
Gray Left	Cursor Left	^[[D
Gray Right	Cursor Right	^[[C
Numlock	PF1	^[OP
Pad /	PF2	^[OQ
Pad *	PF3	^[OR
Pad -	PF4	^[OS
Pad +	Keypad MINUS	-
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	.	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	6	6
Pad Home	7	7
Pad Up	8	8
Pad Pageup	9	9
Shift+F1	F11	^[[23~
Shift+F2	F12	^[[24~
Shift+F3	F13	^[[25~
Shift+F4	F14	^[[26~
Shift+F5	F15	^[[28~
Shift+F6	F16	^[[29~
Shift+F7	F17	^[[31~
Shift+F8	F18	^[[32~
Shift+F9	F19	^[[33~
Shift+F10	F20	^[[34~
Shift+Enter	Enter	^M
Shift+Gray Delete	Delete	Δ
Shift+Gray Home	Home Cursor	^[[H
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	Delete	Δ
Shift+Pad End	Erase End of Line	^[[K
Shift+Pad Down	Cursor Down	^[[B
Shift+Pad Pagedown	Clear Screen	^[[H^[[2J
Shift+Pad Left	Cursor Left	^[[D

Shift+Pad Right	Cursor Right	^[[C
Shift+Pad Home	Home Cursor	^[[H
Shift+Pad Up	Cursor Up	^[[A
Shift+Pad Pageup	Delete Line	^[[M
Control+F1	Find	^[[1~
Control+F2	Insert Here	^[[2~
Control+F3	Remove	^[[3~
Control+F4	Select	^[[4~
Control+F5	Prev Screen	^[[5~
Control+Backspace	Delete	Δ
Control+Enter	Enter	^M
Control+Gray Insert	Insert Line	^[[L
Control+Gray Delete	Delete Line	^[[M
Control+Gray End	Erase End of Line	^[[K
Control+Gray Pagedown	Clear Screen	^[[H^[[2J
Control+Gray Up	Application Cursor Up	^[[OA
Control+Gray Down	Application Cursor Down	^[[OB
Control+Gray Left	Application Cursor Left	^[[OD
Control+Gray Right	Application Cursor Right	^[[OC
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	Keypad Application MINUS	^[[Om
Control+Pad +	Keypad Application COMMA	^[[OI
Control+Pad Enter	Keypad Application Enter	^[[OM
Control+Pad .	Keypad Application .	^[[On
Control+Pad 0	Keypad Application 0	^[[Op
Control+Pad 1	Keypad Application 1	^[[Oq
Control+Pad 2	Keypad Application 2	^[[Or
Control+Pad 3	Keypad Application 3	^[[Os
Control+Pad 4	Keypad Application 4	^[[Ot
Control+Pad 5	Keypad Application 5	^[[Ou
Control+Pad 6	Keypad Application 6	^[[Ov
Control+Pad 7	Keypad Application 7	^[[Ow
Control+Pad 8	Keypad Application 8	^[[Ox
Control+Pad 9	Keypad Application 9	^[[Oy
Control+Pad Delete	Keypad Application .	^[[On
Control+Pad Insert	Keypad Application 0	^[[Op
Control+Pad End	Keypad Application 1	^[[Oq
Control+Pad Down	Keypad Application 2	^[[Or
Control+Pad Pagedown	Keypad Application 3	^[[Os
Control+Pad Left	Keypad Application 4	^[[Ot
Control+Pad Clear	Keypad Application 5	^[[Ou
Control+Pad Right	Keypad Application 6	^[[Ov
Control+Pad Home	Keypad Application 7	^[[Ow
Control+Pad Up	Keypad Application 8	^[[Ox
Control+Pad Pageup	Keypad Application 8	^[[Oy
Shift+Control+Pad Down	Application Cursor Down	^[[OB
Shift+Control+Pad Left	Application Cursor Left	^[[OD
Shift+Control+Pad Right	Application Cursor Right	^[[OC
Shift+Control+Pad Home	Insert Line	^[[L
Shift+Control+Pad Up	Application Cursor Up	^[[OA

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (F1)	^A@^M
F2	Function 2 (F2)	^AA^M
F3	Function 3 (F3)	^AB^M
F4	Function 4 (F4)	^AC^M
F5	Function 5 (F5)	^AD^M
F6	Function 6 (F6)	^AE^M
F7	Function 7 (F7)	^AF^M
F8	Function 8 (F8)	^AG^M
F9	Function 9 (F9)	^AH^M
F10	Function 10 (F10)	^AI^M
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Insert Character	^[Q
Gray Delete	Delete Character	^[W
Gray Home	Home Cursor	^^
Gray End	Clear Line	^[T
Gray Pageup	Page Prev	^[K
Gray Pagedown	Page Next	^[J
Gray Up	Cursor Up	^K
Gray Down	Cursor Down	^J
Gray Left	Cursor Left	^H
Gray Right	Cursor Right	^L
Numlock	Insert Character	^[Q
Pad /	Delete Character	^[W
Pad *	Clear Line	^[T
Pad -	Replace	^[r
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	.	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	7	6
Pad Home	7	7
Pad Up	8	8
Pad Pageup	9	9
Shift+Tab	Back Tab	^[I

Shift+F1	Function 17 (Shift F1)	^A^M
Shift+F2	Function 18 (Shift F2)	^Aa^M
Shift+F3	Function 19 (Shift F3)	^Ab^M
Shift+F4	Function 20 (Shift F4)	^Ac^M
Shift+F5	Function 21 (Shift F5)	^Ad^M
Shift+F6	Function 22 (Shift F6)	^Ae^M
Shift+F7	Function 23 (Shift F7)	^Af^M
Shift+F8	Function 24 (Shift F8)	^Ag^M
Shift+F9	Function 25 (Shift F9)	^Ah^M
Shift+F10	Function 26 (Shift F10)	^Ai^M
Shift+Enter	Enter	^M
Shift+Gray Delete	Delete Line	^[R
Shift+Gray Home	Shift Home Cursor	^[{
Shift+Gray End	Erase End of Page	^[Y
Shift+Gray Pageup	Insert Line	^[E
Shift+Numlock	Insert Line	^[E
Shift+Pad /	Delete Line	^[R
Shift+Pad *	Clear Screen	^[Y
Shift+Pad -	Insert	^[q
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	Delete Character	^[W
Shift+Pad Insert	Insert Character	^[Q
Shift+Pad End	Clear Line	^[T
Shift+Pad Down	Cursor Down	^J
Shift+Pad Pagedown	Page Next	^[J
Shift+Pad Left	Backspace	^H
Shift+Pad Clear	5	5
Shift+Pad Right	Cursor Right	^L
Shift+Pad Home	Home Cursor	^^
Shift+Pad Up	Cursor Up	^K
Shift+Pad Pageup	Page Prev	^[K
Control+F1	Function 13 (F13)	^AL^M
Control+F2	Function 14 (F14)	^AM^M
Control+F3	Function 15 (F15)	^AN^M
Control+F4	Function 16 (F16)	^AO^M
Control+F5	Function 29 (Shift F13)	^Al^M
Control+F6	Function 30 (Shift F14)	^Am^M
Control+F7	Function 31 (Shift F15)	^An^M
Control+F8	Function 32 (Shift F16)	^Ao^M
Control+Backspace	Ctrl-Backspace	Δ

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QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (F1)	^A@^M
F2	Function 2 (F2)	^AA^M
F3	Function 3 (F3)	^AB^M
F4	Function 4 (F4)	^AC^M
F5	Function 5 (F5)	^AD^M
F6	Function 6 (F6)	^AE^M
F7	Function 7 (F7)	^AF^M
F8	Function 8 (F8)	^AG^M
F9	Function 9 (F9)	^AH^M
F10	Function 10 (F10)	^AI^M
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Insert Character	^[Q
Gray Delete	Delete Character	^[W
Gray Home	Home Cursor	^^
Gray End	Clear Line	^[T
Gray Pageup	Page Prev	^[K
Gray Pagedown	Page Next	^[J
Gray Up	Cursor Up	^K
Gray Down	Cursor Down	^J
Gray Left	Cursor Left	^H
Gray Right	Cursor Right	^L
Numlock	Insert Character	^[Q
Pad /	Delete Character	^[W
Pad *	Clear Line	^[T
Pad -	Replace	^[r
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	.	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	7	6
Pad Home	7	7
Pad Up	8	8

Pad Pageup	9	9
Shift+Tab	Back Tab	^[I
Shift+F1	Function 17 (Shift F1)	^A^M
Shift+F2	Function 18 (Shift F2)	^Aa^M
Shift+F3	Function 19 (Shift F3)	^Ab^M
Shift+F4	Function 20 (Shift F4)	^Ac^M
Shift+F5	Function 21 (Shift F5)	^Ad^M
Shift+F6	Function 22 (Shift F6)	^Ae^M
Shift+F7	Function 23 (Shift F7)	^Af^M
Shift+F8	Function 24 (Shift F8)	^Ag^M
Shift+F9	Function 25 (Shift F9)	^Ah^M
Shift+F10	Function 26 (Shift F10)	^Ai^M
Shift+Enter	Enter	^M
Shift+Gray Delete	Delete Line	^[R
Shift+Gray Home	Shift Home Cursor	^[{
Shift+Gray End	Erase End of Page	^[Y
Shift+Gray Pageup	Insert Line	^[E
Shift+Numlock	Insert Line	^[E
Shift+Pad /	Delete Line	^[R
Shift+Pad *	Clear Screen	^[Y
Shift+Pad -	Insert	^[q
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	Delete Character	^[W
Shift+Pad Insert	Insert Character	^[Q
Shift+Pad End	Clear Line	^[T
Shift+Pad Down	Cursor Down	^J
Shift+Pad Pagedown	Page Next	^[J
Shift+Pad Left	Backspace	^H
Shift+Pad Clear	5	5
Shift+Pad Right	Cursor Right	^L
Shift+Pad Home	Home Cursor	^^
Shift+Pad Up	Cursor Up	^K
Shift+Pad Pageup	Page Prev	^[K
Control+F1	Function 13 (F13)	^AL^M
Control+F2	Function 14 (F14)	^AM^M
Control+F3	Function 15 (F15)	^AN^M
Control+F4	Function 16 (F16)	^AO^M
Control+F5	Function 29 (Shift F13)	^Al^M
Control+F6	Function 30 (Shift F14)	^Am^M
Control+F7	Function 31 (Shift F15)	^An^M
Control+F8	Function 32 (Shift F16)	^Ao^M
Control+Backspace	Ctrl-Backspace	^

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QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (F1)	^A@^M
F2	Function 2 (F2)	^AA^M
F3	Function 3 (F3)	^AB^M
F4	Function 4 (F4)	^AC^M
F5	Function 5 (F5)	^AD^M
F6	Function 6 (F6)	^AE^M
F7	Function 7 (F7)	^AF^M
F8	Function 8 (F8)	^AG^M
F9	Function 9 (F9)	^AH^M
F10	Function 10 (F10)	^AI^M
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Insert Character	^[Q
Gray Delete	Delete Character	^[W
Gray Home	Home Cursor	^^
Gray End	Clear Line	^[T
Gray Pageup	Page Prev	^[K
Gray Pagedown	Page Next	^[J
Gray Up	Cursor Up	^K
Gray Down	Cursor Down	^J
Gray Left	Cursor Left	^H
Gray Right	Cursor Right	^L
Numlock	Insert Character	^[Q
Pad /	Delete Character	^[W
Pad *	Clear Line	^[T
Pad -	Replace	^[r
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	.	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	7	6
Pad Home	7	7
Pad Up	8	8

Pad Pageup	9	9
Shift+Tab	Back Tab	^[I
Shift+F1	Function 17 (Shift F1)	^A^M
Shift+F2	Function 18 (Shift F2)	^Aa^M
Shift+F3	Function 19 (Shift F3)	^Ab^M
Shift+F4	Function 20 (Shift F4)	^Ac^M
Shift+F5	Function 21 (Shift F5)	^Ad^M
Shift+F6	Function 22 (Shift F6)	^Ae^M
Shift+F7	Function 23 (Shift F7)	^Af^M
Shift+F8	Function 24 (Shift F8)	^Ag^M
Shift+F9	Function 25 (Shift F9)	^Ah^M
Shift+F10	Function 26 (Shift F10)	^Ai^M
Shift+Enter	Enter	^M
Shift+Gray Delete	Delete Line	^[R
Shift+Gray Home	Shift Home Cursor	^[{
Shift+Gray End	Erase End of Page	^[Y
Shift+Gray Pageup	Insert Line	^[E
Shift+Numlock	Insert Line	^[E
Shift+Pad /	Delete Line	^[R
Shift+Pad *	Clear Screen	^[Y
Shift+Pad -	Insert	^[q
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	Delete Character	^[W
Shift+Pad Insert	Insert Character	^[Q
Shift+Pad End	Clear Line	^[T
Shift+Pad Down	Cursor Down	^J
Shift+Pad Pagedown	Page Next	^[J
Shift+Pad Left	Backspace	^H
Shift+Pad Clear	5	5
Shift+Pad Right	Cursor Right	^L
Shift+Pad Home	Home Cursor	^^
Shift+Pad Up	Cursor Up	^K
Shift+Pad Pageup	Page Prev	^[K
Control+F1	Function 13 (F13)	^AL^M
Control+F2	Function 14 (F14)	^AM^M
Control+F3	Function 15 (F15)	^AN^M
Control+F4	Function 16 (F16)	^AO^M
Control+F5	Function 29 (Shift F13)	^AI^M
Control+F6	Function 30 (Shift F14)	^Am^M
Control+F7	Function 31 (Shift F15)	^An^M
Control+F8	Function 32 (Shift F16)	^Ao^M
Control+Backspace	Ctrl-Backspace	Δ

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QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Print Copy Key (F1)	^[[?5i
F2	Print Trans Key (F2)	^[[?3i
F3	Screen Send (F3)	^[[2i
F4	Insert Char	^[[@
F5	Line Delete	^[[M

F6	F6	^[[17~
F7	F7	^[[18~
F8	F8	^[[19~
F9	F9	^[[20~
F10	F10	^[[21~
Backspace	Backspace	^H
Enter	Return	^M
Gray Insert	Shift F12 (Insert Here)	^[[2~
Gray Delete	Shift F13 (Remove)	^[[3~
Gray Home	Shift F11 (Find)	^[[1~
Gray End	Shift F14 (Select)	^[[4~
Gray Pageup	Shift F15 (Prev Screen)	^[[5~
Gray Pagedown	Shift F16 (Next Screen)	^[[6~
Gray Up	Cursor Up	^[[A
Gray Down	Cursor Down	^[[B
Gray Left	Cursor Left	^[[D
Gray Right	Cursor Right	^[[C
Numlock	PF1	^[[OP
Pad /	PF2	^[[OQ
Pad *	PF3	^[[OR
Pad -	PF4	^[[OS
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	.	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	6	6
Pad Home	7	7
Pad Up	8	8
Pad Pageup	9	9
Shift+F1	F11	^[[23~
Shift+F2	F12	^[[24~
Shift+F3	F13	^[[25~
Shift+F4	F14	^[[26~
Shift+F5	F15	^[[28~
Shift+F6	F16	^[[29~
Shift+Enter	Enter	^M
Shift+Gray Delete	Character Delete	Δ
Shift+Gray Home	Home Cursor	^[[H

Shift+Pad +	Keypad MINUS	-
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	Character Delete	Δ
Shift+Pad End	Line Clear	^[[K
Shift+Pad Down	Cursor Down	^[[B
Shift+Pad Pagedown	Clear Screen	^[[H^[[2J
Shift+Pad Left	Cursor Left	^[[D
Shift+Pad Right	Cursor Right	^[[C
Shift+Pad Home	Home Cursor	^[[H
Shift+Pad Up	Cursor Up	^[[A
Shift+Pad Pageup	Delete Line	^[[M
Control+F1	Shift F1	^[[4i
Control+F2	Shift F2	^[[?1i
Control+F3	Shift F3	^[[0i
Control+F4	Insert Line	^[[L
Control+F5	Line Clear	^[[K
Control+F6	Shift F6	^[[31~
Control+F7	Shift F7	^[[32~
Control+F8	Shift F8	^[[33~
Control+F9	Shift F9	^[[34~
Control+F10	Shift F10	^[[35~
Control+Backspace	Character Delete	Δ
Control+Enter	Enter	^M
Control+Gray Home	Insert Line	^[[L
Control+Gray End	Erase End of Line	^[[K
Control+Gray Pageup	Delete Line	^[[M
Control+Gray Pagedown	Clear Screen	^[[H^[[2J
Control+Gray Up	Application Cursor Up	^[[OA
Control+Gray Down	Application Cursor Down	^[[OB
Control+Gray Left	Application Cursor Left	^[[OD
Control+Gray Right	Application Cursor Right	^[[OC
Control+Pad -	Keypad Application MINUS	^[[Om
Control+Pad +	Keypad Application COMMA	^[[OI
Control+Pad Enter	Keypad Application Enter	^[[OM
Control+Pad 0	Keypad Application 0	^[[Op
Control+Pad 1	Keypad Application 1	^[[Oq
Control+Pad 2	Keypad Application 2	^[[Or
Control+Pad 3	Keypad Application 3	^[[Os
Control+Pad 4	Keypad Application 4	^[[Ot
Control+Pad 5	Keypad Application 5	^[[Ou
Control+Pad 6	Keypad Application 6	^[[Ov
Control+Pad 7	Keypad Application 7	^[[Ow
Control+Pad 8	Keypad Application 8	^[[Ox
Control+Pad 9	Keypad Application 9	^[[Oy
Control+Pad Delete	Keypad Application .	^[[On
Control+Pad Insert	Keypad Application 0	^[[Op
Control+Pad End	Keypad Application 1	^[[Oq
Control+Pad Down	Keypad Application 2	^[[Or
Control+Pad Pagedown	Keypad Application 3	^[[Os
Control+Pad Left	Keypad Application 4	^[[Ot
Control+Pad Clear	Keypad Application 5	^[[Ou
Control+Pad Right	Keypad Application 6	^[[Ov
Control+Pad Home	Keypad Application 7	^[[Ow
Control+Pad Up	Keypad Application 8	^[[Ox

Control+Pad Pageup	Keypad Application 9	^[Oy
Shift+Control+F1	Find	^[1~
Shift+Control+F2	Select	^[2~
Shift+Control+F3	Insert Here	^[3~
Shift+Control+F4	Remove	^[4~
Shift+Control+F5	Prev Screen	^[5~
Shift+Control+F6	Next Screen	^[6~
Shift+Control+Pad Down	Application Cursor Down	^[OB
Shift+Control+Pad Left	Application Cursor Left	^[OD
Shift+Control+Pad Right	Application Cursor Right	^[OC
Shift+Control+Pad Home	Insert Line	^[[L
Shift+Control+Pad Up	Application Cursor Up4	^[OA

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QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Print Copy Key (F1)	^[[?5i
F2	Print Trans Key (F2)	^[[?3i
F3	Screen Send (F3)	^[[2i
F4	Insert Char	^[[@
F5	Line Delete	^[[M
F6	F6	^[[17~
F7	F7	^[[18~
F8	F8	^[[19~
F9	F9	^[[20~
F10	F10	^[[21~
Backspace	Backspace	^H
Enter	Return	^M
Gray Insert	Shift F12 (Insert Here)	^[[2~
Gray Delete	Shift F13 (Remove)	^[[3~
Gray Home	Shift F11 (Find)	^[[1~
Gray End	Shift F14 (Select)	^[[4~
Gray Pageup	Shift F15 (Prev Screen)	^[[5~
Gray Pagedown	Shift F16 (Next Screen)	^[[6~
Gray Up	Cursor Up	^[[A
Gray Down	Cursor Down	^[[B
Gray Left	Cursor Left	^[[D
Gray Right	Cursor Right	^[[C
Numlock	PF1	^[OP
Pad /	PF2	^[OQ
Pad *	PF3	^[OR
Pad -	PF4	^[OS
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6

Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	.	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	6	6
Pad Home	7	7
Pad Up	8	8
Pad Pageup	9	9
Shift+F1	F11	^[23~
Shift+F2	F12	^[24~
Shift+F3	F13	^[25~
Shift+F4	F14	^[26~
Shift+F5	F15	^[28~
Shift+F6	F16	^[29~
Shift+Enter	Enter	^M
Shift+Gray Delete	Character Delete	Δ
Shift+Gray Home	Home Cursor	^[[H
Shift+Pad +	Keypad MINUS	-
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	Character Delete	Δ
Shift+Pad End	Line Clear	^[[K
Shift+Pad Down	Cursor Down	^[[B
Shift+Pad Pagedown	Clear Screen	^[[H^[2J
Shift+Pad Left	Cursor Left	^[[D
Shift+Pad Right	Cursor Right	^[[C
Shift+Pad Home	Home Cursor	^[[H
Shift+Pad Up	Cursor Up	^[[A
Shift+Pad Pageup	Delete Line	^[[M
Control+F1	Shift F1	^[4i
Control+F2	Shift F2	^[?1i
Control+F3	Shift F3	^[0i
Control+F4	Insert Line	^[[L
Control+F5	Line Clear	^[[K
Control+F6	Shift F6	^[31~
Control+F7	Shift F7	^[32~
Control+F8	Shift F8	^[33~
Control+F9	Shift F9	^[34~
Control+F10	Shift F10	^[35~
Control+Backspace	Character Delete	Δ
Control+Enter	Enter	^M
Control+Gray Home	Insert Line	^[[L
Control+Gray End	Erase End of Line	^[[K
Control+Gray Pageup	Delete Line	^[[M
Control+Gray Pagedown	Clear Screen	^[[H^[2J
Control+Gray Up	Application Cursor Up	^[OA
Control+Gray Down	Application Cursor Down	^[OB
Control+Gray Left	Application Cursor Left	^[OD
Control+Gray Right	Application Cursor Right	^[OC

Control+Pad -	Keypad Application MINUS	^[Om
Control+Pad +	Keypad Application COMMA	^[OI
Control+Pad Enter	Keypad Application Enter	^[OM
Control+Pad 0	Keypad Application 0	^[Op
Control+Pad 1	Keypad Application 1	^[Oq
Control+Pad 2	Keypad Application 2	^[Or
Control+Pad 3	Keypad Application 3	^[Os
Control+Pad 4	Keypad Application 4	^[Ot
Control+Pad 5	Keypad Application 5	^[Ou
Control+Pad 6	Keypad Application 6	^[Ov
Control+Pad 7	Keypad Application 7	^[Ow
Control+Pad 8	Keypad Application 8	^[Ox
Control+Pad 9	Keypad Application 9	^[Oy
Control+Pad Delete	Keypad Application .	^[On
Control+Pad Insert	Keypad Application 0	^[Op
Control+Pad End	Keypad Application 1	^[Oq
Control+Pad Down	Keypad Application 2	^[Or
Control+Pad Pagedown	Keypad Application 3	^[Os
Control+Pad Left	Keypad Application 4	^[Ot
Control+Pad Clear	Keypad Application 5	^[Ou
Control+Pad Right	Keypad Application 6	^[Ov
Control+Pad Home	Keypad Application 7	^[Ow
Control+Pad Up	Keypad Application 8	^[Ox
Control+Pad Pageup	Keypad Application 9	^[Oy
Shift+Control+F1	Find	^[[1~
Shift+Control+F2	Select	^[[2~
Shift+Control+F3	Insert Here	^[[3~
Shift+Control+F4	Remove	^[[4~
Shift+Control+F5	Prev Screen	^[[5~
Shift+Control+F6	Next Screen	^[[6~
Shift+Control+Pad Down	Application Cursor Down	^[OB
Shift+Control+Pad Left	Application Cursor Left	^[OD
Shift+Control+Pad Right	Application Cursor Right	^[OC
Shift+Control+Pad Home	Insert Line	^[[L
Shift+Control+Pad Up	Application Cursor Up4	^[OA

Wyse 100

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	Function 1 (F1)	^A@^M
F2	Function 2 (F2)	^AA^M
F3	Function 3 (F3)	^AB^M
F4	Function 4 (F4)	^AC^M
F5	Function 5 (F5)	^AD^M
F6	Function 6 (F6)	^AE^M
F7	Function 7 (F7)	^AF^M
F8	Function 8 (F8)	^AG^M
F9	Line Insert	^[E
F10	Line Delete	^[R
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Insert Off	^[r

Gray Delete	Insert Space Character	^[Q
Gray Home	Home Cursor	^^
Gray End	Erase End of Line	^[T
Gray Pageup	Scrl Up	^[w
Gray Pagedown	Scrl Down	^[v
Gray Up	Cursor Up	^K
Gray Down	Cursor Down	^J
Gray Left	Cursor Left	^H
Gray Right	Cursor Right	^L
Pad /	/	/
Pad *	*	*
Pad -	-	-
Pad +	+	+
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Insert Space Character	^[Q
Pad Insert	Insert Off	^[r
Pad End	Erase End of Line	^[T
Pad Down	Cursor Down	^J
Pad Pagedown	Scrl Down	^[v
Pad Left	Backspace	^H
Pad Right	Cursor Right	^L
Pad Home	Home Cursor	^^
Pad Up	Cursor Up	^K
Pad Pageup	Scrl Up	^[w
Shift+Tab	Back tab	^[I
Shift+F1	Function 9 (Shift F1)	^AH^M
Shift+F2	Function 10 (Shift F2)	^AI^M
Shift+F3	Function 11 (Shift F3)	^AJ^M
Shift+F4	Function 12 (Shift F4)	^AK^M
Shift+F5	Function 13 (Shift F5)	^AL^M
Shift+F6	Function 14 (Shift F6)	^AM^M
Shift+F7	Function 15 (Shift F7)	^AN^M
Shift+F8	Function 16 (Shift F8)	^AO^M
Shift+F9	Shift Line Insert	^[t
Shift+Gray Delete	Delete Character	^[W
Shift+Gray Home	Cursor to Start of Text	^[{
Shift+Gray End	Page Erase	^[Y
Shift+Gray Pageup	Insert On	^[q
Shift+Pad Delete	Delete Character	^[W
Shift+Pad Insert	Insert On	^[q
Shift+Pad Left	Erase End of Page	^[Y
Shift+Pad Home	Cursor to Start of Text	^[{
Control+Backspace	Rubout	^Δ

Control+Enter	Enter	^M
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	-	-
Control+Pad +	+	+
Control+Pad Enter	Enter	^M
Control+Pad .	.	.
Control+Pad 0	Insert Space Character	^[Q
Control+Pad 1	Line Erase	^[T
Control+Pad 2	Cursor Down	^J
Control+Pad 3	Scrl Down	^[V
Control+Pad 4	Backspace	^H
Control+Pad 6	Cursor Right	^L
Control+Pad 7	Home Cursor	^^
Control+Pad 8	Cursor Up	^K
Control+Pad 9	Scrl Up	^[w
Control+Pad Delete	.	.
Control+Pad Insert	0	0
Control+Pad End	1	1
Control+Pad Down	2	2
Control+Pad Pagedown	3	3
Control+Pad Left	4	4
Control+Pad Clear	5	5
Control+Pad Right	6	6
Control+Pad Home	7	7
Control+Pad Up	8	8
Control+Pad Pageup	9	9

Wyse 185

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^I
F1	PF1	^[OP
F2	PF2	^[OQ
F3	PF3	^[OR
F4	PF4	^[OS
F5	Next Screen	^[6~
F6	F6	^[17~
F7	F7	^[18~
F8	F8	^[19~
F9	F9	^[20~
F10	F10	^[21~
Backspace	Backspace	^H
Enter	Enter	^M
Gray Insert	Insert Here	^[2~
Gray Delete	Remove	^[3~
Gray Home	Find	^[1~
Gray End	Select	^[4~
Gray Pageup	Prev Screen	^[5~
Gray Pagedown	Next Screen	^[6~
Gray Up	Cursor Up	^[A
Gray Down	Cursor Down	^[B
Gray Left	Cursor Left	^[D

Gray Right	Cursor Right	^[[C
Numlock	PF1	^[[OP
Pad /	PF2	^[[OQ
Pad *	PF3	^[[OR
Pad -	PF4	^[[OS
Pad +	Keypad MINUS	-
Pad Enter	Enter	^M
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	.	.
Pad Insert	0	0
Pad End	1	1
Pad Down	2	2
Pad Pagedown	3	3
Pad Left	4	4
Pad Clear	5	5
Pad Right	6	6
Pad Home	7	7
Pad Up	8	8
Pad Pageup	9	9
Shift+F1	F11	^[[23~
Shift+F2	F12	^[[24~
Shift+F3	F13	^[[25~
Shift+F4	F14	^[[26~
Shift+F5	F15	^[[28~
Shift+F6	F16	^[[29~
Shift+F7	F17	^[[31~
Shift+F8	F18	^[[32~
Shift+F9	F19	^[[33~
Shift+F10	F20	^[[34~
Shift+Enter	Enter	^M
Shift+Gray Delete	Delete	Δ
Shift+Gray Home	Home Cursor	^[[H
Shift+Pad /	/	/
Shift+Pad *	*	*
Shift+Pad -	-	-
Shift+Pad +	+	+
Shift+Pad Enter	Enter	^M
Shift+Pad Delete	Delete	Δ
Shift+Pad End	Erase End of Line	^[[K
Shift+Pad Down	Cursor Down	^[[B
Shift+Pad Pagedown	Clear Screen	^[[H^[[2J
Shift+Pad Left	Cursor Left	^[[D
Shift+Pad Right	Cursor Right	^[[C
Shift+Pad Home	Home Cursor	^[[H

Shift+Pad Up	Cursor Up	^[[A
Shift+Pad Pageup	Delete Line	^[[M
Control+F1	Find	^[[1~
Control+F2	Insert Here	^[[2~
Control+F3	Remove	^[[3~
Control+F4	Select	^[[4~
Control+F5	Prev Screen	^[[5~
Control+Backspace	Delete	Δ
Control+Enter	Enter	^M
Control+Gray Insert	Insert Line	^[[L
Control+Gray Delete	Delete Line	^[[M
Control+Gray End	Erase End of Line	^[[K
Control+Gray Pagedown	Clear Screen	^[[H^[[2J
Control+Gray Up	Application Cursor Up	^[[OA
Control+Gray Down	Application Cursor Down	^[[OB
Control+Gray Left	Application Cursor Left	^[[OD
Control+Gray Right	Application Cursor Right	^[[OC
Control+Pad /	/	/
Control+Pad *	*	*
Control+Pad -	Keypad Application MINUS	^[[Om
Control+Pad +	Keypad Application COMMA	^[[OI
Control+Pad Enter	Keypad Application Enter	^[[OM
Control+Pad .	Keypad Application .	^[[On
Control+Pad 0	Keypad Application 0	^[[Op
Control+Pad 1	Keypad Application 1	^[[Oq
Control+Pad 2	Keypad Application 2	^[[Or
Control+Pad 3	Keypad Application 3	^[[Os
Control+Pad 4	Keypad Application 4	^[[Ot
Control+Pad 5	Keypad Application 5	^[[Ou
Control+Pad 6	Keypad Application 6	^[[Ov
Control+Pad 7	Keypad Application 7	^[[Ow
Control+Pad 8	Keypad Application 8	^[[Ox
Control+Pad 9	Keypad Application 9	^[[Oy
Control+Pad Delete	Keypad Application .	^[[On
Control+Pad Insert	Keypad Application 0	^[[Op
Control+Pad End	Keypad Application 1	^[[Oq
Control+Pad Down	Keypad Application 2	^[[Or
Control+Pad Pagedown	Keypad Application 3	^[[Os
Control+Pad Left	Keypad Application 4	^[[Ot
Control+Pad Clear	Keypad Application 5	^[[Ou
Control+Pad Right	Keypad Application 6	^[[Ov
Control+Pad Home	Keypad Application 7	^[[Ow
Control+Pad Up	Keypad Application 8	^[[Ox
Control+Pad Pageup	Keypad Application 8	^[[Oy
Shift+Control+Pad Down	Application Cursor Down	^[[OB
Shift+Control+Pad Left	Application Cursor Left	^[[OD
Shift+Control+Pad Right	Application Cursor Right	^[[OC
Shift+Control+Pad Home	Insert Line	^[[L
Shift+Control+Pad Up	Application Cursor Up	^[[OA

IBM 3270

QmodemPro Key	Terminal Key	Characters Sent
Tab	Tab	^T
F1	PF1	^A@^M
F2	PF2	^AA^M
F3	PF3	^AB^M
F4	PF4	^AC^M
F5	PF5	^AD^M
F6	PF6	^AE^M
F7	PF7	^AF^M
F8	PF8	^AG^M
F9	PF9	^AH^M
F10	PF10	^AI^M
Backspace	Newline	^H
Enter	Enter	^M
Pause	Clear	^T*
Gray Insert	Insert	^[E
Gray Delete	Delete	Δ
Gray Home	CrHom	^^
Gray End	Clear EOF	^[R
Gray Pageup	PA1	^AF^M
Gray Pagedown	PA2	^AG^M
Gray Up	Cursor up	^K
Gray Down	Cursor down	^V
Gray Left	Cursor left	^H
Gray Right	Cursor right	^L
Pad /	/	/
Pad *		^A^E^M
Pad -	-	-
Pad +	Clear all	^Z
Pad Enter	Clear all	^Z
Pad .	.	.
Pad 0	0	0
Pad 1	1	1
Pad 2	2	2
Pad 3	3	3
Pad 4	4	4
Pad 5	5	5
Pad 6	6	6
Pad 7	7	7
Pad 8	8	8
Pad 9	9	9
Pad Delete	Delete	Δ
Pad Insert	Insert	^[E
Pad End	Clear EOF	^[R
Pad Down	Cursor down	^V
Pad Left	Cursor left	^H
Pad Clear	Back tab	^[t
Pad Right	Cursor right	^L
Pad Home	CrHom	^^
Pad Up	Cursor up	^K
Shift+Tab	Back tab	^[t

Shift+F1	PF13	^A^M
Shift+F2	PF14	^Aa^M
Shift+F3	PF15	^Ab^M
Shift+F4	PF16	^Ac^M
Shift+F5	PF17	^Ad^M
Shift+F6	PF18	^Ae^M
Shift+F7	PF19	^Af^M
Shift+F8	PF20	^Ag^M
Shift+F9	PF21	^Ah^M
Shift+F10	PF22	^Ai^M
Shift+Pad Delete	.	.
Shift+Pad Insert	0	0
Shift+Pad End	1	1
Shift+Pad Down	2	2
Shift+Pad Pagedown	3	3
Shift+Pad Left	4	4
Shift+Pad Clear	5	5
Shift+Pad Right	6	6
Shift+Pad Home	7	7
Shift+Pad Up	8	8
Shift+Pad Pageup	9	9
Control+F5		^A^M
Control+F6		^A.^M
Control+F7	Print	^A/^M
Control+F8		^[^R
Control+F9	CrSel	^I
Control+F10	Erase EOL/EOF	^[I
Control+Backspace	Delete	Δ
Control+Enter	Return	^J
Control+Gray Home	Clear all	^Z
Control+Gray Pageup	Erase end of page	^[Y
Control+Gray Pagedown		^[y
Control+Pad End	Line delete	^[R
Control+Pad Pagedown		^[y
Control+Pad Home	Clear all	^Z
Control+Pad Pageup	Erase end of page	^[Y

Converting Your Phonebooks

QmodemPro for Windows 95 provides you with an automatic way to convert your phonebooks with the Conversion Wizard, but scripts are not compatible.

To convert the phonebook from the DOS versions of Qmodem, QmodemPro for DOS, QmodemPro for Windows, and Qmodem Test Drive, as well as Procomm Plus for Windows v 1.0 and v2.0, Procomm Plus DOS v1.1, Procomm Plus DOS v2.0, WinComm 1.1, Telix DOS v3.x, Telix for Windows v1.x, and Crosstalk, start QmodemPro for Windows 95 and open the phonebook or click the mouse on the [Dialer](#) button. Use the Phonebook menu command [File/Import](#) and select the name of the old phonebook. You will be guided by a “conversion wizard” through the conversion process. A wizard is a series of dialog boxes designed to take you step-by-step through a process.

The conversion wizard will help you to create a new phonebook using the same name with the extension .PHN. If using the same name would overwrite an existing file, you will be prompted to select a unique name. The QmodemPro for Windows 95 default dialing directory is C:\QMWIN\QMWIN.PHN.

Due to changes in structures, DOS script files cannot be converted to the new Script Language Interface for Qmodem (SLIQ) format.

[Script](#) files used with QmodemPro for Windows can be recompiled automatically for use with QmodemPro for Windows 95. Copy the scripts into the new phonebook script directory. Enter the script name to the new phonebook entry. When you dial this number, QmodemPro for Windows 95 will automatically recompile the script using the Windows 95 format.

Some older Qmodem and QmodemPro for Windows scripts may not run. You will need to remove all fax, device, and direct-to-modem commands, then recompile.

A note on conversions

Some of the features in QmodemPro for Windows 95 are completely new. QmodemPro for Windows 95 is the most versatile version yet.

You may be familiar with fax features in older versions of Qmodem. Because TAPI allows programs to “share” modems, Windows 95 includes a fax software package that can share resources with other applications. Now, you can send a fax with any information from QmodemPro for Windows 95 by using the **Send** command. Fax options in QmodemPro for Windows 95 have been removed.

Also, there are no devices in QmodemPro for Windows 95. Windows 95 takes care of all the device (now called modem) information. You are still able to fine tune your modem in QmodemPro for Windows 95, but in most cases, you won't need to.

If for some reason you must “talk” directly to your modem, you now must tell QmodemPro for Windows 95 and Windows 95. To issue commands directly to your modem, you must first select the [Direct Connection](#) option.

You may find that your scripts need to be adjusted and recompiled to remove device, fax, or modem commands that are no longer used by QmodemPro for Windows 95.

If you have used the DOS version of QmodemPro, Qmodem v5, Qmodem Test-Drive, or the older shareware version of Qmodem, you will find QmodemPro for Windows 95 is substantially different.

The Main Menu

When you first open QmodemPro for Windows 95, you will see the main menu. This is where the menu commands, toolbar, macrobar, statusbar, and terminal screen are launched from.

Menu commands are accessed through this menu. Click on the menu command to execute it, or bring up a dialog box if more information is required. Toolbar commands can be accessed from the toolbar, which is completely configurable, as is the macrobar. Refer to your manual for more information about configuring these options.

The menu command line offers you options for [Files](#), [Edit](#), [View](#), [Connection](#), [Scripts](#), and [Tools](#). It also gives you access to help.

The [terminal screen](#) is where all of your online data will normally appear.

The macrobar appears at the bottom of the screen. You can have a different macrobar for each phonebook entry, if you want.

Under the macrobar is the statusbar. This shows you the current state of QmodemPro for Windows 95.

Customizing the Desktop

You can customize the look of your desktop by using the [Tools/Options/Desktop](#) menu choice.

The desktop pattern is a simple repeating geometric pattern made of two color squares. You can select from a number of different patterns in the list box at the top corner of this dialog box by clicking on the arrow at the right side of the box. Select **None** if you don't want to have a background pattern, or select one of the patterns in the list, if you prefer.

The [Color](#) options allow you to change the colors that make up the pattern. Use the foreground and background color buttons to view a list of available color options.

The [Wallpaper](#) option allows you to select a Windows .BMP file to display on the Desktop. The bitmap image is displayed on the desktop surrounding the terminal screen. For a repetitive pattern made up of a small bitmap, select [Tile](#). To center a larger bitmap on your desktop, select [Center](#). If wallpaper is used, the selection of patterns and colors may be covered in part or entirely by the wallpaper.

If you have a sound card in your PC, QmodemPro for Windows 95 can use it to play .WAV files to signify system events such as a successful connection, the completion of a file transfer, and more.

Go to the **Tools/Options** menu and select the [Sounds](#) property sheet to make changes. A property sheet will pop up showing a list of sound events you can modify. Highlight the entry you want to edit, and click the **Name/Browse** button. A standard Windows Common Dialog Box will pop up showing a list of WAV files in the bottom window, and options to search different drives and directories in the top window.

This is the drive and directory path *QmodemPro for Windows 95* places files downloaded from a host system. Files can be placed in a different directory when the default path is changed, or moved to a different directory at any time.

This is the path that *QmodemPro for Windows 95* checks first for files when you request an upload. Files can be placed in a different directory when the default path is changed, or moved to a different directory at any time.

This is the path *QmodemPro* for *Windows 95* checks for script files to compile or execute.

This is the path where *QmodemPro for Windows 95* checks for RIP icons. The default path is C:\QMWIN\RIPICONS. This path only needs to be entered if RIPscrip is used as the default emulation for the phonebook entry.

This is the filename and path assigned to the screen trap (or snapshot) file. Using the Edit/Screen to File command tells QmodemPro for Windows 95 to place the contents of the current screen to this file.

This is the filename and path assigned to the capture file. Using the Edit/Screen to Capture command tells QmodemPro for Windows 95 to place the contents of the current screen capture to this file.

This is the path and filename assigned to be used as the default the session log name. The log file is the repository of information about on line sessions.

This is the default filename assigned to the rollback buffers.

Sets the default print device. This can be a printer port or a file on disk.

When this option is on, *QmodemPro for Windows 95* automatically records activity in the log file (session log). This option can also be turned on manually.

When this option is on, time and date headers (stamped either by date the file was received or the date the file was created) are inserted before data in the Screen Trap, Capture, and Scrollback files.

Enter the name of the phonebook file to use as your default phonebook. The default phonebook is the one that will open automatically when you click on the phonebook icon. Use the browse button to see other filenames, paths, and drives to choose from.

Type in the area code you are calling from. If you are dialing through a PBX or similar system, turn the "Use Country Code and Area Code to dial" feature off.

The name of the country you are calling from should appear here. The default country is the United States. To see other countries, click the mouse on the down arrow to the right of the Country Code window.

Sets the number of seconds to wait between unsuccessful dialing attempts. For instance, if you want to wait 5 seconds before trying again after a timeout or busy response, enter a "5" in the text box.

Sets the default modem to be used when dialing from this phonebook. For a list of modems detected by Windows 95, click on the down arrow to the right of the Dial Modem window.

If this option is turned on, the default phonebook selected above will be loaded when *QmodemPro for Windows 95* is first started. If it is turned off, no phonebook will be automatically loaded.

If this option is turned on, changes made to the phonebook during use will be saved automatically. Otherwise, you will be prompted to save changes any time you close the phonebook after changes are made.

If you select a pattern, the selected pattern is displayed in the terminal window, on the screen area outside the borders of the terminal screen. To see a list of available patterns, click on the down arrow to the right of the text box. A drop down box will appear with a list of available patterns.

Select the color to use for the terminal screen foreground. Click on the down arrow to see all foreground color choices.

Select the color to use for the terminal screen foreground. Click on the down arrow to see all background color choices.

Type in the name of a bitmap (.BMP) file to be displayed on top of any desktop pattern you may have selected. The default wallpaper is none. Choose Browse to see other drives, directories, and filenames to choose from.

When this option is on, no wallpaper is displayed.

When this option is on, the bitmap file is repeated across the screen.

When this option is on, the bitmap file is displayed at the center of the screen.

Scroll mode displays the terminal screen by scrolling upwards as new data is received. The older data will scroll off the top of the screen as new data is displayed.

This requires a choice between two options. Click on each individual option for more detail.

When the Selected Font option is on, you must manually select a font size in the Emulations/Options section. This will not change when the terminal window is resized. Select "Based on Window" if you want the font size to automatically adjust to the screen size.

This option determines the size of the font to be used by the size of the terminal screen. If you resize the terminal window, the size of the font will automatically adjust. Select "Selected Font" if you do not want the font size to change when the screen is resized.

Controls how *QmodemPro for Windows 95* updates the screen to display incoming data. Character mode refreshes the screen each time a new character is received. This is the slowest method . This option should be used if your hardware is not capable of supporting the faster modes.

If this option is turned on, the terminal will accept international keystrokes.

If this option is turned on, a confirmation request will pop up when a hangup command is sent, confirming that you do want to break the current connection. You then have the option to accept or cancel the hangup command.

When this option is selected, toolbar buttons appear in large mode. This means only that they are larger than the normal size icons used as the default size in the toolbar.

Some modems always default to reporting Carrier Detect until told to report the true state of the carrier. If your modem *cannot* be set to report the true state of the carrier detection, this option should be turned on.

This window lists all events, such as connections, busy signals, download successes, etc., allowing you to select .WAV sounds to notify you of their occurrence.

Lists all available sounds and their associated .WAV file. Click the down arrow to display a list of sounds available in the default path. Select Browse to choose from other drives and directories.

Clicking this button lets you preview the sound that you have associated with an event, so that you can change it before you save, if needed.

Lists all emulations available. To set an emulation as default, highlight the emulation and press the Set Default button. To change the properties of an emulation, highlight the emulation and click on Properties.

Allows you to select options for a specific emulation. ANSI, the default emulation, is fine for most users.

Controls what color is selected when Esc[m or Esc]0m is executed. When on, color becomes white on black.

If on, cursor will automatically move to the next line down when writing a character in the last column on the screen. If off, then the cursor does not move down to the next line after reaching the last column.

Controls how the NULL character is handled. If on, NULL character is displayed as a space. If off, Null character is stripped from the incoming screen.

If on, character to the left of cursor is erased when a backspace (^H) character is received. If off, cursor is moved to the left but character remains.

This option adds a line feed character whenever a carriage return is sent to end a line and move to the beginning of the next one. Some remote systems may expect a line feed with each carriage return to advise the system that the end of the line has been reached.

Toggles the stripping of the high bit on and off. If on, the high bit is set by the receiving system.

This setting determines the height of your screen. Changing the value makes the screen taller or shorter.

Sets the number of lines available to be saved in the scrollback buffer.

Selects 80 character columns per line.

These options allow you to determine whether to respond to an ENQ from the host system. Enable allows a response, Disable allows no response, and CIS B+ sends the response commonly requested by CIS B+ emulation. CIS+ B transfers are started automatically and controlled by the host.

If Enable is selected, type in Enquire Sequence that is expected by the host system. If enable is not selected, any entry In this field will be ignored.

Opens the emulation keyboard mapping dialog box, allowing you to attach commands to function keys and other keyboard keys.

Restores the selected emulation to its default settings, undoing any changes in the setting you may have made.

Select the font you want the emulation to use. Click on the down arrow to see a list of available fonts for the specified emulation.

Click the down arrow to the right of the list box to see a list of sizes available for the chosen font.

Select the color that you want the text to appear. Click on the down arrow to see a palette of available colors.

Select the color used as the background color for the text. Click on the down arrow to see a palette of available colors.

Toggles the ANSI music option on and off.

When downloading files, this option causes files with the same name as the one being downloaded to be overwritten. If this option is on, the autoincrement option must be off.

When downloading files, automatically increments the last character of the filename when a file with the same filename exists in the download path.

When a download aborts, this option saves the portion of the file that was successfully received.

When toggled on, allows you to view .BMP, .GIF, and .JPG files as they are downloaded. If this option is not chosen, pictures are not automatically viewed during download.

The file date header for batch transfers is set as the actual date and time they were received by your computer.

Sets the file date header for batch transfers as the original date of the file.

Opens a property sheet allowing you to set upload and download options specific to the Ascii protocol.

Opens a property sheet allowing you to set error detection and other settings specific to the Kermit protocol.

Opens a property sheet allowing you to set CRC and Autostart options specific to the Zmodem protocol.

Toggles the QuickLearn option, allowing *QmodemPro for Windows 95* to learn a script by recording online commands.

Select a translation table to be used from the list of available tables.

Opens a dialog box allowing you to add a translation table to the available list. This can be one that you create yourself, but it must reside in the *QmodemPro for Windows 95* directory.

Removes the highlighted translation table from the list of tables available for selection.

Opens a dialog box which allows you to change incoming and outgoing translation of specific characters.

Sets the highlighted table as the default. This table is then shown in the Default box.

Opens a dialog box allowing the customization of the available toolbar buttons.

Opens a dialog box allowing the customization of available macrobar buttons.

Opens a dialog box requesting a text filename and loads it into the Text Editor.

Opens a dialog box requesting a .BMP, .GIF, or .JPG filename and loads it into the Picture Viewer.

Opens a dialog box requesting a script. This command then opens the script and executes it.

Opens a dialog box requesting a script filename., then opens the Script Editor and loads the requested script.

Opens a dialog box requesting a script filename, then compiles the requested script.

Opens a dialog box requesting a script filename, then compiles the script. If the script has errors, the debugger is then opened.

Loads and executes the Host Mode script, allowing you to receive incoming data calls.

Opens a list of emulations available. Select the emulation you want to use, and click OK.

Clears the current terminal screen of any data.

Resets the current emulation to its default settings. If you have made changes to the emulation settings, this command will restore the original default setting, undoing your changes.

Sends a hangup command, forcing the modem to terminate the current connection.

Sends a break command, which is used to tell the receiving computer to interrupt whatever it is doing.

Most systems other than mainframes do not use Xon/Xoff. If Xon/Xoff flow control was enabled erroneously, use this command to clear the XOFF flow control.

Toggles the Full Duplex option on and off. When on, the host system echoes your keystrokes back to you. A check mark appears next to this when the option is turned on.

Toggles the "Add LF to CR" off and on. When on, a checkmark appears beside the option, adding a line feed to carriage returns.

Toggles the 8th bit strip command on and off. When on, a checkmark appears beside the option.

Allows you to send the entire PC keyboard scan codes to the remote system. The remote system must support this feature for it to work properly. A checkmark appears beside this menu selection if this option is turned on.

Toggles the Auto Answer option on and off. When on, your system is set to receive incoming data calls. A checkmark appears by this option when it is turned on.

Allow a direct connection to your terminal, bypassing TAPI and your modem.

Allows you to choose the port to connect directly through from a list of available ports detected by Windows 95.

Specifies the baud rate for this port. If you are unsure what the value should be, consult your hardware documentation or use the default value. Default is 19200.

Specifies the parity for this port. If you are unsure what the value should be, consult your hardware documentation or use the default value. Default is None.

Specifies the data bits for this port. If you are unsure what the value should be, consult your hardware documentation or use the default value. Default is 8.

Specifies the stop bits for this port. If you are unsure what the value should be, consult your hardware documentation or use the default value. Default is 1.

Specifies the baud rate for this port. If you are unsure what the value should be, consult your hardware documentation or use the default value. Default is 19200.

Specifies the data bits for this port. If you are unsure what the value should be, consult your hardware documentation or use the default value. Default is 8.

Specifies the parity for this port. If you are unsure what the value should be, consult your hardware documentation or use the default value. Default is None.

Specifies the stop bits for this port. If you are unsure what the value should be, consult your hardware documentation or use the default value. Default is 1.

Specifies the flow control for this port. If you are unsure what the value should be, consult your hardware documentation or use the default value. Default is None.

Restores the settings of a direct connection to the default settings (19200, 8, N, 1).

A 16550 UART chip is required for this option, which allows the FIFO buffers to be activated, and the settings used for them.

Toggles the View Toolbar option on and off. If this option is on, a checkmark appears beside the command and the toolbar is visible. If off, the toolbar is hidden.

Toggles the View Macrobar option on and off. If this option is on, a checkmark appears beside the command and the macrobar is visible. If off, the macrobar is hidden.

Toggles the View Status option on and off. If this option is on, a checkmark appears beside the command and the statusbar is visible. If off, the statusbar is hidden.

Toggles the split screen mode on and off. When on, a checkmark appears beside the command, and the screen is divided into two areas, separating incoming (in the top screen) and outgoing text (in the bottom screen).

Opens or closes the File Clipboard. When toggled on, a checkmark appears beside the command, and the File Clipboard is opened, allowing you to save filenames to a list for uploading or downloading.

Allows you to view the scrollback log. A slider appears along the right side of the terminal window, giving you access to the scrollback log data.

Toggles the Scrollback Record feature on and off. When on, a checkmark is visible beside the command, and all data from the terminal screen is recorded to the scrollback log. The log can be viewed by using the Scrollback command.

Removes all data from the rollback log.

Copies selected text to the clipboard. The CTRL+INSERT key combination can be used for this function, also.

Pastes selected text from the clipboard. The SHIFT+INSERT key combination can be used for this function, also.

Opens an option allowing you to send the current screen data to the clipboard, a capture file, a trap screen, the printer, or a mail message.

Sends the current screen to the Windows clipboard, where it can be pasted into other screens or applications. Using this command will cause existing clipboard data to be deleted.

Opens a dialog box allowing you to select a capture file filename and send the current screen information to it. You can accept the default capture file name, or select a different drive and directory file.

Opens a dialog box allowing you to select a trap screen filename and send the current screen information to it. You can accept the default trap screen filename, or select a different drive and directory file.

Prints the current screen to the currently selected printer.

Opens the Microsoft Exchange and places the current screen into to an electronic mail message.

Opens an option allowing you to send the scrollbar log to the clipboard a capture file, a trap file, the printer, or an electronic mail message.

Sends the scrollback log to the Windows clipboard, where it can be pasted into other screens or applications. Using this command will cause existing clipboard data to be deleted.

Opens a dialog box allowing you to select a capture file filename and send the scrollback log to it. You can accept the default capture file name, or select a different drive and directory file.

Opens a dialog box allowing you to select a trap screen filename and send the scrollback log to it. You can accept the default trap screen filename, or select a different drive and directory file.

Prints the rollback log to the currently selected printer.

Opens the Microsoft Exchange and places the rollback log into to an electronic mail message.

Opens a dialog box allowing you to choose selected text to search for. Search by whole word or case, and up or down from the cursor.

Quits (and closes) *QmodemPro for Windows 95*

When the printer is toggled on, data is sent to the currently selected printer as well as to the terminal. When this option is on, a checkmark appears beside the selection.

Opens a dialog box allowing you to select a saved log file and loads it into the text editor for viewing.

Starts or stops the Session log, saving it to a default or defined filename . This log is used to keep track of major *QmodemPro* for *Windows 95* activity. When this option is on, a checkmark appears beside the menu selection.

Opens a dialog box prompting you to accept the default filename to save to or modify the path and filename. This command toggles the capture log on and off. When on, a checkmark appears beside the menu option, and all data is sent to a capture file as well as to the terminal screen.

Opens a dialog box prompting you to select a download protocol, directory, and then begins to download a requested file from the remote system.

Opens a dialog box prompting you for a list of files and their paths to send to the remote system, and then lets you send them.

Opens the Dialing Directory, or Phonebook, where dialing information and commands are kept.

Brings up a dialog box letting you choose options to customize the toolbar by adding, removing, and rearranging buttons.

Hides the toolbar. The toolbar can be viewed by toggling this option to Show Toolbar.

Hides the macrobar. The macrobar can be viewed by toggling this option to Show Macrobar.

Opens a dialog box allowing you to map programmable keys, save, and load other macrobars.

Hides the statusbar. The statusbar can be viewed by toggling this option to Show Statusbar.

Holding down the mouse on the titlebar allows you to change the location of the current window.

Allows you to change the size of the current window.

Reduces the size of the current window to an icon.

Enlarges the window to full size.

Closes the current window and prompts save information.

Clicking the right mouse button on the titlebar drops down a list of the following commands:

[Restore](#)IDH_Rightmouse_Titlebar_Restore
[Move](#)IDH_RightMouse_Titlebar_Move
[Size](#)IDH_RightMouse_Titlebar_Size
[Minimize](#)IDH_Rightmouse_Titlebar_Minimize
[Maximize](#)IDH_RightMouse_Titlebar_Maximize
[Close](#)IDH_Rightmouse_Titlebar_Close

Toggles the toolbar view on and off. When the Toolbar View is on, a checkmark appears beside the menu item and the toolbar is visible on the screen.

Toggles the statusbar view on and off. When the Statusbar View is on, a checkmark appears beside the menu item and the statusbar is visible on the screen.

Displays phonebook entries by using large icons. In this view, only the large icon assigned to the phonebook entry and the entry name are visible.

Displays phonebook entries by using small icons and the entry name, displayed across the phonebook window. In this view, only the icon assigned to the phonebook entry and the entry name are visible.

Displays phonebook entries by listing a small icon and entry name. This is similar to the Small Icon view.

Displays phonebook entries in detail view. All the user information about the phonebook entry is visible service (system name), primary number, modem, ID, etc.

Allows you to arrange the icons in your phonebook by name, number, last call date, total calls made, or automatically by *QmodemPro for Windows 95*.

Arranges the entries in the current phonebook alphabetically by system name.

Arranges the entries in the current phonebook numerically by primary number.

Arranges the entries in the current phonebook by last call made. The most recently called entry will be placed at the end of the entry list.

Arranges entries in the current phonebook in the order of total calls made to each entry.

Lets *QmodemPro* for *Windows 95* automatically line up phonebook entries in the order they appear.

Opens a dialog box prompting you for information about the number to be dialed, then dials the number.

Opens the dialer and dials the selected phonebook entry. Dialing status information is displayed until a connection is made.

Opens the Add Phonebook Entry property sheet, allowing you to create a new entry in the current phonebook.

Opens the Add Phonebook Entry property sheet and then inserts the new phonebook entry at the current location.

When a phonebook entry is highlighted, this command deletes the currently selected phonebook entry. You will be prompted for confirmation before deletion of the entry.

Opens the Edit Phonebook Entry property sheet for the selected phonebook entry, allowing you to view and change the properties of that entry.

Opens the Edit Groups dialog box. This menu option lets you add, delete, and edit phonebook entry groups.

Opens a Phonebook Conversion Wizard which will guide you step-by-step in converting phonebooks from other formats into the *QmodemPro for Windows 95* format.

Creates a new phonebook. You can copy existing entries from another phonebook to the new one, create new groups, add or revise entries. The new phonebook cannot have the same name as an existing phonebook.

The Connection property sheet contains text boxes allowing you to change the properties of the selected phonebook entry. These include [system name](#), icon, [phone number](#), [country code](#), [dialing properties](#), [alternate numbers](#), [modem](#) and [type](#).

Type the name of the system to be called in the text box. This name will be the one that appears in the phonebook. If you want to change the icon associated with the entry, click the Change Icon button.

Type the area code of the system to be dialed. This is a required field, even if it is a local call. TAPI will not use the area code to dial unless it is needed.

Type in the primary number to be used to dial the system. Do not use alpha characters, because TAPI will not recognize them.

Select the country that the system you are calling is located in. The default setting is the United States of America. To see a list of other countries recognized by Windows 95, click the down arrow at the right of the text box. A list will drop down. Click on the country you want to select it.

Opens a property sheet allowing you to set the properties for your own dialing options, including your default location, area code, country, special commands for your dialing system, and credit card dialing.

There are four text boxes allowing alternate numbers to be entered if the system you are calling has more than one phone number available. Note: All the alternate numbers must have the same area code and country code as the primary. If not, a separate entry should be created for each alternate number.

Choose the modem to use for dialing the entry. If you do not want to use the default modem, click on the down arrow at the right of the text box to see a drop down list of available modems seen by Windows 95. Click on the desired modem to select it.

Select the type of connection you want to make. This can be Data, Voice, or Telnet. Click the down arrow at the right of the text box to make your selection. Choose the type of communication you want to use for the phonebook entry. If you will be calling a BBS, an online service, or another type of data-based connection, choose **Data**. If you want to use the QmodemPro for Windows 95 phonebook to dial a voice line, select **Voice** type. One possible advantage of using QmodemPro for Windows 95 to dial for you is the automatic display dialog box, which shows you the length of your call, allows you to hang up, and can log all the information to a log file.

The **Telnet** connection type should be selected exclusively for telnet connections.

Opens a property sheet allowing you to change your configuration properties for this modem. Connection control, dial control, status control, connection preferences, call preferences, port settings, and general preferences options are available.

The Options sheet in Edit Phonebook Entry allows you to enter information about the [emulation](#), [transfer protocol](#), [User ID](#), [password](#), [notes](#), [macros](#), [script](#), [RIP icons](#), [dial retries](#) and [translation table](#) you want to use for the phonebook entry.

Select the emulation you want to use for this phonebook entry. Click the down arrow to the right of the text box to see a list of available entries. Click on the emulation you want to use to select it.

Select the transfer protocol (used for downloading and uploading) emulation you want to use for this phonebook entry. Click the down arrow to the right of the text box to see a list of available entries. Click on the protocol you want to use to select it. The default protocol is Zmodem, which is recommended for most users.

Type in the name that you use when connecting to this system. This item can also be used in scripts by using the USERID function.

Type in the password you use for this system. This item can also be used in scripts by using the `PASSWORD` function.

Type in the name of any note file you want associated with this entry. A note file can be any ASCII text file. The file can contain notes about the current phonebook entry, and *QmodemPro for Windows 95* will search this note file during a text search. Use the browse button to select a note file from a different directory or drive.

Enter the name and path of any macro file you want associated with this phonebook entry. When the entry is dialed, the macros from this file will be displayed on the macrobar at the bottom of the terminal window. Choose the browse button to select a macro file from a different drive or directory.

Type in the name of the script file you want associated with this entry. If you enter a script file in this field, it will be executed automatically when *QmodemPro for Windows 95* connects with the system in this entry, when the dial command is started from the phonebook. Choose the browse button to select a script file from a different drive or directory.

If you are using the RIPScip emulation for this entry, use the browse button to select the path, directory, and filename where the RIPScip icons are stored, if it is different from the default. If you enter a path here, *QmodemPro for Windows 95* checks it first, then the system path.

Enter the number of times you want the system to attempt to dial this entry until a connection is established. A zero in this field indicates an infinite number of retries.

Enter the name of any translation table you want associated with this phonebook entry. When the entry is dialed, the translation table will be loaded in and used. Choose the browse button to select from available translation tables.

This is the last date a connection was made to this phonebook entry.

This is the last time a connection was made to this phonebook entry.

The number of times you have successfully uploaded a file to this phonebook entry.

The number of downloads successfully received from this phonebook entry.

The number of times that you have connected successfully to this phonebook entry.

Click this button to clear all the statistic for this phonebook entry.

This is the main Edit Groups dialog box. From here, you can add new groups, delete groups, change the properties of the group, tag all the group entries in the phonebook, or dial the group entries.

Opens the Edit Group dialog box, allowing you to create a new group

Deletes the selected group. You are prompted for confirmation before the deletion occurs.

Opens the Edit Group dialog box, letting you change the properties of the group, such as the group name, entries selected for the group, and the dial mode.

Highlights all group members in the current phonebook.

Dials all members of the group

Closes the dialog box. You will be prompted to save any changes.

Allows you to change the groups name, dial mode, and associated phonebook entries.

The name of the selected group appears in the text box. To change the group name, type the new name in the text box.

If Continuous for All is checked, each entry in the group will be dialed until every entry has achieved a successful connection. If this option is not used, the dialer will stop after the first successful connection made to any group entry.

Shows all the statistics associated with the current phonebook entry, including [last date](#) on, [last time](#), number of [uploads](#) and [downloads](#), and times [connected](#). Pressing the Clear button will reset all the statistics to zero.

Allows you to enter information for a manual dial. This information is sent as if it were a phonebook entry, but is not checked for accuracy. The information needed for this dialog box includes [area code](#) and [number](#), [country code](#), [connect using](#), [type](#) of connection to establish, and [dialing properties](#), if needed.

Type the area code of the system to be dialed. This is a required field, even if it is a local call. TAPI will not use the area code to dial unless it is needed.

Enter the phone number you want to dial. Do not use alpha characters. They are not recognized by the TAPI dialer. This number will not be checked, so be sure you type in the correct number.

Opens a Windows 95 property sheet allowing you to set the properties for your own dialing options, including your default location, area code, country, special commands for your dialing system, and credit card dialing.

Choose the modem to use for dialing the entry. If you do not want to use the default modem, click on the down arrow at the right of the text box to see a drop down list of available modems seen by Windows 95. Click on the desired modem to select it.

Opens a Windows 95 property sheet allowing you to change your configuration properties for this modem. Connection control, dial control, status control, connection preferences, call preferences, port settings, and general preferences options are available.

Select the type of connection you want to make. This can be Data, Voice, or Telnet. Click the down arrow at the right of the text box to make your selection.

Click this button to begin dialing the number, once you have entered all the information and are satisfied that it is correct. A progress box will appear, showing you current dialing information.

Click this button to cancel the dial request and close the dialog box. No information will be saved.

Searches for specified text in the phonebook. Text in any attached notes file is also searched. Searches can be made in either direction of the current entry, finding each occurrence of the text, and if requested text is found, entries with text string can be tagged

Type in the text to search for. All phonebook entry fields are searched, and the search is case insensitive.

Continues the search for text, using text that is currently in the Text to find window.

Tags all phonebook entries with text matching the requested search criteria.

If Forward is selected, search is forward from the cursor to the end of the file. If Backward is selected, text is searched for from the cursor towards the beginning of the file.

Closes the dialog box. Note: The text is not removed, and appears the next time the Find Phonebook Entry dialog box is opened or until changed or removed.

Lists all entries in the current phonebook. To add an entry to the group, highlight the entry and click on Add.

Shows all phonebook entries added to the current group.

Clicking on this button copies all highlighted entries from the list of phonebook entries and places them into the Selected for Group text box.

Removes highlighted entries from the Selected for Group list. The phonebook entry still appears as a phonebook entry, and can be re-entered into the group at any time.

Clears all entries from the Selected from Group text box. All entries you want to put in this group must then be re-added.

Closes this dialog box and saves any changes you have made.

Closes this dialog box without saving any changes you have made.

There are two text boxes. Dragging a filename into the upper one allows you to edit the filename, making any changes needed. The lower text box is where the filenames are "stored" in a list.

Adds an edited filename from the upper text box, where it can be edited, to the lower text box, where it can be saved.

Removes the highlighted filename from the list.

Opens a Windows Common Dialog box allowing you to browse for a file to load into the file clipboard for download or editing. Files saved in the file clipboard have a .QFL extension.

Opens a Windows Common Dialog Box, allowing you to save the list as a different filename. This name should indicate what the files might have in common. This command will not overwrite an existing file.

Searches the terminal screen from the cursor upward toward the beginning of the list for highlighted text.

Searches the text on the terminal screen from the cursor downward for highlighted text.

Select the character used to separate filenames. Click on the down arrow at the right of the text box to make a selection. Options available are Carriage Return, Line Feed, Comma, and Space.

If this is on, long filenames are accepted, and sent. Some systems do not accept the long filename structure, so be sure that the remote system does before you enable this option.

Deletes each filename from the current list as soon as it is sent to the terminal window.

Issues the command to send the list of filenames to the terminal windows. Launches the download.

Filenames can be dragged into a text box, where they can be stored. Allows you to cut, paste, search and send filenames from the terminal window. Save groups of filenames to be downloaded at any time.
Closes this property sheet and saves any changes you have made.

Closes this property sheet without saving any changes you have made.

This dialog box makes all options available to customize your toolbar, [add](#), [remove](#), and [change the order](#) of toolbar [icons](#) shown on the toolbar.

This scroll-down list shows all the icons available and their function. Any of these icons may be added to the toolbar by highlighting it and clicking Add.

This is a list of the icons currently visible on the toolbar. These may be removed or added to, and the order may be changed, by highlighting the icon to change and clicking on the appropriate button.

Adds the highlighted button from the Available Buttons box to the Toolbar Buttons box, making it visible on the toolbar.

Removes a highlighted icon currently on the toolbar to the Available Buttons text box. This icon is still available, but will not be displayed on the toolbar unless it is added again.

Moves the selected button up one line. On the toolbar, it moves one space to the left.

Moves the selected button down one line. On the toolbar, it moves one space to the right.

Closes the dialog box, accepting any changes you have made.

Restores the default set of icons in the currently active window.

If you are sending a file to a computer that uses something other than the standard carriage return/line feed indication that the line has ended, you may want to change the handling. Click on the down arrow to the right of the text box to make your selection. Options include Receive Carriage Return, Send Line Feed after Carriage Return, and Strip Carriage Return.

If you are sending a file to a computer that uses something other than the standard carriage return/line feed indication that the line has ended, you may want to change the handling. Click on the down arrow to the right of the text box to make your selection. Options include Receive Line Feed, Add Carriage Return before Line Feed, and Strip Line Feed.

This is the character that the text editor uses as the last character in a line. most often, this is a line feed or carriage return. If your text editor uses a different character to indicate end-of-line, enter its decimal value here.

If the Use Pace Character is turned on, QmodemPro for Windows 95 will wait until that character is received before it sends the next line. Use this option only when you are sure that the remote system always prompts for each line of text with the same character.

Enter the number of milliseconds to pause between sending characters during an ASCII upload, if one is needed.

Enter the number of milliseconds to pause between sending lines during an ASCII upload, if one is needed.

If this is set to on, a checkmark will appear beside the option, and outgoing data is translated according to the translation table for the emulation currently in effect.

If this is set to on, a checkmark will appear beside the option, and QmodemPro for Windows 95 looks for the character entered in the Pace Character field as a signal to send a line of text.

If this is set to on, a checkmark will appear beside the option, and blank lines will be expanded to include at least one blank space. Many BBSs interpret a blank line (without a space) as the end of a message.

If this is set to on, a checkmark will appear beside the option, and text is displayed on the terminal screen during an ASCII upload.

If you are receiving a file from a computer that uses something other than the standard carriage return/line feed indication that the line has ended, you may want to change the handling. Click on the down arrow to the right of the text box to make your selection. Options include Receive Carriage Return, Send Line Feed after Carriage Return, and Strip Carriage Return.

If you are receiving a file from a computer that uses something other than the standard carriage return/line feed indication that the line has ended, you may want to change the handling. Click on the down arrow to the right of the text box to make your selection. Options include Receive Line Feed, Add Carriage Return before Line Feed, and Strip Line Feed.

The timeout value is the amount of time QmodemPro for Windows 95 waits after receiving the last character before it terminates the transfer and saves the file if a standard end-of-file marker is not received.

If this is set to on, a checkmark will appear beside the option, and incoming data is translated according to the translation table for the emulation currently in effect.

If this option is turned on, QmodemPro for Windows 95 ignores the high bit and saves only seven characters. This option might be required if the online service or remote system sends the 8th bit and causes weird-looking foreign language character to appear on your screen instead of regular text.

If this is set to on, a checkmark will appear beside the option, and text is displayed on the terminal screen during an ASCII download.

If this is set to on, a checkmark will appear beside the option, and tab characters will be displayed as 8 spaces. If this option is turned off, a literal tab character (09 decimal) is displayed.

Default is 1024. The default provided is correct for most circumstances, and should not be changed except on the advise of the System Administrator of the host system you plan to call.

Default is 4. The default provided is correct for most circumstances, and should not be changed except on the advise of the System Administrator of the host system you plan to call.

Default is 0. The default provided is correct for most circumstances, and should not be changed except on the advise of the System Administrator of the host system you plan to call.

Default is 0. The default provided is correct for most circumstances, and should not be changed except on the advise of the System Administrator of the host system you plan to call.

Default is 13. The default provided is correct for most circumstances, and should not be changed except on the advise of the System Administrator of the host system you plan to call.

Default is 35. The default provided is correct for most circumstances, and should not be changed except on the advise of the System Administrator of the host system you plan to call.

Default is 126. The default provided is correct for most circumstances, and should not be changed except on the advise of the System Administrator of the host system you plan to call.

Default is 89. The default provided is correct for most circumstances, and should not be changed except on the advice of the System Administrator of the host system you plan to call.

Default is CRC. The default provided is correct for most circumstances, and should not be changed except on the advise of the System Administrator of the host system you plan to call.

Returns the settings to their original default values, undoing any changes you have made.

Applies the new setting to the currently loaded application.

CRC (Cyclical Redundancy Check) is the error checking method used by Zmodem. In cases where CRC type 32 is supported, it will automatically be used. If 32-bit is not supported, 16-bit will be automatically negotiated. Selecting CRC 16 forces the 16-bit CRC to be used.

When Autostart is on, a checkmark appears beside the menu option and Zmodem file transfers start immediately without prompting for a start command to be sent.

The default for this option is on. Unless you are using a PBX or similar system that requires special dialing considerations, this feature should be turned on. TAPI requires an area code and country code when dialing directly through the modem.

Accepts and saves your selections.

Closes the property sheet without saving changes.

Activates the selected features immediately.

Opens the Edit Notes File dialog box, allowing you to browse through directories and drives to select the Notes file to be attached to the entry.

Opens the Select Macro File dialog box, allowing you to browse through directories and drives to select the Macro file to be attached to the entry.

Opens the Edit Script File dialog box, allowing you to browse through directories and drives to select the Script file to be attached to the entry.

Opens the Browse for Folder dialog box, allowing you to browse through directories and drives to select the Ripcon file to be attached to the entry.

Opens the Browse for Folder dialog box, allowing you to browse through directories and drives to select the default download path.

Opens the Browse for Folder dialog box, allowing you to browse through directories and drives to select the default upload path.

Opens the Browse for Folder dialog box, allowing you to browse through directories and drives to select the default script directory.

Opens the Browse for Folder dialog box, allowing you to browse through directories and drives to select the default Riplcon directory.

Opens the Select Screen Trap File dialog box, allowing you to select the default path and filename for the Screen Trap File.

Opens the Select Capture File dialog box, allowing you to select the default path and filename for the Capture File.

Opens the Select Log File dialog box, allowing you to select the default path and filename for the Log File.

Opens the Select Default Phonebook dialog box, allowing you to select the default path and filename for the Phonebook.

Opens the Select Wallpaper dialog box, allowing you to browse through available directories and drives to select your default wallpaper file.

Displays the selected options as they will; appear on your terminal screen.

Opens a Browse For dialog box, allowing you to set the default for .WAV file sounds associated with events.

Opens a property sheet containing details about the sound you have selected.

Previews the sound you have selected.

Turns off the sound preview.

Shows details about the currently selected sound file.

Shows the volume level of the sound currently selected.

Displays the currently selected fonts and colors options as they will appear on the terminal screen.

Selects 132 character columns per line. The remote system must also support this feature for text to format correctly.

Controls how *QmodemPro for Windows 95* updates the screen to display incoming data. Line mode refreshes the screen each time a new line is received. This is the slowest method . This option should be used if your hardware is not capable of supporting the faster modes.

Controls how *QmodemPro for Windows 95* updates the screen to display incoming data. Block mode refreshes the screen only when a block of data is received. This is the fastest method. Your hardware must support

When the Repaint option is chosen, the screen is repainted completely when a new line of data is received.

Overrides the Windows 95 definition of the F10 key and allows you to define it yourself.

Retains the Windows F10 mapping which activates the current Windows menu.

Disables the numlock in the remapping window. If this feature is on, the assigned function is active in the terminal screen.

This is used by the keyboard mapper to toggle the numlock pad of the keyboard between numbers and arrows.

Uses the Tab key to move the current screen focus from one item to the next. This option is only valid for the keyboard mapping dialog box.

Uses the keystroke (first letter of the key you want to remap) to change the focus of the current screen. This option is only valid for the keyboard mapping dialog box.

Select this if you are using a 101 key keyboard. This option is only valid for the keyboard mapping dialog box.

Select this if you are using an 84 key keyboard. This option is only valid for the keyboard mapping dialog box.

Assigns the key shown in the normal key mode.

Assigns the key shown as it will be used in conjunction with the shift key.

Assigns the key shown as it will be used in conjunction with the control key.

Assigns the key shown as it will be used in conjunction with the control and shift keys.

Edits format in character mode.

Edits format in decimal mode.

Edits format in hexadecimal mode.

Disables the ability of *QmodemPro for Windows 95* to respond to an ENQ sequence.

Enables the ability of *QmodemPro for Windows 95* to respond to an ENQ sequence.

Enables *QmodemPro* for *Windows 95* to respond to CIS B+ ENQ sequences.

No help topic is available for this object. Click on a specific item for detailed help about this dialog box.

Opens the Save Phonebook dialog box, allowing you to open an existing phonebook.

Saves the current phonebook with any changes you have made.

Saves the current phonebook with changes you have made with a different name, leaving the original intact.

Opens a conversion wizard, allowing you to Import phonebooks from other formats into QmodemPro for Windows 95 format.

Opens the Print Phonebook dialog box, allowing you to print selected entries.

Opens the Print Setup dialog box, allowing you to select printer options.

Exit the current phonebook. You will be prompted to save any changes.

Lets you choose to send the data on the current screen to a file, mail, or the printer.

Lets you choose to send the data in the scrollbar buffer to a file, mail, or the printer.

Lets you send selected text to a file, mail, or the printer.

Allows you to view the properties of the current direct connection.

Opens the Toolbar or Macrobar Customize dialog box.

Opens the Translate Tables options dialog box.

Opens the Options property sheet, allowing you to customize QmodemPro for Windows 95 options.

Provides a list of current Help Topics

Provides important registration, contact and version information about *QmodemPro for Windows 95*.

Drops down a File menu, letting you open the phonebook, select data recording and upload/download options.

Drops down an Edit menu, containing options for editing text on screen.

Drops down a View menu, allowing you to change the look of the terminal screen. Also provides access to the File Clipboard.

Drops down a Connection menu, allowing you to change emulation, connection type, and connection settings.

Drops down a Scripts menu, allowing you to create, edit, debug, compile, and execute scripts.

Drops down a Tools menu, allowing you to select tools and options to customize the look of *QmodemPro for Windows 95*.

Provides Help information about *QmodemPro for Windows 95*.

Shows the status of the current connection.

Number keys (1 through 0) that can be assigned in combination with ALT, ALT+SHIFT, ALT+CTRL, and ALT+SHIFT+CTRL as macro keys.

Assigns the command to a keystroke combinations using ALT+ [KEY]

Assigns the command to a keystroke combinations using ALT+SHIFT+[KEY]

Assigns the command to a keystroke combinations using ALT + CONTROL+ [KEY]

Assigns the command to a keystroke combinations using ALT+SHIFT+CONTROL+[KEY]

This section lets you assign macros using the Alt, Shift, and Control keys in various combinations.

Allows you to choose to save and execute the macro assignments as Character, decimal, or hexadecimal format.

Saves the macro assignment in character format.

Saves the macro assignment in decimal format.

Saves the macro assignment in hexadecimal format.

Shows the currently assigned default macrobar.

Shows the macro label as it will appear on the macrobar.

Opens a New Macrobar dialog box, allowing you to create a new macrobar.

Saves the currently open macrobar with changes with a new name, allowing the original to remain unchanged.

Opens a Load Macrobar dialog box, allowing you to load a previously saved macro file.

Sets the currently open macrobar as the default.

Closes the macro keys dialog box, saving any changes you have made.

Drops down the File Menu, allowing you to open, save, import, and print phonebooks.

Drops down the Edit Menu, allowing you to manipulate phonebook entries.

Drops down the Dial Menu, allowing you to select specific phonebook entries and manual dialing entries.

Drops down the View Menu, allowing you to select options to change the way the phonebook looks.

Opens the *QmodemPro for Windows 95* Help engine.

Opens the Phonebook Open dialog box, allowing you to select an existing phonebook to open.

Save the current phonebook along with any changes you have made.

Opens a Phonebook Save As dialog box, allowing you to save changes you have made to a different phonebook name, leaving the original phonebook intact.

Opens the Print Phonebook dialog box, allowing you to select components of the current phonebook and print them.

Opens the Print Setup dialog box, allowing you to select printer options.

Exits the current phonebook, saving any changes you have made.

Removes selected entries and copies them to the Windows clipboard. Same as keyboard command CTRL+X.

Copies the selected phonebook entries to the Windows clipboard. Same as keyboard command CTRL+C.

Inserts the selected entry (or entries) that you have cut or copied from the Windows clipboard to the current cursor location. Same as keyboard command CTRL+V.

Searches phonebook entries for specified text.

Searches phonebook entries for the next incidence of specified text. Used in conjunction with Find.

Opens the Edit Groups dialog box, allowing you to edit a group or groups of phonebook entries.

Opens the Edit Group dialog box, allowing you to edit entries within a group.

Deletes selected groups from the phonebook.

Tags highlighted members of a group.

Dials all the members of the selected group.

Closes the Edit Group dialog box, saving any changes you have made.

Shows a list of the groups existing in a phonebook.

Lets you arrange phonebook entries by name, number, last time called, total number of calls, or automatically.

Lines up phonebook entry icons in the phonebook. Only valid for large or small icon view.

Opens the *QmodemPro for Windows 95* help engine.

Drops down a list of available protocols that may be used to upload files.

Sends the currently selected files from the list.

Removes the selected files from the list of files to be uploaded.

Opens a Load File List dialog box, allowing you to add another list to the currently selected list of files.

Opens a Save File List dialog box, allowing you to save the list of files to be uploaded.

Shows a list of files selected for upload.

Drops down a list of protocols available for use in downloading files.

Accept your selection.

Close the dialog box without saving your selection.

Scrolls to display the data as it is received from the remote system.

Repaints the entire terminal screen as new data is received from the remote system.

Select the type of display scrolling style you want. Choose between Scroll and Repaint.

The terminal font may be based on the window size or on a selected font. Only one option may be chosen.

Available options determining how the screen is updated. Options are Character, Line, or Block. Only one option may be selected.

Selects the use of a 1 byte error detection method.

Selects the use of a 2 byte error detection method.

Selects the use of CRC (Cyclical Redundancy Check) as the default error detection

Select a general Enquire option. This tells *QmodemPro for Windows 95* how to respond to Enquire requests. Only one of the three options may be selected at a time. Click on the specific option to see more details.

This group box has more than one option. Select a specific option for more information.

Shows the icon currently assigned to the phonebook entry.

Opens a dialog box allowing you to change the icon associated with the phonebook entry.

The alternate number that the dialer will try first if no connection is made with the primary number.

The alternate number that the dialer will try second if no connection is made with the primary and secondary numbers.

The alternate number that the dialer will try third if no connection is made with the primary and previous alternate number.

The alternate number that the dialer will try last if no connection is made using the primary or other alternate numbers.

This is the icon associated with the modem shown in the Connect Using list box.

Renames the selected phonebook entry.

Closes the manual dial dialog box without dialing the requested number. No changes are saved.

Toggles the Use country Code and Area Code feature on and off. If on, a checkmark appears beside the option. Default is on. This can be forced off when using a PBX or other system that will not accept the area code and country code in the dialing string.

Lists all countries recognized by Windows 95. To see available options, click the down arrow to the right of the listbox.

Closes the Edit Groups dialog box, saving any changes.

Closes the Edit Group dialog box without saving changes.

Closes the Edit Group dialog box and saves all changes.

Searches phonebook entries for specified text from the current cursor position upwards towards the top of the list.

Searches phonebook entries for specified text from the current cursor position downwards towards the bottom of the list.

Closes the Find dialog box.

Opens the Desktop Properties properties sheet, allowing you to change the look of the desktop.

Opens the Emulation property sheet for the currently active emulation.

Sends selected text to the terminal.

Closes the Select Dialog Protocol without completing download.

Accepts the protocol and opens the Select Directory dialog box.

Shows the default download directory. This can be accepted or changed.

Opens the Browse for Folder dialog box, allowing you to select files from a different drive and directory.

Closes the directory dialog box, accepts your selection, and begins the download.

Closes the Select Directory dialog box without beginning a download.

Displays the total number of files selected for upload.

Displays the total number of bytes in the files selected for upload.

Closes the file clipboard and saves any changes.

The upper of two text windows in the File Clipboard. Drag the filename into this box to edit it. Once you are satisfied with the edit, click Add to add the selection to the listbox.

Lists all the files currently entered in the File Clipboard list.

Closes the Select Emulation dialog box without saving changes.

Closes the Select Emulation dialog box and accepts the selection.

Opens an option box allowing you to send selected text to the clipboard, a capture file, a trap screen, the printer or a mail message.

Opens a dialog box allowing you to select a capture file filename and send selected text to it. You can accept the default capture file name, or select a different drive and directory file.

Opens a dialog box allowing you to select a trap screen filename and send selected text to it. You can accept the default trap screen filename, or select a different drive and directory file.

Prints the selected text to the currently selected printer.

Opens the Microsoft Exchange and places the selected text into to an electronic mail message.

Sends the selection to the Windows clipboard, where it can be pasted into other screens or applications. Using this command will cause existing clipboard data to be deleted.

Opens a Select Scrollback File dialog box, allowing you to select from a different drive and directory.

Selects the highlighted emulation as the default.

Displays the currently selected default emulation.

Allows you to select the use of true type fonts for RIPscrip emulation.

Enables the Vtxx emulation to allow 8 Bit Commands.

Displays the currently selected default translation table to use.

List the available emulations to select from.

Closes the Macro Keys dialog box and saves changes.

Activates the one (1) key to assign a macro key combination.

Activates the two (2) key to assign a macro key combination.

Activates the three (3) key to assign a macro key combination.

Activates the four (4) key to assign a macro key combination.

Activates the five (5) key to assign a macro key combination.

Activates the six (6) key to assign a macro key combination.

Activates the seven (7) key to assign a macro key combination.

Activates the eight (8) key to assign a macro key combination.

Activates the nine (9) key to assign a macro key combination.

Activates the zero (0) key to assign a macro key combination.

Displays the name of the macro as it appears on the Alt (A) macrobar.

Displays the name of the macro as it appears on the ALT+SHIFT (AS) macrobar.

Displays the name of the macro as it appears on the ALT+CONTROL (AC) macrobar.

Displays the name of the macro as it appears on the ALT+SHIFT+CONTROL (ASC) macrobar.

The incoming translation table controls which characters pass unchanged and which are translated to other characters.

The outgoing translation table controls which characters are sent out to a remote system unchanged and which are translated into other characters.

Selects the emulation translation format type as Character. Characters are displayed as text.

Selects the emulation translation format type as Decimal. Characters are displayed as ASCII character numbers.

Selects the emulation translation format type as Hexadecimal. Characters are displayed as ASCII character numbers in base 16 format.

Closes the Emulation Translation Table dialog box and saves changes.

Closes the Emulation Translation Table dialog box without saving changes.

Press the key you wish to map. Available keys are shown in black, while unavailable keys are grayed out.

Select the protocol you want to use for downloading. Click on the protocol to select it.

Copies the current data on the screen to the Windows Clipboard.

Copies selected text to a capture file.

Copies selected text to a file.

Sends selected text to the printer.

Opens the Microsoft Exchange and places the selected text into to an electronic mail message.

Uses the error correction method 32-bit CRC. This is automatic unless 32-bit CRC is not available.

Uses the error correction method 16-bit CRC. Zmodem automatically uses 32-bit CRC if it is available. If necessary, select 16-bit CRC to force Zmodem to use this method.

Closes the script debugger, saving changes.

Toggles the toolbar view on and off. When this feature is on, the toolbar is visible and a checkmark appears beside the selection.

Toggles the statusbar view on and off. When this feature is on, the statusbar is visible and a checkmark appears beside the selection.

Jumps the debugger over the subroutine.

Steps the debugger into the subroutine.

Returns the debugger to the calling subroutine.

Runs the script, allowing you to determine any possible errors.

Stops a script from running.

Toggles the Breakpoint on and off. When on, a checkmark appears beside the command and a red dot appears at the point that the script has produced an error.

Opens a Watch Variable dialog box, allowing you to select variables to look for in the script.

Clears all watch variables from the script.

Arranges the open windows in the debugger into a tiled pattern, with all windows visible.

Arranges open windows in the debugger into a cascaded view, one atop the other.

Arranges icons automatically.

Lists the last files viewed. Double click on the files to reopen.

Opens the QmodemPro for Windows 95 Help system.

The requested script is loaded into this window and is viewable.

Displays variables that have been loaded into the Watch Variable window.

Toggles the toolbar view on and off. When on, the toolbar appears at the top of the Debugger window.

Displays the options to toggle the breakpoint, watch a variable, or clear all watches.

Toggles the statusbar view on and off. When on, the statusbar appears at the bottom of the Debugger window.

Displays the current status of the debugging session.

Displays toolbar icons currently active.

Displays a combobox displaying the selected variable to watch for. Click OK to accept and place the variable into the watch window.

Accepts the selection and closes the Watch Variable dialog box.

Closes the Watch Variable dialog box without saving changes.

Deletes the selected watch variable.

Toggles the Hide Statusbar command on. The statusbar is no longer visible when this command is on.

Displays a dialog box allowing you to customize the toolbar.

Toggles the Hide Toolbar command on. The toolbar is no longer visible when this command is on.

Displays the icon associated with the modem you have selected to use when dialing the number.

Displays the incoming character as it is sent by the remote system.

Type in the character to be seen by your system when the incoming character is received.

Closes the translation table dialog box and saves changes.

Closes the translation table dialog box without saving changes.

Displays the outgoing character as it is sent to the remote system.

Type in the character to be seen by the remote system when the outgoing character is sent.

Closes the translation table dialog box and saves changes.

Closes the translation table dialog box without saving changes.

Customize Toolbar

Adds, removes, and rearranges buttons on the toolbars in the Viewer, Standard Send form, Standard Read form, and Find windows.

Available Buttons

Displays the buttons that you can add to the toolbar in the active window.

Add

Moves the button selected in the Available Buttons list to the Toolbar Buttons list.

Remove

Moves the button selected in the Toolbar Buttons list to the Available Buttons list.

Toolbar Buttons

Displays the buttons in the order they appear (from left to right) on the toolbar in the active window.

Reset

Restores the default set of buttons on the toolbar in the active window.

Move Up

Moves the selected button up one line. On the toolbar, the button shifts left one space.

Move Down

Moves the selected button down one line. On the toolbar, the button shifts right one space.

Closes the Options dialog box and saves changes.

Closes the options dialog box without saving changes.

Displays the key currently being mapped.

Displays the macro assigned to the key.

Displays the macro assigned to the key when used in conjunction with the Shift key.

Displays the macro assigned to the key when pressed in conjunction with the Control key.

Displays the macro assigned to the key when pressed in conjunction with the Shift and Control keys.

Displays the current status of the F10 key. Options are Menu or Mapped.

Displays the current status of the Numlock key. Options are Mapped and Keypad Toggle.

Displays the current method of changing focus for selection. Options are Tab or Keystroke.

Opens the Options dialog box, allowing you to select keymapping options.

Closes the dialog box and saves changes.

Closes the Print Phonebook box without printing the phonebook

Opens the Print dialog box, allowing you to print the phonebook.

Moves the highlighted entry down one position in Print Fields.

Moves the highlighted entry up one position in the Print Fields list.

Removes the highlighted entry from the Print Fields list.

Adds the highlighted entry to the Print Fields list.

Displays a list of phonebook fields selected for printing.

Displays a list of selectable phonebook fields available for printing.

Displays the current icon group path and filename.

Opens the Change Icon dialog box, allowing you to associate a different icon with the phonebook entry.

Closes the Change Icon dialog box and saves changes.

Closes the Change Icon dialog box without saving changes.

Opens a Change Icon dialog box, allowing you to select from a different drive and directory.

The current icon associated with the phonebook entry is highlighted.

Previews the sound you have selected.

Turns off the sound preview.

Choose the modem you want to answer incoming calls by clicking on your selection.

Closes the Auto Answer modem dialog box and saves changes.

Closes the Auto Answer modem dialog box without saving changes.

Displays the length of time connected to this phonebook entry the last time a connection was established.

Contents

The following Help Topics are available:

[About MSI](#)

[Last Minute Changes](#)

[New in QmodemPro for Windows 95](#)

[QmodemPro for Windows 95 Tutorial](#)

[Using Command Lines to Run QmodemPro for Windows 95](#)

[The Phonebook](#)

[The Editor](#)

[The Picture Viewer](#)

[The Scripts Menu](#)

[The Host Mode](#)

[Macros](#)

[Programmable Keys](#)

[Troubleshooting Guide](#)

[Customizing the Desktop](#)

[Troubleshooting](#)

[Customer Access](#)

[Modems](#)

[The Main Menu](#)

[The File Menu](#)

[The Connection Menu](#)

[The View Menu](#)

[The Script Menu](#)

[The Tool Menu](#)

[The File Clipboard](#)

[The Statusbar](#)

[Customizing the Toolbar](#)

[Last Minute Changes](#)

Host Mode

The Host is a small-scale BBS program that allows you to set up your computer to receive incoming modem calls. Callers can read and post messages, upload and download files, and if you allow it, take control of your computer to run simple Windows commands.

For more information on using the Host Mode, click on one of the following topics:

[Starting Host Mode](#)

[Setting Up](#)

[Running Host Mode](#)

[Common Commands](#)

[Self-Created Files](#)

[Menu Display Files](#)

[Help Files](#)

[Colors](#)

Setting Up

The setup for QmodemPro Host contains only a few options. However, some planning and organization is required. We recommend you read this section completely before beginning the setup, so that you understand the implications of each option.

[Mode](#)

[Security-Related Options](#)

[File Transfer Options](#)

Running Host Mode

At all times, Host Mode will accept input from the remote caller as well as from the local keyboard. The sysop, for example, may come to the rescue of a caller by typing commands directly. These keystrokes will be processed as if they had been typed by the remote caller.

Press F1 to log on to QmodemPro Host locally. All Host commands except Upload and Download are available in a local logon. When you are finished your local logon session, use the **Goodbye** command to log off. When you log on locally the Busy command is sent to the modem.

You can chat on-line with a caller by pressing the F2 key. This key is also used to answer a page from a caller. Both caller and Sysop may type at will; the display will look the same on both computers. End-of-Line wordwrap takes place automatically in CHAT mode. Press F2 again to exit CHAT mode. The message "Returning you to Host Mode" will be displayed and the caller will be returned to the Main Menu.

Use the button on the file transfer status window if you need to abort a caller's upload or download without waiting for the file transfer to finish.

You may for any number of reasons need to disconnect a caller immediately from the QmodemPro Host. The [Hangup](#) button or **Connection/Hangup** command on the menu drops the connection instantly, with no notification to the caller.

Commands

These commands will be available to callers when they are logged on to your system while you are using the QmodemPro Host:

R - [Read Messages](#)

E - [Enter a Message](#)

P - [Page the Sysop](#)

F - [File Directory](#)

D - [Download Files](#)

U - [Upload Files](#)

G - [Goodbye](#)

Z - [Shut Down Host](#)

S - [Shell to a Command Line](#)

Host Mode Self-Created Files

Two files are created by the Host the first time it is run:

HOST.HDR The Message Header file.

HOST.MSG The Message Text File

These two files are maintained by QmodemPro Host. Do not try to edit or modify these files in any way, or system errors may occur when callers attempt to read or enter messages.

The only maintenance required by the system operator on the message base is periodic deletion of killed messages. Press F7 at the Waiting for Calls screen to pack out these deleted messages. The deleted message space will be removed from both HOST.MSG and HOST.HDR, reducing their size.

Menu Display Files

The following menu display files are included with the Host Mode Script

HOST.PRE

The opening screen sent to all callers.

HOST.MNU

The Host Main Menu.

HOST.PRO

The protocol list for Up/Download commands.

HOST.OFF

The logoff screen sent to all callers when they say Goodbye.

Help Files

The following help files are included with the Host Mode Script:

HOST.HLP

Generic Help about the Host, including a brief command summary.

HOSTD.HLP

Help on the Download command. You can edit this file to provide additional information, if desired.

HOSTE.HLP

Help on the Enter Message command. Instructions on entering a message.

HOSTF.HLP

Help on the File List command. Tells the caller about your downloadable files.

HOSTG.HLP

Help on the Goodbye command.

HOSTP.HLP

Help on the Page Sysop command. This explains what hours the sysop is available for paging, or instruct the caller to leave a message if the sysop is not available to chat.

HOSTR.HLP

Help on the Read Message command. Instructions on reading messages.

HOSTS.HLP

Help on the Shell to DOS command. Instructions on executing supported DOS commands, and how to return to the host when finished.

HOSTU.HLP

Help on the Upload command.

HOSTZ.HLP

Help on the Shutdown Host command.

Colors

QmodemPro Host supports colors in display files using the standard ANSI color codes. These codes may be placed anywhere desired to alter the color of the display. However, if you use ANSI codes in your display files, all callers must have ANSI emulation active to view the screens correctly. Callers without ANSI capabilities will see the codes rather than the colors.

Using QmodemPro for Windows 95 with Command Lines

To access a command line, from the main Windows screen, click on Start and choose **Run ...**, or click on the DOS macro on the default macrobar at the bottom of the QmodemPro for Windows 95 terminal screen.

To see how to use a command line, click on the specific command you are interested in:

[Open QmodemPro for Windows 95](#)

[Dial into a telnet site](#)

[Dial a group entry](#)

[Dial using a different phonebook](#)

[Dial an entry and automatically execute a script on connection](#)

Programmable Keys

There are two groups of programmable keys in QmodemPro for Windows: Remapped keyboard keys (KeyMaps) associated with terminal emulations, and Macro keys (at the bottom of the terminal window) associated with phonebook entries.

For more information, click on one of the topics below.

[Macros](#)

[Keymaps](#)

The File Clipboard

The QmodemPro for Windows 95 File Clipboard lets you mark file names on the screen and store them for use later without ever typing them in. To open the File Clipboard, click on the **File Clipboard** icon on the toolbar, or use the [View/File Clipboard](#) menu command.

During an online session, open the clipboard and mark the filename on the terminal screen and drag it to the clipboard edit box. Qmodem automatically copies the filename to the File Clipboard.

Using the [Look Up](#) or [Look Down](#) buttons, you can search long lists of files in the terminal window, and choose the files you want. These two commands search for text followed by "." (a dot).

To grab and edit a filename, double click on the file name to highlight it, or highlight it with the mouse, then drag it to the File Clipboard.

If you want to save the filename exactly as it is, just grab it and drop it into the lower box in the File Clipboard. This is where lists of filenames are stored.

If you need to edit the file name, drag it to the upper box in the File Clipboard. This section is the edit box. From here, you can edit the selection. Once you are satisfied with the selection, click [Add](#) and the filename will be added to the list in the box below.

The [Save As](#) button lets you save lists of files as a Qmodem File List. To remove a file from the file list, mark it and click [Remove](#).

[Send](#) sends all marked text to the terminal screen. If you want to download a list of files, you can bring up the list you want, using [Open](#) to load a list of previously saved filenames such as "Spreadsheets" into the file clipboard. Choose **Send** to send the entire list of filenames to the terminal. You don't have to type each file name separately.

If you check the [Remove Items on Send](#) feature, the file clipboard will automatically remove the file names once they are sent to the terminal.

The [Send Separator](#) allows you to tell the File Clipboard which character to send to the terminal between filenames. This can be carriage return, a line feed, a space, a comma, colon, semicolon, or tab. The send separator is important, because when you download files from the host program, you will need to tell the host how to see each filename. Some hosts look for a carriage return, some for a space, etc.

[Long Filenames](#) lets the File Clipboard to take advantage of Windows 95's ability to use filenames longer than 8 characters.

Key Maps

Up to 256 reassignments may be programmed for each terminal emulation, consisting of 12 function keys and 32 additional keys in normal, shift, alternate and control positions.

For most users, the default settings provided are correct. We recommend that changes not be made in the Emulation keymaps unless it is absolutely necessary. Changes to the keymap structure will affect the emulation.

To create and edit KeyMaps, go to the [Tools/Options/Emulations](#) property sheet, and select the emulation you wish to edit. Then click the [Keyboard](#) button.

You will see a map of the keyboard. The programmable keys are highlighted. To edit a key, select the key with your mouse and click the left button.

A dialog box will pop up labeled with the name of the key you are editing. The text entry accepts character (text) mode as a default. To enter a string in decimal or hex, select the appropriate option, below the text entry window.

Starting Host Mode

To start the Host Mode:

From the terminal screen, select [Scripts/Host Mode Script](#). QmodemPro for Windows 95 will automatically look for and execute HOST.QSC. If you start QmodemPro for Windows 95 with the command line parameter HOST.QSC, the program will automatically start up in host mode and be available for incoming calls.

It is possible to start the Host while you are connected by modem to another computer. The other person you are connected to will be prompted for logon information as if the host had answered the incoming call itself.

If the caller is unsuccessful in his logon, the host will drop the connection and cycle. You may return to on-line terminal mode at any time during host operation by stopping the script.

To stop a script, select [Scripts/Execute](#), or click the **Execute Script** button. This will toggle the script execution **off**.

Modes

The first configuration item is **Mode**. There are three selections: Open, Closed, and Callback.

An **Open** system is the simplest to use and maintain. Anyone who calls your Host can log on and register as a new user. As new callers log in, the Host automatically adds them to its user record file (HOST.USR). All new users are assigned a security level of 0 (zero).

You may, however, want to restrict access to only those callers you have authorized. In a **Closed** system, only callers whose names and passwords are already defined in the HOST.USR file can log on. If the caller's name is not on file, the Host displays a brief message that the caller is not registered, and hangs up the phone.

A **Callback** system is similar to a Closed system in that it requires the callers' names and passwords to be in the HOST.USR file. In addition, CALLBACK requires that the caller's DATA Phone Number also be on file. When callers log on and successfully enter their password, they will be prompted to hang up and place their modem into Auto-Answer mode. The Host will then hang up and immediately dial the caller's data phone number. A Callback system is very secure since it insures that all communications originate from known locations.

Security-Related Options

Max Time This defines the maximum time allowed per call, in minutes for all callers. The default value is 60 minutes. When a caller's time expires he is logged off the system, after a warning.

DOS Password The password required to execute Windows command line commands from remote. The default here is blank, which disables the command lines option completely. To enable command line commands, enter a password in this field.

If enabled, this option allows your callers to copy, list, even delete files! For obvious reasons, the password you select for this option should be one not easily guessed by callers.

Shutdown Password To execute the **Shutdown Host** command from a remote connection, the Host requires a password. As with the DOS Password, this option is disabled by default, and can only be enabled by entering a password in this field. If the correct password is entered, the system hangs up immediately and Host mode is terminated. For obvious reasons, the password you select for this option should be one not easily guessed by callers.

File Transfer Options

File transfers You may wish to make file transfers available to your callers. The following options control which subdirectories callers can use for file uploads and downloads. By default, both these paths are blank, disabling uploading and downloading.

Download Path All files available for download from the Host must be stored in this directory. The download path contains files that can be transferred from your host to the caller's system. Any valid directory may be entered in this field. For example, C:\QMWIN\HOST\DOWNLOADS.

Only one path name may be entered, and it is the only path for downloads. Files located in subdirectories of the download path are not available to callers.

The Host **File List** command will list all the files in this directory. Do not place files in this directory unless you want to make them available to callers.

Upload Directory All uploaded files are stored into this directory. The upload path is the location where all files sent to you by your callers are stored. Any valid DOS directory may be entered in this field. For example, C:\QMWIN\HOST\UPLOADS. If the Upload and Download directories are the same, all uploaded files become public and are available for download.

Sysop can download from any path Check this option to allow those with Sysop security to specify a full drive, path and file name. This allows such callers to download any file on the system, if the caller has a security level greater than 0, and if the complete file path and name are entered. Note that only the path specified will be listed when the F List command is used, so to use this sysop over-ride the exact path and file name must be known already. You should exercise discretion in allowing sysop security to other users of your Host.

Modem The **Modem** drop down box in Host Setup allows you to select one of the modems detected by Windows 95 for the Host to use to answer incoming calls. QmodemPro for Windows 95 allows you to directly connect to the modem. If you do not have the correct TAPI drivers, you may want to use direct connect.

Read Messages

The **Read** command is used to read messages. Unlike more advanced On-Line Services or Bulletin Board Systems, the Host does not keep track of each caller's Last Message Read. It is up to callers to remember the number of the last message they read.

If the caller presses [ENTER] at the "Start with Msg" prompt, the READ command is canceled and the Main Menu is displayed.

If the number entered is lower than the number of the first message, reading will start with the first available message. Likewise, if the number entered is higher than the highest message number, the last valid message will be read.

Message headers contain **Message Number, To, From, Subject, Received** and **Date & Time** information. Message marked ""(private)" or "(killed)" can only be viewed by callers with SYSOP Security or by the caller who left the message.

After reading a message, the caller is prompted for one of the following actions:

[N] to read the next message.

[R]Reply to the message just read.

[K]Kill the message (Sysop or recipient only).

[Q]Quit and return to the Main Menu.

Page the Sysop

When someone **Pages the Sysop**, you and the caller will hear a series of beeps, and the following message will appear on the screen:

Paging Sysop. Press any key to abort...

The sysop's screen shows an additional message, instructing the sysop to press F2 to answer the page and begin chatting with the caller. If the page is not answered by the system operator after about 20 seconds, the Host will terminate the page, inform the caller that the sysop is unavailable, and return the caller to the Main menu.

Enter a Message

The **Enter a Message** command is used to create a new message. The caller will be prompted for the name of the recipient, the subject of the message, and the security status of the message (private or public). The caller is then placed in the message editor.

Messages may have up to 99 lines of 72 characters each. As text reaches the end of the line, it automatically wraps to the next line.

At the end of the message, the caller presses [ENTER] twice to terminate message entry. The Host will then display the (C)ontinue, (S)ave or (A)abort prompt.

The last line with text is displayed with the cursor following the last non-blank character. Use this option if you exited the message editor and wish to continue typing.

The message is saved and the user is returned to the Main Menu. If the message was entered as a reply, the next message, if any, will be displayed. The message is deleted and the user is returned to the Main Menu. If the message was entered as a reply, then the next message, if any, will be displayed. The end of message prompt will also be generated when the message reaches the 99-line maximum.

Files Listing

The **Files Listing** command lists the contents of the Host Download Directory. If the directory exceeds one page, the display is paused, and the caller is prompted to continue, stop the display, or show the entire list nonstop.

Download Files

The **Download** command lists the Protocol menu file HOST.PRO if found, otherwise the default list of protocols is displayed.

The caller can then select the desired protocol and is then prompted to enter a filename. During the transfer, the standard QmodemPro for Windows 95 send file status window will be displayed.

Before the download begins, the Host checks for the existence of the file on disk. If the file does not exist, the caller's Download request is canceled.

If a batch protocol is selected, the user is prompted for up to 20 filenames to download. Filenames can contain the wild card characters * and ?.

Upload Files

When the **Upload** command is selected by a caller, the Host first looks for the alternate protocol menu file PROTS.HST. If it is found, it is displayed. If not, the list of default protocols is displayed.

The caller can then select the desired protocol. A filename prompt will be displayed next for the file transfer.

During the transfer, the standard QmodemPro for Windows 95 receive file status window will be displayed. The meanings of Uploads and Downloads are reversed while in Host Mode. An Upload by the caller is a Download to the Host, and vice-versa.

Goodbye

The **Goodbye** command logs off a caller and drops the modem connection. The modem goes back on-hook and QmodemPro Host returns to the "Waiting for call..." screen.

The "?" command will display HOST.HLP if found. This is a generic **Help** file that should tell the caller what all the commands are and briefly what they do. It should also mention that more help is available by typing in a ? followed by the command in question. This will display a file by the name of HOST[character].HLP where [character] is the command letter they want more help with. Sample Help files are included, and may be modified, if desired.

Shut Down Host

The **Shutdown** command can only be entered by users that have sysop security (security level 1). In addition, they must also know the shutdown password. When the correct password is entered, the Host hangs up and returns to the QmodemPro for Windows 95 Terminal screen. For security reasons this option is not shown on the default menus.

To exit Host Mode, press F9 while the system is waiting for a call or click on the Script icon on the toolbar. You will be returned to the Terminal window.

Shell to DOS

The **DOS Prompt** command allows callers to use internal Windows commands to list directories, copy existing files, rename files, delete files, change directories, make directories, remove directories and type text files to the screen.

The caller will be prompted for a password, and if the password is entered successfully, the Host will allow access to these Windows commands. This prompt is not actually a link to DOS on the Host. It is an internal Host function that looks like DOS and passes the commands to the Host PC system. Programs cannot be run from remote. Activities are limited to the commands specified above.

Open QmodemPro for Windows 95

The simplest command line switch simply starts up QmodemPro for Windows 95, specifies the phonebook file to load, and dials a specific entry. Entries are specified by name. For example, to dial the MSI HQ BBS in the default Phonebook file, the command line looks like this:

```
C:\QMWIN "MSI HQ BBS"
```

Dial into a Telnet Site

To manually dial a telnet site, add the TELNET command to the command line string. For example, if you want to telnet to the MSI HQ BBS, you would type

```
QMWIN TELNET BBS.MUSTANG.COM
```

in the command line. This lets you use QmodemPro for Windows 95 as your default telnet dialer for use with a Web browser.

Dial from a Different Phonebook

If you have a phonebook file named NANCY.PHN containing only Nancy's phone numbers. To start up QmodemPro for Windows 95 with your NANCY.PHN Phonebook loaded, use a command line like this:

```
QMWIN NANCY.PHN
```

Execute Scripts Automatically at Opening

To execute a script automatically when you start QmodemPro for Windows 95, simply specify the name of the script on the command line, like this: `QMWIN SCRIPT.QSC` or `QMWIN C:\QMWIN\SCRIPTS\SCRIPT.QSC` Unless a full path is included, the script file must exist in the default script directory, specified in the **Options/Files/Paths** property sheet, and the extension `.QSC` or `.QSX` is required.

Dialing a group

The default Phonebook file is called QMWIN.PHN, and this phonebook is loaded automatically when you start QmodemPro for Windows, unless you specify otherwise.

If you have created other Phonebook files, you can load one of these in place of the default QMWIN.PHN from the command line.

If you want to send a command line that will tag and dial every system in the group named "Computer Groups" and the group is in the default phonebook, you can call the group from a command line by typing:

```
QMWIN GROUP "COMPUTER GROUPS"
```

If the group is in a different phonebook, you need to add that information to the command line. For example, if the group named "Computer Groups" is in a phonebook named BRIAN.PHN, you would type:

```
QMWIN BRIAN.PHN GROUP "COMPUTER GROUPS"
```

This works in the same way as the Search menu command in the Phonebook. Load the Phonebook command line along with the text you want to find. You must put quotation marks around the search text. For example, if you want to dial everything in the ONLINE.PHN phonebook matching the text "service", you would type the command line in like this:

```
QMWIN ONLINE.PHN "service"
```

Customer Access

Mustang Software, Inc. strongly believes in providing quality software at a reasonable price. We back our products with technical help when our registered users need it. Please send in your registration card to enroll in our technical support plan.

Until we receive your registration information, our staff cannot provide you with technical support through our BBS or by phone.

[Benefits of sending your registration](#)

[Technical Support Services](#)

[MSI HQ! BBS](#)

[CompuServe](#)

[America Online](#)

[GEnie](#)

[Internet](#)

[WWW](#)

[Telnet](#)

[MSI SupportNET](#)

[Voice Support](#)

[Microsoft Network](#)

[Questions other than technical support](#)

Benefits of sending your registration

- Free technical support by phone Monday through Friday between 9 a.m. and 5 p.m. Pacific time
- Automatic notification of major program updates
- Additional program updates at a reduced rate
- 24-hour access to the private multiline Registered Users HQ BBS at Mustang Software
- BBS access to download utility programs written by MSI staff and other authors which enhance and add features

Technical Support Services

QmodemPro for Windows 95 is designed to be easy to use, and this manual should contain the answers to most of your questions. Read it first. Make use of the F1 help key for tips and explanations. If you're still stumped, technical support is only a phone call away.

MSI HQ! BBS

You may want to call our private *Wildcat!* BBS for Registered Users at 805-873-2400, and leave a quick question for our technical staff. This is a particularly useful way to receive expert guidance with the more advanced features.

CompuServe

On CompuServe, we are a part of the PC Vendor Support Forum. You reach us by typing GO PCVENA and then selecting Subtopic 9.

GEie

You can find us on GEie, the on-line service from General Electric. Go to the MUSTANG Round Table with the command MOVE 680.

America Online

MSI's support section on America Online is called MUSTANG and can be reached with the keyword MUSTANG.

Internet

Our Internet mailing address for tech support is support@mustang.com

Telnet

To telnet into the MSI HQ BBS, telnet to bbs.mustang.com

Microsoft Network

Click on the “MSI on MSN” icon included in your program menu.

Voice support

If you are still unable to find the answer to a question—or if you need a quick explanation, please call us Monday to Friday between 9 a.m. and 5 p.m. Pacific time.

When calling for support please:

- Have your registration number handy which is bound inside your QmodemPro for Windows 95 manual.
- Be at your computer with your manual handy.
- Be ready to describe the problem in detail.

If possible, be ready to duplicate the problem on your system.

- You can call technical support directly at (805) 873-2550.

MSI SupportNET

We also have a large number of BBS systems carrying the MSI SupportNET echo conferences throughout the US and Canada, and around the world. These BBSs are located in Australia, the United Kingdom, France, and Norway.

The MSI SupportNET contact points outside the US are:

<u>Location</u>	Distributor	BBS Phone
Australia	Banksia Info. Tech.	+61 2-418-7693
France	Maxotex	+33 1-45-34-6430
Scandinavia	PC Security	+47 67118822
United Kingdom	Telesystems	+44 49-489-1903

Questions Other Than Technical Support

If you have questions related to shipping or other areas handled by our office staff you should contact us at 805-873-2500. Our office staff can help with changes to your registration information and handle all non-support questions regarding our product line.

We also have a toll-free number for questions regarding new product purchases or updates you can call 1-800-999-9619, Monday to Friday, 8:00 a.m. to 5:00 p.m. Pacific time. Our mailing address is Mustang Software, Inc., PO Box 2264, Bakersfield, CA 93303.

WWW

You can visit our home page at <http://www.mustang.com>

How to Reach MSI

We can be reached in any of the following ways:

Mustang Software, Inc.
Post Office Box 2264
Bakersfield, CA 93303-2264

Business Office (805) 873-2500 ORDERS ONLY (800) 999-9619
Internet: sales@mustang.com
World Wide Web: <http://www.mustang.com>
BBS: 805-873-2400

Mustang Software, Inc. offers a range of products for your telecommunication needs. All these products are available through your usual retail and mail order channels.

Technical support for *QmodemPro for Windows 95* is available by phone Monday through Friday 9 am to 5 pm Pacific time. To reach the MSI Technical Support staff, call (805) 873-2550.

Last Minute Changes

Software is constantly undergoing refinements and minor changes. Before *QmodemPro for Windows 95* was released, a few of these changes were made. These changes were made too late to appear in the printed documentation. Here is a list of the changes made since the time that the manuals were printed. In all cases the on-line help file (QMWIN.HLP) has been updated in the appropriate places to reflect these changes.

[Last Minute Changes to Qmodem](#)

[Last Minute Changes to the Qmodem Editor](#)

Changes to Qmodem

Software is constantly undergoing refinements and minor changes. Before *QmodemPro for Windows 95* was released, a few of these changes were made. These changes were made too late to appear in the printed documentation. Here is a list of the changes made since the time that the manuals were printed. In all cases the on-line help file (QMWIN.HLP) has been updated in the appropriate places to reflect these changes.

- The [SERVICES.QSC](#) script no longer exists. It has been separated into four separate script files. These files are:
 - MAKECIS3.QSC - Script for automatic logon to CIS (Compuserve)
 - MAKEDEL3.QSC - Script for automatic logon to Delphi
 - MAKEMCI3.QSC - Script for automatic logon to MCI
 - MAKEGEN3.QSC - Script for automatic logon to GENie
- Added new Direct Dial option to the phone entries in the phonebook, this will allow you to dial without having TAPI do translations for you. This feature is mostly for dialing into PBX systems, etc. This means that the area code and country code are not mandatory, if the Use Country Code and Area Code selection is turned off. This new feature is accessed through the dialing directory property sheet entry "Use Country Code and Area Code".
- If you change the comm settings in the phonebook using the Configure button they will now stick for that entry.
- If you have an entry in the phonebook set to data call and has a script attached but no area code or phone number QmodemPro will just run the script.
- Added new print field of Area Code to display the area code.
- Modified the Direct Connection sheet, the property sheet now defaults to always having COM1-COM4 available. If you have other com ports you want available, you can add them to the registry in:
HKEY_CURRENT_USER\\Software\\MSI\\QmodemPro\\Direct Ports
Ports should be new string items with the name of the com port (such as COM15).
- Added a Last Call Duration option on the Statistics property sheet of Edit Phonebook Entry. This feature displays the length of time the last connection was active to this phonebook entry.

Changes to the Editor

Software is constantly undergoing refinements and minor changes. Before *QmodemPro for Windows 95* was released, a few of these changes were made. These changes were made too late to appear in the printed documentation. Here is a list of the changes made since the time that the manuals were printed. In all cases the on-line help file (QMEDITOR.HLP) has been updated in the appropriate places to reflect these changes.

- Added F3/Shift-F3 Search Again (forward/backward).

The Statusbar

The statusbar displays current system information. The first field displays the name of the phonebook entry and connection rate. The second field shows the current terminal emulation. The third field lets you know when you are online or if you are offline. The fourth field shows the name of scripts that are active with this phonebook entry. The last field shows the current time if you are offline, or the amount of time you've been connected if you are online.

Cancel

Closes the action without saving any changes.

The Internet

If you have an Internet provider, you can send and receive Internet messages with *QmodemPro for Windows 95* . Just log in to your internet provider the same way you log onto any other system.

About MD5

MD5 secure passwords is an encryption specification that allows a host and caller to exchange a password without actually sending the password. The MD5 secure passwords option is automatically used any time you connect with a host that is capable of exchanging MD5 encrypted information, if dialed from the phonebook entry for this site, and your password is entered in the PASSWORD field of the dialing directory entry. It will be used any time the host sends the appropriate handshake immediately after connection, regardless of whether the connection is dial-in or telnet. MD5 operates by having the host (BBS) send a handshake with a unique string of text immediately after answering the call. The string of text is received by the caller and is used as a seed to encrypt the password, which is sent back to the host system. The host performs the same encryption with the same seed and compares its result with the result received from the caller. If they match the caller is not asked for a password.

About TAPI

TAPI (telephony API) support enables the sharing of communication devices between multiple applications like Microsoft Exchange Fax system, QmodemPro's Host Mode, Dial-Up Networking and other applications which may need to share the modem. Credit card dialing and international dialing is handled seamlessly.

About OLE 2

OLE 2.0 support enables the user to drag a phone book entry directly to the Windows 95 Desktop and connect to that service right from the desktop by clicking on the icon. Transferring files to another location (uploads) can also be done using OLE by dragging files from other applications such as Explorer to the QmodemPro upload box. Users can also drag text from the terminal screen to another application or the desktop, giving them total control of the information.

About MAPI

MAPI (mail API) support enables users to transfer text, images and files to many of the major electronic mail programs including Exchange, Microsoft Mail and cc:Mail.

Debugging a Script

Regardless of the simplicity of a script or the capabilities of the programmer, scripts are seldom written perfectly on the first attempt. Many times an error is simply a typographical mistake or improper syntax for a command. In these cases the errors are caught during the compile cycle and the editor cursor is placed at the approximate location of the error in the script source. This type of error is usually relatively easy to correct.

About MSI

Mustang Software, Inc. offers a range of products for your telecommunication needs. All these products are available through your usual retail and mail order channels.

Wildcat! 4 BBS

Mustang Software unveiled the first Wildcat! BBS in 1986. Since its initial release, Wildcat! has emerged as the world's most popular Bulletin Board System (BBS) software with more than 30,000 Sysops worldwide. A centralized, PC-based information system, Wildcat! is packed with more intelligent features and value than any other BBS product available. Callers can send, receive and view messages and files, access external applications, and chat 24 hours a day. This full-featured software is available in four configurations for the hobbyist, small business and Fortune 1000 corporations, and allows simultaneous access from one to 250 users. Since Mustang offers complete BBS solutions, Sysops don't need to go searching for third-party add-on products.

Wildcat! Single Line

Our economical and easily-installed flagship product requires only a telephone line, a personal computer, and a modem to begin posting messages and routing files around the world. Wildcat! 4 maintains its dominance in the BBS market by giving you greater flexibility and power. Intelligent features include:

- A .GIF thumbnailer that lets your callers download and preview a sample of multiple .GIF files in one combined bitmapped file;
- An industry first, spell-checking editor to allow your callers to audit their text before posting their messages;
- RIPscrip graphics to provide your callers with a graphical user interface (GUI) and allow them to navigate the BBS with their mouse;
- A free-form menuing system that gives you the ability to create a custom menu structure and command system;
- Support for over 32,000 message conferences and file areas to give your BBS plenty of room to grow;
- Sysop-defined language files that allow your callers to select the BBS language interface of their choice;
- wCDRAW BBS display screen editor that lets you customize the look of your BBS interface;
- The ability to perform all BBS Sysop functions from remote so you can maintain your data while you're on the road.
- Support for Serial, DigiBoard, FOSSIL and OS/2 com driver.

These product features are just a few of the reasons why Mustang Software maintains its leadership as the Number 1 BBS supplier worldwide. Our liberal upgrade policy allows Sysops to start with our Single Line version and trade it in later for full credit to any of our MultiLine products.

Suggested list price: \$129

Wildcat! MultiLine 10

This MultiLine package extends the functionality of our base product by supporting up to 10 simultaneous users through your Local Area Network (LAN), multitasking environment or combination. The MultiLine 10 allows concurrent use of database utilities without interrupting your online user activity, and adds a powerful online chat conferencing system, with up to 8 high speed connections on a single 486 or Pentium PC.

Suggested list price: \$249

Wildcat! MultiLine 48

Designed for corporate environments, Wildcat! MultiLine 48 extends MultiLine 10 features by supporting up to 48 concurrent users. Your LAN users have all of the E-Mail, messaging and file functions of dial-up users, so you can increase corporate productivity, in-house communications and customer access.

Suggested list price: \$499

Wildcat! MultiLine Platinum

The same range of powerful features and performance of our smaller versions, with take-it-to-the max support for up

to 250 concurrent connections. The premium package for large networks and mega-sized commercial bulletin board systems.

Suggested list price: \$799

Wildcat! BBS Suite

Only Mustang could revolutionize the industry by producing the first "BBS Suite". The Wildcat! BBS Suite includes our top-of-the-line Wildcat! MultiLine Platinum BBS software with the wcPRO database utility, wcFAX on-demand server, wcGATE Internet/Novell MHS mail gateway, and wcCODE development tool kit to give you the ultimate BBS solution.

Wildcat! BBS Suite processes statistics and creates graphs on Wildcat!'s activities; allows your customers to receive product literature and troubleshooting tips via fax; attaches your message databases to the Internet and MHS-compatible E-Mail products; and gives you all the power to fully customize Wildcat!'s interface and create custom BBS applications, all in one economical yet powerful package. The BBS Suite is the ultimate tool for the professional Sysop -- you!

Suggested list price: \$999

An Exciting Array Of Add-On Packages.

Our powerful collection of add-on utilities will enhance any *Wildcat! 4* BBS. Developed by the same Software Engineers that brought you *Wildcat! 4*, these utilities have the same easy-to-use interface as the rest of the *Wildcat! 4* family, and are fully supported by Mustang Software, giving you a single-source for all your BBS needs.

wcPRO Utilities For The In-Control Sysop

wcPRO provides powerful user, message and file database maintenance capabilities. You can create custom reports with more than 20 pages of online statistics, create custom command macros for nightly batch processing, and export BBS data into other formats for external applications.

Our relational database handling makes managing your BBS callers, files and messages quick and easy. The *wcPRO* utilities package also includes our fax-on-demand processor, *wcFAX*, so your callers can request data online and receive product literature, registration forms, and price list documents via their fax.

Suggested list price: \$99

wcGATE Internet/MHS Messaging Gateway

A sophisticated messaging gateway, *wcGATE* enables your callers to send and receive Internet E-Mail and news right from your BBS without having to know a single Internet command. Built-in support for satellite connections means your callers can have a constant flow of Internet information at their fingertips. *wcGATE* also allows you to transfer BBS messages to your company's favorite MHS-compatible E-Mail system. Outside sales-people and remote offices can leave messages on the BBS and have them directed to the appropriate mail box on your LAN using Novell's Message Handling Service.

Suggested list price: \$149

wcCODE Custom Online Development Engine

wcCODE allows you to develop custom applications to enhance or change Wildcat's operation. BASIC-like syntax combined with an Integrated Development Environment makes it easy to use the more than 200 built-in functions, including access to *Wildcat!*'s internal operations. *wcCODE* allows you to customize *Wildcat!* and write applications which will work on any *Wildcat! 4* BBS. Easy-to-read manual and sample applications like our wcLIST BBS Lister and an on-line order system are included.

Suggested list price: \$149

wcBILLING Accounting & Billing Module for Wildcat!

Turning a profit with your Wildcat! BBS just got a little bit easier. With *wcBILLING*, the newest addition to the Wildcat! product line, you now have a tool to implement a real-time billing system on your BBS with the flexibility to credit or debit your caller's account balances by the minute, for reading and writing messages, uploading and downloading files, using doors and chatting.

Suggested list price: \$179

QmodemPro for DOS

For more than nine years the DOS version of *Qmodem* has been the first choice of well over a quarter of a million pioneering communication enthusiasts worldwide.

The latest release of Qmodem, *QmodemPro for DOS*, is available in a package designed for you -- whether you're just discovering the on-line community, or you're a discriminating power user who demands a high performance, thoroughly professional package.

Suggested list price: \$99

Off-Line Xpress for Windows

NEW! Windows version. QWK-compatible mail packet reader for Tomcat, QMail, and more. Reading mail from BBSs has never been easier. OLX can read packets generated by any .QWK compatible mail door used by most BBS, and generates reply packets in the .QWK format which can be uploaded back to the originating BBS. DOS version also available.

Suggested list price: \$79

Where can I buy these great products?

Retail Stores Selling MSI Products

- Software Etc. For location nearest you call (800) 328-4646
- CompUSA For location nearest you call (800) 266-7872
- A-Plus Software (Canada) For location nearest you call (800) 265-6657
- Computer City For location nearest you call (800) THE CITY (843-2489)

The following retail stores also carry some or all Mustang Software products: Babbages, Best Buy, Egghead, Electronic Boutique, Elek-Tek, Fry's Electronics, Media Play, MicorCenter of Columbus, Software City, Waldensoftware, MicroCenter, Computerland, Fry's Electronics, Software Spectrum.

Mail Order Companies Selling MSI Products

- 800 Software (800) 888-4880
- SoftChoice — Canada (800) 268-7638
- BBS Technologies (209) 498-0200
- Micro WareHouse (800) 367-7080
- Programmers Provantage (800) 336-1166
- Windows Exchange (800) 845-1900
- NECX DIRECT - On the NET Live!
- OnLine Services (800) 597-6160

