QVT/Net Terminal Help

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QVT/Net Terminal Quick Start

QVT/Net Terminal is shipped pre-configured in a usable state. Though you may want to create a number of custom configurations over time, very little effort is required to immediately begin using the application.

- **Use the toolbar to invoke the 'Open Session' dialog**

To get started quickly with QVT/Net Terminal, all you need to do is click on the 'Open Session' toolbar button, which is the leftmost button in the toolbar. Another way to accomplish the same thing would be to invoke the 'File' menu, and select the 'Open' menuitem.

This will cause a <u>dialog box</u> to appear, with the title 'Start Terminal Session'. There will be two listboxes in this dialog. The listbox on the left will contain the list of hosts that is contained in your Windows Sockets database, in the 'hosts' file. The right-hand listbox will contain a list of terminal configurations, starting with 'Default'. When you first start QVT/Net Terminal, the left-hand list will probably be empty, or nearly empty, and the right-hand list will contain only one entry, 'Default'.

- **Type in a Host Name or IP Address**

To launch a network virtual terminal session all you have to do is type the name or IP address of a host machine into the input <u>field</u> labelled 'Host Name or IP Address', then click on 'Ok'. This will cause QVT/Net terminal to open a telnet session on the specified host. After a short delay, you should see a 'Login' prompt appear near the top of the Terminal window, at which point you can perform your usual login sequence for this host.

- **Using a Serial Port**

Starting a dialup session is a bit more involved, because the QVT/Net Terminal is set up to connect over the network by default. So, the first thing you must do is go to the 'Setup' menu, and select 'Current Settings'. Click on the 'Connectivity' dialog tab, and select 'Serial' as the connection type. Then, click on the 'Serial Port' tab and make sure that the default settings are acceptable. If not, you will have to make changes here as well. When you are finished with the setup changes, click on 'Ok'.

Next, click on the 'Open' button, and type in the phone number of the dialup host into the 'Host Name or IP Address' field, then press 'Ok'. The 'Dialer' popup window will then appear, and you will have to click on 'Ok' to begin dialing. After the 'Connected!' message appears, you can begin typing.

Toolbar Commands

QVT/Net Terminal employs a 'toolbar' to provide you with quick access to frequently-used commands. All of these toolbar items are also accessible from the pull-down menus, but it is usually quicker to use the toolbar instead.

Commands which are supported by the toolbar are, in order from left to right:

File - Open

Select a host and configuration for a new session

File - Connect

Initiate a connection to the selected host

File - Save

Save the current configuration to disk

Edit - Copy

Copy the selected text to the Windows Clipboard

Edit - Paste

Transmit the current contents of the Clipboard to the host

Printer - Auto Print

Enable/disable concurrent printing

Setup - Font

Select a 'custom' font. Choose from among the available fixed-pitch screen fonts.

Setup - Colors

Change the screen colors (text and background)

File Menu

The **File** pulldown menu contains a set of items which allow you to access commands having to do with files and sessions.

Open

QVT/Net Terminal has many user-configurable parameters. These parameters may be manipulated interactively using the various dialogs which are associated with the <u>Setup Menu,</u> especially the 'Settings' dialog. Examples of configurable parameters include font, screen color, screen size, and terminal emulation mode.

At any time during a session, you can take a snapshot of the current settings, give the snapshot a name, and save it on disk. These snapshots of setup values are called 'configurations'. The 'Open' command is used to load one of these stored configurations and launch a new session using the values contained in the configuration.

Invoking the 'Open' command will cause a <u>dialog box</u> to be displayed. This dialog has three important input areas:

- An input field for a host name or IP address
- A list box for selecting a host name
- A list box for selecting a configuration

In order to launch a session, you must select a configuration, and type in or select a host name (or address). Once you have done so, you should then click on 'Ok' to initiate the session. All of the settings in the selected configuration will be applied to the new session, and a connection to the specified host will be established.

Connect

This command is used to initiate a connection to the currently selected host. Since the 'Open' command automatically creates a connection right after loading the configuration, this menuitem will only be used if you have closed a session and wish to open another one in the same window.

For network sessions, the 'Connect' command generates no additional user-interface tasks. However, for serial-port sessions, a call to 'Connect' will result in a new dialog:
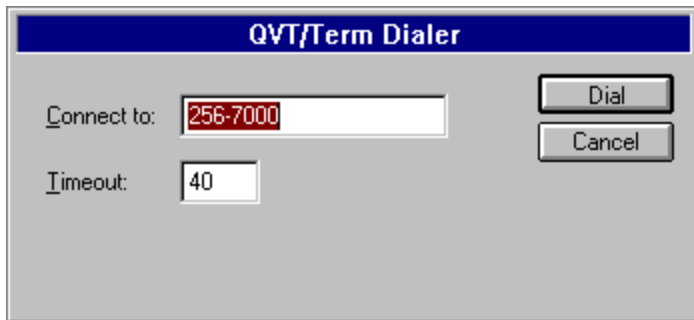
This dialog contains two data elements:

- The phone number to dial
- The length of time, in seconds, to wait before abandoning a dial attempt.

Disconnect

This command is used to terminate the current host session. If 'autoclose' has been selected from the Default Settings dialog, the application window will be closed. Otherwise, the window will remain open, and you can use the 'Connect' command to open a new session.

Save

Use this menuitem to save your current operating values into a disk file. These value sets are called 'configurations', and they are stored in a file named TERM.CFG. If you are using the default configuration, you will be required to supply a name for the configuration before it can be saved. Configuration names are intended to be meaningful, so you can use more than one word. For example, 'My First Configuration' is perfectly valid as a configuration name.

Screen Image

This command is used to save the current screen image to a disk file. A filename is required, but a plausible default filename is generated by the application, so you only have to click on 'Save' in order to complete the operation.

Log File

It is sometimes desirable to save a log of your session activity to a disk file. This command is used to open a log file, and then close it later. As with the 'Screen Image' command, a filename is required, but again a plausible default filename is supplied.

Execute Script

QVT/Net Terminal incorporates a small script language that you can use to automate host logins or other operations. Though the language is very small, consisting of only two statements, it is nevertheless possible to automate some fairly complex login sequences.

The login script statements are:

    wait <secs> ["<string>"]

    type "<string>"

Note 1: values inside of angle brackets <> indicate a user-supplied text

Note 2: values inside of square brackets [] indicate an optional item

Here is a sample login script:

```
wait 10 "login:"
type "myusername^M"
wait 10 "password:"
type "secret^M"
```

Note the use of the two-character sequence '^M' to indicate a carriage return. This syntax can be used in the 'type' command string to indicate any control character in the range 0x01 to 0x1F.

Exit

Terminates the current session, if any, and closes the application window. If you have made changes to your operating settings but have not saved them, you will be prompted to do so before the window closes.

Edit Menu

The **Edit** menu provides a list of functions which allow you to move data to and from the Windows Clipboard.

Copy

Before you can use the 'Copy' command, you must first select some text on the Terminal screen. Once you have done so, the 'Copy' command will copy the selected text to the Windows Clipboard.

Paste

This command transmits the current contents of the Windows Clipboard to the current host. Note that this command will be available only when:

- A host session is active;
- Text data is present in the Clipboard.

Clear

Erases the contents of the Clipboard.

Copy Full Screen

This command is provided as an 'express' method for copying entire screen images to the Clipboard.

Setup Menu

QVT/Net Terminal has many user-configurable parameters. This menu provides access to the various dialogs that you can use to set up Terminal to suit your preferences.

The functions which are accessible through this menu include:

Default Settings
Current Settings
Reset Terminal
Custom Font
Colors
Script File
Keymaps
Printer

Transfer Menu

In addition to its main function as a terminal emulator, QVT/Net Terminal also allows you to transfer files, using the standard Kermit file transfer protocol. Additional menu items are provided so that you can transmit special commands to the host telnet daemon.

Download

To download a file, you should first prepare the host side of the transfer. After the 'send' command has been given to the host, you should then select the 'Transfer - Download' menuitem, which will bring up this dialog:
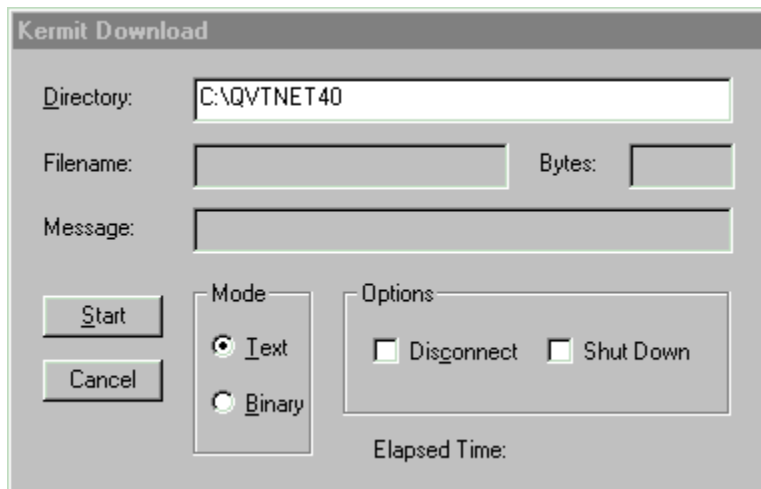
Before initiating the download, you should first make sure that:

- The correct download directory has been entered
- The transfer mode is correct for the file that you are transferring

The additional checkboxes in the lower-right hand portion of the dialog allow you to specify that you want to either terminate the session, or shut down the Terminal application, following the completion of the transfer.

After you have confirmed or changed these values, you can then click on 'Start' to begin the download. The file transfer will proceed to completion, unless you click on 'Abort' first.

Upload

To upload a file, you should first prepare the host side of the transfer. After the 'receive' command has been given to the host, you should then select the 'Transfer - Upload' menuitem, which will bring up this dialog:
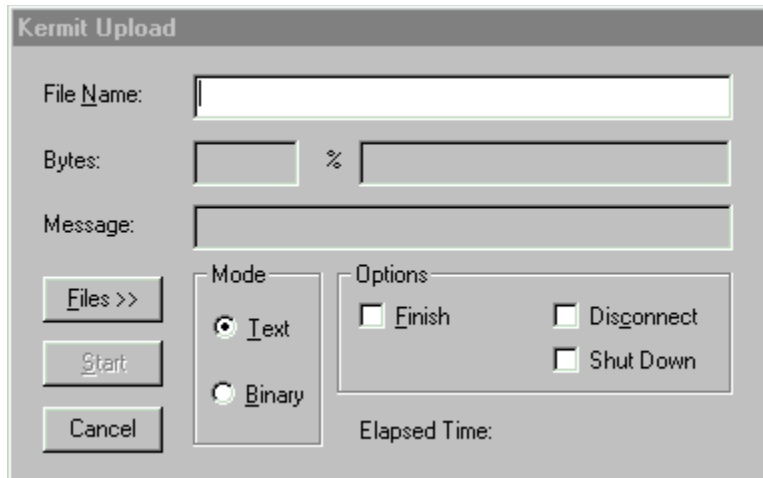
You can type in a filename directly, or press the 'Files>>' button to browse your disk. Note that this browser allows you to select multiple files.

The additional checkboxes in the lower-right hand portion of the dialog allow you to specify that you want to either terminate the session, or shut down the Terminal application, following the completion of the transfer. The 'Finish' checkbox is for use in situations where the remote Kermit has been placed in server mode; selecting 'Finish' will cause Terminal to send a 'finish' command after all files have been transferred.

Send Command

The telnet protocol provides a set of commands that you can use to break into a host application and suspend or terminate the execution of that application. These commands are accessible from the keyboard, and also from this submenu:

Interrupt Process   <Ctrl+Break>
Abort Output   <ScrollLock>
Break   <Ctrl+ScrollLock>

Open Session Dialog

Host Name or IP Address

There are two ways to specify a host name (or address). The first is to type the name or address into the input field; the other is to select a name from the listbox. Note that the listbox will only contain the name of hosts which are contained in your 'hosts' file (part of your Windows Sockets database).

This input field is also used to input phone numbers for cases when you are using the serial port rather than the network to connect to a host.

IP Port

When connecting to a host, you must specify not only an address, but also a port number. The telnet and rlogin ports are available for selection via radio buttons, but you may also type in an arbitrary port number.

Configuration

All QVT/Net terminal sessions are opened under the control of a 'configuration'. The default configuration is defined in TERM.INI, and is always available for use. Additional configurations may be created and stored in TERM.CFG (by using the 'File - Save' menu option).

Note that configuations may include references to host names, which means that you may initiate a session by selecting only the configuration (you can skip the host-selection process).
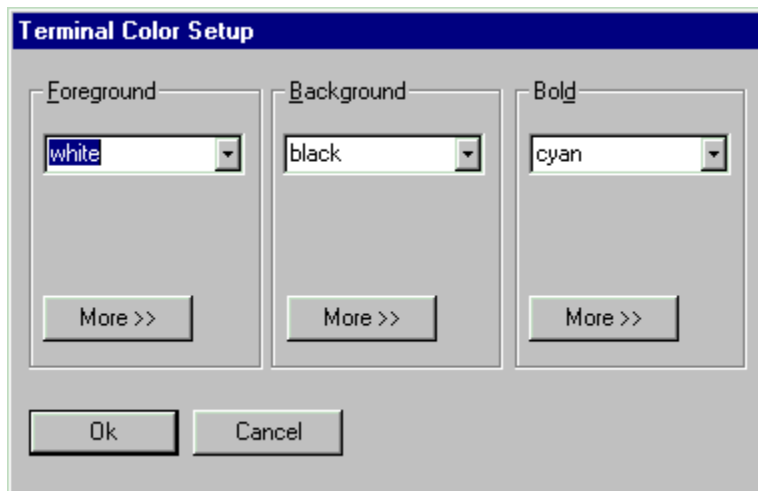
User Name

If you are opening an 'rlogin' session. You will be required to supply a username at connect time. Normally a username will be stored with the configuration, but you can also type one in here.

Run Maximized

Check this box if you want to run this session in a full-screen (maximized) window.

Color Selection Dialog

Terminal Color Setup

Foreground
white

Background
black

Bold
cyan

More >>   More >>   More >>

Ok   Cancel

There are three ways to select a color. The first is to use the drop-down list to select a color from among the 'basic eight'. These colors have the advantage of being very pure and distinct.
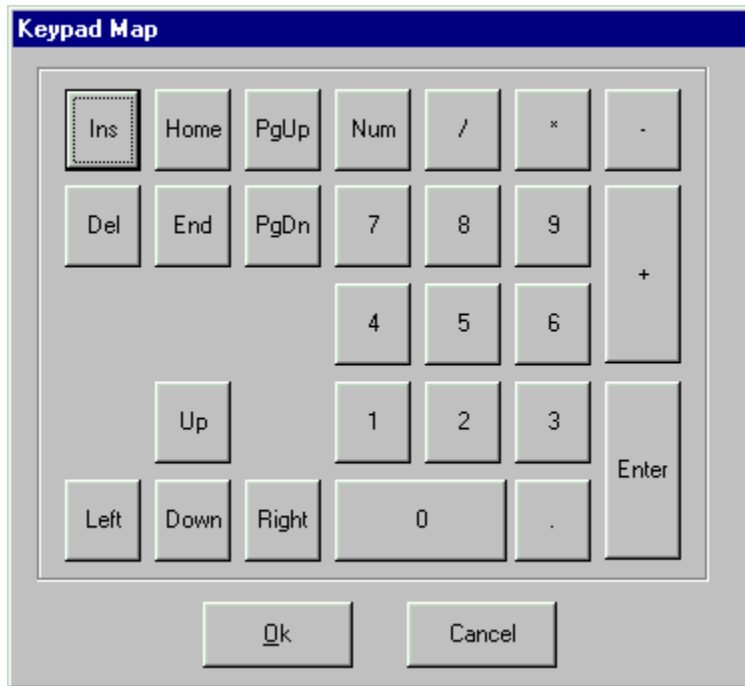
A second approach is implemented using the 'More' button which is located underneath the drop-down list. Clicking on this button will bring up a standard Windows color selector, which allows you to choose a color visually from among the entire range of available colors.

The final method for selecting a color is to directly type in RGB values. An RGB value consists of a three-part numeric string, of the form 'nnn,nnn,nnn', where each comma-separated 'nnn' is a decimal number ranging from 0 through 255.

Main Keyboard   Dialog

Keypads Dialog

Keypad Map

Ins	Home	PgUp	Num	/	×	-
Del	End	PgDn	7	8	9	+
			4	5	6	
	Up		1	2	3	Enter
Left	Down	Right	0	.		

Ok   Cancel

Default/Current Settings

QVT/Net Terminal needs to know how to set itself up at startup time, and the value definitions that are used to do this are stored in the file TERM.INI. This menu item can be used to modify these default values.

Note that the default values are used by QVT/Net Terminal only at startup time! If you wish to modify the present appearance and/or functionality of the application, you should use the 'Current Settings' menuitem instead.

The dialog that is used in this operation is quite complex, consisting of six separate pages. There are pages for each of these configuration topics:

- Display
- Keyboard
- Files
- Connectivity
- Serial Port
- Printer
- Login
- Proxy

Display Setup Dialog
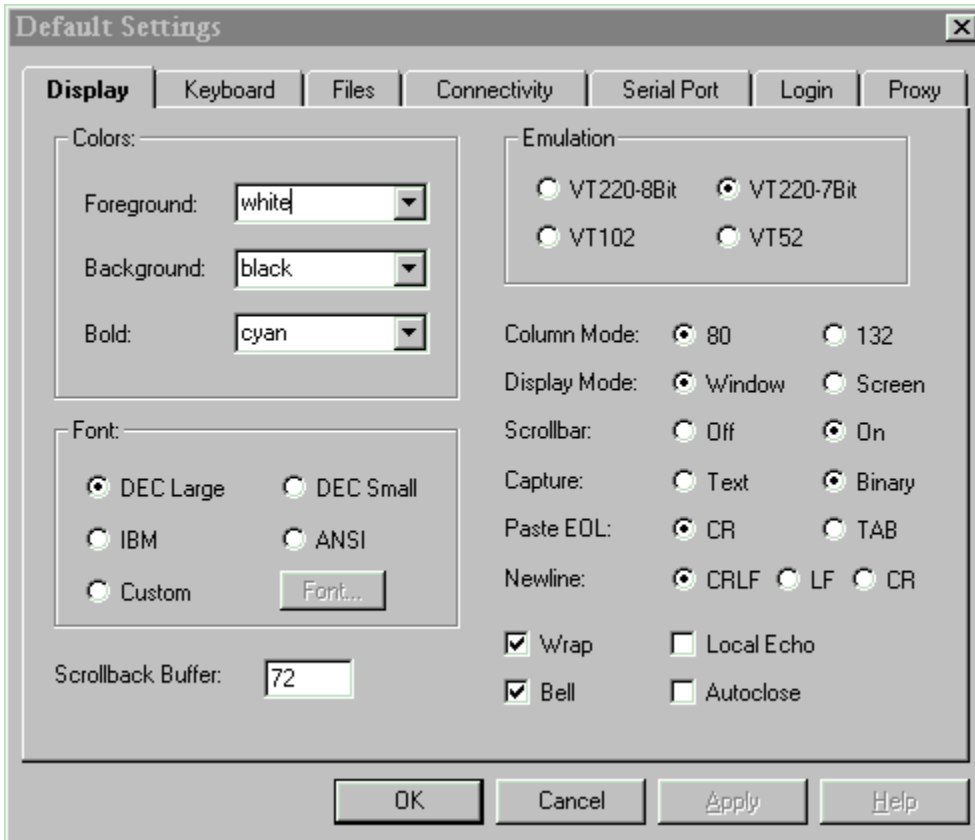
Colors

Choose the colors that you want to use for ordinary text, screen background, and bold text.

Font

Select from among the five available fonts. If you choose 'Custom', you can then use the 'Custom Font' menuitem to select a font from among the list of installed fixed-pitch screen fonts.

Scrollback Buffer

Set the number of lines that you want to keep in the scrollback buffer. Be reasonable, because each line will require 640 bytes.

Emulation

There are four emulation modes. The first two are both 'VT220', but they differ in the way in which escape sequences are handled on output. In 8-bit mode, escape sequences are prefixed by a single 8-bit control character, 0x9B; many Unix-based applications are not able to handle this format. In 7-bit mode, escape sequences are prefixed by two 7-bit characters, <Esc> and '['.

Column Mode

Indicates whether the terminal will operate in 80-column mode (the default) or 132-column mode.

Display Mode

QVT/Net Terminal usually occupies a window which is somewhat smaller than the full screen. You can, however, cause the Terminal display to take up the whole screen by selecting 'Screen' display mode.

Note: you will only be able to select 'Screen' mode if the active font is the 'DEC-Large' font. Otherwise, this radiobutton group will be disabled.

Scrollbar

Allows you to disable or enable the scrollbars.

Capture

By default, when a log file is opened, the entire data stream will be written to the file. If you select 'Text' mode, however, only printable ASCII characters will be captured, plus CR, LF, HT, and FF.

Paste EOL

When pasting multi-line text, a carriage-return (CR) is normally used to indicate the ends of lines. However, there are some situations in which the host application is looking for a TAB instead of a CR as an end-of-line character. This radio-button pair allows you to choose the correct character.

Newline

Specifies the character(s) that will be treated as an 'newline' indication on received data. Normally, this will be CRLF, but you can optionally select CR or LF.

Wrap

Indicates whether or not 'auto-wrap' mode is enabled. Auto-wrap means that lines which exceed the logical width of the screen will be wrapped automatically by the terminal

Local Echo

Indicates that keystrokes will be echoed to the screen locally by the terminal, rather than relying on the host to echo characters.
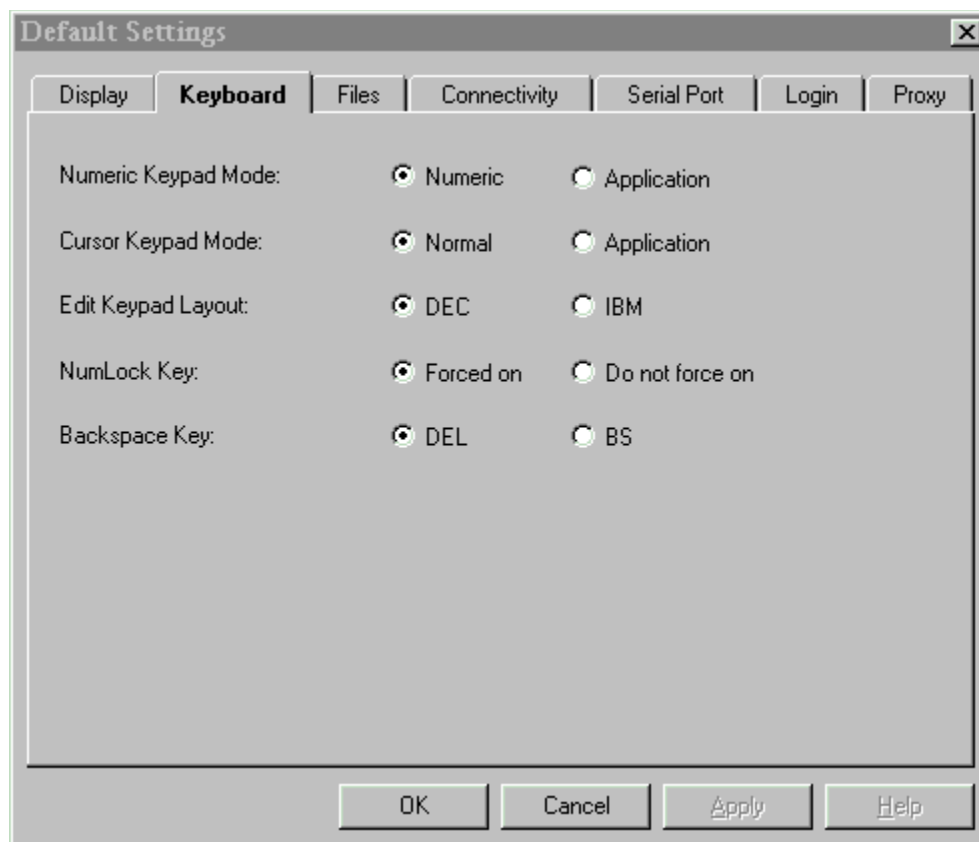
Bell

Indicates that an audible bell will sound when a BEL character (0x07) is received.

Autoclose

Specifies whether the terminal window will be left open after session disconnect occurs. If autoclose is ON, the window will close; if OFF, the window will remain open and available for use in a new session.

Keyboard Setup Dialog

Numeric Keypad Mode

The numeric key has two modes of operation: 'numeric' and 'application'. These modes are usually under host control, but they can also be set here locally.

Cursor Keypad Mode

The cursor keypad has two modes of operation: 'normal' and 'application'. Though usually set by the host, they can be also be set here locally.

Edit Keypad Layout

By default, the 'edit' keypad will be set up to emulate the physical layout of the DEC 'LK' keyboards. You can select an alternate layout which is a better 'logical' fit with the IBM PC keyboard.

NumLock Key

By default, the NumLock key is programmed to keep itself in the 'On' state. There is an alternate mode, which will   cause the NumLock key to retain its current state, whether that is 'On' or 'Off'. This will allow you to turn NumLock 'Off' and keep it off, which is useful on laptops which often have the numeric keypad embedded within the main keyboard.

Note: the state of the NumLock key can be toggled by pressing <Shift+NumLock>.

Backspace Key

Specifies the ASCII character that will be transmitted by the <Backspace> key. By default, this will be a DEL character (ASCII 127), but you can select BS (ASCII 8) instead, if your host requires it.

Files Setup Dialog
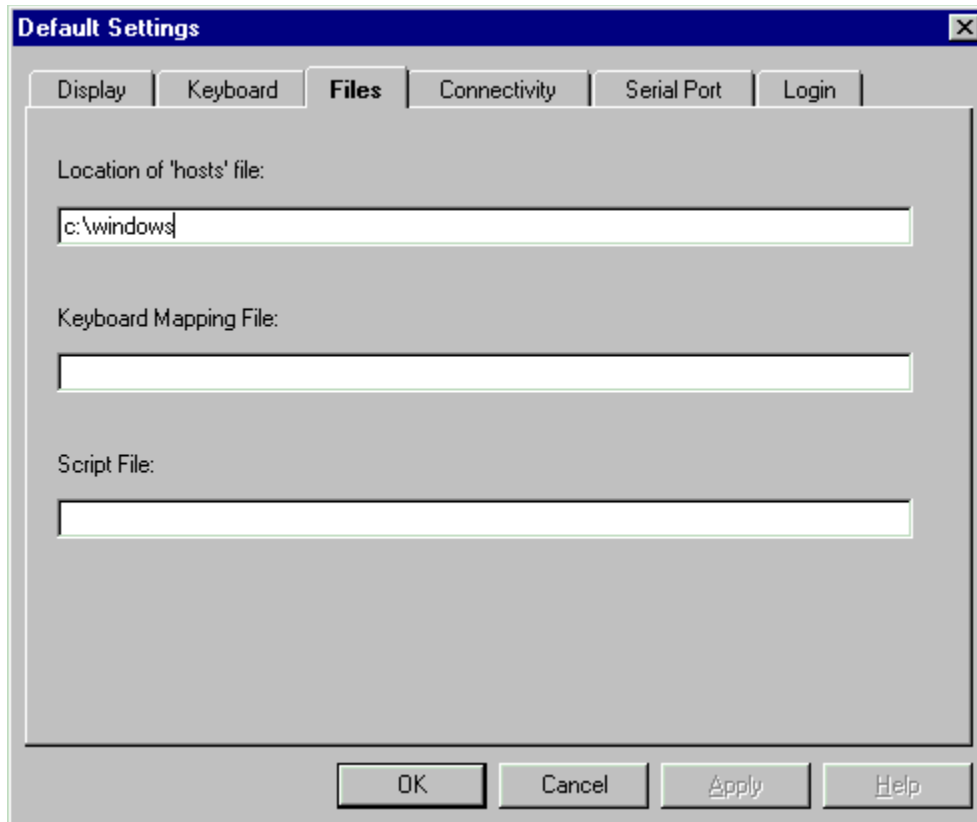
There is some filename information that is important to the operation of QVT/Net Terminal:

Location of 'hosts' file

QVT/Net needs to know where your 'hosts' file is located, so it can successfully populate the hosts list which is part of the 'Open Session' dialog. What is needed here is the name of the directory which contains the 'hosts' file.

Keyboard Mapping File

QVT/Net stores information on key mappings and redefinitions in a file separate from the main configuration file. In the interest of reliability we recommend that you use a fully-qualified pathname.

Script File

If a configuration has an associated script file, that script will be executed at 'Open' time, as soon as a connection is established.

Connectivity Setup Dialog
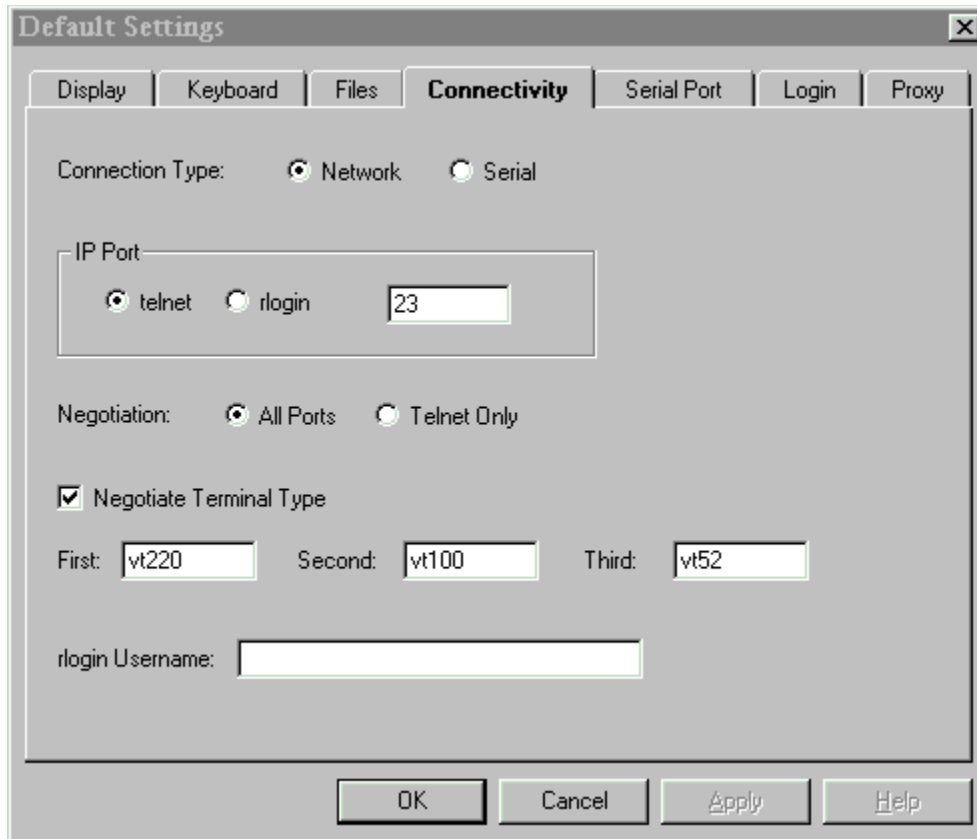
Connection Type

QVT/Net Terminal supports both serial and network (Windows Sockets) interfaces.

(The following items apply only when the Network interface is selected)

IP Port

Terminal's network interface supports two pre-defined IP ports, 'telnet' and 'rlogin', which can be chosen by the radiobuttons provided here. You may also choose a 'custom' IP port that is not one of the predefined port.

Negotiation

Specifies whether or not telnet negotiation will be initiated upon successful completion of a network connection to the host. Note that this will not completely disable negotiation. It will only indicate whether or not negotiation will be initiated by the terminal. Host-initiated negotiations will always be handled correctly.

Negotiate Terminal Type

Specifies whether or not QVT/Net Terminal will allow terminal-type negotiations. You should normally leave this enabled, and disable it only if you want to force the use of a certain terminal type (e.g. VT200).

Directly below the 'Negotiate Terminal Type' checkbox, are three text input fields that you can use to specify the exact terminal names that QVT/Terminal will use during the terminal-

type negotiation process. The defaults are 'vt200', 'vt100', and 'vt52', but if your host needs to see different names you can enter them here. (These fields are available only in the 'Default Settings' dialog).

rlogin Username

If you are using the 'rlogin' protocol, it will be necessary to supply a login username to the host as part of the initial rlogin negotiation.

Serial Port Setup Dialog
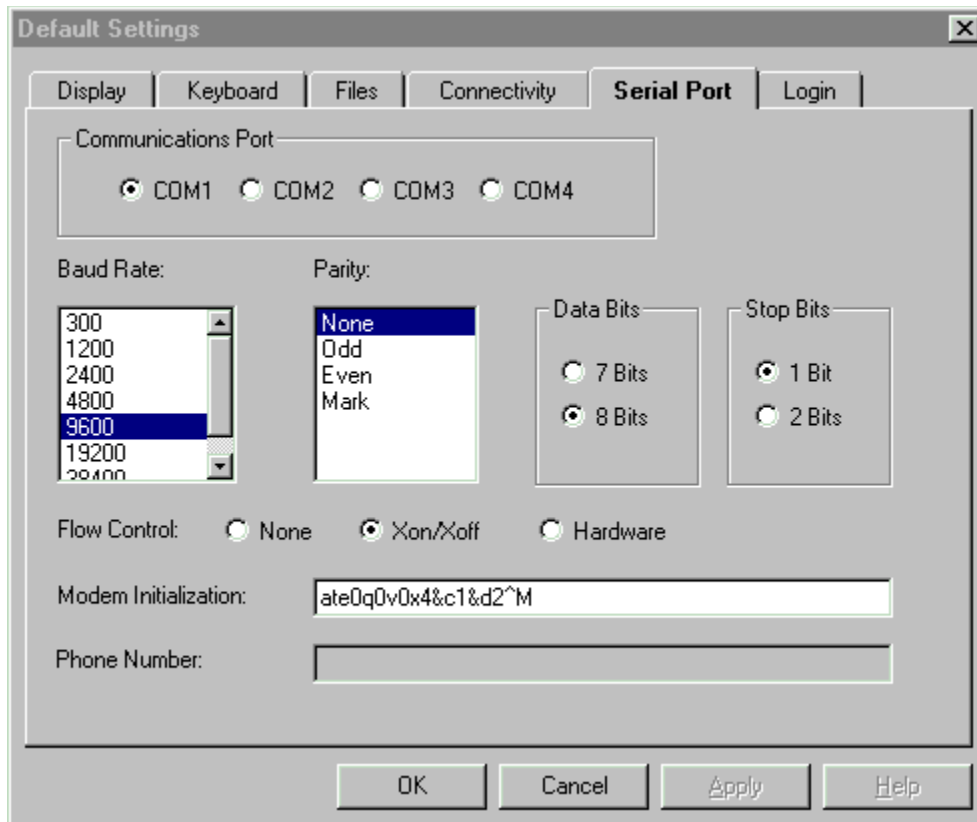
Communications Port

Select from among the installed serial ports.

Baud Rate

Baud rates up to 38,400 are supported. Note, however, that unless you have a 16500 UART, you may experience difficulty at the higher baud rates (>9600).

Parity

Select from among the standard parity values (default is NONE)

Data Bits

This specifies the number of data bits in each word.

Stop Bits

Specifies the number of stop bits in each word.

Flow Control

There are two available flow-control methods available: XON/XOFF (software) and CTS/RTS (hardware). You may also disable flow control entirely.
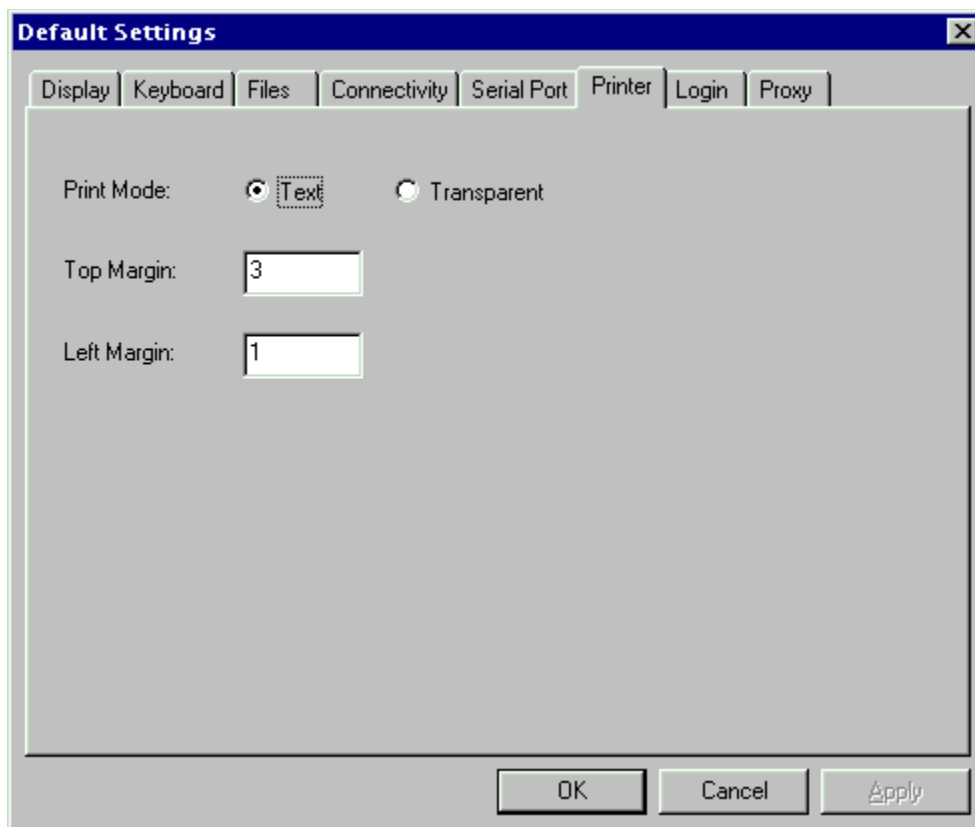
Modem Initialization String

Specifies the initialization string that will be sent to your modem prior to dialing. Your string must include 'e0', 'v0', and 'q0'.

Phone Number

The telephone number to associate with this configuration. You can include special modem-control characters such as the comma.

Printer Setup

This page appears only in the 'Default Settings' version of this dialog. The three items are used as follows:

Print Mode

QVT/Term has two print modes. In 'Text' mode, only ASCII text is passed to the printer, and the text is formatted according to the capabilities of the current printer and font. In 'Transparent' mode, it is assumed that the received data will constitute a fully-formatted print file, including all of the various commands and control codes which are normally supplied by the printer driver. In Transparent mode, incoming data is passed directly to the printer with no filtering or pre-processing.

Margins

These two items have meaning only in 'Text' mode. The 'Top Margin' refers to the number of lines which will be left blank at the top and bottom of each page. The 'Left Margin' refers to the number of columns which will be left blank at the start of each line of text.
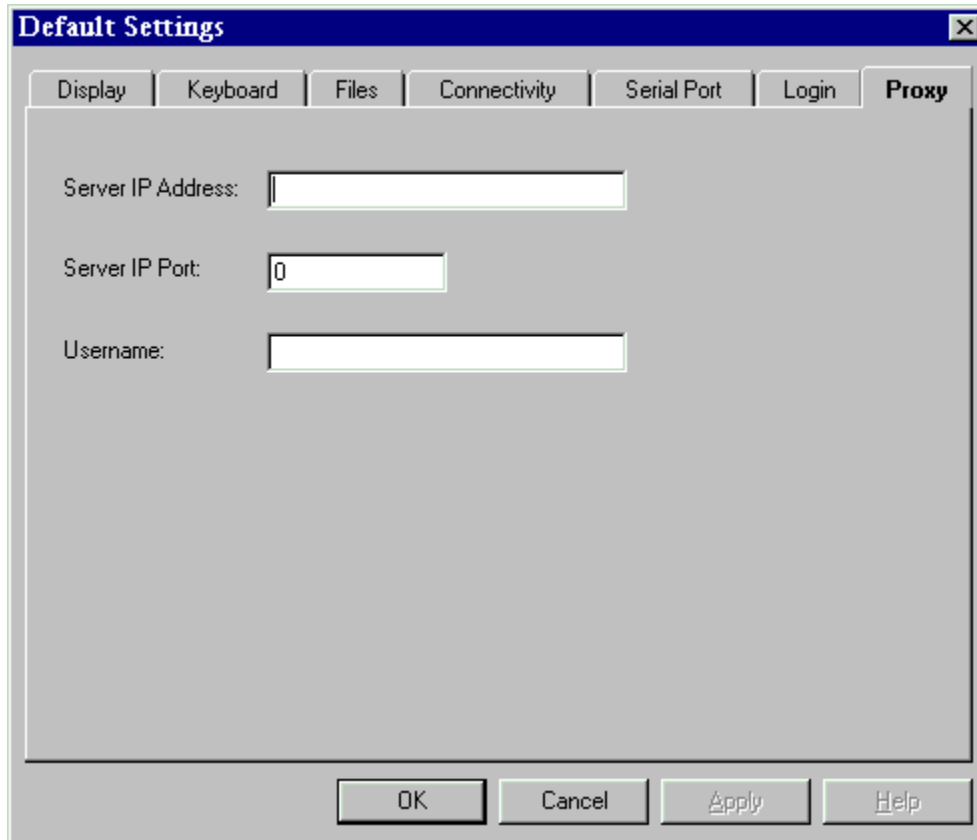
Login Setup Dialog
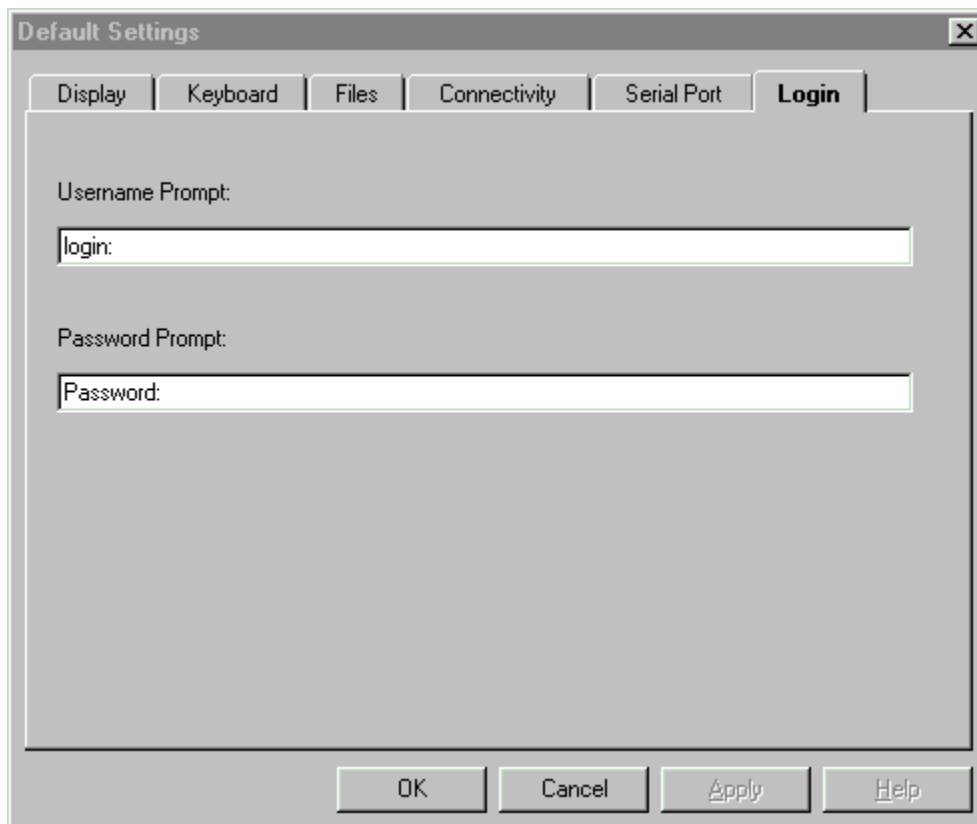
QVT/Net Terminal allows you to program an automatic login (after connect) by using a series of command-line options:

    term -h <host name or IP> -u <username> -p <password>

In order for this scheme to work, however, the terminal software must be able to determine when to transmit the <username> and <password> strings. This is done by creating a pair of 'wait' strings, one for the username and one for the password. The logic is this: Terminal, after completing the connection, will then wait for the prompt which is associated with the

username. At that point, the <username> string will be sent. The software will then perform the same sequence for the password: wait for the password prompt, then transmit the <password>.

Proxy Setup Dialog

QVT/Terminal allows you to specify a proxy server to use for your TCP/IP connections. Using this dialog, you should type in the IP address of the server, and the IP port number to use when calling the server.

The 'Username' field is optional, and is for use only in situations where a SOCKS4 firewall requires username authentication.

Reset Terminal

Re-establishes the 'power-up' settings for the current session. All of the operational values are reinstated as they are found in the TERM.CFG entry for the current configuration.

Custom Font

QVT/Net Terminal includes its own special font, which provides 100% emulation of the 8-bit DEC Multinational Character Set. However, if your application does not use any but the standard 7-bit ASCII characters, you can make effective use of other fonts as well. A standard Windows dialog is used to to select from among the installed fixed-pitch screen fonts.
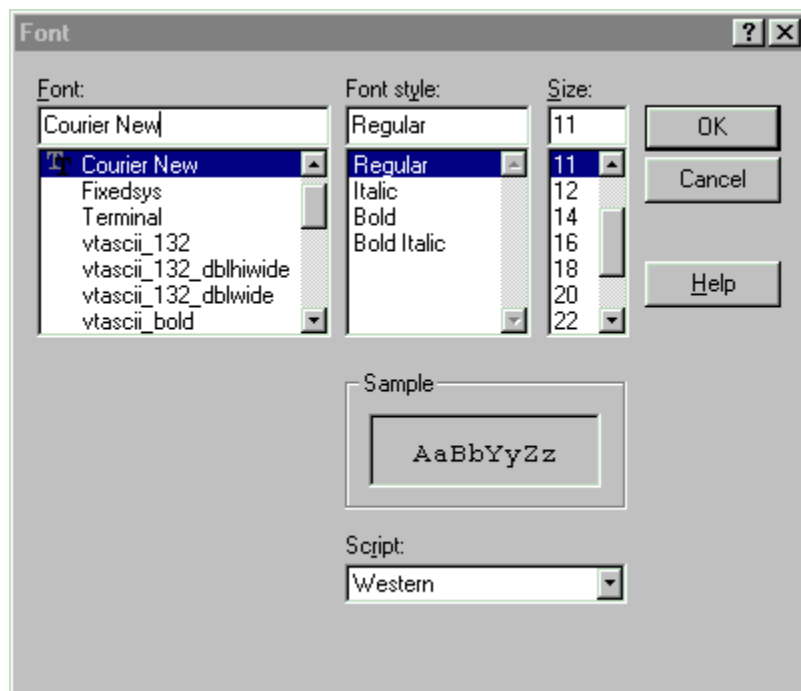
If you are already using the 'custom' font in the current session, then the new font will automatically be applied. If you are not presently using the 'custom' font, you will be prompted to do so if you wish.

Note: If your host application requires the use of the DEC Special Graphics characters for line-drawing, you will almost certainly have to use the built-in DEC font rather then a custom font!

Keymaps

QVT/Net Terminal closely emulates the keyboard which is supplied with DEC VT terminals, and provides support for all of the keys which exist on those keyboards. However, it is frequently advantageous to modify the default keyboard setup, possibly to enhance the efficiency of a specific host application.

You will be allowed to remap each key in four states: the 'base' state, by which we mean the pressed by itself; the 'shift' state, in which the key is pressed together with a <Shift> key; the 'ctrl' state, in which the key is pressed together with a <Ctrl> key; and 'ctrl+shift' state, in which the key is pressed together with both a <Shift> and a <Ctrl> key.

These menuitems can be used to remap and/or redefine the keys according to your requirements. The first and simplest option is remapping, which means that the value of one key is assigned to another key. For example, the DEC PF1 key is assigned by default to the NumLock key, which is the closest physical equivalent. However, you may prefer to assign this functionality to the F1 key, which is a plausible logical equivalent.

[Note that in cases like this, of simple remapping, the behavior of the 'source' key (in this case the NumLock key) is not modified. This means that there will be two keys that emulate the DEC PF1 key]

QVT/Net Terminal also supports the concept of key redefinition, which involves the assignment of an arbitrary character string to a key. This is done by typing in the string that you want to associate with the key, using the input fields provided. As with remapping, there are four key states available.

Printable characters can be entered verbatim, but non-printing characters must be encoded. There are two coding methods available.

The first encoding method can be used only with the first 32 non-printing characters, with ASCII values ranging from 0 through 31. The method consists of picking the printable character whose value is 32 higher than the non-printing character, and prefixing it with a caret ('^'). For example, the control character whose ASCII value is 0x03 can be notated as '^C'. This is the character that is usually produced at the keyboard by pressing <Ctrl+C>.

The second method can be used for any non-printing character, including those whose ASCII values are higher than 31. This method involves using a notation that is familiar to C programmers, consisting of a 3-digit octal string prefixed by a backslash. In this notation, for example, the <Escape> character, decimal value 27, would appear as \033.

There are two dialog boxes provided for key remapping. One covers the <u>main alphanumeric keyboard,</u> including the top-row function keys, and the other covers the array of <u>keypads</u> which are located to the right of the main keyboard.

In either case, you remap a key by clicking on the button that represents the key that you want to work with. This brings up a dialog box that presents four input/selection fields for the four definable key states, as described above. Note that you need not program all four states. You should modify only the state(s) that you need to, and leave the rest alone, and they will retain their default behavior.

When you are finished with a key, click on the 'Ok' button, and the new key definition will be saved provisionally, After finishing the last key, you should then click on the 'Ok' button in the main keyboard dialog, and all of the new key definitions will be saved to disk. If this is your first pass through this procedure, you will have to provide a filename. You should also perform a 'Save Configuration' to permanently associate the key definition file with the active configuration.

Printer Setup

QVT/Net Terminal supports printing in two ways:

- User-directed printing of screen images
- The redirection of the incoming host data stream to the printer

In order to properly make use of these features, however, it is important that the printer be set up correctly. This needs to be done only once, after which you can use the printing functions without any concerns.

Printer setup involves two steps:

1. Selecting a printer. This is done using a standard Windows printer-selector:
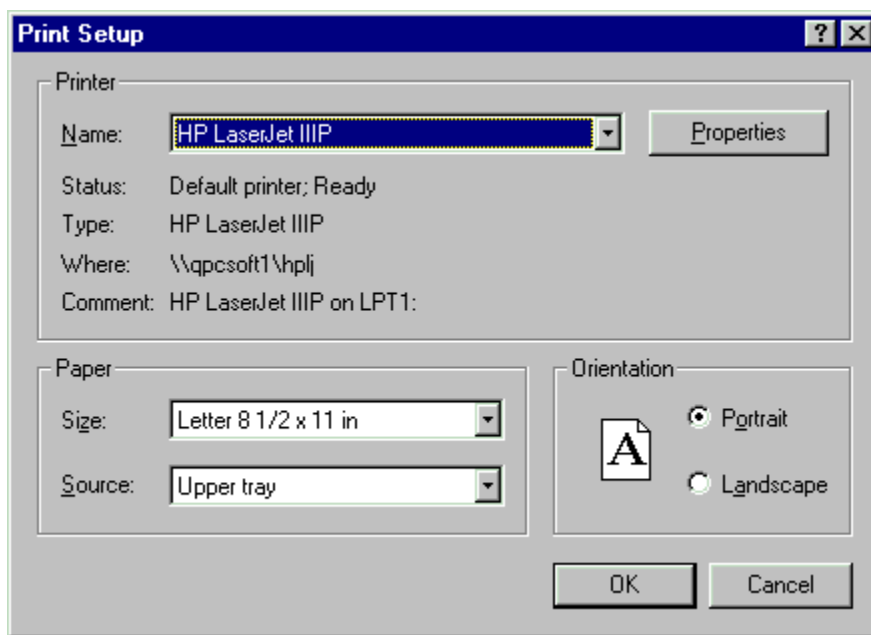
2. Selecting a printer font. This process is identical to that used for selecting a custom screen font.

Command-Line Arguments

QVT/Net Terminal can be started with a few command-line arguments which can help expedite your startup procedure. The structure of all of the arguments is the same:

        term <keyword> <value>

Here are the supported keywords:

-h <host ID>

The '-h' option allows you to specify host names or IP addresses on the command line. The argument 'host ID' will consist minimally of a host name or IP address. It may also contain an optional IP Port specifier, which is done by adding a colon (':') after the host name, then the port number. Here are a couple of examples:

        -h channel1.bbs.com
        -h 204.249.0.2:3001   /* notice the IP port 3001 */

Some popular Web browsers allow you to specify the name of a telnet 'helper' application, for use in connecting to telnet URL's. You can use QVT/Net Terminal in this situation by specifying the pathname of the executable, followed by the keyword '-h'.

QVT/Terminal will also accept a host ID without the keyword '-h', as long as it is the first and only argument on the command line. This will help in situations where a Web browser cannot insert the keyword.

-c <configuration>

This option allows you to specify the initial configuration that should be loaded at startup time. Normally, QVT/Net Terminal will start using the values found in TERM.INI; this is a way to override the default and load a different configuration instead.

The actual value of the 'configuration' argument should be the name of one of your saved configurations, as found in TERM.CFG. For example,

        -c "White on Blue 132x30"

Note the use of the double-quotes to enclose the name, since it includes blanks.

-u <username> and **-p <password>**

These two are used together. In the main <u>Setup</u> dialog, the last page is used to enter the default login prompts which are issued by your host computer. For example, the prompt for username might be 'Username:', followed by 'Password:". These prompts are stored in the Setup dialog.

The values supplied here, on the command line, are the responses to those prompts. For example, here is a typical login dialog:

        Username: smithj

Password: secret

In this case, 'Username:' and 'Password' are the prompts defined in the Setup dialog. 'smithj' and 'secret' are the values of the '-u' and '-p' command-line arguments, respectively:

term -u smithj -p secret

Entering a Host Name or IP Address

The 'Start Session' dialog provides an input field that you can use to enter the name or address of the host that you want to connect to. If you use a host name, make sure that;

- There is a domain nameserver available on your local network
- The address of the nameserver has been supplied to your TCP/IP setup

Host Name or IP Address:

Dynamic Data Exchange

QVT/Terminal supports the Dynamic Data Exchange (DDE) protocol. There are three types of DDE transactions available:

- Advise
- Request
- Poke

To initiate a DDE conversation with a QVT/Terminal session, you need to give your DDE client the Application and Topic identifiers. For QVT/Terminal, the Application will always be 'qvt_term'. The Topic will vary from one session to another. For any given session, the Topic will be the string that is located between the square brackets in the title bar.

For example, a QVT/Terminal title bar may contain these strings:

QVT/Terminal - mysys.com [default]

In this case, the DDE Topic will be 'default'.

Once the DDE conversation is established, you can execute the various supported transactions. In order to initiate a DDE transaction within the context of an established DDE conversation, you need to supply an 'Item' ID; for any QVT/Terminal transaction, the Item ID will be 'qvt_term_item'.

The Advise and Request transactions both involve the transfer of data from QVT/Terminal to your DDE client. The difference is that the Advise transaction is a 'hot' link; all data received by QVT/Terminal will be passed on to the client as it is received. In the Request transaction, no data is transferred pre-emptively. Instead, the current contents of the screen are sent to the client.

In the Poke transaction, data is sent from the DDE client to QVT/Terminal, which then sends the data out over the network connection.

Script Files

QVT/Term allows you to create script files that can automate most login sequences. Scripts are created using a mix of these two statements:

 wait <secs> [<"string">]

 type <"string">

The 'wait' command is used when you want to look for a specific string, such as a prompt, to be received from the host. For example, you may want to wait for a 'login' prompt before sending a username:

 wait 10 "login:"
 type "myusername^M"

In this sequence the script waits for the string 'login:' to be received, then sends out the string 'myusername', followed by a carriage return (the carriage return is notated as '^M'). Since it is possible that the waited-for string may never arrive (i.e., the host may be down), there must be a timeout period on the wait, and in this case the timeout is 10 seconds.

The same can be done for the password:

 wait 10 "password:"
 type "secret^M"

This concludes this short script, and control returns to the keyboard.

A few things that should be mentioned:

The <"string"> portion of the 'wait' command is optional, but the <secs> portion is not. Each 'wait' must have a timeout value.

Non-printing characters in the 'type' command can be notated in two ways. The first can be used only with the set of 'control characters' which reside in the lowest portion of the ASCII character set. This notation consists of a caret - '^' - followed by the alphabetic equivalent of the control character. For example, '^C' is the notation for <Ctrl-C>. Another, more flexible, method can be used to represent any non-printing character, including those which lie outside the range of the standard control characters (i.e., characters with ASCII values higher than 127). This more flexible notation consists of a leading backslash - '\' - followed by three octal digits which represent the ASCII value of the character. The <Ctrl-C> character would be represented in this notation as '\003'. Please note that exactly three octal digits are required, even if three are not needed to represent the number.

Creating a Script File

The script file editor is accessed by selecting the 'Setup - Script File' menu item. A dialog box comes up that looks like this:

Edit Script File

Filename:

[   ]

[   ]

[OK] [Cancel]
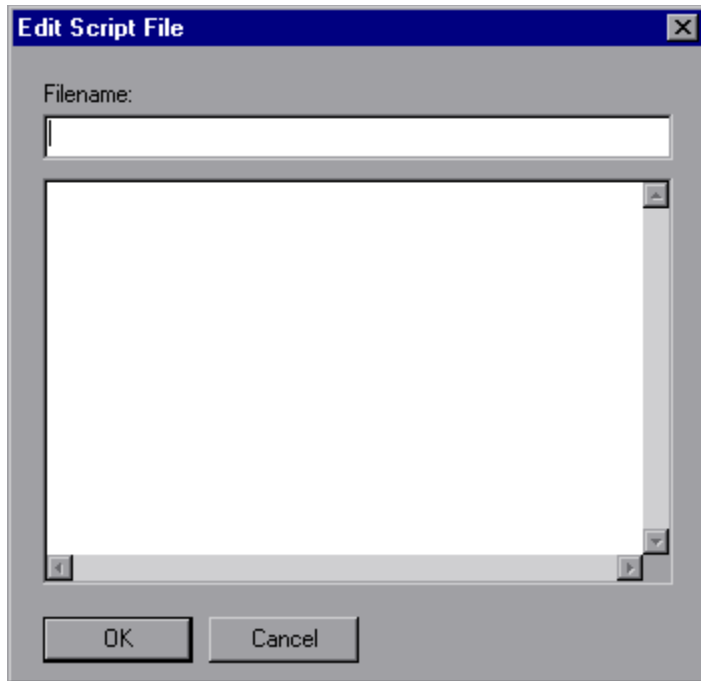
The input field at the top of the dialog should be used to enter the name of the script file. This should be a fully-qualified pathname.

The main input field is used to enter and/or update the script itself.

There are (potentially) two steps involved in saving a script. The first thing you must do is save the script to a disk file; this is done by clicking the 'Ok' button which is located at the bottom of the script editing dialog. Next, you must associate the script with the current configuration, so that the script will be executed at connect time, the next time you use the configuration. This is done by executing the 'File - Save' menuitem.

View Menu

QVT/Term's 'View' menu gives you the ability to interactively show or hide three of the main window elements:

- Toolbar
- Status Bar
- Scroll Bars

These items will be checked when they are visible, and unchecked when hidden. Just select an item to toggle its value, and cause the associated control to appear or disappear.

Note: if you do a 'File - Save', the current state of the toolbar, status bar, and scrollbars will be saved as part of the configuration.