

## **WinQVT/Net Help**

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## Configuration Files

WinQVT/Net uses a number of configuration files and database files in the course of normal operations. These files should be located together in the same directory. That will usually be either the directory where the executable files are located, or the directory pointed to by the optional environment variable QVTNET\_DIR.

An possible exception is QVTHOST.RC, which can optionally reside in a separate directory, as specified by the environment variable QVTHOST\_DIR. If QVTHOST\_DIR is not found in the environment, WinQVT/Net will look for QVTHOST.RC in the default directory.

It is important that these configuration files not be marked as read-only, or placed in a read-only directory (under NetWare). The files QVTNET.INI and NEWS.RC are routinely updated by WinQVT/Net in its normal functioning. In addition, users will probably want to create Telnet screen images and logfiles, which requires that the home directory not be read-only.

The principle configuration and database files used by WinQVT/Net are:

### QVTNET.INI

This is the principal configuration file for WinQVT/Net. It includes configuration settings for the program as a whole, such as connectivity information, as well as settings for each of the client applications (Terminal, FTP, etc.).

The sections of QVTNET.INI are as follows:

|            |  |
|------------|--|
| [net]      | basic network connectivity information |
| [tcp]      | TCP tuning information                 |
| [domain]   | Domain nameserver configuration        |
| [localio]  | Local I/O ports and devices            |
| [console]  | Console window setup and operation     |
| [servers]  | FTP and RCP server configuration       |
| [terminal] | Terminal application setup             |
| [ftp]      | FTP application setup                  |
| [pop]      | Mail application setup                 |
| [nntp]     | News application setup                 |
| [lpr]      | lpr application setup                  |

Most entries in QVTNET.INI are optional, with the exception of the 'name=', 'ip=', and 'packet\_vector' statements. If you attempt to start WinQVT/Net with one or more of these items missing or invalid, a dialog box will be presented that will allow you to make the entries at that time.

### QVTHOST.RC

This database file contains a list of the network hosts that you plan to access regularly. Each line of text in QVTHOST.RC is of the following format:

<IP address> <host name>

For example,

28.1.5.39 myhost

If you plan to use a domain nameserver to acquire the IP address for a host, you should use all zeros for that machine's QVTHOST.RC entry (i.e., 0.0.0.0).

In QVTHOST.RC, the comment character is the '#'. Comment characters can appear either at the beginning of the line, or in-line. Everything to the right of the '#' will be ignored.

## **QVTNET.RC**

This file is used to store alternate configurations for the Terminal application (the default configuration is stored in QVTNET.INI). Each configuration consists of a series of text lines. The first line will always be a line of the form:

```
name=<configuration name>
```

If the name includes embedded blanks, it must be enclosed in double quotes.

The remainder of the configuration consists of a series of lines of the form:

```
<item>=<value>
```

where <item> is a configurable item, and <value> is the value being assigned to that item. Available configurable items are those found in the [terminal] section of QVTNET.INI. One important item that is available only in QVTNET.RC is the 'host=' directive, which allows you to specify a default host to associate with a configuration. The argument to this directive should be the name of a host as found in QVTHOST.RC.

In QVTNET.RC, the comment character is the '#'. Comment characters can appear either at the beginning of the line, or in-line. Everything to the right of the '#' will be ignored.

## **QVTALIAS.RC**

This file is used to store a list of mail 'aliases' in Unix format:

```
<alias>: <email address>[,<email address>,...]
```

## **QVTNET.ACL**

This is the access-control-list file used by the FTP and RCP servers, in order to verify that a logged-in user has access to a filesystem object. This facility can be used to keep unauthorized users out of various areas on your disk. A security check is made every time a user tries to access a directory or file, either for reading or writing.

Each entry in QVTNET.ACL has the following format:

```
<directory name> [<username>,<username>,...]
```

where <directory name> is the name of a restricted directory, and the <username>'s are the names of the users who are authorized to access that directory. If the username list is empty, no one will be allowed access to the restricted directory.

## **NEWS.RC**

This file stores a list of subscribed newsgroups for use by the News Reader application. The format of lines in NEWS.RC is:

<newsgroup name> <article list>

The <article list> will be managed by the News Reader; it consists of a list of previously-read articles, beginning with the lowest-numbered 'read' article. Articles which appear in this list are excluded from the set of articles presented for reading by the application.

## **CONSOLE.LOG**

This file is created and extended by WinQVT/Net as a by-product of normal operations. Unless disabled, all console messages are also written to CONSOLE.LOG, so that a non-volatile record of application events can be maintained.

## Console Commands

All application activity in WinQVT/Net begins with the Console. All of WinQVT/Net's functionality is accessible from the Console Menu. In addition to the menu, a row of pushbuttons has been provided as an accelerated method for accessing client applications.

## System Menu

A number of custom items are present in WinQVT/Net's system menu. These are:

Restore All     Restores all iconified WinQVT/Net application windows

Minimize All     Iconifies all WinQVT/Net application windows

Terminate All     Terminate all WinQVT/Net clients, but leave the Console running

Clear Console     Erase the Console window's message area

## File Menu

The 'Open' menuitem can be used to re-load the contents of the QVTHOST.RC and QVTNET.RC files from disk. This is usually only necessary if changes to one of these files has been made outside the WinQVT/Net environment. For example, if new host entries are added to QVTHOST.RC, and you want these entries made available immediately to a running WinQVT/Net.

The 'Save' option allows you to write a new copy of QVTHOST.RC using the current contents of WinQVT/Net's in-memory database.

The final item on this menu is a toggle, which is used to enable and disable the copying of Console messages to a disk file. By default, console logging is enabled.

## View Menu

This command is a toggle, which you can use to hide or expose the Console window's message area.

## Services Menu

This menu is the point from which WinQVT/Net's client applications can be launched. Of the five available applications, the 'Terminal' application is multiple-instance; the others are single-instance.

The 'Servers' menuitem is used to start and stop WinQVT/Net's two server applications, FTP and RCP.

## Configuration Menu

This menu gives access to the dialogs which are used to configure WinQVT/Net's interactive client applications. Though these dialogs can be accessed at any time, you will be allowed to save changes only if the application being configured isn't actually running at the time.

When you click on the 'Ok' button, changes will be applied to the current session and also written to QVTNET.INI, so that they will be employed by future WinQVT/Net sessions.

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## **lpr**

The lpr application is used to send files which reside on your PC to printers elsewhere on the network. In order to print a file on a remote printer, you must first arrange for your PC's node name to be added to the 'hosts.lpd' database on the host machine to which the printer is attached. If your PC is not in this database, the lpr daemon will not accept connections from the PC.

The procedure for remotely printing a file is as follows:

1. Select a host to print on.
2. Type in the name of the print queue to use on the selected host.
3. Type in or select (using the 'Files' dialog) the name of the local file that you want to print.
4. Press the 'Print' button.

Note that you have a few options which you can apply to print jobs:

**Text/Binary option:** Most print files are text files. However, if you want to send a local file to a device such as a plotter, this data is sometimes in binary format.

**Print Banner:** Allows you to specify whether or not a banner page should be prepended to your print file on the remote printer.

**Delete After:** Allows you to specify that you want the print file deleted once it has been successfully transmitted to the remote printer.

## **Servers**

WinQVT/Net includes two server applications, in addition to the various client modules. These are the FTP and rcp servers. The FTP server allows a remote user to log in to the PC using the FTP protocol, and transfer files to and from the PC. The rcp server allows remote users to copy files to and from the PC using the Berkeley 'rcp' command (where available).

There are some security restrictions which apply to users of either server. In the case of the FTP server, users must be given usernames and passwords. This is done using the PASSWD.EXE utility. Other than authorized users, only 'anonymous' logins will be permitted.

Users of the rcp server are not subject to login security, but they are subject to any access restrictions which are defined in the QVTNET.ACL file. If a directory is listed as a protected directory in QVTNET.ACL, only users listed in the ACL can copy files from or to that directory.

Access-control restrictions apply to FTP users as well. Access to protected directories, for any purpose, will be given only to users who are listed in the ACL for that directory.

The FTP and rcp servers can be started up selectively at the time that WinQVT/Net is started, by making the appropriate settings in QVTNET.INI. The servers can also be stopped and started interactively from the console.

## Starting a Session

A Terminal session is started either by selecting the 'Terminal' menuitem from the 'Services' menu, or by pressing the 'Terminal' button.

In either case, a dialog box will be presented from which the new Terminal session can be launched. This dialog presents you with the following choices:

### Host

There are two ways to specify a host for the new session. The first way is to select a host from the 'Hosts' listbox. This listbox contains all of the host names which are listed in your QVTHOST.RC database. The second way is to type a host name or IP address into the input field that is located just above the listbox. This method allows you to connect to hosts which are not presently documented in QVTHOST.RC.

### Configuration

Each Terminal session must be configured with respect to font, colors, and so on. The default Terminal configuration is stored in QVTNET.INI, and is provided here as the first item in the Configuration listbox. If additional configurations have been defined in QVTNET.RC, they are also available for selection.

### TCP Port

There are two ports which are typically used for interactive Terminal sessions: Telnet (23) and rlogin (513). One of these ports can be chosen by means of the radio buttons. However, if you need to use a non-standard port, you can type it in directly.

### Username

This entry is required (and available) only if you are using the rlogin protocol. Under rlogin, the username must be presented to the host as part of the initial negotiation.

## Menu Options

### File Menu

Screen Image Save the current screen to a disk file

Logfile Toggle; turns logging on or off

Script File Execute a script file.

Exit Terminate the session

### Edit Menu

Copy Copies selected text to the Windows clipboard

Paste Transmits Clipboard text data to the host

Clear Removes text data from the Clipboard

### Setup Menu

Terminal Set terminal operating characteristics

Color Set the foreground, background, and bold colors. You can use one of the predefined colors, or build your own colors using the RGB notation <nnn,nnn,nnn>, where each <nnn> is a decimal number between 0 and 255.

Font Select one of the five available fonts.

Window Choose a normal (i.e., 24-line) window, or a 'Tall' window (full-screen height).

### Keymaps Menu

The key-redefinition process is performed via a pair of dialog boxes which are accessed through the 'Keymaps' menu. The first dialog is used to redefine keys which are located in the main alphanumeric portion of the keyboard; the second dialog is used to work with keys which are part of one of the three small keypads which are located to the right of the main keyboard.

To redefine a key:

\* Choose the keymap dialog that contains the key you want to redefine.

\* Press the button that corresponds to that key.

\* Type in the redefinition string

\* Press the 'OK' button

\* Exit the keymap dialog by pressing the 'OK' button. All changes will be saved, though you may be asked to supply a filename if one is not already present in QVTNET.INI (or QVTNET.RC).

## Menu Commands

### Session Menu

|       |  |
|-------|--|
| Open  | Initiates an FTP login procedure. FTP security usually requires both a username and password; sometimes the password can be omitted. |
| Close | Terminates the current session, leaves window  |
| Exit  | Terminates the current session, if any, and closes the FTP window  |

### Configure Menu

Allows you to set or clear a number of the standard FTP toggles. The current state of each flag is shown when the menu is first displayed.

The first toggle specifies the mode under which files will be transferred between your PC and the remote machine. For text files, you should select 'ASCII' mode; for binary files (.EXE, .COM, .ZIP, .LZH, etc.), use 'Binary'.

|            |  |
|------------|--|
| Bell       | Specifies whether or not the PC's bell will be sounded at the completion of a file transfer  |
| Globbering | Specifies whether or not filespec expansion will be performed on user-supplied filenames. If globbing is enabled, wildcard expansion will be performed before any file operations are started. |
| Hash       | Specifies whether file transfers will be accompanied by a hash-mark display to mark the progress of the transfer.  |
| Prompting  | Specifies whether prompts will be presented which allow the user to confirm each file in a batch operation (i.e., mput, mget, mdelete).  |
| Verbose    | Specifies whether or not server responses will be displayed in full as commands are executed.  |

### Commands - Remote

Command within this menu apply to the remote filesystem:

|                  |  |
|------------------|--|
| Short Listing    | List current directory in short format |
| Long Listing     | List current directory in long format  |
| Change Directory | Switch to another directory            |



|                  |   |
|------------------|---|
| Create Directory | Create a subdirectory within the current working directory  |
| Remove Directory | Remove a subdirectory from the current working directory    |
| Delete File(s)   | Delete one or more files from the current working directory |

### **Commands - Local**

Commands within this menu apply to the local filesystem:

|                  |   |
|------------------|---|
| List Directory   | Display the contents of the current local working directory           |
| Change Directory | Log to another directory  |
| Create Directory | Create a new subdirectory within the current local working directory  |
| Remove Directory | Remove a subdirectory from within the current local working directory |
| Delete File(s)   | Delete one or more files from the current local working directory     |

### **Transfer**

|                 |  |
|-----------------|--|
| Send File(s)    | Transfer one or more files from the PC to the remote machine. A dialog box can be used to build a list of files. |
| Receive File(s) | Transfer one or more files from the remote machine to the PC. A dialog box can be used to build a list of files. |

## The Command Line

The FTP application also provides a command-line interface, which supports the following commands:

|             |  |
|-------------|--|
| ascii       | set file type to 'text'  |
| bell        | enable/disable the warning bell  |
| bget        | download a binary file   |
| binary      | set file type to binary  |
| bput        | upload a binary file   |
| bye         | logoff and terminate FTP   |
| cd          | change directory (on the host)   |
| close       | logoff, but leave FTP running  |
| delete      | delete a file on the host  |
| dir         | displays a host directory listing in long form   |
| get         | download a file using the current file type  |
| glob        | enable/disable wildcard expansion  |
| hash        | enable/disable display of '#' symbols during a transfer to mark each block   |
| help        | display a list of supported commands   |
| interactive | enables/disables user prompting during batch operations (mget/mput/mdelete)  |
| lcd         | change the local working directory   |
| lls         | list the contents of the local directory. Will accept an argument which includes one or more wildcards, when a restricted listing is desired |
| logto       | capture all FTP screen output to a disk file   |
| lpwd        | print the name of the current local working directory  |
| mkdir       | create a directory on the local disk   |
| rmdir       | remove a directory on the local disk   |
| ls          | list host directory  |

|                |   |
|----------------|---|
| mdelete        | delete all files in the current host directory whose names match a specified template.                        |
| mdir           | display host directory listings, in long format, for all directories whose names match a specified template.  |
| mget           | download all files whose names match a specified template.  |
| mkdir          | create a new directory on the host  |
| mls            | display host directory listings, in short format, for all directories whose names match a specified template. |
| mput           | upload all files whose names match a specified template   |
| noninteractive | do not prompt user during batch transfers   |
| open           | open a session on a specified host  |
| prompt         | enable/disable prompting during batch operations. See 'interactive' and 'noninteractive'.                     |
| put            | upload a file using the current file type   |
| pwd            | display the name of the current host working directory  |
| quit           | same as 'bye'   |
| recv           | download a file using the current file type   |
| remotehelp     | display a list of commands supported by the host  |
| rename         | give a new name to a file on the host   |
| rm             | remove a file on the host   |
| rmdir          | remove a directory on the host  |
| send           | upload a file using the current file type   |
| status         | display the current status of FTP   |
| struct         | set file transfer structure   |
| take           | run a script file containing FTP commands   |

|         |                                    |
|---------|------------------------------------|
| type    | set file type, 'ascii' or 'binary' |
| user    | initiate a host login procedure    |
| verbose | toggle verbose mode                |

## **Menu Options**

### **File Menu**

Open

Initiates a POP3 login procedure. POP3 security is usually the same as that for other interactive processes, such as Telnet and FTP; both a username and password are typically required.

Close

There are two ways to terminate a POP3 session. Using the first option, the current session will be terminated, and a background process will be launched which will periodically check the server for the arrival of new mail messages. The second 'Close' option terminates the current session without starting the background new-mail check.

Exit

Terminates the current POP3 session, if any, and closes the Mail window.

Reset

This option is available only while a POP3 session is under way. It allows you to reset the mailbox to its state prior to the current session. Most importantly, any messages you may have deleted are restored.

Start/Stop Background Mail Check

These two options are available only when there is no POP3 session under way. They allow you to initiate or terminate the background mail-check process. If you invoke 'Start Background Mail Check', and you have not previously logged on to the server interactively, the standard login dialog will be executed, so that you can enter your login name and password for use by the background process.

### **Send Mail**

This menu item allows you to create and send a new mail message. Its availability depends on the following conditions:

\* If you have selected POP3 as your 'send mail' protocol (the default), this option is available only when there is an active POP3 session.

\* If you have selected SMTP as your 'send mail' protocol, this option will be available at all times.

In order to send mail, you must carry out a number of steps. First, you must make sure that all of the input fields in the dialog are filled in. Note that, if you have created an 'alias' database, your aliases are made available for selection at this time.

Secondly, you must compose the message itself, using either the Windows notepad (the default) or a Windows text editor of your choice (see the 'editor=' entry in QVTNET.INI).

After the message has been composed, and the 'Subject' and 'Send to' fields have been

filled in, you can send the message by pressing the 'Send' button.

## **Button Commands**

Once a POP3 session has been started, your principal means of control will be the row of pushbuttons which is located just below the listbox. These buttons are associated with the following functions:

### **Read/Next**

If there is no message currently displayed in the message area, then pressing this button will load and display the currently 'selected' message (i.e., the message whose entry is highlighted in the listbox). Once a message has been loaded, pressing this button again will load the next consecutive message from the mailbox.

### **Save**

Pressing this button will save the currently displayed message (or selected message, if no message is currently displayed) to a disk file. The default save directory is given by the 'savedir' entry in QVTNET.INI.

### **Reply**

Allows you to compose and transmit a reply to the sender of the currently displayed message. The contents of the original message will be included in the reply, where it can be edited.

### **Delete**

Deletes the currently displayed (or selected) message. Once a POP3 session has been closed, deleted messages cannot be recovered. During a session, however, you can recover deleted messages by using the 'Reset' menu option.

### **Print**

Prints the currently displayed message to the local printer.

## **Menu Options**

### **File Menu**

Open

Opens an NNTP session. There is no user-specific login security for NNTP. However, your PC's network node name must be present in the 'nntp\_access' file which resides on the NNTP host.

Close

Saves an updated copy of NEWS.RC and terminates the current NNTP session. The News window is minimized, but not closed.

Refresh

Executes a 'close/open' cycle as a single command. This has the effect of making available articles which have been received at the host since the current session was started.

Save

Writes an updated version of NEWS.RC. The status of the current session is unaffected.

Exit

If there is an active NNTP session, this command will close that session and write an updated NEWS.RC. The News window will then be closed.

### **Newsgroups Menu**

Display Newsgroup List

This item is available only when a newsgroup has been selected for reading, and the listbox is currently showing a list of articles from that newsgroup. The 'Display' command will unselect the newsgroup and return the listbox to showing the list of subscribed newsgroups.

Read Articles

When the listbox is showing the list of subscribed newsgroups, this command will allow you to read articles from the 'selected' newsgroup (i.e., the newsgroup whose name is highlighted in the listbox).

Once the newsgroup has been activated, and articles from that newsgroup have been loaded into the listbox, this menuitem can be used to load the next batch of articles.

Read All Articles

The 'Read Articles' command (see previous) loads only the first few articles from the newsgroup into the listbox. To load the entire newsgroup at once, use this command instead. The 'Read All Articles' command remains available even if 'Read Articles' is used first; the effect will be to load all remaining articles into the listbox.

Reset Newsgroup



This menuitem can be used to restore a newsgroup to its state at the beginning of a session. Articles which had been junked are made available again. A newsgroup can be reset any time during a session, as long as it hasn't been purged (see next section).

#### Purge - All

Has the effect of marking all of the articles in the currently selected newsgroup as 'read'. Effects become permanent only when the session is closed. A newsgroup that has been purged cannot be reset.

#### Purge - Partial

Allows you to mark only the first <n> articles in the newsgroup as 'read', leaving a set of articles at the end still available. This is useful if you fall behind in a newsgroup, but you still want a chance to see the most recent articles.

#### Subscribe

Invokes the dialog which allows you to subscribe to one or more newsgroups.

#### Unsubscribe

Allows you to remove a newsgroup from the list of currently subscribed newsgroups.

### **Post Command**

This command invokes a dialog which allows you to post a new article. You can use either a pre-existing file, or create a new file from scratch to hold the text of the article. In either case, your text will be appended to an edited version of PNEWS.HDR (the newsgroup name will be added to the 'Newsgroups:' line).

## **Button Commands**

One of the main tools employed by the News Reader is the listbox which occupies the top portion of the screen. This listbox will initially contain the list of subscribed newsgroups, together with an account of unread articles remaining in each group. In order to select a newsgroup for reading, you can either highlight the newsgroup and invoke the 'Read' menuitem, or you can simply double-click on the newsgroup.

Once a newsgroup has been selected for reading, the articles from that newsgroup will begin to appear in the listbox, replacing the list of subscribed newsgroups. Your principal means of control will now become the row of buttons which is located below the listbox.

The listbox itself is also an important tool. To begin with, you can bypass the 'Read' button by simply double-clicking on the article that you want to read. Secondly, the listbox provides the means by which more and more articles are gradually brought into the listbox. New articles will automatically be loaded if you junk the last remaining article in the listbox; you can pre-emptively load more articles by pressing the <Ctrl> key and clicking on the last article.

### **Read/Next**

Loads the currently selected article (the article which is highlighted in the listbox) and displays it in the text area. If there is already an article present, this button's label will change to 'Next', and pressing it will load the next sequential article.

If this button is currently in 'Next' mode, a feature called 'Thread mode' is made available. By pressing and holding the <Ctrl> key, then pressing the 'Next' button, the next article with a matching subject line will be loaded instead of the next sequential article. This allows you to quickly follow an entire thread to its end. Selecting and reading an article from outside the thread cancels any active 'Thread Mode'.

### **Junk**

Marks the currently selected article as 'read', and removes it from the listbox. Note that this button can be used to junk not only the currently displayed article (if there is one), but any article in the list.

If you press and hold the <Alt> key, then press the 'Junk' button, all of the articles in the listbox will be junked at once, and the listbox will be reloaded with the next set of articles (if there are any).

### **Unmark**

This button marks the currently selected article as 'unread', which makes it available to future News sessions. Note that this button can act on any 'read' article, not just the currently displayed article.

### **Save**

Writes the contents of the currently displayed (or selected) article to a disk file. The default save directory will be given by the 'savedir=' entry in QVTNET.INI.

**Followup**

This command allows you to compose and transmit a 'followup' to the currently displayed article. The contents of the current article will be written to a file, and that file will be loaded into the default editor, which you can then use to edit your reply. Both the article header and body are prepared by this process. After you have saved your followup article, you can either post it to the net, or email it directly to the original poster (if the Mail module is active, and a valid email address can be extracted from the article).

**Print**

Prints the contents of the currently displayed article on the local printer.

## Script Files

### Script Files

WinQVT/Net provides a tiny 'script language' that you can use to perform automatic logins and other routine tasks. The language consists of these statements:

```
wait <secs> ["<string>"]  
  
type "<string>"  
  
if_err_goto <label>  
if_noerr_goto <label>
```

The 'wait' command allows you to wait for a specific text string to be received from the host. The <secs> argument allows you to set a timeout value; if the wait period expires before the looked-for string is seen, the script will abort. String comparisons are case-insensitive.

The 'type' command allows you to transmit data to the host. All data must be enclosed in double quotes. Non-printing characters can be transmitted by notating them in one of the two ways described previously in the section on key redefinition.

The two flavors of 'goto' allow you to jump to an arbitrary point in the script, based on the outcome of a preceding 'wait' statement. The destination labels must have a colon (':') as the first character, and they must be the first and only token on the lines in which they appear.

Here is a sample script:

```
wait 5 "login:"  
if_err_goto exit  
/* this is a comment  
type "myuser^M"  
wait 5 "password:"  
type "mypass^M"  
:exit
```

## Key Redefinition

With a few exceptions, all of the keys on the PC keyboard can be programmed to transmit strings of your choosing. Each key can be set up to transmit one string when pressed by itself, a second string when pressed together with the <Shift> key, and a third string when the key is pressed together with the <Ctrl> key. All three strings are stored concatenated together into a single string, whose total length cannot exceed 80 characters. The three sub-strings are separated by the pipe character ('|', ASCII 0174).

Both printable and non-printable characters can be including in key definition strings. There are two ways to notate non-printing characters. For characters whose values are between 000 and 037 (octal), the easiest way is to take the printable 'equivalent' of the character and prefix with the caret ('^'). For example, the character <Ctrl-C> (ASCII 003) could be notated as '^C'.

Characters which lie in the high half of the character set, with values higher than 0177, can be notated using C-style octal notation. For example, the character 0201 would be notated as '\201'. This type of notation can also be used for lower-order non-printing characters. For example, the <Escape> character would be notated as '\033'. When the C-style octal notation is used, the following rules apply:

- \* The first character must be a backslash
- \* Exactly three octal digits must be used

Here is an example of both methods. This example shows how the <Enter> key can be programmed to transmit the string <CR><LF>:

First method:            ^M^J  
Second method:            \015\012

The next example shows how the <Backspace> key can be programmed to transmit a DEL character when pressed along, and the BS character when pressed together with the <Ctrl> key>

\177||\010

Note the use of the pipe character to separate the three sub-strings which correspond to the three key states. Note also that the middle string (the one associated with the <Shift> key) is left empty. If a substring is left blank, the key will revert to its default behavior.

## Environment Variables

WinQVT/Net uses three environment variables to specify the locations of its configuration, database, and help files. In the absence of these variables, WinQVT/Net will expect to find all of its various support files in the same directory as the executable file WNQVTNET.EXE, or in the directory specified as the 'Working Directory' by the Windows Program Manager.

### QVTNET\_DIR

This optional environment variable can be used to specify a location for WinQVT/Net's support files other than the default 'working directory'.

QVTNET\_DIR is created in the usual manner of DOS environment variables; i.e., by use of the SET command:

```
set QVTNET_DIR=c:\qvtnet
```

The use of this variable allows a number of users on a LAN to share a single copy of WinQVT/Net, yet each user can have his or her own set of support files.

### QVTHOST\_DIR

This optional environment variable can be used to specify the location of the QVTHOST.RC file. It is useful mostly in situations where a number of LAN users are sharing a single host database, even though each user will otherwise have his or her own set of support files. If both QVTNET\_DIR and QVTHOST\_DIR are present, QVTHOST\_DIR will take precedence, for the QVTHOST.RC file only.

For example:

```
set QVTHOST_DIR=c:\qvtnet\etc
```

tells WinQVT/Net to look for the QVTHOST.RC file in the directory 'c:\qvtnet\etc'.

### QVTHELP\_DIR

This optional variable can be used to specify an alternate location for WinQVT/Net's help files, WNQVTNET.HLP and WNSETUP.HLP. If not present, WinQVT/Net will expect to find these files in the directory specified by QVTNET\_DIR, or in the default 'working directory'.

The use of all three environment variables provides considerable control over the location of the support files, which is especially useful in a LAN environment where multiple users are sharing a single WinQVT/Net installation. Each user can have QVTNET\_DIR to point to their own personal QVTNET.INI file (also, QVTNET.RC, PNEWS.HDR, etc.). Yet all users can share a single QVTHOST.RC file, and all can share the help files as well.

