WinQVT

A DEC VT220 Terminal Emulator
For Microsoft Windows
Version 4.7

WinQVT is a DEC VT220/102/52 terminal emulator and communications program which has been created to run under Microsoft Windows as a true 'Windows' application. WinQVT provides exceptionally complete VT emulation, including double-wide and double-high characters, the full 'Special Graphics' character set, smooth scrolling, 132 columns, and user-defined keys.

In addition to terminal emulation, WinQVT offers file transfer facilities using five popular protocols - Kermit, XMODEM, YMODEM, ZMODEM, and CompuServe B-Plus, as well as auto-dial and auto-login capabilities. Since WinQVT is a Windows application, these operations, once started, may be sent to the background, thereby permitting the use of the machine for other tasks.

This document does not constitute full user documentation, but it does tell you what you need to know to use and register WinQVT. For a list of recent changes, see the accompanying RELNOTES file.

Hardware Requirements

To run WinQVT, the following minimum hardware configuration is required:

> * 12-mhz 286, 16-mhz 386sx, or higher;
>
> * EGA or VGA display
>
> * 101-key 'enhanced' keyboard
>
> * Hayes or Hayes-compatible modem (MNP modems are supported)

Software Requirements

WinQVT version 4.6x requires Windows 3.0 or higher. WinQVT will not run on older versions of Windows.

Files

The files included in this archive are:

WINQVT.EXE	The executable program file
VT220.FON	The special fonts required by WinQVT
QVT.INI	A model 'global' configuration file

DEFAULT.VT   A model 'session' configuration file
RELNOTES.WRI   A list of recent improvements in WinQVT
README.WRI   This document

The file 'VT220.FON' should be copied to your \WINDOWS\SYSTEM directory, where it will be together with the rest of the fonts. The 'QVT.INI' file should be copied to the \WINDOWS directory.

The other files should be kept together in a separate directory (e.g., \WINQVT).

Warning!

If you have a serial mouse attached to COM1, you must edit the file DEFAULT.VT <u>before</u> *you attempt to run WinQVT! This is because WinQVT will attempt to open the port specified in DEFAULT.VTat program startup. If a mouse is connected to that port, WinQVT's attempt to open the port wil probably cause your system to 'hang'. Using the Windows 'Notepad' editor, find the line that reads 'port=1', and change the '1' to whatever number specifies the serial port that you intend to use for communications.*

Windows 3.0 Program Manager Setup

WinQVT is fully compatible with the Windows Program Manager. You can create a Program Manager icon for the WinQVT executable itself, and also for individual .VT files. This second option allows you to load WinQVT and the desired config file from the Program Manager in a single step.

You can now add WinQVT, and if desired, .VT files, to a Program Group by going through the usual procedure for creating icons within Program Manager. This is done by first selecting the 'New' option from the Program Manager 'File' menu, then selecting the 'Program Item' option from the subsequent dialog box.

To create an icon for WinQVT itself, enter 'WinQVT' into the 'Description' field, and the executable pathname into the 'Command Line' field (e.g., c:\winqvt\winqvt.exe). To add a .VT file to a Program Group, enter the host name as the 'Description', and, as the 'Command Line', an entry of the form <WinQVT pathname> <.VT filename>. For example,

        c:\winqvt\winqvt.exe myvax.vt.

The resulting icon, when double-clicked, will load WinQVT together with the specified .VT file. Any dial and/or login operations specified in the .VT file will be executed immediately.

Notes on Operation

The WinQVT screen contains a standard Windows menu bar across the top of the screen. There are five pull-down menus which are used to operate the program:

File	Perform file operations, e.g. load and save
Edit	For moving data to and from the Clipboard
Setup	Configure WinQVT operating parameters
Modem	Control a Hayes-compatible modem
Transfer	Perform protocol file transfers

After WinQVT is started, you must perform a config operation in order to begin communications. This may be done in one of two ways: you may invoke the 'Port' option from the 'Setup' menu, or you may load a pre-existing config file (using the 'Open' option from the 'File' menu). A sample config file, 'DEFAULT.VT', is provided with this package.

WinQVT config files are created by the 'Save As' menu option (File menu). They must have the extension '.VT' in order to be recognized by the 'Open' menu option. Note that WinQVT will automatically force the extension to .VT when a configuration is saved.

The file 'QVT.INI' is a 'global' configuration file; it contains settings that will be retained throughout your WinQVT session, regardless of which .VT file is loaded. The contents of this file can be modified only by editing it directly, using the Windows 'Notepad' or similar ASCII text editor.

Dialing

Phone numbers may be associated with specific host configurations by placing a 'phone=' directive in the .VT file for that host. This number will then come up automatically when the 'Dial' menu is invoked.

WinQVT also supports the use of a modem initialization string. You should store your initialization string as a 'modem_init=' directive in the QVT.INI file. A reasonable default initialization string - for Hayes 2400 modems - is included in the supplied copy of QVT.INI. If you modify the default initialization string, MAKE SURE that you do NOT edit out the 'q0' and 'v0' commands. These are CRITICAL to the proper functioning of the WinQVT dialer!

NOTE: if your modem responds to a carriage return as a command terminator (as most modems do), you MUST include a carriage return, notated as ^M, at the end of your initialization string. For example, 'init=at&c1&d2x1^M' would be a valid initialization string for a typical Hayes-compatible 2400-baud modem.

Login Scripts

WinQVT includes a small script language, which, while not elaborate, is nevertheless capable of carrying on fairly complicated dialogs with host software. It is mainly intended for use as a tool for automating login procedures, which are often both routine and tedious.

Though full documentation of the script language is made available only to registered users, you may find that a considerable amount can be accomplished with only these commands:

type "string"	Transmits the specified string to the host. Control characters can be specified by using the '^' character, followed by the appropriate letter; e.g., '^C' = <Ctrl-C>. A carriage return is notated as '^M'.
wait <secs> ["string"]	This command performs either a simple 'wait' for the specified number of seconds, or, when given the optional "string" argument, will wait for that string to arrive in the incoming data stream (for up to <secs> seconds).

Other commands are available for dialing and file transfer.

File Transfer

When performing Kermit file transfers, make sure that you set the parity of the remote Kermit so that it matches WinQVT's parity setting. Otherwise, the transfer will fail. Note that the remote Kermit will show no signs of misbehavior until the transfer is started, at which point the session will 'hang'.

The version of YMODEM included in WinQVT is a true 'batch' YMODEM implementation.

In order for the CompuServe B-Plus protocol to work, you must be operating at 8-bits, no parity. This may require that you modify your CompuServe user profile (with the

'GO TERMINAL' command). The best way to perform a B-Plus transfer is to enable the B-Plus protocol (using the 'Transfer' menu) <u>just before</u> selecting 'B Plus' from CompuServe's protocol menu. You should disable B-Plus after the transfer is finished.

After a file transfer has been started, you can switch to another Windows application while the transfer is proceeding. Note that the new foreground application should be a <u>Windows</u> application; switching to a DOS application may cause the file transfer to time out.

NOTE: WinQVT is quite careful to allow messages for other applications to be processed during file transfers. If there are many such messages, there may be a noticable impact on the speed of the file transfer. We suggest that, before beginning a WinQVT file transfer, you terminate any running applications which generate a large number of messages .

<u>Fonts</u>

The font file included in this package is designed for use with EGA display adapters. It will work with VGA and Hercules displays, but the character size will be somewhat smaller than the optimum for those displays. Registered users will receive a complete set of fonts for all PC display systems, including VGA, Hercules, Super-VGA, and 8514/A.

<u>COM3 and 4</u>

WinQVT will work with COM3 or 4, as long as these ports have been initialized and set up correctly within the Windows environment.

In order to initialize COM3 and/or 4 for use with Windows, you may need to use a utility such as David Macchia's COMSET. This program should be included in your AUTOEXEC.BAT boot routine. If your ports are not properly initialized, you will probably get an error message from Windows, stating that the ports have been assigned for use by a DOS application; attempts to use the ports from within Windows will fail.

SYSTEM.INI

If you are running Windows in 386-enhanced mode, you should probably modify your SYSTEM.INI file (the [386Enh] section) to make sure that the correct I/O addresses and IRQ lines are being used for the serial ports. Note that Windows does <u>not</u> use the industry-standard port addresses as its defaults for COM3 and 4!

Here are some suggested values for use in your SYSTEM.INI:

COM1Base=3f8h
COM2Base=2f8h
COM3Base=3e8h
COM4Base=2e8h

COM1Irq=4
COM2Irq=3
COM3Irq=4
COM4Irq=3

Com1AutoAssign=0
Com2AutoAssign=0
Com3AutoAssign=0
Com4AutoAssign=0

ComIrqSharing=1

Lines which refer to ports which are not installed on your system may be omitted.

High Baud Rates in 386-Enhanced Mode

Though not actually a bug in WinQVT, it is worth mentioning that, when running in 386-enhanced mode, the Windows 3.0 communications driver drops characters at very high baud rates (e.g., 19200 baud). This is because Windows spends too much time in modes which block the servicing of serial-port interrupts (for example, timer interrupts, which are of higher priority than comm interrupts).

If you want to run at high baud rates without dropping characters, we recommend that you use the 'Control Panel -386 Enhanced' dialog to select the 'Exclusive in Foreground' option. This will make background file transfers impossible, but it will at least protect the integrity of the foreground terminal session.

You may also consider acquiring a replacement comm driver, such as TurboCom from Bio-Engineering Research Labs, of Berkeley CA.

Keyboard Mapping

The version of WinQVT provided here is intended for use on computers with the 101-key 'Enhanced' keyboard.

DEC	IBM
PF1	NumLock
PF2	'/' on keypad
PF3	'*' on keypad
PF4	'-' on keypad
, (comma)	'+' (on keypad)
- (minus)	<Ctrl> + '+' on keypad
Enter	Enter (on keypad)
HoldScreen	<Pause>
PrintScreen	<Alt-F2>
Setup	(no key, use menu)
Data/Talk	Not Supported
Break	F5 or <Ctrl-Break>
F6 - F10	F6 - F10
F11 - F20	Shift-F1 - F10
Help	F11
Do	F12
Find	Insert
InsertHere	Home
Remove	PageUp
Select	Delete
PrevScreen	End
NextScreen	PageDown

The DEC user-defined keys are accessed by pressing <Ctrl-F6> through <Ctrl-F10> for the first five, and <Ctrl-Shift-F1> through <Ctrl-Shift-F10> for the last ten.

Registration Information

WinQVT is a shareware product. Should you find it useful and suitable for your requirements, we ask that you remit $50 to:

QPC Software
P.O. Box 226
Penfield, NY 14526

Your registration will entitle you to a copy of the latest version of the program, a complete set of fonts, and a printed user manual. You will also be eligible to receive free upgrades for a period of one year.

Contacting QPC

You can contact QPC Software electronically on Compuserve. Our account is [76676,1420]. You can send Internet mail to this account using this syntax: 76676.1420@compuserve.com.

If you believe you have found a bug in WinQVT, or if you would like to see the program modified or enhanced in some way, please let us know! Many user suggestions have already been incorporated into WinQVT, and we continue to welcome ideas from all sources.

Other Versions of QVT

QPC Software has a family of DEC emulation products for many popular personal computer environments, including MS-DOS, Microsoft Windows, Apple Macintosh, and OS/2 Presentation Manager. Also available are networking versions - for both DOS and Windows - which run in an Ethernet-TCP/IP network environment.

Write to us for our complete product price list.

If you pass on your copy of WinQVT to others, we ask that you include all of the original files from this package.

Thank you for your interest in WinQVT!