WinQVT/Net

Version 3.0
Release Notes

Welcome to WinQVT/Net 3.0. This release contains one major change (the configuration files), and many smaller enhancements and bug fixes, including some of those which have been most-requested, such as configuration-specific keyboard redefinition and SMTP mail. This document does not attempt to mention everything; only the high points will be touched. Users of earlier versions will probably notice other changes that are not noted here.

Note: WinQVT/Net 3.0 is a Windows 3.1 application. It will not run under Windows 3.0.

The WinQVT/Net distribution now consists primarily of these files:

WNQVTNET.EXE	The program executable
WNNETDLL.DLL	The TCP/IP transport
PKTINT.COM	The packet-driver interface TSR
VT220.FON	The DEC fonts (VGA resolution)
QVTNET.INI	The main configuration file
PNEWS.HDR	News article header template
WNQVTNET.SYM	Symbol table for use by 'Dr. Watson'
WNNETDLL.SYM	The same, for the transport DLL
TNSTART.EXE	The remote application-module launcher
PASSWD.EXE	DOS utility for maintaining password file

Out of this set of files, the EXE and DLL must be kept together in the same directory. QVTNET.INI and PNEWS.HDR should be either be kept together with the EXE and DLL, or placed in the directory named by the environment variable QVTNET_DIR. The two .SYM files are best placed in the \WINDOWS directory. PKTINT.COM should probably be placed in the root directory, since it will be loaded at boot time.

VT220.FON, as always, should be placed in \WINDOWS\SYSTEM.

In addition to these files, which are supplied with WinQVT/Net, there are a number of other files which you should create yourself, using a ASCII text editor. These files are:

QVTHOST.RC	A list of hosts on your network
QVTNET.RC	A set of alternate 'Terminal' configurations

QVTNET.ACL   A set of Access Control Lists for the FTP
server
QVTMAIL.SIG   A 'signature' file for Mail messages
QVTNEWS.SIG   A 'signature' file for News postings

1. New Configuration Files

In previous versions, WinQVT/Net was driven by a single configuration file, QVT_TCP.RC. Under version 3.0, at least one configuration file (QVTNET.INI) must be used, but there may be a number of others in a typical installation.

The main configuration file is now QVTNET.INI. This file uses the format which is standard for Windows .INI files. It contains global configuration information for WinQVT/Net generally, and for each of the application modules which make up the program. QVTNET.INI corresponds roughly to the 'global' and 'default' sections of QVT_TCP.RC.

The organization of QVTNET.INI is as follows:

[net]   Fundamental network configuration information

[tcp]   TCP tuning information

[domain]   Domain nameserver setup

[localio]   Information on local I/O devices

[console]   Console window configuration

[servers]   FTP and rcp server configuration

[terminal]   Default setup for 'Terminal' (telnet/rlogin)

[ftp]   Setup for FTP application

[nntp]   News reader configuration

[pop]   Mail reader configuration

[lpr]   'lpr' client configuration

See the sample QVTNET.INI file for information on each of the configuration directives which belong to the various sections. Note that backward compatibility with QVT_TCP.RC has <u>not</u> been preserved; some of the keywords are similar, but not identical, to their equivalents from QVT_TCP.RC. For example, the old 'charset' directive ([terminal] section) is now 'font', and 'font_size' is now 'fontsize'. Also, the value domain for an item may have changed. For example, the 'win_height' directive used to take one of two character-string values, 'tall' or 'normal'. In 3.0, it accepts an integer, representing the number of lines, ranging from 12 to 48.

Since QVTNET.INI is divided into sections, the qualifying prefixes on many of the old 'global' configuration statements are now obsolete. For example, in QVT_TCP.RC, the text color for the News Reader is specified by the 'nntp_forecolor' directive. In QVTNET.INI, the prefix 'nntp_' is dropped, and an unqualified 'forecolor' directive is included in the [nntp] section. This change is consistent throughout; the prefixes 'ftp_', 'nntp_', 'pop_', and 'lpr_' have all been dropped, though the directives that they used to qualify are still present in their respective sections.

Before attempting to run WinQVT/Net 3.0, we strongly recommend that you study the sample QVTNET.INI so that you can acquaint yourself with changes from previous versions.

You will not be able to take an existing QVT_TCP.RC and copy it verbatim to QVTNET.INI!

Most of the items in QVTNET.INI can be modified from within WinQVT/Net, using the new 'Configuration' dialogs which are provided on the Console window. Changes made using these dialogs go into effect immediately, and also are written to QVTNET.INI.

Note also that the Console window itself is now 16 lines of 100 characters, with a 50-line scrollback buffer. A 'View' menuitem is provided, which allows you to eliminate the console message area from the screen entirely, and use the console solely as a control center, while economizing on screen real-estate.

All console output is captured in the CONSOLE.LOG file, in addition to the usual screen display. CONSOLE.LOG is not initialized for each WinQVT/Net session, so it has the potential to grow quite large. You will need to delete or truncate it occasionally.

The other files are optional in theory, in that a minimal WinQVT/Net installation can run without them. However, they will probably be desirable for most users. QVTHOST.RC and QVTNET.RC contain information that previously was stored in the 'user' section of QVT_TCP.RC. The reason for the separation into two files is to clarify the distinction between host-related information and terminal-configuration information, and also to simplify the use of WinQVT/Net on platforms which have their own host databases (e.g., PC-NFS).

While QVTNET.INI follows the format of the Windows .INI standard, the optional files QVTHOST.RC and QVTNET.RC retain the format used by QVT_TCP.RC. That format consists of a series of lines of text, each of the form 'item=value', with the '#' character used for comments.

The QVTHOST.RC file contains documentation for host machines on your network. For each host listed, at least one directive is mandatory: the host= directive. The other four directives are used as needed:

host_ip   The machine's IP address

nameserver   Used only for machines which are nameservers. Set to '1' for the primary nameserver, '2' and upward

for the remainder.

gateway   Used only for machines which are gateways. Use positive numbers beginning with '1', indicating the order in which gateways should be queried.

visible   When 'no', will exclude a host from the host-selection

lists that appear at various places in WinQVT/Net.

The QVTHOST.RC file is constructed in sections, with one section for each host which is defined in the file. The first directive in each section should be 'host=', followed by as many of the other directives as are needed for that particular host.

The QVTNET.RC file contains alternate 'Terminal' configurations. All of the directives which are found in the [terminal] section of QVTNET.INI can be used in QVTNET.RC as well. Some additional directives are also used in QVTNET.RC:

name   Assigns a human-readable name to each configuration.

May contain spaces, as long as the entire name is enclosed in double quotes. Up to 80 characters in length.

This directive is mandatory for each entry in QVTNET.RC.

Each configuration in fact begins with a 'name=' entry,

and continues until the next 'name=' entry is seen.

host   The default host which should be associated with this

configuration. Note that this is only a default; a different host may be selected at session startup.

script   The name of the script file which will be executed when the terminal connection is established.

same_as   Normally, items which are not assigned override values

will take their values from QVTNET.INI. This statement allows you to specify the name of another

configuration in QVTNET.RC to use as a base.

Of these four directives, the first is mandatory, in that it provides a name for the configuration, without which the configuration can't exist. The other three, however, are optional, and need be used only where appropriate.

All of WinQVT/Net's support files should be kept in a single directory, either together with the program executable, or in the directory named by the 'QVTNET_DIR' environment variable. The latter allows multiple users on a LAN to share a single copy of WinQVT/Net, while retaining their individual configurations.

Note: do **NOT** place QVTNET.INI in the \WINDOWS directory!

To begin using WinQVT/Net 3.0, you must make sure that values are present for at least these three items in QVTNET.INI:

name
ip
packet_vector

The first two are left blank, and values must be supplied by you. The third, 'packet_vector', is given a default value of '60', but you should change it if you are using a different interrupt vector to communicate with your packet driver.

With version 3.0, you can start WinQVT/Net <u>without</u> these critical items present in QVTNET.INI. When you do this, WinQVT/Net will pause before bringing up the Console window, and will present a 'Configuration' dialog box that you can use to enter the values for these items interactively. After doing so, press the 'Ok' button, and WinQVT/Net will proceed with the normal startup. If after running the dialog, any of the key items is still missing, WinQVT/Net will shut down.

2. Changes to the 'Terminal' application

Functionally, the 'Terminal' application is mostly unchanged. The biggest changes are these:

* Support for the 'rlogin' protocol has been added. The only operational difference between rlogin and telnet has to do with the 'username' field: you

must provide a username in order to use rlogin. A default username can be assigned in QVTNET.INI. Also, each configuration in QVTNET.RC can have its own username, if appropriate.

* The 'Start Terminal Session' dialog now allows you to choose a host and configuration separately. Note, however, that the use of the 'host=' directive in QVTNET.RC will allow you to preserve the link between configurations and hosts, where appropriate.

* The configuration files (QVTNET.INI and QVTNET.RC) now allow you to specify the initial size of the terminal window in terms of absolute rows and columns. If the DEC font is selected, and the number of columns (win_width) is 132 or greater, the 132-column DEC font will be used right away at the beginning of the session.

* Key redefinition is now available on a per-configuration basis. The 'Keymaps' menuitem allows you to redefine keys interactively. Previous versions required that all terminal sessions use the same key-definition file.

3. Changes to FTP

The FTP module retains the format first introduced in version 2.8x. Instead of a traditional TTY interface, a fixed command-line area is maintained at the bottom of the window, where commands can be entered. Most FTP commands are also available from the menu bar.

Also, two new commands are available (also from 2.8):

      take   read commands from a text file

      logto   echo all FTP screen output to a file

For version 3.0, FTP was substantially rewritten, particularly the code which actually performs data transfers. Hopefully the result will be better performance and reliability.

4. Changes to 'News'

There have been very few operational changes to the News Reader. One of them is the expansion from 20 to 30 of the limit on number of subscribed newsgroups. This number will continue to grow in future releases, or will perhaps be removed entirely.

Another change relates to the fact that you can now start the News Reader with no NEWS.RC file present. You can build your initial NEWS.RC file from within the news reader, using the 'Subscribe' function.

The News Reader now supports the concept of a standard 'signature' file, here named QVTNEWS.SIG. This is a standard ASCII text file which, if present, will be appended to all outgoing postings.

5. Changes to 'Mail'

The primary external change to Mail is the enhancement of the 'Read' button. It now works like its equivalent in the News Reader: if an unread message is selected from the listbox, the button will say 'Read', and will bring up the selected article if pressed; once a message has been retrieved, the button label will change to 'Next', and will bring up the next message when clicked. This eliminates the need to first select the next article, then click on 'Read' to retrieve it.

Other interface improvements:

* You can select a message for reading by double-clicking on it

* When a message is deleted, the next appropriate message is automatically selected

* After a mail message (or reply) is sent, the 'OK' notification will appear in a small message area right on the main window, rather than in the form of a message box.

* You can now start the background new-mail check without having to actually log in to the POP3 server. The feature is in the form of a menuitem, 'Start Background Check', which is available when you first bring up the Mail window.

* The 'Close' menuitem now has two options: one to close the session and start the background mail check, and one to close without doing so. This eliminates the need for a separate menuitem to enable or disable the background mail check.

A major change to the Mail module involves the method used to send mail. Previous versions used the Berkeley extension to POP3, 'XTND XMIT', to perform this function. Since many users did not have access to a POP3 server which supported this function, WinQVT/Net 3.0 will use SMTP to send mail. This change makes it quite important that you define a default domain in your QVTNET.INI file (the 'domain=' statement).

Also, in the area of sending mail, a real effort has been made to ensure that the proper end-of-message sequence is sent (i.e., CR LF . CR LF).

Like the News Reader, a standard 'signature' file is also supported by Mail. This file, named QVTMAIL.SIG, will, if present, be appended to all outgoing mail messages. QVTMAIL.SIG should be a standard ASCII text file that you can create with any text editor.

6. FTP Server enhancements

The FTP server has been upgraded both in performance and security.

To begin with, unauthorized users can no longer log in, except as 'anonymous' users.

In addition, a simple 'access control list' scheme has been implemented that allows you to prevent even authorized users (those with login names and passwords) from accessing certain areas of your disk.

With WinQVT/Net ACL's, access is granted on a per-user basis at the <u>directory</u> level. A user who is granted access to a directory will have full access to all of the files in that directory. Users who are denied access will not be able to 'cd' to the restricted directory, nor will they be able to access files in the restricted directory by using absolute pathnames are arguments to FTP commands.

All access control lists are contained in the file QVTNET.ACL, which resides in the same directory with the WinQVT/Net executable and the rest of the support files. Each ACL entry consists of a line of text in the following format:

```
directory-spec username,username,username,...
```

The directory-spec must consist of a fully-qualified DOS pathname, including drive letter. It is followed by a single blank space, after which comes the list of users who are authorized to access that directory. The usernames in the list are separated by commas. There should be no blanks in the list.

To completely deny access to a directory, enter the directory spec, followed by an immediate end-of-line. The absence of a username list will tell WinQVT/Net that no users are authorized for that directory.

If a directory is not listed in QVTNET.ACL, access will be granted to all authorized users.

Also in the FTP server, support for the DELE command has been added.

7. Changes to 'lpr'

The 'lpr' window has been enhanced. It now allows you to enter all three critical values - host, queue, and username - interactively. The absence of any of these from QVTNET.INI will no longer prevent the lpr window from coming up.

There is still one configuration item that <u>will</u> prevent lpr from starting: your PC must have a node name assigned in QVTNET.INI (the 'name' directive).

Also, the standard Windows 3.1 file-selection dialog is used for selecting the

file to print, replacing the somewhat inefficient single listbox which was used in previous versions.

A bug has also been fixed, having to do with the treatment of carriage returns. The lpr daemon normally expects each line of text to end with a Unix 'newline' character (0x10). DOS text files, however, terminate lines with a CR-LF combination. In order to provide acceptable input to the lpr daemon, WinQVT/Net will strip out only those CR characters <u>which are followed by linefeeds</u>. Carriage returns which are followed by some other character will be retained.

8. New Transport Layer

The WinQVT/Net TCP/IP transport code has been rewritten and repackaged as a DLL. Efforts have been made to improve the crash-resistance of this code, though we don't doubt that more improvement is possible. Some of the more egregious problems have been addressed, such as those associated with SLIP operation.

We have also included .SYM files in the WinQVT/Net distribution, which will allow the Dr. Watson utility to provide considerably enhanced reporting in the event of a crash. Specifically, functions on the stack are identified by name, which greatly speeds the debugging process.

Work on improving the reliability of this code will continue.

9. New PKTINT.COM

A new version of PKTINT.COM is included in the 3.0 package. In order to run WinQVT/Net 3.0, you must use the new PKTINT.COM as well. If you fail to do so, WinQVT/Net will abort with an 'Invalid PKTINT.COM' message.

10. Remote Launching of WinQVT/Net Applications

WinQVT/Net 3.0 includes a new executable file - TNSTART.EXE - whose purpose is the 'remote' launching of WinQVT/Net's various application modules. By 'remote', we mean that you can start, say, a Telnet session without having to access the Console window and invoke the 'Start Terminal Session' dialog. The same if true for FTP, Mail, and News (not lpr).

With TNSTART, you can set up a Program Group full of icons, each of which refers to a specific WinQVT/Net client. For the 'Terminal' application, it is possible to reference specific hosts and configurations (from QVTHOST.RC and QVTNET.RC). This Program Group can then function as a universally accessible 'menu' that you can use to start your most-frequently-used sessions.

To use TNSTART, you should first select or create a Program Group for the TNSTART icons. Having done so, select the 'New' menuitem, for adding a new item to the Group.

Here is the key element in this process: in the 'Add Program Item' dialog, in the space for 'Command Line', you should enter a line such as this:

```
tnstart <hostname> [<configuration name>]
```

The <hostname> should be the name of a host as found in QVTHOST.RC; the <configuration name> should be the name of a configuration from QVTNET.RC. You may omit the <configuration name>, in which case TNSTART will use the default configuration.

To use TNSTART to launch an FTP, Mail, or News session, simply substitute the name of the desired application for the <hostname>:

```
tnstart ftp
```

will start an FTP session.

Note: in order for TNSTART to work, the WinQVT/Net console <u>must already be running</u>!

<u>Version 3.0.3</u>

Fixes a number of bugs relating to FTP:

* Attempting to close WinQVT/Net with a live FTP session present caused the system to hang

* Directory listings and downloaded files truncated

* Slow upload performance