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**SuperTCP Suite for Windows**  
**Release 1.2.1**  
**FEATURES.WRI**  
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**Salient Features:**

- \* 32-Bit VxD TCP/IP Kernel.
- \* 32-Bit VxD NFS Client/Server.
- \* 32-Bit VxD NetBIOS over TCP/IP.
- \* Browser - a WWW, Gopher+, WAIS and CSO Browser.
- \* Email with SMTP, POP2/3, and MIME support.
- \* Fax Printing with a Fax Client/Server.
- \* FTP Client/Server.
- \* Kernel monitor application.
- \* NetPrint Client/Server for lpr and NFS.
- \* News Reader for Network News.
- \* Ping.
- \* SNMP Agent supports MIB II and extensions.
- \* SuperX - an X Window server.
- \* Support for NDIS, ODI, Packet, and ASI Drivers.
- \* Support for SLIP, CSLIP and PPP with enhanced Modem Control capabilities.
- \* Talk Client/Server.
- \* Telnet Modem Server.
- \* Telnet Redirector.
- \* tn3270.
- \* VT320.
- \* Windows DOS Box network access.

The following is a detailed description of the features provided in SuperTCP Suite for Windows 1.2.

**32-bit VxD TCP/IP Kernel:**

- \* The SuperTCP TCP/IP Kernel is implemented as a 32-Bit Windows VxD. This technology allows SuperTCP to provide full TCP/IP networking without taking up any of the lower 1Meg with a TCP/IP protocol TSR and uses only 3K base DOS memory for NDIS, and 0K for Packet and ODI Drivers.
- \* The services provided by the TCP/IP network are available only when Windows is running.
- \* The TCP/IP VxD Kernel is Windows Sockets version 1.1 compliant.
- \* A configuration option is provided in the IP configuration to limit the MTU on non-local destinations to 576. This feature is very handy when using the Internet, as many routers do not support the full Ethernet packet sizes, and thus must fragment the packets. This feature can be enabled using the setup program.
- \* Support for point-to-point for configurations where all packets should be sent to a router, regardless of IP address. This parameter is set using TCP Configuration, Always use Default Gateway as next hop.
- \* When multiple connections are used in quick succession, the kernel will clean up closed connections more quickly.
- \* The Host resolver will adapt to the size of packets coming in.
- \* The SNMP Agent will send only one cold-start trap on initialization.
- \* The BOOTP client keeps and use the hostname, as well as the IP address and

nameservers.

- \* The BOOTP client saves the gateway addresses returned by BOOTP server.
- \* DHCP is now available. The default setting is to use either DHCP or BOOTP, whichever resolves first. The user also can choose which one to use.

#### **ASI Drivers:**

- \* Supports the IBM ASI driver.
- \* Supports dynamic Ethernet addresses.

#### **NDIS Drivers:**

- \* Supports loading a NDIS driver from a manufacturer's disk.
- \* The chainvec parameter can be used to increase speed.
- \* The TXLOOP parameter can be used for potential speed improvement for Ethernet adapter drivers that queue network packets.
- \* Provides more friendly user interface to enable support for Novell coexistence and Netbind.
- \* Supports more than one interface for Protman version 2.0 or greater.
- \* The IBMTOKEN driver will now recognize SuperTCP as a protocol driver.
- \* Supports dynamic Ethernet addresses.

#### **ODI Drivers:**

- \* Provides a more user friendly interface by prompting for the path an existing NET.CFG file.
- \* Supports the 802.2 IPX packet type.

#### **Packet Drivers:**

- \* Provides supports for more than 1 line.
- \* Allows user to select "other" for driver type and use an already installed packet driver.

#### **Modem-Control (SLIP, CSLIP and PPP):**

- \* Supports new special characters \u, \a and \w in the script configuration box.
- \* Provides support for displaying the response from the modem by choosing \u or \w in the EXPECT string.
- \* Provides a prompt for username and password, using the \u and \w special characters. When used in a SEND string, \u will cause a Username prompt to be displayed and the answer to be sent, and \w will cause the answer to a Password prompt to be sent.
- \* Provides an improved default disconnect script.
- \* Provides support for phone numbers up to 123 characters long.
- \* Supports interactive send and receive sequences.
- \* Provides support for dynamically accepting the IP address from a SLIP, CSLIP and PPP server.
- \* The Expect/Send pairs in EXPECT string can repeat more than twice.
- \* Provides an option for disconnecting via hardware control or via a script.
- \* Displays full modem/script conversion in SuperTCP messages (SUPERTCP.LOG).
- \* Text before \u or \w in expect is waited for before prompting.
- \* Text before \u or \w in send is filled in the edit box.
- \* Text after \u or \w is used as the Dialog Box title.

#### **PPP:**

- \* For ease of use, PPP supports the same modem control facility used by the SLIP/CSLIP interface.
- \* Can support speeds up to 115,200 bps with Windows 3.11 COM drivers.
- \* Provides support for using an IP number of 0.0.0.0 for BOOTP.
- \* For status and diagnostic purposes, there are more complete PPP messages which print in the SuperTCP Kernel message window.
- \* Dynamic IP address assignment supported.

**SLIP:**

- \* Supports compression of TCP headers (CSLIP).
- \* Can support speeds up to 115,200 bps with Windows 3.11 COM drivers.

**PING:**

- \* Supports saving configurations for reuse.
- \* Supports command line options for easy use.

**Installation:**

- \* Provides support for detecting an installed driver type and will automatically select that type for the setup.

**Setup:**

- \* The F1 key is used to get context sensitive help for the displayed configuration dialog.
- \* Any driver interface can be individually enabled or disabled.

**Windows DOS Box Network Access without a TSR:**

- \* The new 32-Bit TCP/IP VxD allows network access from a Windows DOS Box. NFS mounted drives (when using the VxD NFS client) are also available from a Windows DOS Box. SuperTCP provides DOS network applications (FTP, R-Protocols) that can be used from a Windows DOS Box.

**NetBIOS over TCP/IP (RFC 1001/1002):**

- \* The new 32-Bit NetBIOS VxD allows complete NetBIOS network access from Windows and a Windows DOS Box.
- \* Full support is provided for the LMHOSTS configuration.

**Fax Client and Fax Server**

- \* This feature allows users to send faxes via the SuperTCP Fax Printer Driver without the need of having a FAX board directly connected to their workstation. The fax server would be configured on a PC with a CAS compliant FAX card and driver and allow any number of fax clients to send faxes.
- \* Provides a separate Fax Manager utility which allows the user to retrieve status updates and more detailed information at the client remotely from the fax server on FAXes which had been previously sent.
- \* Completely Windows Sockets v1.1 compliant.

**Fax Printer Driver**

- \* Installs as a standard Windows printer driver and allows users to transparently send Faxes via any Windows application which uses the Windows printing facilities.
- \* Allows a user to create custom cover pages which can then be attached to documents sent via the SuperTCP Fax printer driver.
- \* Allows a user to send their own custom logo with a predefined server-provided cover page.
- \* Allows time-deferred sending of faxes which allows users to take advantage of sending faxes at less expensive connect times.

**NFS Client**

- \* Implemented as a 32-Bit Windows VxD. This technology allows SuperTCP to provide full NFS Client without taking up any of the lower 1Meg with a TSR. The new 32-Bit NFS Client VxD allows complete NFS network access from Windows and a Windows DOS Box.
- \* The services provided by the NFS and the TCP/IP network are available only when

Windows is running.

- \* Supports PCNFSD Version 2.
- \* Completely supports Windows for Workgroups 3.11.
- \* Provides support for multiple GID's (via PCNFSD v2).
- \* Supports the NIS (Yellow pages) Client which is fully integrated with NFS Client.
- \* Provides support for BOOTP.
- \* Complete support for browsing NFS servers is provided in the Network Connections dialog in File Manager.
- \* Supports saving the long filename state for permanently mounted drives.
- \* When creating a directory on a NFS Server, the NFS Client will create it with execute privileges automatically.
- \* When Windows automatically re-establishes NFS connections, if a remote drive requires a password, and the user chooses that the NFS mount be permanent with confirmation, the NFS Client requires that the password be entered before re-establishing the NFS connection.
- \* If a mount is performed from File Manager and an IP Address is given which cannot be resolved to a hostname, the list of current connections dialog will display the IP address.
- \* With Windows for Workgroups v3.11 Toggling "Display Long File Names" will automatically cause a refresh instead of the user needing to do it manually via the "F5" key.
- \* The NFS Client provides full support for Windows 3.1 Long File name functionality, allowing you to manipulate UNIX files entirely from File Manager. In Windows 3.1, File Manager displays a new **Network** menu item. This menu contains the item **View Long Filenames** which enables you to view long filenames on the NFS server in addition to standard DOS-length filenames. Note that the standard filename format will be used for all local drives.
- \* The long filename feature is especially useful for drives mounted on UNIX Servers. By default, any drive mounted from Windows will be displayed with the long filename option enabled. If the window associated with the drive is the active window and you uncheck View Long Filenames under the **Network** menu, the contents of the Window will be redisplayed using the standard DOS filename conventions. Files whose names do not fit the DOS conventions will be displayed with mapped filenames. Clicking on **View Long Filename** again toggles the status back to the long filename convention.
- \* To view and change the attributes of any network file in the UNIX format, select the file in the active window, then choose **Properties** from the **File** menu. File Manager pops up a dialog which displays the attributes of the file which are known to DOS. Clicking the Network button allows you to access other attributes, such as the IDs of the owner and group of the file, the time and date of creation, last access and last modification, and the read, write and execute permissions for user, group and others. You may change uid, gid and the file permissions subject to the usual UNIX file protection mechanisms.
- \* Provides support for setting the default file protections (at mount time) for files created on the remote drive mounted through File Manager.
- \* Provides support for permanently mounting drives (with or without confirmation) at Windows startup. The protections remain the same as those set by the user who initially mounted the drive.
- \* NFS Client printing now supports Non-Windows Postscript.

### **NFS Server**

- \* The new 32-Bit NFS Server VxD provides complete NFS server support while providing user access security.
- \* CD-ROM support.
- \* Supports PCNFSD Version 2.
- \* Supports network file locking (i.e. lockd).
- \* Provides support for restricting users from mounting to certain paths (useful for restricting users from mounting to some drives -- particularly removable drives) on a per

user basis -- this functionality is similar to the Unix exports.

\* The NFS Server can be easily mounted by other PC NFS clients or by Unix NFS clients. The following provides some hints when mounting from a Unix NFS client.

\* On the PC running the SuperTCP NFS server, be sure a user has been created (or given) the UID and GID of 0 and 1, respectively (the UID=0 and GID=1 correspond to the root (or super) user on the Unix client; the root user is usually the only user allowed to mount remote directories). This user also needs to have his or her access changed to include at least the List Directory option. If the user does not have List Directory access, the user will not be able to successfully mount the remote drive from the Unix client.

\* Login as the root account (or type "su") on the Unix machine. Then, at Unix prompt, type the following. If you are using Interactive or SCO Unix, try:

```
mount -f NFS host:drive_letter:/ /foo
```

if you are using SunOS or Ultrix, try:

```
mount -t NFS host:drive_letter:/ /foo
```

If neither of these work, try:

```
mount host:drive_letter:/ /foo
```

#### **FTP:**

- \* Supports Windows drag-and-drop.
- \* Supports profiles.
- \* Supports symbolic links on Unix-compatible servers.
- \* The directory parser handles the following new directory formats: Windows NT, LAN Workplace for DOS, InterCon TCP/Connect II for Macintosh, Novell NetWare Servers, Wollongong Pathway Access, and others.
- \* Supports confirmation on removal of directories.
- \* Supports large directories (unsorted).
- \* Support for firewalls.
- \* Support ability to edit host recall list to delete or add host names.
- \* Support ability to add hosts from the host file.
- \* Support use of port names, not just numbers.

#### **TFTP:**

- \* Supports the Trivial File Transfer Protocol.
- \* Provide a TFTP Client/Server.

#### **VT320:**

- \* Supports auto-scaling fonts, which allows the user to change font sizes simply by resizing the application window. This feature cannot be used on raster fonts. The feature is not supported in Windows 3.0.
- \* Improved keyboard mapping allows mapping of a single protocol key, a key sequence, a macro, or a script file to any PC key, all on an easy-to-use drag and drop interface.
- \* Supports connecting to Telnet hosts on ports other than the Telnet port (23).
- \* Use of <Ctrl>S and <Ctrl>Q to pause/unpause the display can be toggled off.
- \* Support for profiles.
- \* Provides a new, more complete scripting language.
- \* Macro recording and playback.
- \* Improved (faster) screen handling.
- \* Provides support for mapping the VT keys PF1-PF4 to the top 4 keys on the PC's numeric keypad.
- \* Can now have the Enter key send just a CR (instead of CR NUL).
- \* The window can be maximized to fill the screen.
- \* Support ability to edit host recall list to delete or add host names.
- \* Support ability to add hosts from the host file.
- \* Support use of port names, not just numbers.

**tn3270:**

- \* Supports auto-scaling fonts, which allows the user to change font sizes simply by resizing the application window. This feature cannot be used on raster fonts. The feature is not supported in Windows 3.0.
- \* The "FTC Sans Serif-1" font is recommended for standard VGA (640x480) resolution since it will allow all 80 columns to be displayed on the screen without use of the scroll bars.
- \* Support for IND\$FILE file transfer.
- \* Contains an ATTN (attention) key.
- \* Support for color extended attributes with modes 3278-2-E, 3-E, 4-E and 5-E.
- \* Support for EHLLAPI.
- \* Can connect to 3270 hosts on ports other than the Telnet port (23).
- \* Support for profiles.
- \* Support for IBM 3278-2, 3, 4 and 5.
- \* The <Home> key, if unmapped, will move the cursor to the top left-most field on the screen.
- \* Supports autoskip fields.
- \* Supports the Windows paste function.
- \* The window can be maximized to fill the screen.
- \* Print screen capability is now supported.
- \* The application window can fill the whole screen.
- \* Support ability to edit host recall list to delete or add host names.
- \* Support ability to add hosts from the host file.
- \* Support use of port names, not just numbers.
- \* Improved keyboard mapping allows mapping of a single protocol key to any PC key, all on an easy-to-use, drag and drop interface.

**Telnet Redirector:**

- \* The Telnet Redirector provides a simple facility to use existing Windows terminal emulation programs as Telnet programs to access Internet resources.

**Telnet Modem Server:**

- \* The Telnet Modem Server provides a simple facility to allow sharing a modem pool for outgoing dial-up connections.

**NetPrint Client**

- \* Allows per user configuration.
- \* Supports Windows for Workgroups 3.11.

**NetPrint Server**

- \* Supports lpd protocol printing.
- \* Supports NFS server protocol printing.

**Browser:**

- \* Seamless support for WWW, FTP downloads, Gopher+, CSO and WAIS searches; also includes integration with FTP, Telnet and tn3270 applications.
- \* Full asynchronous operation allows multiple browsing sessions.
- \* Web pages are displayed as they are downloaded, allowing you to browse the Web more efficiently.
- \* Supports GIF, x-bitmap (XBM) and ART inline images.
- \* Supports 16 graphics formats (including GIF, JPEG, TGA, TIF, CALS, MacPaint, GEM, Photo CD, WordPerfect, SUN Raster, Macintosh PICTURE, PostScript Raster, Windows BMP and OS/2, and PCX) and a launch facility for third-party viewers..
- \* Supports many sound formats (Microsoft WAV, Sun/Next AU, Amiga AIF, Creative Labs VOC and RAW) including a launch facility for third-party sound players. We will shortly support the ART sound format.

- \* Upon starting the Browser, you will automatically be connected to any Internet sites you have defined in the Startup category.
- \* Internet Organizer allows creation, modification, deletion of bookmarks and categories to easily navigate the Internet.
- \* Contains a Home button which allows you to define a page as your home page. You may then connect to this page by clicking on the Home button.
- \* Downloaded text is displayed incrementally to allow asynchronous operation.
- \* Ability to turn graphics off to make downloading more efficient but turns graphics back on when you browse.
- \* "mailto" link support that lets you send email from within the Browser via the MAPI standard.
- \* Capability to import bookmarks from Netscape or the hot list from Mosaic right into your Internet Organizer.
- \* Hold the mouse cursor over an icon on the Activity Manager Bar to see what document that icon refers to.
- \* Basic authentication support which is required by some Web sites.
- \* Easy to open and display local files whether they be HTML documents, images, sounds, or text.
- \* Support for many of the Netscape HTML extensions, as well as background colors and images.
- \* Resource Item information easily accessible with a click of the right mouse button.
- \* Supports invocation of external viewers (MPG, AVI, etc.) and other programs through File Manager associations.
- \* Support for index search server.
- \* Support text and graphics preview and printing to local printer.
- \* Activity Manager toolbar provides concise window management, with icons changing from empty web to world in web, closed to open, night to day, and off-hook to on-hook, to show status of downloads. The moving Browser Icon indicates program activity.
- \* Activity Manager allows click-and-hold to display window title in the status bar.
- \* Status Bar displays pertinent information such as a percent done bar graph when downloading files where files size can be determined, bytes received for other files and activity status.
- \* On-line help is available with the help button.
- \* Browser WWW window can support forms.
- \* Browser WWW window can cache the previously viewed page so that you can go back and forth easily.
- \* Has extensive WWW configuration settings which can turn on/off inline images, fonts, colors, etc.
- \* Support saving WWW documents to your local hard drive. This will allow you to view the document without connecting to the remote site, while still supporting the hyperlinks included in the document.
- \* Supports basic World Wide Web browsing, WWW hyperlink, forms hyperlink, gopher hyperlink, anchor images, caching and local history.
- \* Supports Web firewalls.
- \* File Manager-like tree view of Gopher data.
- \* HTML 3.0 support of colors, backgrounds, and wrapping of text around images.

**Email:**

- \* Fully MIME compliant.
- \* Supports UUEncode/Decode.
- \* Has a context sensitive menu (can right click in text areas of View or Compose windows to display a menu).
- \* Provides a spell checker.
- \* Automatic checking for New Mail.
- \* Intelligent icon informs user when new mail has arrived.
- \* Program beeps to indicate presence of new mail.

- \* Configurable levels of attention signaling on new mail arrival.
- \* Message Filing.
- \* Allows the user to efficiently file messages received and sent.
- \* Deleted mail can be saved in a deleted mail folder for later retrieval.
- \* Main Display
  - Microsoft Windows MDI application.
  - Multiple window display for multiple message lists, view and compose windows.
- \* Toolbar allows quick access to the other Email facilities:
  - Reading, Composing, Printing, Deleting etc.
- \* Status bar provides useful information on program operation.
- \* Read Messages.
  - Threaded viewing facility allows convenient viewing of a mail conversation.
  - Multiple messages and message threads can be viewed concurrently.
  - The header is conveniently separated from the message body for easy viewing.
- \* Messages can be printed while composing a message, viewing a message, or selecting a message from a folder.
- \* Third party applications will automatically be selected to view attachments when appropriate.
- \* Allows replying, forwarding, printing, deleting etc. of messages.
- \* Compose Messages.
  - Multiple messages can be composed concurrently.
  - Attached information can be included from third party applications.
  - Messages with attachments are automatically created as MIME messages.
  - Optional assignment of priority.
  - Expiration Date and Deferred Delivery settable for each message.
  - Signature selection on per message basis (default set-up available).
  - Save messages function (saves partially composed messages until required).
- \* Address Books and Directory Services
  - Alias support, allows the easy selection of users addresses.
  - Groups allows easy setup of mailing lists.
  - Shared address books allows creation of common addresses.
  - Quick Alias allows the sending of mail without requiring an address book entry.
- \* Deferred Delivery of Posted Mail
- \* Mail can be either delivered immediately when posted, or batched for later delivery.
- \* Off-line mail processing allows composition and viewing of mail messages without a network connection.
- \* Rules for Received Mail
  - New mail can be saved into a folder, forwarded to another host, or deleted.
- \* Configuration
  - User selectable fonts, colors.
  - User settable margins.
  - User settable MIME associations.
  - User selectable message defaults.
- \* Application Support
- \* Message Formats
  - Standard Internet (RFC 822).
  - MIME (RFC 1521) message formats.
- \* Mail Transports.
  - SMTP Client for sending mail.
  - POP2 Client for receiving mail.
  - POP3 Client for receiving mail.
- \* Email has an option that can start the mail spooler when Email starts.

### **News Reader (NNTP):**

- \* Supports UUEncoding/Decoding.



- \* Provides a spell checker.
- \* Supports sorting by line numbers, thread, author and article.
- \* Provides ability to autoconnect to newserver upon startup.
- \* Dynamically displays number of read and unread articles.
- \* Mail-to (MAPI) support.
- \* Supports profiles.
- \* Login to SuperTCP is optional.
- \* Provides a signature for posting to news groups.
- \* Provides an option to include original article in posting.
- \* The viewer is able to view articles of unlimited size.
- \* Configuration
  - User selectable fonts, colors.
  - User settable margins.
  - User selectable defaults.
- \* Supports read, save, mark read, mark unread multiple articles.
- \* Supports tabbing between controls in article view window and posting window.
- \* Support ability to edit host recall list to delete or add host names.
- \* Support ability to add hosts from the host file.
- \* Support use of port names, not just numbers.
- \* Contains a CatchUp button to turn off the display of articles you haven't read.
- \* Contains a Search button to help you look for a topic in a newsgroup.

**Talk:**

- \* The Talk application supports both the old and new talk protocols for various Unix platforms and Sun Sparc machines.

**Finger:**

- \* Allows you to look on a remote system for information about a person and if that person is logged in.
- \* Allows you to see who is logged in on remote system.

**SuperX:**

- \* Excellent graphics performance and faster memory access achieved by exploiting Microsoft Win32 API for NT, and Win32s 1.2 for Windows 3.1 versions.
- \* Fully compliant with the X Server Version 11 Release 5 specification.
- \* Uses Microsoft Winsock 1.1 API, so it can work transparently with any third party API provider.
- \* Allows the use of a standard X window managers, or provides a local window manager based on Microsoft Windows -- your X clients will have the same look and feel of Windows applications.
- \* Operates in Full Screen mode -- your workstation looks exactly like a real X terminal.
- \* Emulates monochrome, color or grayscale X terminals.
- \* Supports dynamic and static color models, including True Color visual.
- \* Support panning and scrolling. When the information you are viewing extends beyond your current window size, you can:
  - \* Put your cursor on the edge of the screen which makes the screen automatically scroll or pan to the information you want.
  - \* Use the scrollbars to view the additional information.
- \* Saves the contents of overlapping windows locally with "backing store" and "save under"s for faster screen updates.
- \* Supports PlaneMask
- \* Enables three-button mouse functionality with the help of the left and right buttons of a two-button mouse.
- \* Supports a variety of international keyboards.
- \* Supports the cutting and pasting of both text and graphics selections between X clients and MS-DOS applications using the Windows Clipboard.

- \* Supports standard and scaleable X11 fonts. Also lets X Clients access Windows Raster, Vector and TrueType fonts.
- \* Supports run-time font substitution; when a client's request for a font fails, substitutes the nearest Windows font. This process can be manual or automatic.
- \* Supports a variety of modes to start remote X clients: XDMCP, rsh, rexec and rlogin.
- \* Has Complete On-line Help that uses Windows 3.1 interfaces and features.
- \* Improved performance and better resource management.
- \* Enhanced viewing of X protocol traces.