To do:

TN2000: Connection to a Host Computer with SSL (says SSL support is required) This must be changed for telnet 2000

Amendments:

07/03/2002
Convert all .rtf files to from Windows 97 to Windows 2000.
1. Backup the entire E:\Help\ directory to CD-RW
2. Created the following marcro to Build the help files. These macros update c:\TN3270\Help\Variables.rtf)
and then edit all the rtf files and update all the variable fields. When I have the opportunity, I will add the call to Help Workshop to actually build the help files.

BuildTN3270PlusHelp
Buildtelnet2000Help.

07/09/2002
TN2000 & TN3270 – Added Edit, Paste Mode, Block Mode with Word-Wrap

07/02/2002
TN2000 & TN3270 – Changed the number of session to a variable. 9 for TN3270 Plus. 99 for telnet 2000

06/20/2002
TN2000 & TN3270 – Restrictions: Added that 5250 printer session do not support color printing.
TN2000 & TN3270 – Updated version history for 1.3 and 2.3, respectively.

06/11/2002
TN2000 & TN3270 – Host pane: Added "Start in a new window"
TN2000 & TN3270 – Preferences: Added "Start each session in a new window"
TN2000 & TN3270 – Working with multiple sessions: Updated to include the   "Start each session in a new window" and "Start in a new window" options.
TN3270 – Added WinHLLAPI Getting Started.

05/30/2002
TN2000 & TN3270 – Host pane and Printer Pane: Added "$DATE" as date substitution symbol for filenames.
TN2000 & TN3270 – Keyboard setup dialog: Added the "List by PC Key Assignment…" button.

05/09/2002
TN2000 & TN3270 - Added Edit, Paste Mode, Replace Tab With Space

05/02/2002
TN3270   & TN2000– WinHLLAPI Unsupported Functions - Removed all existing functions and added:

    WinHLLAPIAsync()
    WinHLLAPIIsBlocking()
    WinHLLAPICancelAsyncRequest()
    WinHLLAPICancelBlockingCall()
    WinHLLAPISetBlockingHook()
    WinHLLAPIUnhookBlockingHook()

04/30/2002
TN3270   & TN2000– WinHLLAPI Unsupported Functions - Removed Start Close Intercept (41) Query Close Intercept (42) and Stop Close Intercept (43).

04/06/2002
TN3270   & TN2000– Changed "firewall" to "proxy" or "proxy server"

03/26/2002
TN3270   & TN2000– Firewall pane: Added "Firewall supports SOCKS4A extension".

03/22/2002
TN3270   & TN2000– Added "system command" to the glossary and to each menu item.

03/22/2002
TN3270   & TN2000– Got rid of the contents topic. It was too hard to maintain. MAIN_INDEX not points to an error topic that indicates the contents (*.cnts) file is not available.

TN3270 & TN2000 – Added session logging (Enable Logging, Disable Logging…)

03/21/2002
Added 5250 printer support to the following
TN3270   – Pricing.
TN3270 & TN2000: Features
TN3270 & TN2000: How to… - Added "Connecting a 5250 printer session".

03/20/2002
TN3270   – Combined the contents files for LPD and FTP into tn3270.cnt.

03/15/2002
TN3270   – Pricing. Updated the price chart for FTP.
TN3270   – Registration form. Added FTP.

03/12/2002
TN3270 & TN2000 – Working With Multiples Sessions.: Added Multiple Sessions in Multiple Windows.

03/08/2002
TN3270 & TN2000 – Put in a variable for TN3270 Plus LPD/telnet 2000 LPD.
TN3270 – Added Firewall Pane
Glossary: Added SSL.

03/08/2002
TN3270 & TN2000 – Glossary: Added SSL.
TN3270 & TN2000 – Added the SSL Pane.
TN3270 & TN2000 – Printer Pane: Added "Scale font width to fit page"
TN3270 & TN2000 – Terminal Pane: Added "Disable Auto-help"
TN3270 & TN2000 – Run Script Command: Added recently used scripts.

02/01/2002
TN3270 – Changed the fax number from 441-292-2529 to 509 691 7484 per LKB.

01/30/2002
TN2000 & TN3270 – Updated copyright notice for 2002.
TN2000 & TN3270 – File Transfer dialog – added "Close progress dialog when complete".
TN2000 – Changed the company name from SDI Bermuda Limited to SDI Limited.

12/18/2001
TN2000 & Tn3270 – Host Pane: Log File – added and explanation of how to save data to the log file with the Host,
Save command.

12/18/2001
TN2000 & Tn3270 – Page Layout Dialog Box: changed the 'Rows' and 'Columns' toapply to all sessions, not just
3270P sessions.

12/14/2001
TN2000 & Tn3270 – Printer Pane: Added "Append form feed to end of job"

11/20/2001
TN2000 & Tn3270 – Updates the Creating Silent Install Diskettes procedure to use sub-folders disk1 and disk2.
TN2000 & Tn3270 – Added "Changing the Keep-alive String"
TN2000 & Tn3270 – Added information on how to add AttnKeyString and SysreqKeyString to a session profile.

11/20/2001
TN2000 & Tn3270 – Added "Defining TN3270 Plus as a Supporting Application with Internet Explorer 5 or 6 on
Windows 2000".

11/06/2001
TN2000 & Tn3270 –   Added "XP" to the operating system lists.

11/01/2001

TN2000 & Tn3270 – Changed "character for character" to "character-for-character".

10/24/2001

TN2000 & Tn3270 – Added screen font samples to FAQ.

10/18/2001

TN2000 & Tn3270 – Added "Host will initiate SSL connection"

10/9/2001

TN2000 – Update the Silent install to include tn2000.ini.
TN2000 & TN3270 –Status bar – Added SSL padlock icon.
TN2000 – Features: Added SSL.
TN2000 – Version History: Updated for release 1.2.
TN2000 - .cnt: Added "Connecting to a Host Computer Using SSL.
TN2000 – How to…: Added Entering Your License Code.

9/14/2001

TN2000 & TN3270 – Features: Changed Encryptions to Encryption Strength

9/13/2001

TN2000 & TN3270 – DDE Item=Pnnn[F|Lmmm].

8/28/2001

TN2000 & TN3270 – Added "Connecting to a Host Using SSL" topic.
TN2000 & TN3270 – CursorTo not supported for ANSI and VTxxx terminal emulation.

8/27/2001

TN2000 & TN3270 – Removed Copy OIA from the restrictions.
TN2000 & TN3270 – Add SSLConnect script command.
TN2000& TN3270 – Added "Copyright and Legal Notices" topic.

8/22/2001

TN3270 – Added SSL support- Features, text order form, Version history, Host Pane
TN2000 & TN3270 - Added Edit, Copy Options
TN2000 & TN3270 - Added Edit, Paste Mode, Move Cursor After Paste

8/13/2001

TN3270 – Change the wire transfer information from Bank of Butterfield to Bank of Bermuda.

7/31/2001

TN3270 – Removed the reference to the AssureBuy order page.
TN3270 – Added TN3270.ini to the silent install procedure.
TN2000 & TN3270 – Restrictions – Printer sessions do not support color printing.

7/17/2001

TN2000 & TN3270 – Added references to the Microsoft download page for the Andale Mono font.

7/16/2001

TN2000 & TN3270 – Added "Mode=" and "BufferSize=" to the FileTransfer script command.

6/25/2001

TN3270 – Added WinHLLAPI to the features list.
TN3270 – Price List - Added Site and Enterprise License, Upgrade and made maintenance optional for 1-14 copies.
TN3270 – How to…: Added Entering Your License Code.
TN2000 & TN3270 – Printer Pane: Added Suppress initial form feed.

5/16/2001

TN3270 – Changed the BDA account number for wire transfers.

5/9/2001

TN2000 & TN3270 – Added "Save As…" to macro editor dialog.

5/8/2001
TN2000 & TN3270 – Added "Using prodname LPD". (Updated .cnt)
TN2000 & TN3270 – Added "Disabling the Internet Menu".
TN2000 & TN3270 – Added 'waitfor "" ' and the waifor hidden option
TN3270 – Added Premium Support to the support agreement.
TN3270 – Updated tn3270.cnt for Winhllapi and Creating a printer session.
TN3270 – Added the TN3270E Associate option
TN3270 – Added Connecting a TN3287 Printer Session.
TN3270 – Added WinHLLAPI
TN2000 & TN3270 – Added File Transfer Mode to the file transfer dialog box.
TN2000 & TN3270 – Added the Suppress alarms from host option.
TN2000 & TN3270 – Added the Disable Non-blink Cursor option.
TN2000 & TN3270 – Added the Monochrome Print Screen option.
TN2000 & TN3270   – Replaced "subpane" with "pane".
TN2000 & TN3270 Restrictions – DEC protected areas not supported

3/19/2001
TN2000 & TN3270 Changing the 3270 Attention and System Request Keys - Added steps to add the 3270 folder.

319/2001
TN2000 & TN3270 Added logo to heading of each topic
TN2000 & TN3270 Added Using DDE section.

3/14/2001
TN2000 Added WinHLLAPI
TN2000 Introduction - Added tn2000_connectivity.bmp

3/12/2001

TN2000 $ TN3270 Added that 3279 includes extended attribute byte support

2/21/2001
TN2000 & TN3270 Connect to Host dialog box – Under terminal type added descriptions of types.
TN2000 & TN3270 Glossary (pop-ups) added resource name
TN2000 Session Setup (Terminal Pane) Added TN3270E Associate
TN2000 Connecting a TN3287 Printer Session   – Added this topic
TN2000- Connect to a Host Computer – change it to say it allows up to 99 session instead of 9.
TN2000 Restrictions – tn2000 – Removed comment saying it does not have printer session support
TN3270 & TN2000 Creating Silent Install Diskettes – Change procedure from 1 diskette to 2. I also updated the topic heading in the .cnt file.

2/21/2001 Started this log to track changes to the help file

TN3270 Plus Help Contents (.cnt) file damaged

The TN3270 Plus help contents file has been damaged or erased, please reinstall TN3270 Plus or send an e-mail to support@sdisw.com.

TN3270 Plus Help Contents

Overview

How to...

Reference

FAQ (Frequently Asked Questions)

[FAQ (Frequently Asked Questions)](#)

Glossary

[Glossary](#)

Introduction

TN3270 Plus *is a flexible, efficient and inexpensive client application for connecting Windows PC users to IBM mainframe, AS/400 and UNIX systems via TCP/IP.* **TN3270 Plus** includes terminal emulation for 3270, 5250, VT100, VT220 and ANSI terminals plus an integrated set of TCP/IP utilities in a compact easy to use product.

TN3270 Plus supports Windows XP, 2000, NT, ME, 98, 95 and 3.1x. A common user interface to these operating systems allows deployment of the product throughout your enterprise without the support costs associated with multiple user interfaces. Tailor the desktop interface to your specifications with keyboard mapping, color definition and customizable ASCII to EBCDIC translation tables.

TN3270 Plus has many of the features of large expensive products in a tight efficient package for outstanding performance with minimal resource usage. For example, automate common tasks with the scripting language or connect up to 9 terminal emulation sessions of any type in any combination at the same time. Use the Internet utilities to gather information about other Internet users or to check the status of your e-mail without ever leaving **TN3270 Plus**. Why pay more for a product overloaded with features you will never use.

See Also:

[Features](#)

[Working with Multiple Sessions](#)

Features

Standard Features

Protocols:	TN3270E (SNA over TCP/IP), TN3270, TN5250 and telnet.
Terminal emulation:	IBM 3278 models 2 - 5 IBM 3279 models 2 - 5 IBM 3279 (customizable size) IBM 5250 (24 x 80 and 27 x 132) VT100 (customizable size) VT220 (customizable size) ANSI SCO ANSI
Multiple sessions:	Connect up to 9 concurrent sessions in a single window. You can also start sessions in multiple windows. See Working with Multiple Sessions.
Printing:	Print screen and print preview.
WinHLLAPI	Support for the Windows HLLAPI programming interface.
DDE:	Use Dynamic Data Exchange (DDE) to allow your Windows applications to communicate with a terminal emulation session.
Screen capture:	Capture and save screen images to a disk file.
Terminal Activity Logging:	Log your terminal activity to a disk log file.
Toolbars:	Dockable standard toolbar with buttons for commonly used commands. A status bar that includes the Operator Information Area. A customizable floating keypad toolbar with buttons for terminal keys.
Fonts:	User selectable fonts, scalable fonts and incremental font sizing.
Keyboard mapping:	Fully customizable keyboard.
Customizable mouse:	Customize the buttons on your mouse.
Color:	User selectable color.
Clipboard:	Cut, cut append, copy, copy append, paste and print.
Keyboard macros:	Record keyboard input and store it for later use. See Using the Macro Recorder.
Scripting language:	Use the scripting language to automate common activities. See Using the Scripting Language
Response time display:	Displays a response time histogram for each session.
Address book:	Save your session connection information in the "address book".
Internet utilities:	Finger, Whois, Check mail, Ping and DNS Lookup.
Automated installation:	An installation wizard leads you through install and uninstall.
Web browser support:	**TN3270 Plus** works as a supporting application with most popular web browsers.
Hotspot support:	Allows words on the terminal screen to act as AID generating keys or active URL links. See Using Hotspots.

TN3270 Support

File transfer:	IND$FILE file transfers.

Resource name support:	Specify a <u>resource name</u> (LU name, device name or device pool name) for a session.
Selector pen:	Support for selector pen detectable fields.
3270 null/space processing:	Converts nulls to space characters before data is transmitted to the host. This simplifies insert operations and eliminates character shifting when characters are deleted from a line.
Whole field delete:	The delete key affects the whole field if it wraps from one line to another.

TN5250 Support

5250 device name support:	Specify a <u>device name</u> for a session.
Selector pen:	Support for selector pen detectable fields.
Host language support:	Select a host language code page for keyboard character translations.
Print key:	Support for the 5250 print key.

Printer Support

LPD:	A Line Printer Daemon (LPD) allows you to print host print files on your PC or network printer. See the <u>TN3270 Plus LPD help</u> for more information.
3287 print support:	3287 print support allows you to route host 3287 print jobs to your PC or network printer. This feature supports IBM mainframes only. (H<u>o</u>st, <u>C</u>onnect..., Terminal Type = 3270 Printer)
5250 print support:	5250 print support allows you to route host 5250 print jobs to your PC or network printer. This feature supports IBM AS/400s only. (H<u>o</u>st, <u>C</u>onnect..., Terminal Type = 5250 Printer)

<u>SSL</u> Support

SSL protocols:	SSL version 2, SSL version 3, TLS version 1.
Encryption Strength:	128-bit.

TN3270 Plus SSL support includes software developed by the OpenSSL project for the OpenSSL tookit. This feature includes cryptographic software written by Eric Young. This feature includes software written by Tim Hudson. (See the <u>OpenSSL license agreement.</u>)

FTP Support

TN3270 Plus FTP	An FTP client allows you to transfer files using the file transfer protocol (FTP). See the <u>TN3270 Plus FTP help file</u> for more information.

System Requirements

TN3270 Plus comes in two versions. A 16-bit version for Microsoft Windows 3.1x and a 32-bit version for Microsoft Windows 95, 98, ME, NT, 2000 or XP. To run **TN3270 Plus** you need the following:

16-Bit Version

- Microsoft Windows 3.1x.
- 1 MB of available hard disk space.
- VGA, 16-color or higher resolution monitor.
- TCP/IP.
- A connection to the Internet or an intranet.

32-Bit Version

- Microsoft Windows XP, 2000, NT, ME, 98 or 95.
- 2 MB of available hard disk space.
- VGA, 16-color or higher resolution monitor.
- TCP/IP.
- A connection to the Internet or an intranet.

Restrictions

Extended Attributes

The following 3279 EAB features are not supported by **TN3270 Plus**:

1. Field validation

2. Field outlining

3. Loadable character sets

4. Transparency

Keyboard Mapping

Due to Windows restrictions, the following key combinations cannot be mapped with **TN3270 Plus** keyboard mapping.

- Alt+F6

- Alt+Esc

- Alt+Tab

- Ctrl+Esc

- Ctrl+Alt+Del

VT100/VT200

TN3270 Plus does not support DEC protected areas.

File Transfer

TN3270 Plus does not support file transfer for 5250, VTxxx and ANSI sessions.

Office Vision

TN3270 Plus 5250 terminal emulation does not support IBM's Office Vision.

3270 and 5250 Printer Session Support

TN3270 Plus 3270 and 5250 printer sessions do not support color printing.

Evaluation and License Agreements

Evaluation

TN3270 Plus is distributed as an evaluation version for a 30 day trial. The evaluation version includes all the product features. After the 30-day evaluation period, **you must register the product with** SDI if you wish to continue using the product. When you register the product you must select the features you desire. See the Registration Instructions for information on how to register **TN3270 Plus**.

License Agreement

By registering for and/or ordering **TN3270 Plus**, by whatever means, you agree to be bound by the terms and conditions of the following Licensing Agreement, which forms the whole and sole basis of any agreement between SDI and you, the customer, for the sale and use of **TN3270 Plus**.

1. You acknowledge that no property whatsoever in the program shall pass, accrue to, or vest to you. You shall not dispose of, and, in particular, shall not sell, let, or assign the program or any interest therein or any of its rights herein.

2. SDI makes no warranty as to the benefit or use to be derived from **TN3270 Plus**.

3. Data processing standards dictate that any program be thoroughly tested with non-critical data before relying on it. The user must assume the entire risk of using this program. ANY LIABILITY OF THE SELLER WILL BE LIMITED EXCLUSIVELY TO PRODUCT REPLACEMENT OR REFUND OF PURCHASE PRICE.

4. One registered copy of **TN3270 Plus** may either be used by a single person who uses the software personally on one or more computers, or installed on a single workstation used nonsimultaneously by multiple people, but not both.

5. You may access the registered version of **TN3270 Plus** through a network, provided that you have obtained individual licenses for the software covering all workstations that will access the software through the network. For instance, if 8 different workstations will access **TN3270 Plus** on the network, each workstation must have its own license, regardless of whether the workstations use **TN3270 Plus** at different times or concurrently.

6. You are licensed to make as many copies of the evaluation version of this software and documentation as you wish; give exact copies of the original evaluation version to anyone; and distribute the evaluation version of the software and documentation in its unmodified form via electronic means. There is no charge for any of the above.

7. The terms and conditions of product support are governed by the Maintenance and Technical Support Agreements.

8. In accordance with SDI's published Prices, you agree that the Price as published is the NET amount due and receivable by SDI. In the event that your country of residence requires you to withhold any remittance or other forms of tax, then the total charge must be "grossed-up" before remittance, such that the net amount received by SDI is in accordance with the published Price list. This applies equally to both the License Fees and any Maintenance Fees payable. Settlement of all and/or any fees due under this Agreement shall be effected within 30 days of point of order, failing which a late settlement fee of 1½% per month may be levied, and become due and payable at SDI's sole discretion.

9. In the event that your internal corporate procedures require you to issue a Purchase Order, SDI will quote such on SDI's invoices, solely for the explicit purpose of assisting with your internal accounting requirements. This will not, in any manner whatsoever indicate any acceptance of any term or condition which may be contained therein, which may be in addition to, or in direct conflict with SDI's published terms and conditions, which you agree forms the whole and sole basis on which SDI undertakes to sell TN3270 Plus to you, the customer.

10. From your point of order, SDI hereby grants you an interim, temporary, right to utilize the program. You acknowledge that you have no ongoing permanent right to utilize the program until such time as SDI has received full settlement of all and/or any fees which are payable. This includes any purchase by you, effected by means of a third party re-seller, regardless of whether or not you have made any payment to that

re-seller, or the like. Continued use of the program without due settlement of all and/or any fees due and payable SDI shall be considered a breach of this agreement, and shall, at SDI's discretion become actionable. Return of the program and/or cancellation of order is NOT allowable or acceptable as a remedy to any breach.

11. SDI Limited is a Bermuda registered and resident corporation. This agreement is governed by the laws and jurisdiction of Bermuda. However, in the event that any legal action becomes necessary for the recovery of any due debt and/or any other breach of this agreement, SDI may, at it's sole discretion, without any further notice, opt to apply, and take action under the laws and jurisdiction of the seat of residence of you, the customer.

Copyright

TN3270 Plus Copyright © 1997-2002 by SDI.

Maintenance and Technical Support Agreements

Maintenance Agreement

1. An annual product maintenance fee is required for registered users of 100 or more copies of **TN3270 Plus**. Annual maintenance is optional for users of less than 100 copies of TN3270 Plus. See the Registration Instructions for information on how to register **TN3270 Plus**.

2. Users paying product maintenance are entitled to the following:

   a) Unlimited technical support via e-mail and reasonable telephone support if e-mail cannot be used.

   b) Product upgrades and enhancements delivered automatically. (This will specifically exclude any major new feature deemed to be chargeable.)

3. The annual product maintenance fee is the greater of 15% of the accumulated license fees or $100.00. Maintenance charges are payable annually in advance, and the initial year will be billed along with the license fee. After the first year, charges will be billed on the anniversary date of the registration and will be indexed for inflation using the United States All Urban Consumers price index (CPI-U).

4. No maintenance services will be provided unless and until annual maintenance billing has been settled by the user. Failure to settle any due account within 60 days of billing will render the maintenance plan void. Customers requiring subsequent maintenance or support services will be required to re-instate their maintenance plan at a premium of 10% of the then current license fees for the volume of units registered, plus any current and back-log maintenance amount due. Alternatively, customers may purchase a new license.

Technical Support Agreement

1. Technical support is free of charge during product evaluation and for the first 30 days after product registration.

2. Technical support is free of charge to maintenance paying users subject to the requirements of the Maintenance Agreement.

3. Non-Maintenance users of current release levels are entitled to technical support after the 30 day grace period upon payment of a Technical Support fee by credit card (Visa, MasterCard, American Express, Eurocard or Optima). SDI's technical support charges are in United States Dollars. Technical support charges are $30.00 for the first 10 minutes plus $3.00 per minute for each additional minute up to a maximum of $60.00 per unique call. These charges are subject to change at any time. In the event of a change, customers will be notified before support services commence.

   Support calls resulting from TN3270 Plus product problems are free of charge. Charges made for a call subsequently deemed to be a TN3270 Plus product problem will be reimbursed.

4. SDI continually announces maintenance updates and periodically announces major release level changes. You are encouraged to regularly visit our web site for the latest announcements. 90 days after a new major release level becomes generally available, all older release levels will become non-current and will cease to be supported under SDI's standard Technical Support facilities described above.

   In the event of a support requirement arising for a non-current release level, Non-Maintenance users will have the option of either upgrading to the latest release level, at the appropriate rates, or utilizing SDI's "Premium Support" services. Users may download a free evaluation of the latest release level at any time for review.

   Premium Support is charged at the rate of 25% of the then current license fees for the user's registered number of licenses, subject to a minimum charge of US$ 250.00 per support request. SDI reserves the right to provide a latest release level system as a "fix" to any reported situation under this Premium Support facility.

Please also refer to the License Agreement for SDI's exclusive terms and conditions of use and sale.

Pricing

The **per copy** registration prices are found in the table below. Please refer to the Licence Agreement and the Maintenance and Technical Support Agreements for SDI's exclusive terms and conditions of use and sale.

See the Registration Instructions for information on how to register **TN3270 Plus**.

Copies	3270 or 5250	3270 and 5250	Print Support	SSL	FTP	Full Package	15% Annual Maintenance
01-14	$40.00	$60.00	$10.00	$10.00	$10.00	$80.00	Optional ($100.00 minimum)
15-49	$38.00	$57.00	$9.50	$9.50	$9.50	$76.00	Optional ($100.00 minimum)
50-99	$36.00	$54.00	$9.00	$9.00	$9.00	$72.00	Optional
100-249	$28.50	$42.00	$7.00	$7.00	$7.00	$57.00	Required
250-999	$25.50	$38.25	$6.50	$6.50	$6.50	$51.00	Required
1000+	Contact sales@sdisw.com						
Site or Enterprise License	Contact sales@sdisw.com						
Upgrade	Existing customers may upgrade for 50% of the list price. Maintenance customers may upgrade for free. If you are interested in upgrading, please contact sales@sdisw.com.						

- All prices are the NET amount due and receivable by SDI. In the event that your country of residence requires you to withhold any remittance taxes, then the total charge must be "grossed up" before remittance, such that the net amount received by SDI is in accordance with the price chart above. This also applies to any maintenance charges payable.

Feature Descriptions:

3270 or 5250	Includes terminal emulation for VT100, VT220, ANSI and either TN3270 (3278, 3279) or TN5250 (5250) terminals
3270 and 5250	Includes terminal emulation for VT100, VT220, ANSI, TN3270 and TN5250 terminals.
Printer support	Adds TN3287 printer session support (requires 3270 support), 5250 printer session support (requires 5250 support) and LPD support.
SSL	Adds SSL (Secure Sockets Layer) support. Includes support for SSL v2, SSL v3 and TLS v1.
FTP	Adds an FTP client application.
Full Package	Includes all terminal emulations and all features. (VT100, VT220, ANSI, 3278, 3279, 5250, Printer support, SSL support and FTP support)

15% annual
maintenance

See the Maintenance and Technical Support Agreements

Pricing Examples:

1. 50 copies with 5250 terminal emulation and print support:
   (50 x (36 + 9)) = $2250.00

2. 50 copies with TN3270 terminal emulation, print support and SSL:
   (50 x (36 + 9 + 9)) = $2700.00

3. 50 copies with TN3270 terminal emulation, print support and maintenance:
   (50 x (36 + 9)) x 1.15 = $2587.50

4. 50 copies of the Full Package:
   (50 x 72) x 1.15 = $4140.00

Registration Instructions

An evaluation version of **TN3270 Plus** may be downloaded from the SDI web site at http://www.sdisw.com.

The evaluation version of **TN3270 Plus** will run for 30 days. After 30 days, **TN3270 Plus** will no longer operate. To convert your evaluation version into a licensed version you must register the product with SDI and receive a license code.

Registering TN3270 Plus Via the Internet

The fastest and easiest way to order **TN3270 Plus** is via the internet using the **TN3270 Plus** Secure Order System. All you need is a web browser and a valid credit card. (SDI accepts Visa, MasterCard, American Express, Eurocard and Optima.)

Instructions for using our secure order page, can be viewed by opening the **TN3270 Plus** **Help** menu and clicking **Purchase Online** or by clicking on the following link:

http://www.sdisw.com/tn3270reginst.himl

Complete the online form and receive your license code.

Sending Registration Information to SDI

TN3270 Plus may be registered by filling out the Registration Form and sending it and your payment to SDI. Once you have registered, SDI will send you a license code permanently activating the features you licensed. Full instructions for completing the registration form may be found below.

Filling Out the Registration Form

1. Fill out the customer information section.

2. Complete the delivery information.

   a) Place a check mark by the version of Windows you are running. If you are ordering multiple copies of **TN3270 Plus** for use on multiple Windows operating systems, check each Windows version you intend to use.

   b) Check the **TN3270 Plus** configuration. You may select TN3270 support only, TN5250 support only, or TN3270 and TN5250 support. Note: All configurations include VT100 VT220 and ANSI support. Select any optional features you want.

   c) Make sure your e-mail address is included on the registration form.

   d) Write the number of copies of **TN3270 Plus** you wish to license in the space provided. Compute the total license fee using the price chart and write it in the space provided.

   e) Compute the maintenance fee (users licensing 100 or more copies or those accepting the optional maintenance plan). The maintenance fee is 15% of the license fee.

   f) Add the license fee and the maintenance fee to compute the total cost.

3. Sign the form.

4. Send the completed form and your payment to the address below.

   Mailing Addresses:

SDI Limited	Telephone:	441 292 4042
PO Box HM 1410	Fax:	509 691 7484
Hamilton, HM FX		
BERMUDA		

   (International Postage required.)

   Alternatively, SDI also provides a

"USA mail drop box facility". However,
you should be aware that the quickest
mail route is direct to Bermuda.
SDI
IBC#9014
140-35 Queens Boulevard
Jamaica, NY 11435-3220

Make your payment in one of the following ways:

a) **Check:** Send the registration form and your check in United States dollars to the mailing address
   listed above.

b) **Purchase order:** Corporate Purchase Orders will be accepted on orders of **15 or more copies**.
   Send or fax the registration form and your purchase order to the mailing address or fax number
   listed above. The purchase order is due for settlement within 30 days of registration.

c) **Credit card:** E-mail your registration information to   sales@sdisw.com (or fax your registration
   form to the fax number above) and note that you wish to pay via credit card (Visa, MasterCard,
   American Express, Eurocard or Optima). An SDI Limited representative will call you to get your
   credit card information.

d) **Wire Transfer:** Wire funds to the following address. You must specify your reference number on
   the wire transfer order. The reference number must also be included on the registration form so we
   can verify your payment. Send the registration form to the mailing address listed above **not** to the
   wire address listed below.

   The Bank of N. T. Butterfield & Son Limited
   Hamilton HM AX
   Bermuda
   For the Account of: SDI Limited
   Account Number: 20 006 840 011156 100
   Bank SWIFT code: BNTBBMHM

TN3270 Plus - Registration Form (Release 2.2)

To print this form, click on the **Print** button on the button bar at the top of the page or select **Print Topic...** in the **File** menu. Review the Registration Instructions for information on how to complete this form.

Name: _____   Date: _____

Company: _____

Address: _____

City, State, Zip: _____

Country: _____

Phone: Day: _____   Eve: _____   Fax:_____

E-mail address: _____

Where did you hear about **TN3270 Plus**?   _____

_____

Comments: _____

_____

Delivery information:

Configuration: TN3270 only_____   TN5250 only _____   TN3270 & TN5250_____

Optional Features: Printer support ___   SSL ___   FTP ____

E-mail address (if different from the one above)

_____

Copies of **TN3270 Plus**   _____   Amount $_____

For a list of prices, see the price chart.

1 year product maintenance $_____

Total Amount   **$_____**

Payment method:

Credit Card: credit card type   _____

            credit card number   _____

            credit card expiration date   _____

            name on credit card   _____

Purchase Order: purchase order number   _____

Wire Transfer: wire transfer reference number   _____

Check Enclosed: enclose check with this form   _____

BY SIGNING THIS FORM YOU CONFIRM THAT YOU HAVE READ AND AGREE TO ALL TERMS AND CONDITIONS OF USE IN THE **TN3270 Plus** License Agreement and Maintenance and Technical Support Agreements.

Signature: _____

SDI Limited
PO Box HM 1410
Hamilton, HM FX
BERMUDA
Telephone: **441 292 4042**   Fax: **509 691 7484**

Copyright and Legal Notices

TN3270 Plus SSL utilizes the "OpenSSL toolkit" functionality provided by "The Open SSL Project" at http://www.openssl.org. SDI Limited acknowledges all patent rights therein."

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Support/Questions/Suggestions

The best way to contact SDI about support or with questions or suggestions is to send an e-mail message to support@sdisw.com. You may also write or call:

> SDI Limited
> PO Box HM 1410
> Hamilton, HM FX
> BERMUDA
>
> 441 292 4042

The help file contains an FAQ (Frequently Asked Questions) section with answers to commonly asked questions. Please review this section or visit the latest FAQ page at http://www.sdisw.com/TN3270FAQ.html before contacting SDI.

Technical support is available at no charge during product evaluation and for 30 days after product registration. After the initial 30 day period, technical support is free to users paying annual maintenance and chargeable to other users. A complete description of the product support agreement can be found in the Maintenance and Technical Support Agreements section.

Please include the following information with any support request:

1.   What version of Windows you are running.

2.   What version of **TN3270 Plus** you are running. Select **About TN3270 Plus...** from the **Help** menu to get the **TN3270 Plus** version number and build date.

3.   What terminal type are you emulating?

4.   Can the problem be recreated? If so, how?

5.   Include the full text of any dialog or message boxes that appear when the problem occurs.

6.   Your telephone number and e-mail address.

SDI welcomes any questions about **TN3270 Plus** and we will do our best to answer those questions in a timely manner.

SDI would also like your input about possible enhancements to **TN3270 Plus**. We are interested in anything that will make **TN3270 Plus** easier to use, more efficient or more effective. Many of the product's features came from suggestions from early users of the product.

We are also looking for new product ideas and if you have an idea for a Windows product that you want developed please let us know.

Version History

Changes to Version 2.3, July, 2002

New Features:

5250 Printer:	Added 5250 printer session support. 5250 printer session support allows you to route print jobs from your AS/400 host to your PC or network printer. (Requires the printer support option.)
FTP	Added an FTP client. **TN3270 Plus FTP** allows you to transfer files using the file transfer protocol (FTP). See the TN3270 Plus FTP help file for more information. (Requires the FTP support option.)
Proxy Server:	Added a facility to allow connection to host computers located behind a proxy server or firewall. This facility supports SOCKS version 4 and non-SOCKS compliant proxy servers. (Setup, Security)

Enhancements and Corrections:

Multiple Windows:	Added the option to have multiple sessions in multiple windows rather than multiple sessions in a single window. (Setup, Preferences..., Start each session in a new window)
Terminal Activity Logging:	Added the ability to log your terminal activity to a disk log file. (Host, Enable Logging)
SSL Server Certificate:	Added the ability to display the server certificate.
Recent Scripts:	Added recently used scripts to the "Run Script" menu. (Host, Run Script)

Changes to Version 2.2, August, 2001

New Features:

3287:	Added 3287 printer session support. 3287 printer support allows you to route 3287 print jobs from your mainframe host to your PC or network printer. (Requires the printer support option.)
LPD:	Added an LPD program. **TN3270 Plus LPD** is a 32-bit line print daemon that prints host print files on your PC or network printer. (Requires the printer support option.).
WinHLLAPI:	Added WinHLLAPI support. WinHLLAPI support allows you to write Windows applications that communicate with IBM midrange or mainframe computers via **TN3270 Plus** terminal emulation.
DDE:	Added DDE support. Dynamic Data Exchange (DDE) allows your Windows applications to communicate with a terminal emulation session.
SSL:	Added SSL support. Secure Socket Layer (SSL) support allows you to establish a secure connection between TN3270 Plus and the host computer. (Requires the SSL support option.)

Enhancements and Corrections:

File Transfer:	Added support for Write Structure Field (WSF) file transfers.
Print Screen:	Added an option to print the screen in black and white instead of color

	or grayscale.
RAW Data:	Added an option to send a printer file directly to the printer port instead of to the Windows spooler. This allows VT100/VT220 session print files to contain printer control sequences.
Euro Currency:	Added support for the Euro currency symbol.
Regaining Focus:	Regaining focus with a mouse click changed so that it does not perform a terminal function, for example, moving the terminal cursor.
Cursor Appearance:	Added vertical rule and horizontal rule to the cursor appearance options.
Session Toolbar Button:	The session toolbar button is now highlighted when a hidden session is updated.
Internet Utilities	It is now possible to disable the Internet utilities.
3270 Dynamic Screen Size	The 3270 screen size will change dynamically when an application uses an alternate screen size.

Changes to Version 2.1, December 1999

New Features:

Protocol:	Added TN3270E (SNA over TCP/IP) support**.**
Terminal Emulation:	Added VT220 support.

Enhancements and Corrections:

Keep-alive Option:	Added a keep-alive option to keep inactive sessions from being disconnected by the host. (Setup, Sessions...)
Cross Hair Cursor	Added the cross hair (ruler) type cursor option. (Setup, Display...)
Insert Mode Cursor:	Customize the cursor style for insert mode. (Setup, Display...)
3270 Suppress Autowrap:	Added an option to suppress autowrap. (Setup, Terminal...)
3270 Whole Field Delete:	Added an option to make the delete key affect the whole field if it wraps from one row to another, instead of just deleting to the end of the row containing the cursor. (Setup, Terminal...)
5250 Print Key:	Added support for the 5250 print key.
VT100 Reverse Screen:	Added support for the VT100 reverse screen escape sequence (displays the entire screen in reverse video).
VT100 80/132 Column:	Added support for VT100 80/132 column modes.
VT100 Null Key:	Added a key to the VT100 keyboard mapping to send a null.
VT100 Function Keys:	Added support for the following telnet function keys: AbortOutput, AreYouThere, Break, EraseCharacter, EraseLine and TelnetInterruptProcess.
VT100 Customizable Control Sequences:	Added the ability to customize the control sequence that is sent to the host when a key is pressed. (Setup, Keyboard...)
DEC Answerback:	Added support for the DEC "Transmit answerback message" control character. (Setup, Terminal...)
PrintScreen:	Improved the performance of the print screen function.
ANSI Bolded Characters:	Added the ability to set a different color for each bolded ANSI color. (Setup, Colors...)

Changes to Version 2.07, August 1999

New Features:

Keyboard Macros:	Record keyboard input and store it for later use. (New menu item: Macros)
Full Screen Mode:	Make your monitor look like a 3270 or 5250 terminal! (View, Full Screen)
5250 Device Name Support::	Added the ability to specify a device name(s) for a session. (5250 sessions only)
Cursor Select Key:	Added support for selector pen detectable fields. (3270 and 5250 sessions only)
Enhanced Keyboard Mapping:	Simplified keyboard mapping allows you to map any key on the keyboard (except those restricted by Windows). You can also map a key to a character, macro or script.
Customizable Mouse:	Customize the buttons on your mouse.
Hotspot Support:	Allows words on the terminal screen to act as AID generating keys or active URL links.

Enhancements and Corrections:

Preferences:	A preferences dialog box allows the user to personalize some settings. (Setup, Preferences...)
Revised Setup Menu:	The items in the Setup menu now correspond to the items in the **Session Setup** dialog box.
Improved Edit Selection:	Easier edit selection with the new reverse video method.
Edit Paste Continue:	Allows you to continue a paste operation where the last one ended. (Edit, Paste Continue)
Global Script Variables:	Now it is possible to pass script variables from one script to another. (Global script command)
Print Screen to File:	Added the ability to redirect print screen output to a file. (Setup, Printer...)
Print Screen Header/Footer:	Added the ability to place a header and/or footer on your print screen output. (Setup, Printer...)
Reconnection Delay:	Added an optional delay to the automatic reconnection feature. (Setup, Sessions)
Keypad Toolbar:	Added dockable and fixed size options to the Keypad Toolbar. (Setup, Toolbars)
Typematic AID keys	AID keys repeat when they are held down.

Changes to Version 2.05, August 1998

New Features:

Session Configuration:	Added the ability to configure your setup by session instead of globally. (Setup, Sessions...)
Paste Mode:	Added two additional paste modes. **TN3270 Plus** now supports the following paste modes: block, overlay block and stream. (Edit, Paste Mode)

VT100 Keyboard Mapping:	Added keyboard mapping for VT100 terminal emulation.
VT100 Print Support:	Added support for VT100 printing.
Keypad Toolbar:	A customizable floating toolbar containing buttons for the keyboard keys. (View, Keypad Toolbar).
Automatic Reconnect:	An option that automatically reconnects any session disconnected by the host computer.

Enhancements and Corrections:

Scripting Language:	Improved the command syntax and added additional commands.
Command Line:	Accepts a script file name as a parameter. This allows users to run a script automatically each time **TN3270 Plus** is started.
Ping:	Added user selectable fields for number of packets, data size and timeout value.
File Transfer Dialog:	Added an edit box that accepts additional options and passes them to IND$FILE. Added the ability to select a code page for the file transfer. (3270 sessions only).
File Transfer:	Corrected a problem that caused file corruption when transferring MVS/TSO files.
Non-blinking Cursor:	Added an option to stop the cursor from blinking.
Blink Attribute Support:	Added support for the blink attribute.
Save Password for CheckMail:	Added the ability to save your POP3 mail server password in the CheckMail dialog box.

Changes to Version 2.03, January 1998

New Features:

TN5250 support:	Adds support for IBM 5250 (24 x 80 and 27 x 132) terminal emulation.
VT100 support:	Adds support for VT100 terminal emulation.
Keyboard mapping:	Allows you to customize the PC keyboard for terminal emulation sessions. (Setup, Sessions..., Keyboard..., Configure...)
Scalable fonts:	Adjusts the size of the font when the size of the terminal session window is changed. (Setup, Sessions..., Fonts, Scale to fit terminal window)
Type-ahead buffer:	Type-ahead buffer support for 3270 and 5250 sessions. This support allows you to continue typing while the host has the keyboard locked.
Scripting Language:	The scripting language allows you to automate common activities.
Screen capture:	Allows you to save screen images to a disk file.
Host Language support:	Allows you to select a host language code page for keyboard character translations. (Setup, Default Language...)
Ping replaces Echo:	Ping replaces Echo on the Internet menu.
Print Clipboard:	Added a menu item for printing the contents of the Clipboard. (Edit, Print Clipboard)
View Next Session:	Added a menu item to display the next active terminal emulation session. (View, Next Session, or Ctrl+Tab)
Web Browser Support:	**TN3270 Plus** works as a supporting application with most popular web browsers.

Enhancements and Corrections:

Save last file transfer: The parameters of the last file transfer operation are saved, so the operation can easily be repeated.

File transfer progress box: Improved the file transfer progress dialog box.

Response time display: Made the response time display more readable. (<u>V</u>iew, <u>R</u>esponse Time...)

Cursor: A single right mouse click now moves the cursor. Added a new cursor style, the vertical bar. (<u>S</u>etup, <u>S</u>essions..., Display, Cursor Style, Vertical Bar)

New 3270 keys: Added the Attn, Sysreq, Dup and Fieldmark keys.

Status line: Added the ability to change status line colors. Added the session number to the status line.

Status bar: Added the number of evaluation days remaining until expiration.

Splash screen: New splash screen adds visual gratification.

Screen print: Corrected the screen print function. (It was printing protected fields.)

Product evaluation: The product no longer runs when the evaluation period has expired.

Connecting to a Host Computer

1. Open the **Host** menu and select the **Connect** command or use the blue up arrow on the toolbar.

2. Fill in the [Connect to Host dialog box](#) and click the **Connect** button.

3. **TN3270 Plus** connects to the specified host. The session number is displayed on the application title bar. For example:

Tips:

-   You may connect up to 9 sessions of any type in any combination in a single window. You may also start sessions in multiple windows. See [Working with Multiple Sessions](#) for more information.

Connecting to a Host Computer Using SSL

SSL (Secure Socket Layer) support allows you to make a secure connection to a host computer. The host computer must support secure connections.

1. Open the **Host** menu and select the **Connect** command or use the blue up arrow on the toolbar.

2. Fill in the Connect to Host dialog box.

3. Click the **Advanced…** button and select Security under Setup Items to display the Security pane of **Session Setup** dialog box. Check the radio button for the desired SSL version and check the desired options. Click the OK button.
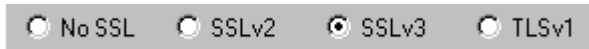
4.   Click the **Connect** button in the Connect to Host dialog box and **TN3270 Plus** creates a secure connection to the specified host. The session number is displayed on the application title bar. For example:

.

Tips:

*   **TN3270 Plus** SSL support is an optional additional cost feature. If your copy of **TN3270 Plus** does not have SSL support, please contact sales@sdisw.com.

*   If you are making a secure connection to a host computer that is behind a proxy server, you may need to set up your session for "no SSL" to get connected to the proxy server. Then use the SSLConnect script command to create the secure connection to the host computer.

*   You may connect up to 9 sessions of any type in any combination in a single window. You may also start sessions in multiple windows. See Working with Multiple Sessions for more information.

*   **TN3270 Plus** SSL support includes software developed by the OpenSSL project for the OpenSSL tookit. This feature includes cryptographic software written by Eric Young. This feature includes software written by Tim Hudson. (See the OpenSSL license agreement.)

Connecting a TN3287 Printer Session

1. Open the **Host** menu and select the <u>**C**onnect</u> command or use the blue up arrow on the toolbar.

2. Fill in the <u>Connect to Host dialog box.</u> Specify **3270 Printer** as the terminal type.

3. Click on the **Advanced…** button and select Terminal under Setup Items to display the <u>Terminal pane</u> of **Session Setup** dialog box. Fill in the <u>resource name</u> for your printer session in the Resource Name edit box.

    If you wish to use a printer associated with an active terminal session, specify the <u>resource name</u> of the terminal session and check the **TN3270E Associate** check box. The terminal session must be connected and it must be defined with an associated printer in the configuration files on the host computer.

4. Click the **OK** button to return to the <u>Connect to Host dialog box.</u>

5. Click the **Connect** button to connect the printer session. If connection is successful, the printer session displays the following message:

    Printer session connected. Waiting for work

Connecting a 5250 Printer Session

1. Open the **Host** menu and select the <u>**C**</u>**onnect** command or use the blue up arrow on the toolbar.

2. Fill in the <u>Connect to Host dialog box.</u> Specify **5250 Printer** as the terminal type.

3. Click on the **Advanced…** button and select Terminal under Setup Items to display the <u>Terminal pane</u> of **Session Setup** dialog box. Fill in the device name for your printer session in the Device Name edit box.

4. Click the **OK** button to return to the <u>Connect to Host dialog box.</u>

5. Click the **Connect** button to connect the printer session. If connection is successful, the printer session displays the following message:

    Printer session connected. Waiting for work

Changing Keypad Toolbar Button Text

You can assign your own text to the keypad toolbar buttons. To do this edit the keypad toolbar configuration file (for example, "3270 Default.ttb" for the 3270 default toolbar) and add text to the entries you want to change. For example, to change the text on the PF3 button from "PF3" to 'Help," change the PF3 entry from:

    Button_nn=PF3

to:

    Button_nn=PF3,Help

Creating Silent Install Diskettes

If you plan to install **TN3270 Plus** on a large number of workstations, you may want to automate the installation. The following procedure creates silent install diskettes.

Once you have created the silent install diskettes, a single command installs **TN3270 Plus**. The install can include customized configuration files, so you can install a pre-configured product.

You may also use this procedure to create the silent install files in a network folder, on a CD-RW or other media. For higher capacity media all files in folders disk1 and disk2 may be copied to a single location (For example, onto a single CD-RW or CD-R)

Step by Step Instructions:

1. Copy the distribution diskette images to 2 diskettes. The distribution diskette images are found in the disk1 and disk2 sub-folders of the **TN3270 Plus** install folder. For example:

    ```
    copy "C:\Program Files\SDI\TN3270 Plus\disk1\*.*" a:
    copy "C:\Program Files\SDI\TN3270 Plus\disk2\*.*" a:
    ```

2. Run "a:\setup -r" and install **TN3270 Plus**. Setup will prompt you for diskette 2. This runs the standard install, but also records all your responses into setup.iss in the <u>Windows folder.</u>

3. Copy "c:*Windows_folder*\setup.iss" to diskette 1 **and** diskette 2.

4. Now you can install from the diskettes by running setup with the '-s' (silent) flag:

    ```
    a:\setup -s
    ```

    This does not produce any messages, but instead captures all installation information to "a:\setup.log".

If you want to provide your users with a pre-configured system add the following steps:

5. Copy the configuraton files to the diskette 1:

File	Description
tn3270.dat	Global configuration settings
tn3270.ini	License code information
*.tcs	Color scheme
*.tkm	Keyboard map
*.ttb	Toolbar
*.tsp	Session profile
*.txt	Script file
*.mac	Macro

6. Create a batch file on the diskette which will run instead of "a:\setup –s". For example, create a file named "a:\install.bat" which contains the following commands:

    ```
    if not exist "C:\Program Files\SDI\*.*" mkdir "C:\Program Files\SDI "
    if not exist "C:\Program Files\SDI\TN3270 Plus\*.*" mkdir "C:\Program Files\SDI\TN3270
    Plus"
    copy a:\tn3270.dat "C:\Program Files\SDI\TN3270 Plus\tn3270.dat"
    copy a:\tn3270.ini "C:\Program Files\SDI\TN3270 Plus\tn3270.ini"
    copy a:\*.tsp "C:\Program Files\SDI\TN3270 Plus\*.*"
    copy a:\*.tkm "C:\Program Files\SDI\TN3270 Plus\*.*"
    copy a:\*.tcs "C:\Program Files\SDI\TN3270 Plus\*.*"
    copy a:\*.ttb "C:\Program Files\SDI\TN3270 Plus\*.*"
    copy a:\*.txt "C:\Program Files\SDI\TN3270 Plus\*.*"
    copy a:\*.mac "C:\Program Files\SDI\TN3270 Plus\*.*"
    setup -s
    ```

7. Run "a:\install" instead of "a:\setup -s" to install **TN3270 Plus**.

8. You may also want to export the **TN3270 Plus** Registry entries to diskette2. To export the **TN3270 Plus** Registry entries, run "regedit". In the **Registry Editor,** select the following folder:

   ```
   HKEY_CURRENT_USER\Software\SDI\TN3270 Plus
   ```

   Open the **Registry** menu and select **Export Registry File...** Save the exported file as "a:\telnet.reg". The exported file can be imported to the receiving system by adding the following command to the "a:\install.bat" file:

   ```
   regedit a:\telnet.reg
   ```

Creating an Archive Copy of TN3270 Plus

You should create a backup copy of **TN3270 Plus** to keep in case you need to reinstall due to a disk head crash or other problems. To simplify this process, **TN3270 Plus** creates copies of the distribution diskette images as sub-folders of the install folder: The folders are named:

disk1
disk2

Copy the files in these folders to 2 floppy disks, a single CD-ROM or another archive storage media. For example:

```
*** Load diskette 1 ***
copy "C:\Program Files\SDI\TN3270 Plus\disk1\*.*" a:
*** Load diskette 2 ***
copy "C:\Program Files\SDI\TN3270 Plus\disk2\*.*" a:
```

To reinstall run setup.exe from your archive media.

Entering Your License Code

After purchasing a license for **TN3270 Plus**, you will receive a license code. Use the license code to remove the expiration date from the evaluation version of the product and activate the features you licensed. To enter the license code:

1. Start TN3270 Plus.

2. In the **About TN3270 Plus Evaluation Version** dialog box, click on the License Code button.

3. In the **Product License** dialog box, fill in the Licensed to and License code edit boxes. The licensed to field is case sensitive. The license code is not case sensitive.

4. Click the OK button.

5. If you have any problems, please send an e-mail to support@sdisw.com.

Defining TN3270 Plus as a Supporting Application for your Web Browser

You can define **TN3270 Plus** as the TN3270 and/or telnet support application in your web browser. Then, when your web browser is pointed to a TN3270 or telnet URL, it starts **TN3270 Plus** with the URL on the command line. **TN3270 Plus** uses the URL on the command line to start a 3270 or VT100 session.

Defining TN3270 Plus as a Supporting Application with Internet Explorer 5 or 6 on Windows 2000.

1. Start Windows Explorer (not Internet Explorer).

2. Open the Windows Explorer **Tools** menu and click **Folder Options...**

3. In the **Folder Options** dialog box, click on the **File Types** tab. In the **Registered file types:** list box, click on **N/A   URL:Telnet Protocol** and then click on the **Advanced** button.

4. In the **Edit File Type** dialog box in the **Actions:** list box, click on **Open**, then click on the **Edit...** button.

5. In the **Editing action for type: URL:Telnet Protocol** dialog box across from the **Application used to perform action** edit box, click the **Browse...** button.

6. In the **Open With** dialog box, navigate through your folders to the tn3270.exe file and click on it. Then click on the **Open** button.

7. In the **Editing action for type: URL:Telnet Protocol** dialog box, click on the **OK** button.

8. In the **Edit File Type** dialog box, click on the **OK** button.

9. In the **Folder Options** dialog box, click on the **File Types** tab. In the **Registered file types:** list box, click on **N/A   URL:TN3270 Protocol** and then click on the **Advanced** button.

10. In the **Edit File Type** dialog box in the **Actions:** list box, click on **Open**, then click on the **Edit...** button.

11. In the **Editing action for type: URL:TN3270 Protocol** dialog box across from the **Application used to perform action** edit box, click the **Browse** button.

12. In the **Open With** dialog box, navigate through your folders to the tn3270.exe file and click on it. Click on the **Open** button.

13. In the **Editing action for type: URL:TN3270 Protocol** dialog box, click on the **OK** button.

14. In the **Edit File Type** dialog box, click on the **OK** button.

15. In the **Folder Options** dialog box, click on the **Close** button.

Defining TN3270 Plus as a Supporting Application with Internet Explorer 3, 4 or 5 on Windows 98.

1. Start Windows Explorer (not Internet Explorer).

2. Open the Windows Explorer **View** menu and click **Folder Options...**

3. In the **Folder Options** dialog box, click on the **File Types** tab. In the **Registered file types:** list box, click on **URL:Telnet Protocol** and then click on the **Edit...** button.

4. In the **Edit File Type** dialog box in the **Actions:** list box, click on **Open**, then click on the **Edit...** button.

5. In the **Editing action for type: URL:Telnet Protocol** dialog box across from the **Application used to**

perform action edit box, click the **Browse...** button.

6. In the **Open With** dialog box, navigate through your folders to the tn3270.exe file and click on it. Then click on the **Open** button.

7. In the **Editing action for type: URL:Telnet Protocol** dialog box, click on the **OK** button.

8. In the **Edit File Type** dialog box, click on the **Close** button.

9. In the **Folder Options** dialog box, click on the **File Types** tab. In the **Registered file types:** list box, click on **URL:TN3270 Protocol** and then click on the **Edit...** button.

10. In the **Edit File Type** dialog box in the **Actions:** list box, click on **Open**, then click on the **Edit...** button.

11. In the **Editing action for type: URL:TN3270 Protocol** dialog box across from the **Application used to perform action** edit box, click the **Browse** button.

12. In the **Open With** dialog box, navigate through your folders to the tn3270.exe file and click on it. Click on the **Open** button.

13. In the **Editing action for type: URL:TN3270 Protocol** dialog box, click on the **OK** button.

14. In the **Edit File Type** dialog box, click on the **Close** button.

15. In the **Folder Options** dialog box, click on the **Close** button.

Defining TN3270 Plus as a Supporting Application with Internet Explorer 3, 4 or 5 on Windows 95.

1. Start Windows Explorer (not Internet Explorer).

2. Open the Windows Explorer **View** menu and click **Options...**

3. In the **Options** dialog box, click on the **File Types** tab. In the **Registered file types:** list box, click on **URL:Telnet Protocol** and then click on the **Edit...** button.

4. In the **Edit File Type** dialog box in the **Actions:** list box, click on **Open**, then click on the **Edit...** button.

5. In the **Editing Action for Type URL:Telnet Protocol** dialog box across from the **Application used to perform action** edit box, click the **Browse** button.

6. In the **Open With** dialog box, navigate through your folders to the tn3270.exe file and click on it. Then click on the **Open** button.

7. In the **Editing Action for Type URL:Telnet Protocol** dialog box, click on the **OK** button.

8. In the **Edit File Type** dialog box, click on the **Close** button.

9. In the **Options** dialog box, click on the **File Types** tab. In the **Registered file types:** list box, click on **URL:TN3270 Protocol** and then click on the **Edit...** button.

10. In the **Edit File Type** dialog box in the **Actions:** list box, click on **Open**, then click on the **Edit...** button.

11. In the **Editing Action for Type URL:TN3270 Protocol** dialog box across from the **Application used to perform action** edit box, click the **Browse** button.

12. In the **Open With** dialog box, navigate through your folders to the tn3270.exe file and click on it. Click on the **Open** button.

13. In the **Editing Action for Type URL:TN3270 Protocol** dialog box, click on the **OK** button.

14. In the **Edit File Type** dialog box, click on the **Close** button.

15. In the **Options** dialog box, click on the **Close** button.

Defining TN3270 Plus as a Supporting Application with Netscape Navigator 4

1. Open the Netscape Navigator **Edit** menu and select **Preferences...**

2. In the **Preferences** dialog box, expand **Navigator** in the category list box.

3. Under **Navigator,** select Applications.

4. In the Description list box, select URL: TN3270 Protocol and then click the **Edit...** button.

5. In the **Edit Type** dialog box, click the **Browse...** button.

6. In the **Open dialog** box, navigate through your folders to the tn3270.exe file and click on it. Then click on the **Open** button.

7. The path to tn3270.exe appears in the Application edit box. In the Application edit box, add a space followed by **%1** to the application path to allow command line parameters to be passed to **TN3270 Plus**. For example:

    "C:\Program Files\SDI\TN3270 Plus\tn3270.exe"   %1

8. In the **Edit Type** dialog box, click the **OK** button.

9. In the **Preferences** dialog box, click the **OK** button.

Defining TN3270 Plus as a Supporting Application with Netscape Navigator 3

1. Open the Netscape Navigator **Options** menu and select **General Preferences...**

2. In the **Preferences** dialog box, select the **Apps** tab.

3. Under the **Supporting Applications** heading across from the **Telnet Application** label, click the **Browse...** button.

4. In the **Select a telnet application** dialog box, navigate through your folders to the tn3270.exe file and click on it. Then click on the **Open** button.

5. In the **Preferences** dialog box, under the **Supporting Applications** heading across from the **TN3270 Application** label click the **Browse...** button.

6. In the **Select a tn3270 application** dialog box, navigate through your folders to the tn3270.exe file and click on it. Then click on the **Open** button.

7. In the Preferences dialog box, click the **OK** button.

Disabling the Internet Menu

The **Internet** menu item on the **TN3270 Plus** menu bar provides access to a set of Internet utilities. You may disable the Internet menu item by renaming or deleting the Internet utilities dynamic link library (InetUtil.dll) in the **TN3270 Plus** folder.

Positioning the Cursor

To change the cursor position, press the arrow keys on the keyboard.

You may also position the cursor using the mouse. The default cursor movement setting is a single click of the left mouse button.   You may change the cursor movement setting by updating the **CursorMove** terminal key function in the Keyboard Setup dialog box.

Specifying Parameters on the Command Line

You can include a session name, script filename, web browser TN3270 command, web browser telnet command, domain name and port number or an IP address and port number on the command line when **TN3270 Plus** is started. For example:

"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" "session_name"
"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" "script_filename"
"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" TN3270://hostname:port
"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" TELNET://hostname:port
"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" hostname:port

If a command line parameter is found, **TN3270 Plus** checks the parameter for a match in the following order:

1. Saved session name

2. Script filename

3. Web browser TN3270 command (TN3270://hostname:port/)

4. Web browser telnet command (TELNET://hostname:port)

5. If it's none of the above, then it's assumed to be a hostname:port.

Session Name Example:

When the session name is included, **TN3270 Plus** connects to that session when it starts.

"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" **"P/390 27x132"**

Where:

P/390 27x132   is the session name.

Tips:

• The session name is case sensitive.

• If the session name contains any spaces, it must be enclosed in double quotes as in the example above.

Script Name Example:

When the script name is included, **TN3270 Plus** runs the specified script.

"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" **"script.txt"**

Where:

script.txt   is the script filename.

Tips:

• If the script filename contains any spaces, it must be enclosed in double quotes.

Web Browser TN3270 Command Example

This format is used when **TN3270 Plus** is specified as the default TN3270 application in your web browser options. When your web browser is pointed to a TN3270 URL, it starts **TN3270 Plus** with the URL on the command line. **TN3270 Plus** starts a TN3270 session for that URL.

"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" **TN3270://TN3270site:23**/

See Defining **TN3270 Plus** as a Supporting Application for your Web Brower for instructions on defining **TN3270 Plus** as the default TN3270 application for your web browser.

Web Browser Telnet Command Example

This format is used when **TN3270 Plus** is specified as the default telnet application in your web browser options. When your web browser is pointed to a telnet URL, it starts **TN3270 Plus** with the URL on the command line. **TN3270 Plus** starts a VT100 session for that URL.

"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" **TELNET://TelnetSite:23**/

See Defining **TN3270 Plus** as a Supporting Application for your Web Brower for instructions on defining **TN3270 Plus** as the default telnet application for your web browser.

Domain Name and Port Example:

When the domain name or IP address and port number are included, **TN3270 Plus** connects to the specified domain name or IP address on the specified port number.

"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" domain.name:23

Using TN3270 Plus on an Intranet (Network)

TN3270 Plus can be installed on a network disk and accessed by network users. See the License Agreement to review the licensing requirements for network installation.

Network installation is normally done in one of the following ways:

1. The network users all share the same **TN3270 Plus** configuration settings.

2. The network users use personal **TN3270 Plus** configuration settings.

TN3270 Plus keeps configuration information in the following files:

File	Description
tn3270.dat	Global configuration settings
tn3270.ini	License code
*.tcs	Color scheme
*.tkm	Keyboard map
*.ttb	Toolbar
*.tsp	Session profile
*.txt	Script files
*.mac	Macros

Shared Configuration and Session Settings

For networks where users will share files, the configuration files should be customized on the network drive. All configuration files should be made read-only, so users cannot change the settings. The **TN3270 Plus** DataPath registry entry should be modified to point to the network drive containing the configuration files. See "The DataPath Registry Entry" paragraph below for a detailed description of the DataPath registry entry.

Personal Configuration and Session Settings

For networks where users have their own personal settings, the **TN3270 Plus** DataPath registry entry should be pointed to the user folder containing the configuration files. As an alternative the DataPath registry can be deleted and **TN3270 Plus** started with a working directory with the working directory pointed to the folder containing the configuration files. If no DataPath registry entry or working directory is specified, **TN3270 Plus** looks for the configuration files the application directory (the directory containing the tn3270.exe file).

The DataPath Registry Entry

You can define a directory for the configuration files by creating or modifying or the **TN3270 Plus** DataPath registry entry. The default DataPath registry entry is created by the installation process and points to the TN3270 Plus directory. To specify a different path for the configuration files, use the following steps:

1. Back up the registry. You should always back up the registry before making modifications.

2. Run regedit.exe

3. Navigate through the following keys and folders: HKEY_CURRENT_USER, Software, SDI, TN3270 Plus, Configuration

4. If the DataPath entry does not already exist, right click on the Configuration folder and select **New** from the popup menu. Select **String Value** from the second level menu. A key name of **New Value #1** is created. Replace **New Value #1** with **DataPath** and press enter.

6. Right click on DataPath and select **Modify** from the popup menu.

7. In the **Edit String** dialog box, enter the complete path to the tn3270.dat file into the **Value data** edit box. For example:

c:\Windows**tn3270**.dat

TN3270 Plus uses the path to the **tn3270**.dat file for all the configuration files.

If there is no DataPath registry entry, **TN3270 Plus** searches the working directory. If there is no working directory, **TN3270 Plus** searches the application directory (the directory containing the tn3270.exe file).

Using Hotspots

Hotspot support allows words on the terminal screen to act as AID generating keys or active URL links. To activate Hotspot support, you need to assign the **Hotspot** terminal function to a mouse button as follows:

1. Open the **Setup** menu and select **Keyboard...**

2. In the Keyboard pane of the **Session Setup** dialog box, click the **Configure...** button.

3. In the **Keyboard Setup** dialog box, select "Terminal Keys" in the Function Group drop-down list box.

4. Select **Hotspot** in the Function list box.

5. Click the **Add Key...** button.

6. Click the desired mouse button over the text in the **Type Key** dialog box.

7. Click the **OK** button in the **Type Key** dialog box.

8. Click the **OK** button in the **Keyboard Setup** dialog box.

9. Click the **OK** or **Apply** button in the **Session Setup** dialog box.

Once the mouse button is assigned, clicking that button causes the word under the mouse pointer to be examined. If the word is an AID generating key then the corresponding AID key is sent to the host. If the word begins with 'http://' or 'https://' then the default web browser is launched and passed that URL. An AID key identifier is delimited by a space, null, or attribute byte at the beginning and a space, null, attribute byte or non alpha-numeric character at the end.   A URL is delimited by a space, null or attribute byte at the beginning and the end.

AID Generating Keys:

3270:   PF1 - PF24, PA1 - PA3, CLEAR or ENTER

5250:   F1 - F24, PA1 -PA3, CLEAR, ENTER or HELP

If a Hotspot is not recognized then the cursor is moved to the mouse pointer location and the ENTER key is sent to the host (simulating a menu selection).

Using TN3270 Plus LPD

TN3270 Plus LPD is a 32-bit print daemon that accepts print jobs from a remote computer and prints them on a Windows printer. Complete details can be found in the TN3270 Plus LPD help.

Working with Multiple Sessions

There are two ways to use multiple sessions in **TN3270 Plus**

- Multiple sessions in a single window
- Multiple sessions in multiple windows

Creating Your Sessions

For either method of running multiple sessions, the first step is to create your sessions. Assume we need the following sessions:

Session Name	Host Name	Telnet port	Terminal Type
Mainframe	tnserver.di3270.com	23	3270
AS400	as400.com	23	5250
UNIX	140.147.254.3	23	VT220

To create the sessions

1. Open the **Connect to Host** dialog (H<u>o</u>st, <u>C</u>onnect…).

2. Type in the settings for the first session (for example, Mainframe)

3. When the first session settings are complete, type in the session name for the next session (for example, AS400) and press the tab key. You will be prompted to save changes to the Mainframe session. Respond yes. Complete the settings for the AS400 session and press the tab key. You will be prompted to save changes to the AS400 session. Respond yes. Continue in the same manner until all your sessions are created.

Using Multiple Sessions in a Single Window

TN3270 Plus allows you to connect up to 9 different display and/or printer sessions concurrently in a single window. The display and/or printer sessions may be of different terminal types and may be connected to one or more host computers. Each session is given a session number between 1 and 9.

To connect the Mainframe, AS400 and UNIX sessions.

1. Open the **Connect to Host** dialog (H<u>o</u>st, <u>C</u>onnect…).

2. Select **Mainframe** in the Session name list box.

3. Click the **Connect…** button.

4. To connect the AS400 session as your second session, open the **Connect to Host** dialog (H<u>o</u>st, <u>C</u>onnect…).

5. Select **AS400** in the Session name list box.

6. Click the **Connect…** button.

7. Repeat the same steps to start the UNIX session.

Although multiple sessions may be active, only the <u>current session</u> is displayed in the **TN3270 Plus** window. To switch to another session, do one of the following:

1	Select a new session button from the toolbar. Active session buttons are bold. Unused sessions are grayed out.

1 Mainframe Alt+1 2 AS400 Alt+2 ✔ 3 UNIX Alt+3	Select a new session from the session list in the **Host** menu. The current session is marked with a check mark.
HostSession + *n*	Press the HostSession + *n* key (default Alt +*n*), where *n* is the session number.
ViewNextSesson	Press the ViewNextSession key (default Ctrl + Tab) to cycle through the sessions.
ViewPreviousSession	Press the ViewPreviousSession key (default Shift + Ctrl + Tab) to cycle backwards through the sessions.

Tips:

If your want one or more sessions connected each time **TN3270 Plus** is started, specify the "Connect at Startup" option for the session(s). (Host, Connect…, Advanced button, Setup Items = Host, Connect at Startup),

If you want a session started using the same session number every time you connect, you can specify a Preferred Session Number in the Session Setup dialog box. (Host, Connect, Advanced button, Setup Items = Host, Preferred Session Number) If the preferred session number is already in use, your session starts using the first available session number.

By default **TN3270 Plus** allows 9 sessions in a single window, you can limit the number of sessions by adding the following DWORD registry entry:

HKEY_CURRENT_USER\Software\SDI\TN3270 Plus\Configuration\MaximumSessions

and setting it to the maximum number of sessions you wish to allow. Numbers from 1 to 9 are valid.

Using Multiple Sessions in Multiple Windows

If you want to have multiple sessions in multiple Windows, specify the "Start each session in a new window" preference (Setup, Preferences…, Start each session in a new window) If you only want some sessions to run in a separate window, you can use the "Start in a new window" session option (Setup, Sessions…, Setup Items = Host, Start in a new window).

If you want to create shortcut on your desktop to start **TN3270 Plus** and connect a particular session, do the following.

1. Create a **TN3270 Plus** shortcut on your desktop by right-clicking and dragging the **TN3270 Plus** icon to your desktop and dropping it.

2. Select "Create Shortcut(s) Here" from the pop-up menu.

3. Right-click the newly created desktop icon and select rename. Rename the icon as desired. (For example, TN3270 Plus Mainframe Session.)

4. Right-click the icon again and select Properties. In the Target edit box, add the session name after the path. For example, to add the Mainframe session:

   "C:\Program Files\SDI\TN3270 Plus\tn3270.exe"   "Mainframe"

   Double-clicking on this icon starts **TN3270 Plus** and connects the Mainframe session. For more information on specifying options for a shortcut icon, see Specifying Parameters on the Command Line.

Tips:

By default **TN3270 Plus** does not limit the number of times it can be started. You can limit the number of times **TN3270 Plus** can be started (instances) by adding the the following DWORD registry entry:

HKEY_CURRENT_USER\Software\SDI\TN3270 Plus\Configuration\MaxInstances

and setting it to the maximum number of instances you wish to allow. When the maximum number of instances is reached an attempt to start another instance results in the most recently started instance being brought to the foreground. If the value is set to zero, **TN3270 Plus** will not start. If the value is set to −1, unlimited instances are allowed.

Changing Sessions Settings

Changing Terminal Emulation Session Colors

1.   Open the **Setup** menu and select the **Colors...** command.

2.   Use the Colors Pane to define your color scheme.

3.   If you wish to create a new color scheme with your changes, click the **Save As** button and type the new
      color scheme name in the **Save As** dialog box.

4.   Click **OK** or **Apply** to save the changes to the current color scheme and update the colors in the current
      terminal emulation session.
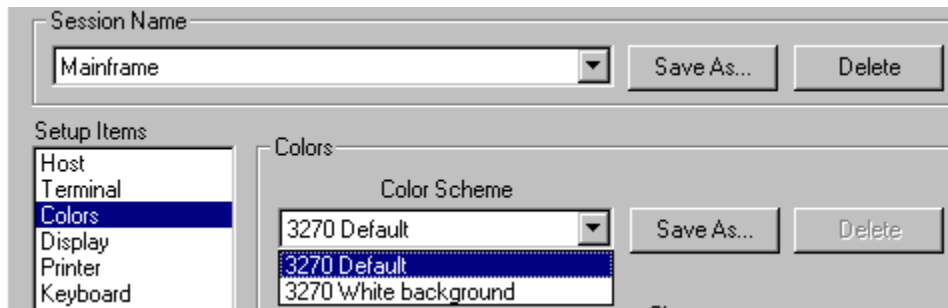
Changing Screen Fonts

1. Open the **Setup** menu and select the **Display...** command.

2. Click on the **Change...** button to display the Font dialog box.

3. Select the font, font style and font size.

4. The size of the window adjusts to accommodate the font you select.

Tips:

- If a scalable font is selected, the "Scale font to fit terminal window" option is set on. This option resizes the font when the window is resized.

- The font remains in effect for the session even if you exit and restart **TN3270 Plus**.

- Many users like the following fonts. You can download them for free and they work well with **TN3270 Plus**.

Font	Sample TN3270 Plus display
Andale Mono	
MS Line Draw	

Changing PC Keyboard and Mouse Mapping

PC Keyboard mapping allows you to customize your PC keyboard and mouse for terminal emulation sessions and for menu short cuts.

1. Open the **Setup** menu and select the **Sessions...** command to display the Session Setup dialog box.

2. In the **Session Setup** dialog box, select the **Session Name** of the session you want to change.

3. In the **Setup Items** list box, select **Keyboard** to display the Keyboard Pane.

4. In the **Keyboard Map Name** drop-down list box, select the desired keyboard map.

5. To modify an existing keyboard map or create a new keyboard map, click the **Configure...** button to display the Keyboard Setup dialog box. Once you have created a customized keyboard map, you can select it from the **Keyboard Map Name** drop-down list box for use with any of your sessions.

Changing VT100/VT220 Control Sequences

The default VT100/VT220 control sequences work for most host systems. However, if the requirements for your system are different, you can modify the default control sequences.

1. Open the **Setup** menu and select the **<u>S</u>essions...** command to display the <u>Session Setup dialog box.</u>

2. In the **Session Setup** dialog box, select the **Session Name** of the session you want to change.

3. In the **Setup Items** list box, select **Keyboard** to display the <u>Keyboard Pane.</u>

4. In the **Keyboard Map Name** drop-down list box, select the desired keyboard map.

5. To modify an existing keyboard map or create a new keyboard map, click the **Configure...** button to display the <u>Keyboard Setup dialog box.</u> Once you have created a customized keyboard map, you can select it from the **Keyboard Map Name** drop-down list box for use with any of your sessions.

6. In the **Keyboard Setup** dialog box, select Terminal Keys in the Function Group drop-down list box.

7. Select the function you want to change in Function list box.
8. The "Ctrl Seq:" label, **Change** button and Control Sequence edit box appear in the lower left-hand corner of the dialog box. To change the control sequence, position the cursor in the edit box and modify the control sequence. To enter hexadecimal data in the edit box precede each byte (two hexadecimal numbers) with "0x". For example, to enter send the hexadecimal control sequence "FDFF" enter: "0xfd0xff". Click the **Change** button to complete the update.

Changing the 3270 Attention and System Request Keys

In 3270 terminal emulation, the 3270 **attention** and **system request** functions send telnet command strings to the host computer. By default, the telnet command strings are defined as follows:

Key	Telnet Command String	
	TN3270	TN3270E
Attention	FFF3	FFF4
System Request	FFF4	FFF5

In rare instances, the default setting may not work with your host computer. In this case, you may change the command string sent by either of these keys. You can do this for all sessions by adding a registry entry or for a specific session by adding a line to the session profile. **TN3270 Plus** searches for the telnet command strings in the following order:

1. Session profile

2. Registry

3. Default setting

Adding a Registry Entry

Use this method to change the telnet command string for all sessions that do not have a value set in the session profile. To specify a new telnet command string, use the following steps:

1. Back up the registry. You should always back up the registry before making modifications.

2. Run regedit.exe

3. Navigate through the following keys and folders: HKEY_CURRENT_USER\Software\SDI\TN3270 Plus

4. Right click on the TN3270 Plus folder and select New from the popup menu and Key from the second level popup menu.

5. A key name of **New Value #1** is created. Replace **New Value #1** with **3270** and press enter.

6. Right click on the 3270 folder and select **New** from the popup menu. Select **String Value** from the second level popup menu.

7. A key name of **New Value #1** is created. Replace **New Value #1** with **AttnKeyString** or **SysreqKeyString** and press enter.

8. Right click on the newly created value and select **Modify** from the popup menu.

9. In the **Edit String** dialog box, enter the telnet command string into the **Value data** edit box and click the OK button.

Adding a Session Profile Entry

Use this method to change the telnet command string for a specific session. The session profile file name is the session name with the .tsp extension. For example, if your session name is "IBM Mainframe" the corresponding session profile name is "IBM Mainframe.tsp." To add the telnet command string entry:

1. Edit the session profile with notepad.exe or another word processor.

2. Add the following line(s) to the end of the session profile:
   AttnKeyString=*xxxx*

SysreqKeyString=*xxxx*

Where:

xxxx   is the telnet command string. The string must be a hexadecimal value.

3.   Save the updated session profile and restart **TN3270 Plus**.

Transferring Files

Transferring Files from the Host Computer to Your PC

1. Open the **Host** menu and select **File Transfer...**

2. Fill in the <u>File Transfer dialog box.</u>

3. Click the button in the **File Transfer** dialog box to start the transfer.

4. To cancel an active file transfer, select **Cancel File Transfer** from the **Host** menu.

Tips:

- File transfer operations are supported for 3270 sessions only.

- You may switch to, and work in, another session while the file transfer is active.

- It is also possible to transfer a file using a script. If you often transfer the same file, a script is a more automated way to perform the operation. See the <u>FileTransfer</u> script command for more information on file transfer operations using a script.

Transferring Files from the PC to the Host Computer

1. Open the **Host** menu and select **File Transfer...**

2. Fill in the [File Transfer dialog box.](#)

3. Click the [←] button in the **File Transfer** dialog box to start the transfer.

4. To cancel an active file transfer, select **Cancel File Transfer** from the **Host** menu.

Tips:

- File transfer operations are supported for 3270 sessions only.

- You may switch to, and work in, another session while the file transfer is active.

- It is also possible to transfer a file using a script. If you often transfer the same file, a script is a more automated way to perform the operation. See the [FileTransfer](#) script command for more information on file transfer operations using a script.

Using Macros and Scripts

Using the Macro Recorder

The **TN3270 Plus** macro recorder is designed to automate keystroke sequences. Use the macro recorder to record a sequence of keystrokes as you type them. Then replay the macro to have the same keystrokes typed for you by the macro recorder.

Here are some common uses for macros:

- Logging on terminal emulation users.
- Performing a series of commonly issued commands.

Normally you will start the macro recorder, perform a common sequence of keystrokes and stop the macro recorder. Once the macro is recorded it may be played anytime you require the same keystroke sequence.

The **TN3270 Plus** scripting language also provides the ability to automate common tasks. See the Macro Recorder and Scripting Language Comparison for a discussion about which feature to use to automate your work.

Macro Syntax

A macro contains text and terminal key functions. Text appears in the macro with no punctuation. Keyboard function keys are represented by the function key name enclosed in a less than and greater than sign pair **< *keyname* >**. For example, the enter key appears in a macro as follows:

<Enter>

The complete list of *keynames* can be found in the **Keyboard Map Setup** dialog box. To display the **Keyboard Map Setup** dialog box, open the **Setup** menu and select **Sessions...,** from **Setup Items** list box choose **Keyboard** and then click the **Configure...** button. Select Terminal Keys in the **Function Group** drop-down list box.

You may also consult the default keyboard maps in this help file:

Default 3270 Keyboard Map
Default 5250 Keyboard Map
Default VT100 Keyboard Map

Macro Recorder Tutorial

The following tutorial provides step-by-step instructions for recording the "sample" macro. The sample macro types the word "test" at the current cursor location and then "presses" the enter key. Connect a terminal emulation session, position the cursor to a data entry position and then follow the steps below.

Recording the Sample Macro

1. Open the **Macros** menu and select **Start Recording**.

2. Type "test" and press the enter key.

3. Open the **Macros** menu and select **Stop Recording**.

4. Enter the name "Sample" for the macro in the **Save As** dialog box.

5. Click the **OK** button.

Playing the Sample Macro

1. Return the session to the state it was in before you recorded the Sample macro.

2. Open the **Macros** menu and select **Replay**.

3. A second level menu listing of all recorded macros appears. Select the Sample macro.

4. The Sample macro runs. It should produce the same result as the keystrokes used to record the macro.

Editing the Sample Macro

1. Open the **Macros** menu and select **Edit**.

2. A second level menu listing of all recorded macros appears. Select the Sample macro.

3. The Macro Editor dialog box is displayed.   The macro definition should contain the following:

   test<Enter>

4. Click OK without making any changes. See the Macro Editor dialog box topic for information on editing a macro.

Assigning a Keyboard Shortcut to the Sample Macro

1. Open the **Macros** menu and select **Assign Key**.

2. A second level menu listing of all recorded macros appears. Select the Sample macro.

3. The **Type Key** dialog box prompts you for the keyboard shortcut. Hold down the shift and alt keys and press the letter a.   **Shift+Alt+A** appears in the edit box.

4. If   **Shift+Alt+A** does not appear in the edit box, click the Retry button and try again.

5. Once the Sample macro is assigned to **Shift+Alt+A,** click the OK button.

6. Return the session to the state is was in before you recorded the Sample macro.

7. Press **Shift+Alt+A.**   The Sample macro runs.

Deleting the Sample Macro

1. Open the **Macros** menu and select **Delete**.

2. A second level menu listing of all recorded macros appears. Select the Sample macro.

3. The macro is deleted.

Pausing Macro Execution

It is possible to pause macro execution if the macro needs to wait for a host response before continuing. See the Macro Editor dialog box topic for more information.

Using the Scripting Language

The **TN3270 Plus** scripting language is designed to automate common tasks and keystroke sequences. Each day the same keystrokes are entered over and over again. By creating a script, common sequences of keystrokes can be stored in a file. When the script file is run, the keystrokes are entered automatically.

Here are some common uses for scripts:

• Connecting terminal emulation sessions.

• Logging on terminal emulation users.

• Transferring files from the PC to the Host or from the Host to the PC.

• Performing a series of commonly issued commands.

A script file is a text file (.txt) that contains script commands. A script simulates the activities of a user at the keyboard. The script file can be created using your favorite word processor or text editor. Any application than can create a standard text (.txt) file will work.

Script Language Syntax Definition

The syntax descriptions of the script commands use the following notational conventions:

1.   **Magenta** colored words are replaced by user input.

2.   Blue colored symbols are part of the syntax definition and are not included in the command.

3.   The following symbols are part of the command and should be entered exactly as they appear in the command format:

    ,   comma
    :   colon
    "   double quotation marks

4.   Square brackets **[ ]** indicate an optional parameter and are not included in the command.

5.   Braces **{ }** are used with the vertical bar **|** to indicate choices between two or more mutually exclusive items and are not included in the command.

6.   Words starting with a dollar sign **$** are variables. Variable names are case sensitive.

7.   Words starting in column one and ending with a colon **:** are labels. Label names are case sensitive.

8.   An ellipsis **…** indicates that the same pattern continues.

9.   Lines starting with an asterisk ***** or white space in column one are treated as comments.

Each line in a script file contains a command in the following format:

   [label] command [parameter1 [,parameter2,parameter3,...parametern]]   comment

The command indicates the function to perform and the parameter(s) provide the data needed for the function. Anything following white space after the last parameter on each line is a comment. Parameters containing imbedded blanks or commas must be enclosed in double quotation marks. Parameters may be split across multiple lines. A comma followed by white space indicates more parameters on the next   line. For example,

       waitfor   "Reconnected",LABEL1:,   this is a comment

       "Ready", LABEL2:   this is a comment

The command is not case sensitive, so it may appear in any combination of upper and lower case. Any blanks or tabs between the command and the first parameter are ignored.

Comment lines can be added to script file by placing an asterisk (*) in column 1. For example:

```
* ----------------------------------------------------------------
* These three lines are comments
* ----------------------------------------------------------------
```

The <u>Script Commands</u> section contains a complete list of script commands. The syntax of each command is presented along with examples for using the command.

Creating Your First Script

The following steps will lead you through the creation of your first script:

1.   Create a new text file in the **TN3270 Plus** directory using you favorite word processor or text editor.

2.   Type the following lines:

```
* This is a comment. -- My first script file.
type        "this is a test"
key        enter
exit
```

3.   Save this script as a text file named "test.txt" in the **TN3270 Plus** directory. Your first script is now complete.

Running Your First Script

The following steps will lead you through running your first script:

1.   Connect a **TN3270 Plus** session.

2.   Logon to your userid.

3.   Open the **Host** menu and select **Run Script...** and click on the **B**rowse… button.

4.   In the **Select Script File** dialog box, click on "test.txt" and then click on the **Open** button.

5.   "this is a test" is typed on your screen and then "entered" (pressing the enter key is simulated by the script). The result of this script is the same as if you typed "this is a test" on the keyboard and pressed the enter key.

For an example of a logon script see the <u>Sample Logon Script.</u>

Creating A Logon Script

One of the most common tasks for users is to logon to the host computer. This makes the logon process a good candidate for scripting. The following sample script illustrates logging on to a VM/ESA host. Use it as a starting point for automating your logon process.

*	VM/ESA Logon Script	*1*
waitfor	USERID:	*2*
type	Test	*3*
key	tab	*4*
askfor	"Enter your password and click OK",password	*5*
key	enter	*6*
exit		*7*

The following list describes each of the lines in this script.

1. Comment.

2. **waitfor USERID:** pauses the script until the characters "USERID:" appear on the emulation screen. This pause prevents the script from issuing more script commands before the host computer is ready to receive them. The parameter for the waitfor command is case sensitive. It must be typed exactly as it will appear on the emulation screen.

3. **type Test** types "TEST" at the current cursor location.

4. **key tab** simulates pressing the tab key on the keyboard. This moves the cursor to the next tab stop.

5. **askfor "Enter your password and click OK",password** displays a dialog box requesting the password. The password parameter at the end of the askfor command indicates that the characters typed by the user will be displayed as asterisks, so others cannot read the password. When OK is clicked, the characters entered in the dialog are typed at the current cursor location.

6. **key enter** simulates pressing of the enter key on the keyboard. This sends the data entered on the screen to the host computer for processing.

7. **exit** exits the script.

Comparing the Macro Recorder and the Scripting Language

TN3270 Plus provides two ways to automate common tasks for users, the macro recorder and the scripting language.

The macro recorder records terminal keystrokes and allows you to replay them. It is quick and easy to use, but its function is limited in scope.

The scripting language can automate keystrokes and it can also contain logic statements, transfer files, prompt the user for input and start other applications. The scripting language requires that you create a text file containing script commands with a word processor and then run the script file.   The scripting language is more difficult to use than the macro recorder.

If you just want to automate keystrokes, the macro recorder is the best choice. If you want to automate other tasks you will need to write a script.

The following table summarizes the facilities in the Macro Recorder and the Scripting Language.

Operation	Macro Recorder	Scripting Language
Record keystrokes	Yes	No
Type text	Yes	Yes
"Press" terminal key	Yes	Yes
Wait for a number of seconds	Yes	Yes
Wait for text from host	No	Yes
Conditional processing	No	Yes
Transfer files	No	Yes
Prompt user	No	Yes
Start other applications	No	Yes
Connect sessions	No	Yes
Switch sessions	No	Yes

Using DDE Support

DDE Overview

The **TN3270 Plus** DDE support allows you to write Windows applications that communicate with IBM mainframe, AS/400 or UNIX computers via **TN3270 Plus** terminal emulation.

How DDE Support Works

TN3270 Plus acts as a DDE server that fulfills requests of your application, the DDE client. This allows your application to send data to, or receive data from, the host computer via **TN3270 Plus**.
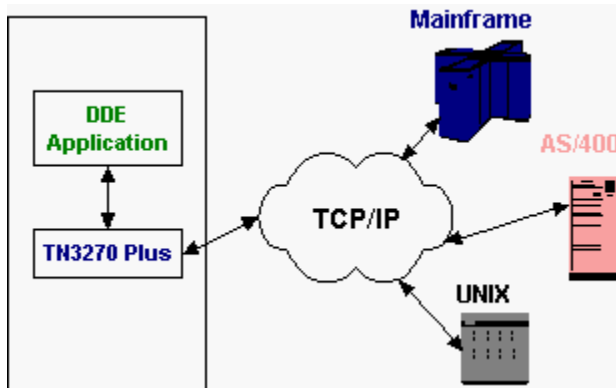
See Also:

DDE Functions

DDE Keystroke Table

Using WinHLLAPI Support

WinHLLAPI Overview

The **TN3270 Plus** WinHLLAPI support allows you to write Windows applications that communicate with IBM midrange or mainframe computers via **TN3270 Plus** terminal emulation.

TN3270 Plus WinHLLAPI supports most of the functions in the Windows HLLAPI Version 1.1 specification. See WinHLLAPI Unsupported Functions for a list of functions that **TN3270 Plus** does not support.

How WinHLLAPI Support Works

Your application needs to load the Whllapi.dll distributed with **TN3270 Plus**. Once this is done, your application may call the Whllapi.dll functions to send data to, or receive data from, the host computer. Whllapi.dll is an extension of **TN3270 Plus** and it uses **TN3270 Plus** to send data to, or receive data from, the host computer.
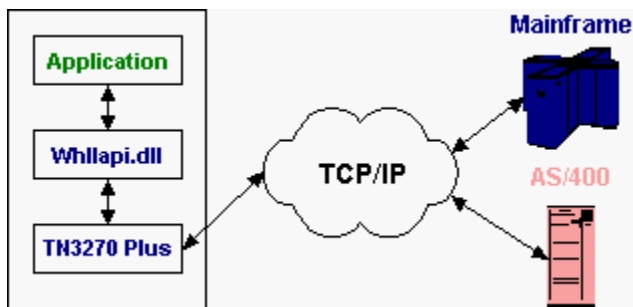
WinHLLAPI Getting Started

You need the following to use TN3270 Plus WinHLLAPI support:

1. Your application needs to load the Whllapi.dll distributed with **TN3270 Plus**

2. You must create a **TN3270 Plus** session that includes a "WinHLLAPI Session ID" (Setup, Sessions…, Setup Items = Host, WinHLLAPI Session ID). This session must be connected and your application must specify the session ID.

WinHLLAPI Technical Specification

You may download the WinHLLAPI 1.1 technical specification from our web site. This document describes all the WinHLLAPI functions.

http://www.sdisw.com/download/WinHLLAPI_specification.zip

WinHLLAPI Sample Programs

The following sample programs are also available for download from our web site:

A sample Visual C++ program: http://www.sdisw.com/download/WinHLLAPI_C++_Sample.zip

A sample Visual Basic program written by of our customers:
http://www.sdisw.com/download/WinHLLAPI_VB_Sample.zip

WinHLLAPI Unsupported Functions

The **TN3270 Plus** WinHLLAPI support does not currently support the following functions. If you need one of these functions please send an e-mail to support@sdisw.com

WinHLLAPIAsync()
WinHLLAPIIsBlocking()
WinHLLAPICancelAsyncRequest()
WinHLLAPICancelBlockingCall()
WinHLLAPISetBlockingHook()
WinHLLAPIUnhookBlockingHook()

Host menu commands

The Host menu contains the following commands:

Connect...	Connects to a host computer.
Close	Closes an open connection.
Save	Saves the screen image to the active log file.
Save As...	Saves the screen image to the selected log file.
Print Screen	Prints the terminal screen.
Print Setup	Selects a printer and a printer connection.
Print Preview	Shows how the terminal screen will look when it is printed.
File Transfer...	Transfers a file to or from the host computer. File transfers are only supported for 3270 sessions.
Cancel File Transfer	Cancels an active file transfer.
Run Script...	Runs a script.
Cancel Script	Cancels an active script.
Enable Logging	Start writing terminal screen activity to the session log file.
Disable Logging	Stop writing terminal screen activity to the session log file.
Exit	Exits **TN3270 Plus**.

Edit menu commands

The Edit menu contains the following commands:

Cut	Delete the selected data from the screen and move it to the clipboard.
Cut Append	Delete the selected data from the screen and append it to the data already on the clipboard.
Copy Options	Select the mode of operation for the copy menu item.
Copy	Copy the selected data from the screen to the clipboard.
Copy Append	Copy the selected data from the screen and append it to the data already on the clipboard.
Paste Mode	Select the mode of operation for the paste menu item.
Paste	Inserts data from the clipboard onto the screen.
Paste Continue	Continue pasting from where the last paste operation completed.
Selection Mode	Change the selection display mode.
Select All	Selects all the data on the screen.
Deselect	Cancels the current selection.
Print Clipboard	Prints the current contents of the clipboard.
Save Clipboard	Save the current contents of the clipboard to a disk file.

View menu commands

The View menu contains the following commands:

Standard Toolbar	Shows or hides the standard toolbar.
Keypad Toolbar	Shows or hides the keypad toolbar.
Status Bar	Shows or hides the status bar.
Operator Information Area	Shows or hides the Operator Information Area.
Full Screen	Toggles window mode and full screen mode display.
Response Time...	Displays the response time frequency distribution dialog box.
Next Session	Displays the next active session.
Previous Session	Displays the previous active session.

Setup menu commands

The Setup menu contains the following commands:

Sessions...	Tailor a terminal emulation session.
Terminal...	Change the terminal type and terminal options.
Colors...	Change the session colors.
Display...	Change the session display options, for example, screen font, cursor style, window attributes...
Printer...	Change printer options.
Keyboard...	Change the keyboard configuration.
Toolbars...	Configure the **TN3270 Plus** toolbars.
Proxy Server...	Configure to connect to a host computer via a proxy server.
Security...	Configure security (SSL) options.
Preferences...	Change application behavior.
Trace Socket...	Turns TCP/IP socket tracing on or off.

Macros menu commands

The Macros menu contains the following commands:

Start Recording	Start the macro recorder.
Stop Recording	Stop the macro recorder.
Replay	Select and play a macro.
Edit	Select and edit a macro.
Delete	Delete a macro.
Assign Key	Assign a shortcut key to a macro.

Internet menu commands

The Internet menu contains the following commands:

Finger	Looks up a user on a host server.
Whois	Looks up a user on the NIC server
CheckMail	Checks for incoming e-mail.
Ping	"Pings" a host computer.
DNS Lookup	Looks up a domain name or IP address.

Tip:

See Disabling the Internet Menu for instructions for disabling this menu item.

Help menu commands

The Help menu contains the following commands, which provide you assistance with this application:

Help Topics	Displays the table of contents for the help file. This command also gives you access to the help index and the help find function.
About TN3270 Plus...	Displays the version number and build date of this application.
Registration Form	Displays the **TN3270 Plus** registration form.
Purchase Online	Opens your default web browser to the **TN3270 Plus** Secure Order System.

Connect command (Host menu)

Host, Connect...

Connects you to a host computer. Specify the host computer in the Connect to Host dialog box.

System Command:

HostConnect

Shortcuts:

Standard Toolbar

Connect to Host dialog box

Use the following options to specify the host computer:

Session Name	(Optional) Enter a name for this session. Use the session name to refer to this tailored session for future connections. If no session name is specified, it defaults to the host name.
Host Name	Enter the host name or IP address of the host computer. If you do not know the host name or IP address, contact the network administrator at the host computer site.
Telnet Port	Enter the telnet connection port. This is normally **23**.
Terminal Type	Select the terminal type.

3270   IBM mainframe (VM, VSE, MVS or OS/390)
3270 Printer   IBM mainframe 3287 printer session
5250   AS/400
5250 Printer   AS/400 printer session
VT100   UNIX
VT220   UNIX
ANSI   UNIX

Advanced Button	Click to display the Session Setup dialog box. Use the **Session Setup** dialog box to further customize your session.
Show Connect Dialog at startup	Check this box if you want the **Connect to Host** dialog box to appear each time you start **TN3270 Plus**. If this box is not checked, the **Connect to Host** dialog box does not appear when **TN3270 Plus** is started.

Click on one of the following buttons:

Connect Button	Connect the session defined in the dialog box.
Cancel Button	Cancel the dialog without taking any action.
Help Button	Displays help information for this dialog box.

Close command (Host menu)

Host, Close

Use this command to close (disconnect) the current session.

A message box   appears asking you to confirm that you want to close the session if   "Ask for confirmation if I close a session" is set on in the **TN3270 Plus** Preferences (Setup, Preferences...)

System Command:

HostClose

Shortcuts:

Standard Toolbar:

Save command (Host menu)

Save the screen image to the session **Log File**. If no **Log File** is defined, the **Save As** dialog box prompts you for a file name. Define the **Log File** for a session in the Host pane of the **Session Setup** dialog box.

System Command:

HostSave

Shortcuts:

Standard Toolbar:

Save As command (Host menu)

Save the screen image to a user specified log file. This command displays a dialog box allowing you to select the log file to receive the screen image or to enter a new log file name. The new log file remains active until the **Save As...** command is used to activate another log file or the session ends.

System Command:

HostSaveAs

Print Screen command (Host menu)

H<u>o</u>st, <u>P</u>rint Screen

Print the screen image on the printer. Use the Print Preview command to see what the screen image will look like when you print it. Use the Print Setup command to change your printer settings.

System Command:

HostPrintScreen

Shortcuts:

Standard Toolbar:

Keys: Ctrl+P

Print dialog box

The following options allow you to specify how the document should be printed:

Printer

This is the active printer and printer connection.   Choose the Setup option to change the printer and printer connection.

Setup

Displays a [Print Setup dialog box](#), so you can select a printer and printer connection.

Print Range

Specify the pages you want to print:

All	Prints the entire document.
Selection	Prints the currently selected text.
Pages	Prints the range of pages you specify in the From and To boxes.

Copies

Specify the number of copies you want to print for the above page range.

Collate Copies

Prints copies in page number order, instead of separated multiple copies of each page.

Print Quality

Select the quality of the printing.   Generally, lower quality printing takes less time to produce.

Print Progress Dialog

The printing dialog box is shown during the time that <<YourApp>> is sending output to the printer.   The page number indicates the progress of the printing.

To abort printing, choose Cancel.

Print Setup command (Host menu)

Host, Print Setup...

Use this command to select a printer and a printer connection.   This command presents the Print Setup dialog box where you specify the printer and its connection.

System Command:

HostPrintSetup

Print Setup dialog box

The following options allow you to select the destination printer and its connection.

Printer	Select the printer you want to use. Choose the Default Printer; or choose the Specific Printer option and select one of the currently installed printers shown in the box. You install printers and configure ports using the Windows Control Panel.
Orientation	Choose Portrait or Landscape.
Paper Size	Select the size of the paper that the document is to be printed on.
Paper Source	Some printers offer multiple trays for different paper sources. Specify the tray here.
Options	Displays a dialog box where you can make additional choices about printing, specific to the type of printer you have selected.
Network...	Choose this button to connect to a network location, assigning it a new drive letter.

Print Preview command (Host menu)

Use this command to display the current **TN3270 Plus** session screen as it would appear when printed.   When you choose this command, the main window is replaced with a print preview window in which one or two pages are displayed in their printed format.   The print preview toolbar offers you options to view either one or two pages at a time; zoom in and out of pages; and initiate a print job.

System Command:

HostPrintPreview

Print Preview toolbar

The print preview toolbar offers you the following options:

Print	Bring up the print dialog box, to start a print job.
Next Page	Preview the next printed page.
Prev Page	Preview the previous printed page.
One Page / Two Page	Preview one or two printed pages at a time.
Zoom In	Take a closer look at the printed page.
Zoom Out	Take a larger look at the printed page.
Close	Return from print preview to the terminal emulation window.

File Transfer command (Host menu)

Host, File Transfer...

Use this command to transfer a file from the host computer to your PC or from your PC to the host computer. Specify the file you want to transfer in the File Transfer dialog box.

It is also possible to transfer a file using a script. If you often transfer the same file, a script is a more automated way to perform the operation. See the FileTransfer script command for more information on file transfer operations using a script.

System Command:

HostFileTransfer

Shortcuts:

Standard Toolbar:

Note:

File transfer operations are only supported for 3270 terminal emulation sessions.

File Transfer dialog box

Use the following options to specify file transfer operations:

Host Filename	Enter the filename of the file on the host computer.
PC Filename	Enter the filename of the file on your PC.
Browse button	Click this to search for the PC file.
Host Opsys	Check the radio button corresponding to the host computer operating system.

Translation

ASCII	Check this box to convert ASCII to EBCDIC when the PC sends a file to the host, and to convert EBCDIC to ASCII when the PC receives a file from the host.
CRLF	Check this box to replace the carriage return/line feed characters with line breaks when the PC sends a file to the host, and to replace line breaks with carriage return/line feed characters when the PC receives a file from the host.
NOTRUNC	Check this box if you do not want trailing blanks truncated.

Host File Options (PC to Host file transfers only)

**Default	Fixed	Variable	Undefined**	Check the appropriate radio button to set the record format of the file on the host computer.
LRECL	Enter the logical record length of the file on the host computer.
BLKSIZE	Enter the block size of the file on the host computer (only needed for MVS/TSO).
Append	Check this box to append the transferred file to an existing host file.

File Transfer Mode

Screen Images	Perform a screen image file transfer.
WSF – buffer size	Perform a Write Structured Field file transfer with the buffer size specified in the buffer size edit box. The default buffer size is 8192.

PC File Options (Host to PC file transfers only)

**Replace	Append	Prompt before replace**	Check the appropriate radio button.
File Transfer Program Name:	If you have renamed IND$FILE or use another program, specify the program name in this edit box. The default program name is IND$FILE.
Additional Options:	Enter any additional options. The options in the edit box are appended, "as is" to the IND$FILE transfer command. There is no editing or validation done on these options. This allows you to enter options specific to your version of IND$FILE. The following are examples of some of the options that can be placed in this edit box.

file=rdr | lst | pun	specify the POWER queue location for the host file. (VSE file transfers only)
file=ts	specify the host file location is in CICS/VSE temporary storage. (VSE file

transfers only)

file=lib	specify the host file is in a VSE library. (VSE file transfers only)
l=libname	specify the name of the VSE library. (VSE file transfers only)
s=sublib	specify the name of the VSE sublibrary. (VSE file transfers only)

Host Code Page: (Optional) Specify the host language code page (*.cpg) to use for this file transfer. Use this field to define a code page for your file transfer operation. File Transfer uses the code page in the **TN3270 Plus** preferences by default. (Setup, Preferences...). Click the **Browse...** button to search for a language code page file.

Close progress dialog when complete: Check this option to close the file transfer progress dialog when the file transfer completes. Uncheck this option to leave the file transfer progress dialog open after the file transfer completes. Leaving the dialog open will allow you to see any error message resulting from the file transfer operation. The default is checked.

 Transfers the file from your PC to the host computer.

 Transfers the file from the host computer to your PC.

Cancel File Transfer command (Host menu)

Host, Cancel File Transfer...

Use this command to cancel a file transfer in progress. A message box will appear asking you to confirm the cancellation of the file transfer.

System Command:

HostCancelFileTransfer

Run Script command (Host menu)

Use this command to run a script. You may choose from the list of recently used scripts. Or, click **Browse…** to display the **Select Script File** dialog box, click on the desired script file and then click the **Open** button to run the script.

System Command:

HostRunScript

Shortcuts:

Standard Toolbar:

Cancel Script command (Host menu)

Use this command to cancel an active script.   A message box will appear asking you to confirm the cancellation of the script.

System Command:

HostCancelScript

Enable Logging command (Host menu)

H<u>o</u>st, <u>E</u>nable Logging

Use this command to start logging screen activity to the session log file. Logging screen activity to a disk file gives you a record of your session. The session log file is defined in the host pane of the **Session Setup** dialog (Setu<u>p</u>, <u>S</u>essions…, Setup Items = Host, Log File edit box). The session log file may be edited with any text editor.

If you always want logging active for a session, set the "Enable logging" option for the session (Setu<u>p</u>, <u>S</u>essions…, Setup Items = Host, Enable logging check box).

System Command:

HostEnableLogging

Shortcuts:

Standard Toolbar: (Use the Customize Toolbar dialog box. to add this button.)

Disable Logging command (Host menu)

H<u>o</u>st, <u>E</u>nable Logging

Use this command to stop logging screen activity to the session log file. This command is not displayed unless session logging has already been started by the Enable Logging command (Host, Enable Logging) or the "Enable logging" option (Setup, Sessions, Setup Items = Host, Enable logging check box).

System Command:

HostDisableLogging

Shortcuts:

Standard Toolbar: (Use the Customize Toolbar dialog box. to add this button.)

1, 2, 3, 4, 5, 6, 7, 8, 9 command (Host menu)

H<u>o</u>st, *session*

Use the numbers and session names listed at the bottom of the Host menu to switch to another active session. Choose the number that corresponds to the desired session.

System Command:

HostSession1
HostSession2
…
HostSession9

Shortcuts:

Standard Toolbar: Click on the toolbar button of the desired session.

Keys: Alt+n   Where n is the session number you wish to switch to.

Exit command (Host menu)

Terminate **TN3270 Plus**. You can also use the Close (Alt+F4) command on the application control menu. **TN3270 Plus** prompts you to close all connected sessions before terminating.

System Command:

HostExit

Shortcuts:

Mouse: Double-click the application's Control menu button.

Keys: ALT+F4

Cut command (Edit menu)

Edit, Cut

Use this command to place the currently selected data on the clipboard. Unprotected data is replaced with blanks and protected data remains on the screen. This command is unavailable if no data is currently selected.

Data that you place on the clipboard remains there until you replace it with a new item.

System Command:

EditCut

Shortcuts:

Standard Toolbar:

Keys: Ctrl+X

Cut Append command (Edit menu)

Use this command to append the currently selected data to the clipboard. Unprotected data is replaced with blanks and protected data remains on the screen. This command is unavailable if no data is currently selected.

Data that you place on the Clipboard remains there until you replace it with a new item.

System Command:

EditCutAppend

Shortcuts:

Copy Options command (Edit menu)

Use this command to select the mode of operation for the copy command:

Change Field Attribute to Tab Replaces field attributes with tabs when data is copied to the clipboard. The text on the clipboard is then tab delimited. This option allows columns of data separated by field attributes to be pasted into multiple columns in a spreadsheet program. (For example, Microsoft Excel.) (3270 and 5250 sessions only)

System Command:

EditCopy

Shortcuts:

Copy command (Edit menu)

Edit, Copy

Use this command to copy selected data onto the clipboard.   This command is unavailable if no data is currently selected.

Data that you place on the clipboard remains there until you replace it with a new item.

System Command:

EditCopy

Shortcuts:

Standard Toolbar:

Keys: Ctrl+C

Copy Append command (Edit menu)

Edit, Copy Append

Use this command to copy the currently selected data and append it to data already on the clipboard.   This command is unavailable if no data is currently selected.

Data that you place on the clipboard remains there until you replace it with a new item.

System Command:

EditCopyAppend

Shortcuts:

Paste Mode command (Edit menu)

Use this command to select the mode of operation for the paste menu item. The following options are available:

Block Mode Pastes line by line. Each line is pasted starting at the current cursor column. Pasting continues until the end of the unprotected field. Use this mode when pasting blocks of data into a text editor.

Block Mode with Word-Wrap Works like block mode except it breaks lines of data at a word boundary so that words are not split across lines. Use this mode when pasting blocks of data into a text editor.

Overlay Block Mode Pastes line by line. Each line is pasted starting at the current cursor column and continues until the end of the line. The clipboard line overlays the new line character-for-character filling in all unprotected fields; protected fields are bypassed as are the associated characters on the clipboard. Use this mode when pasting a block that contains data from lines containing multiple fields (for example, a data entry screen).

Stream Mode Pastes character by character into unprotected fields. When a protected field is encountered the paste continues with the next clipboard character in the next unprotected field. When all unprotected fields on a line are filled, pasting moves to the first unprotected field on the next line. Pasting stops when all characters have been pasted or the paste operation reaches the end of the screen.

Move Cursor After Paste Moves the cursor to the end of the pasted data after a paste operation instead of leaving it at the original location.

Replace Tab with Space Replaces the each tab character with a space when the characters are pasted.

Shortcuts:

Paste command (Edit menu)

Edit, Paste

Use this command to insert a copy of the clipboard contents at the current cursor location.   This command is unavailable if the clipboard is empty.

System Command:

EditPaste

Shortcuts:

Standard Toolbar:

Keys: Ctrl+V

Paste Continue command (Edit menu)

Edit, Paste Continue

Use this command to continue the paste operation where the last paste operation completed.   This command is unavailable until a paste operation completes without pasting the entire contents of the clipboard.

For example, use paste continue to paste a large quantity of data into a host edit session. A paste operation ends when it reaches the end of the terminal screen. If the clipboard still contains more data, you may move to the next terminal screen in your edit session and use Paste Continue to start pasting from the clipboard where the prior paste or paste continue operation ended.

System Command:

EditPasteContinue

Shortcuts:

Selection Mode command (Edit menu)

Use this command to choose the selection mode for cut, copy and paste operations.

Reverse Video displays selected data in reverse video.

Rubber Band displays selected data in a rectangle containing diagonal hash lines.

Shortcuts:

  Keys: none

Select All command (Edit menu)

Edit, Select All

Use this command to select all the data in the session display area.

System Command:

EditSelectAll

Shortcuts:

Keys: Ctrl+A

Deselect command (Edit menu)

Edit, Deselect

Use this command to cancel a data selection.

System Command:

EditDeselect

Shortcuts:

Keys: Ctrl+D

Print Clipboard command (Edit menu)

Edit, Print Clipboard

Use this command to print the contents of the clipboard. This command is only available when the clipboard contains text. It is disabled when the clipboard contains something other than text (for example, a bit map).

System Command:

EditPrintClipboard

Shortcuts:

Save Clipboard command (Edit menu)

Use this command to save the contents of the clipboard to the session **Clipboard File**. If no session **Clipboard File** is defined, the **Save As** dialog box prompts you for a file name.   Define the **Clipboard File** for a session in the Host pane of the **Session Setup** dialog box.

This command is only available when the clipboard contains text. It is disabled when the clipboard contains something other than text (for example, a bit map).

System Command:

EditSaveClipboard

Shortcuts:

Standard Toolbar command (View menu)

Display or hide the Standard Toolbar. This toolbar includes buttons for some of the most common commands in **TN3270 Plus**.   A check mark appears prior to the menu item when the toolbar is displayed.

See the Standard Toolbar section for help on using the standard toolbar.

System Command:

ViewStandardToolbar

Keypad Toolbar command (View Menu)

View, Keypad Toolbar

Display or hide the keypad toolbar. This toolbar includes buttons for terminal keys. You may use these buttons in place of the keyboard keys. A check mark appears prior to the menu item when the toolbar is displayed.

System Command:

ViewKeypadToolbar

Status Bar command (View menu)

Display or hide the Status Bar. The Status Bar shows messages and information that describe the state of your terminal emulation session. A check mark appears prior to the menu item when the Status Bar is displayed.

See the Status Bar section for complete descriptions of the fields on the status bar.

System Command:

ViewStatusBar

Operator Information Area command (View menu)

Display or hide the 3270 Operator Information Area (OIA).   The Operator Information Area is a single line at the bottom of the terminal emulation display that describes the state of your terminal emulation session. A check mark appears prior to the menu item when the Operator Information Area line is displayed.

System Command:

       ViewOperatorInformationArea

Full Screen command (View menu)

View, Full Screen

Change the display from window mode to full screen mode or from full screen mode to window mode.

Note: When switching to full screen mode **TN3270 Plus** selects the font size that best fits the full screen. If the display font is not resizable (for example, fixedsys), the font size will not change when you switch to full screen mode.

System Commands:

ViewFullScreen	Toggles full screen mode
ViewFullScreeOn	Activates full screen mode
ViewFullScreenOff	Ends full screen mode

Shortcuts:

Standard Toolbar:

Response Time command (View menu)

Displays the **Response Time Frequency Distribution** dialog box. The **Response Time Frequency Distribution** dialog box is a summary of the response times for all active sessions. Use this information to monitor the performance of your Internet connection.

The following is a summary of the fields in the **Response Time Frequency Distribution** dialog box:

Heading	Description
Session	The session number followed by the session description.
< 1	Number of subsecond responses.
1 < 2	Number of responses greater than or equal to 1, but less than 2 seconds.
2 < 3	Number of responses greater than or equal to 2, but less than 3 seconds.
3 < 5	Number of responses greater than or equal to 3, but less than 5 seconds.
5 < 7	Number of responses greater than or equal to 5, but less than 7 seconds.
7 < 10	Number of responses greater than or equal to 7, but less than 10 seconds.
10+	Number of responses greater than or equal to 10 seconds.
Average	Average response time while the session was active.
Highest	Highest response time while the session was active.

System Command:

ViewResponseTime

Next Session command (View menu)

View, Next Session

Changes the display to the next active session.

System Command:

ViewNextSession

Shortcuts:

Keys: Ctrl+Tab

Previous Session command (View menu)

Changes the display to the previous active session (for example, from session 3 to session 2.)

System Command:

ViewPreviousSession

Shortcuts:

Keys: Shift+Ctrl+Tab

Sessions command (Setup menu)

Setup, Sessions...

Use this command to tailor your terminal emulation sessions. This command displays the Session Setup dialog box.

System Command:

SetupSessions

Session Setup dialog box

Setup, Sessions...

The **Session Setup** dialog box contains all the customization options for your terminal emulation sessions.

Step by Step Instructions for Using the Session Setup Dialog Box.

1. Specify a session name in the **Session Name** drop-down list box. You may select a session from the drop-down list or create a new session name using the **Save As...** button. If the **Save As...** button is used to create a new session then the new session inherits all the properties of the selected session (except the session name of course).

2. Select a category from the **Setup Items** list. The pane on the right-hand side of the dialog box displays the options for that category. Make any changes you desire and repeat the process for each category you wish to tailor. Links to help information for each of the categories are listed below.

3. Click on the **Cancel** button to exit the dialog box without saving your changes. Click on the **Apply** button to save your changes, but remain in the dialog box. Click on the **OK** button to save your changes and exit the dialog box.

Panes in the Session Setup Dialog.

Each of the categories in the **Setup Items** list box has an associated pane that appears on the right-hand side of the **Session Setup** dialog box. The following list contains links to help information for each of the panes.

Link to Help for Setup Items:

Host	Specify the host connection options.
Terminal	Define the terminal type.
Colors	Specify the color scheme for your terminal emulation session.
Display	Specify the screen font, cursor style and the terminal window attributes.
Printer	Specify the printer font and printer options.
Keyboard	Configure your keyboard.
Toolbars	Configure your toolbars.
Proxy Server	Configure to connect to a host computer via a proxy server.
Security	Specify SSL options for a secure connection.

Session Setup (Host Pane)

Setup, Sessions..., Host

Use the Host pane of the Session Setup dialog box to define your connection options.

Host Name	Enter the host name or IP address of the host computer.
Telnet Port	Enter the telnet connection port. This is normally **23**.
Code Page	(Optional) Enter a host language code page (*.cpg) file. The code page determines the character translations for the keyboard. SDI supplies code pages for many countries (for example, GermAust.cpg and

France.cpg). Click the **Browse...** button to display your current code page in the <u>Code Page Setup dialog box</u>. To select a new code page from the **Code Page Setup** dialog box, select a code page from the drop-down list box or click the **Browse...** button to display the **Select Code Page File** dialog box and select a new *.cpg file. If no code page is specified, the default code page is used (Setu<u>p</u>, P<u>r</u>eferences...).

Script File (Optional) Enter a script file name (*.txt). The script begins running as soon as your connection is complete. Use this script to automate your logon. Click the **Browse...** button to display the **Select Script File Name** dialog box.

Log File (Optional) Enter a log file name (*.log). The default log file name is your session name appended with ".log." Click the **Browse...** button to display the **Select Log File Name** dialog box. You may include the current date in the log file name by including a "$DATE" somewhere in the log file name. For example, a log file name of "$DATE Mainframe.log" creates a new log file each day named "YYYY-MM-DD Mainframe.log". Check the "Enable logging" check box on this pane to set session activity logging on for this session.
The following commands also use the log file:
<u>Host, Save</u> saves a screen images to the log file.
<u>Host, Enable Logging</u> starts session activity logging.

Clipboard File (Optional) Enter a file name (*.txt) for saving clipboard text. You may include the current date in the clipboard file name by including a "$DATE" somewhere in the clipboard file name. For example, a clipboard file name of "$DATE Clipboard.txt" creates a new clipboard file each day named "YYYY-MM-DD Clipboard.txt". The <u>SaveClipboard...</u> command (**Edit**, **Save Clipboard...**) saves clipboard text to this file.

Preferred Session Number (Optional) Enter a preferred session number (1-9) for this session. If the session number is available, the session will connect using that session number. If the session number is not available, the session will connect using the first available session number.

Keep-alive Interval (Optional) Specify a keep-alive interval. When set, **TN3270 Plus** sends a telnet NOP at the specified interval. The purpose of this option is to simulate activity to keep inactive sessions from being dropped by the host computer. If the keep-alive setting does not work, you may wish to send something other than a telnet NOP at the specified interval, see <u>Changing the Keep-alive String</u>.

Connect at startup Check this item to automatically connect this session each time **TN3270 Plus** is started.

Reconnect if disconnected by host Check this item to have **TN3270 Plus** reconnect your session if it is disconnected by the host computer.

Delay ?? seconds Enter the number of seconds **TN3270 Plus** should wait before attempting to reconnect a disconnected session.

Bring to top when host updates screen Check this item if you wish **TN3270 Plus** to switch to this session each time the terminal emulation screen is updated by the host computer.

Start in a new window Check this item if you wish **TN3270 Plus** to start this session in its own window. When this option is checked, a new window is created if the existing window already contains an active session. If this option is not checked, the session is started as an additional session in the existing **TN3270 Plus** window. If you want all of your sessions started in new windows, check the "Start each session in a new window" box in the **Preferences** dialog box. (Setu<u>p</u>, P<u>r</u>eferences..., Start each session in a new window)

Suppress alarms from host Check this item to suppress the "beep" when the host sends an

alarm bit (3270/5250) or a "bell" control character (VTxxx/ANSI).

Enable logging   Check this item to log screen activity to the log file defined in the log file edit box. This log file is cleared each time the session is connected. To prevent the log file from being cleared, check the "Append to existing log file" option.

Append to existing log file   Check this item to append data to the exiting log file rather than clearing the log file when the session is connected.

WinHLLAPI Session ID   (Optional) Select a short name session id for this session. Choose a letter from A to Z. A short name session id is required for another application to use WinHLLAPI to communication with the session.

Changing the Keep-alive String

In rare instances, the default keep-alive string setting may not work with your host computer. In this case, you may change the keep-alive command string. By default, **TN3270 Plus** sends hexadecimal FFF1 at each keep-alive interval. To change the default add the following to the session profile file:

KeepAliveString=*xxxx*

Where:

xxxx   is the string to send. For example, FFF6 will send IAC, AYT (AYT = Are You There) instead of FFF1 (IAC, NOP (NOP = No Operation)). The string must be a hexadecimal value.

The session profile file name is the session name with the .tsp extension. For example, if your session name is "IBM Mainframe" the corresponding session profile name is "IBM Mainframe.tsp." To change the keep-alive string to FFF6:

1.   Edit the session profile with notepad.exe or another word processor.

2.   Add the following line to the end of the session profile:

KeepAliveString=FFF6

3.   Save the updated session profile and restart **TN3270 Plus**.

Session Setup (Terminal Pane)

Use the terminal pane to define the terminal options for your terminal emulation session.

Terminal Type	Select the terminal type from the list box. You cannot change the terminal type while the session is connected.

3278	IBM mainframe (VM, VSE, MVS or OS/390)
3279	IBM mainframe (VM, VSE, MVS or OS/390)
3270 Printer	3287 printer session
5250	AS/400
5250 Printer	AS/400 printer session
VT100	UNIX
VT220	UNIX
ANSI	UNIX

Screen Size   Click the radio button for the desired screen size. For 3279, VT100 or VT220 terminals you can select the **Custom** radio button and define your own screen size from 20 x 80 to 72 x 200. You cannot change the screen size while the session is connected.

Telnet Terminal Type   Only change this field if the Host does not accept the generated terminal type. This should rarely need to be done.

Resource Name   (Optional) (327x terminals) Specify a resource name for your terminal emulation session. You may also specify a list of resource names.   If the first resource is in use, then the session attempts to use the second, and so on. Resource names must be separated by a semicolon. For example,
 DEVICE1;DEVICE2;DEVICE3**.**

Device name   (Optional) (5250 terminals) Specify a device name for your terminal emulation session. You may also specify a list of device names. If the first device name is in use, then the session attempts to use the second, and so on. Device names must be separated by a semicolon. For example,
 DEVICE1;DEVICE2;DEVICE3**.**

DEC Answerback   (Optional) (VTxxx terminals) Specify an answerback message. If the host sends a "Transmit answerback message" control character, the answerback message is transmitted back to the host.

Use Computer Name   Check this box to place the network computer name in the resource name edit box.

TN3270E Associate   (Optional) (3270 Printer) Check TN3270E Associate if the resource name species a terminal and you wish to use the printer associated with that terminal.

3270 Options

Disable TN3270E   (327x terminals and 3270 Print) Check this box to negotiate a TN3270 connection instead of a TN3270E connection.

Null/Space Processing   (327x terminals) Check this box to activate null/space processing.

Suppress Autowrap   (327x terminals) Check this box to suppress autowrap. Autowrap moves the cursor from the last field of the screen to the first field of the screen when moving the cursor forward, or from the first field on the screen to the last field on the screen when moving the cursor backward. This option causes an operator error instead of an autowrap

if the user presses the tab key with the cursor in the last field of the display, or the backtab key with the cursor in the first field of the display. It also gives an error if typing fills the last field of the display and autoskip is set.

Whole Field Delete   (327x terminals) Check this box to make the Delete key affect the whole field if it wraps from one row to another, instead of just deleting to the end of the row containing the cursor.

Identify input fields   (327x terminals) Check this box to display 5250-style column separators in 3270 unprotected fields. This makes it easier to identify the fields that accept input data.

5250 Options

No Column Separators   (5250 terminals) Check this box to remove column separators from the display.

Monochrome Display   (5250 terminals) Check this box to indicate you want a monochrome display.

Disable Non-blink Cursor   (5250 terminals) Check this box to prevent the host from changing the cursor from blink to non-blink.

Disable Auto-help   (5250 terminals) Check this box to disable auto-help. Auto-help displays on error message on line 24 when the operator makes a typing error (for example, trying to type into a protected field). When this box is checked, a flashing error code is displayed on line 24 rather than a descriptive error message.

5250 Print Options

Message Queue Name   (Optional) (5250 Print) Specify the AS/400 message queue name.

Message Queue Library   (Optional) (5250 Print) Specify the AS/400 message queue library.

ANSI/VT Options

Send CR for CR/LF   Check this box to have the CR/LF (carriage return/line feed combination) replaced by a carriage return.

Enable line wrap   Check this box to have lines that extend beyond the last terminal column wrap around to the next line. If this item is not checked the lines are truncated.

Local Echo   Check this box to have typed characters displayed on the screen by **TN3270 Plus**. Normally characters are echoed back to your emulated terminal by the remote computer, however, if the remote computer does not echo the characters to the screen you can check this option and **TN3270 Plus** will display typed characters for you.

Scrollback lines   Specify the number of lines to be kept in a buffer to allow scrolling backward.

Null/Space Processing

Overview

Both nulls (X'00') and space characters (X'40') appear as blanks on a display screen. Space characters are transmitted to the host, but nulls are not transmitted as part of the 3270 data stream when modified screen data is sent to the host. Because nulls are not sent to the host, graphic characters may shift positions on the display when the screen is updated by the host.

With null/space processing, nulls are converted to space characters before the data is transmitted. When doing null-to-space conversion, the space will inherit the nulls character attribute. Thus, the converted data appears at the host

the same as it does on the display.

Null/Space Processing on Formatted Screens

Null-to-space conversions are performed only on fields modified by the user. Positioning the cursor within a field does not cause conversions to be performed unless the field is modified by the user. In order to reduce transmission time to the host, nulls that follow the last graphic character in a field are not converted to space characters.

Null/Space Processing on Unformatted Screens

Null-to-space conversions are performed only if the data on the screen is modified by the user. In order to reduce transmission time to the host, nulls that follow the last graphic character on the screen are not converted to space characters.

Using Insert Mode with Null/Space Processing

Null/space processing is especially useful in Insert mode. Without null/space processing, when a character string is followed by blanks to the end of a field, characters could be inserted only if those blanks were actually nulls. Spaces at the end of a field had to be changed to nulls before Insert could be used. With null/space processing, those blanks at the end of a field can be either nulls or spaces. Insert mode works with either.

When null/space processing is active and a character is inserted on an unformatted screen, only the characters between the cursor and the end of the screen are shifted to the right. Characters cannot be wrapped past the end of the screen because null-to-space conversions have already been performed on all nulls before the cursor. In fact, with null/space processing active, all leading nulls and embedded nulls within the text are actually converted to spaces before Insert mode is activated.

Session Setup (Colors Pane)

Setup, Colors... or Setup, Sessions..., Colors

Use the colors pane to change the color scheme for your terminal emulation session.

Color Scheme	Select a color scheme from the drop-down list. The list only displays the color schemes for the terminal type specified on the Terminal Pane.
Save As... button	Save the current color scheme with a new name. Color scheme names are **not** case sensitive.
Delete button	Delete the current color scheme.
Field Attribute	Select the **Field Attribute** you wish to change.
Change	Select either **Foreground color** or **Background color**. Click on the new color in the color selection panel. The new color appears in the sample edit box.
More Colors... button	Click the **More Colors...** button if the color you want is not in the color selection panel.
Reset Color button	Resets the selected **Field Attribute** back to its default color.
Reset All button	Resets all field attributes back to their default colors.

Session Setup (Display Pane)

Setup, Display... or Setup, Sessions..., Display

Use the display pane to change the characteristics of the terminal display.

Screen Font The current screen font is shown in the edit box. Click the adjacent **Change...** button to display the Font dialog box. and make a new font selection.

Scale font to fit terminal window Check this box to have the font size adjust to the window size when you resize the window. If this box is not checked, the font size remains the same when you resize the window. Note: Some fonts are not resizable (for example, fixedsys). This option has no affect if the font cannot be resized.

Normal Cursor Check one of the radio buttons to select the cursor style. Check the Blink check box if you want your cursor to blink. Check the Cross Hair check box of you want a Cross Hair (vertical and/or horizontal rule) added to the cursor.

Insert Mode Cursor Check one of the radio buttons to select the cursor style to use when you switch to insert mode. Check the Blink check box if you want your cursor to blink. Check the Cross Hair check box of you want a Cross Hair (vertical and/or horizontal rule) added to the cursor.

Cross Hair Style Check one of the radio buttons to define the appearance of the cross hair cursor. You may specify horizontal rule only, vertical rule only or both horizontal and vertical rules.

Solid terminal window frame Check this box to have a solid background (instead of the splash screen background) surround the terminal emulation area.

Display attribute characters Check this box to display an at sign (@) in each screen position that contains an attribute byte.

Display blink fields as reverse video Check this box to display fields with the blink attribute in reverse video instead of blinking.

Display operator information area in terminal window Check this box to have the operator information area appear as an additional line in the terminal emulation area.

Font selection dialog box

Select the desired font, font style and font size.

Font drop-down list box	Select a font from the list displayed.
Style drop-down list box	Select a font style from the list displayed.
Font size drop-down list box	Select a font size from the list displayed.
Sample box	Displays a sample of the selected font.
Script drop-down list box	Select a script from the list displayed.

Session Setup (Printer Pane)

Setup, Printer... or Setup, Sessions..., Printer

Use the printer pane to change the printer font and options for your terminal emulation session.

Printer
Select the printer to use for this session. Use the drop-down list box to select a printer. Use the **Page Setup...** button to display the Page Layout dialog box and   change the printer setup for this session.

The **Application Default** printer selection indicates that the session should use the printer defined in application printer setup (Host, Print Setup...).

<<Disk File: append>> indicates print output should be appended to the file specified in the Filename edit box rather than printed. If the file does not exist, it is created.

<<Disk File: incremental>> indicates print output should be sent to a file rather than printed. A new file will be created for each new print job. The file name is created by incrementing a count and inserting it between the file name and extension specified in the File name edit box. (For example, if you specify a file name of test.txt it will generate files called test.000.txt, test.001.txt, etc.)

Filename
(Optional) You must specify **<<Disk File: append>>** or **<<Disk File: incremental>>** in the Printer drop-down list box to enable this edit box. Specify the full path and file name to redirect printed output to a file. Click the **Browse...** button to display the **Select Printer Screen File Name** dialog and choose a file. You may include the current date in the printer file name by including a "$DATE" somewhere in the printer file name. For example, a printer file name of "$DATE Printer.txt" creates a new printer file each day named "YYYY-MM-DD Printer.txt".

Font
The current printer font is shown in the edit box. Click the adjacent **Change...** button to display the Font dialog box. and make a new font selection.

Print Operator Information Area   Check this box to include the operator information area (OIA) in the printed output.

Center Print Screen output on page   Check this box to center print screen output on the page rather than starting to print from the upper left-hand corner of the page.

Scale font width to fit page   Check this box to scale the font horizontally so that is fits on the page.

Monochrome Print Screen   Check this box to print the screen in black and white instead of color or grayscale.

Display Abort dialog while printing   Check this box to display an abort dialog box that allows you to cancel a print screen before it has finished printing.

Send raw data to printer Check this box to send data directly to the printer without formatting. Use this setting if the data contains imbedded printer control commands. This is useful for VT100 or VT220 passthrough printing, 5250 printer sessions or 3270 printer sessions. (VT100, VT220, 3270 printer and 5250 printer sessions only).

Print null lines as blank lines   Check this box to replace null lines with blank lines in printed output. (3270 printer and 5250 printer sessions only).

Suppress initial form feed   Check this box to suppress any form feeds (blank pages) at the beginning of a print job. (3270 printer and 5250 printer sessions only).

Append form feed to end of job Check this box if the "Send raw data to printer" option is used and the raw data does not contain a trailing form feed. (3270 printer and 5250 printer sessions only).

Print Screen Header   (Optional) Specify a header for the print screen output. The header and footer accept the following variables:
$DATE   current locale date   (mm/dd/yy)
$LONGDATE   current locale long date
                     (day month dd, yyyy)
$TIME   current locale time (hh/mm/ss)
$SESSION   current session name

The variable names must be UPPERCASE.
For example - a header of "Sample output $DATE $TIME" would expand to: "Sample output 05/21/00 20:40:52."

Print Screen Footer   (Optional) Specify a footer for the print screen output. The footer accepts the same variables as the header.

Page Layout dialog box

Select page margins and orientation.

Margins

Left	Specify the width of the left margin.
Right	Specify the width of the right margin.
Top	Specify the width of the top margin.
Bottom	Specify the width of the bottom margin.

Orientation

Landscape	Specify landscape.
Portrait	Specify portrait.

Page Size

Rows	Specify the number of lines per page. If this value is set to zero, **TN3270 Plus** will calculate the number of lines per page..
Cols	Specify the number of columns per page.

Session Setup (Keyboard Pane)

Setup, Keyboard... or Setup, Sessions..., Keyboard

Use the keyboard Pane to tailor the PC keyboard and the mouse.

Keyboard Map Name   A default keyboard map is provided for each terminal type supported by **TN3270 Plus**. You may modify the default keyboard map or build your own customized keyboard map(s) by changing the default keyboard map and saving it with a new name. To modify an existing keyboard map or to create a new keyboard map, click the **Configure...** button to display the Keyboard Map Setup dialog box. Once you have created a customized keyboard map, you can select it from the **Keyboard Map Name** drop-down list box.

Type Ahead   The **Buffer Size** edit box contains the size of the type-ahead buffer. You may increase or decrease the size of the type-ahead buffer by changing this value. Check the **Disable** check box to disable the type-ahead buffer support.

Destructive Backspace   Check this box to enable destructive backspace. With destructive backspace enabled, the backspace key will delete a character as it moves the cursor over it. With destructive backspace disabled, the backspace key will not delete a character; it will simply move the cursor (3270 and 5250 sessions only).

Respect numeric fields   Check this box to respect numeric fields. This means that only numeric characters can be typed into 3270 screen fields with the numeric field attribute turned on (3270 sessions only).

Lock keyboard on operator error   Check this box if you want the keyboard locked after a data entry error. Remove the check to prevent locking of the keyboard. The default is unchecked (3270 and 5250 sessions only).

Suppress alarm on operator error   Check this box to suppress the beep if an operator types into a protected field or presses an invalid keyboard combination. The default is unchecked (3270 and 5250 sessions only).

Typematic AID keys   Check this box to make all AID generating keys typematic (repeating). However, the key will only be repeated when the host unlocks the keyboard. This is to prevent the type-ahead buffer from filling up with AID keys while the host is processing the last key (3270 and 5250 sessions only).

Keyboard Setup dialog box

Setup, Keyboard..., Configure... button

Use this dialog box to assign the PC keyboard keys and/or the mouse buttons to the different functions available in **TN3270 Plus**.

Step by Step Instructions for Using the Keyboard Map Setup Dialog Box.

1. Select a **Function Group** from the drop-down list box.

Group	Description
System Commands	The **TN3270 Plus** menu commands.
Terminal Keys	The keys available on the emulated terminal.
Characters	The ASCII characters.
Macros	Keyboard macros.
Scripts	Select a script file.

2. Click on the function you want to change in the function list (double-clicking the function performs the "Add Key..." operation).

   Note: For VT100 and VT220 terminal emulation, you can change the control sequence sent for some functions. See Changing VT100/VT220 Control Sequences for step by step instructions.

3. Click on one of the action buttons.

Button	Action
List by PC Key Assignment…	Displays the PC key assignment dialog box. This dialog displays the assignments in PC Key order making it easy to find what a particular PC key or PC key combination does.
Save As	Create a new keyboard map containing your changes. Type the new keyboard map name into the **Save As** dialog box.
Reset All	Return the current keyboard map to the default keyboard definition.
Reset Group	Return the currently selected function group to the default definitions.
Reset Entry	Return the currently selected function to its default definition.
Clear Entry	Delete all keyboard definitions for the selected function.
Add Key	Add a new keyboard key or mouse button definition for the selected function. See the Restrictions section for a list of keyboard combinations that are not valid for keyboard mapping.

4. Exit the **Keyboard Setup** dialog by clicking on one of the following buttons.

Button	Action
OK	Save any changes and exit the dialog.
Cancel	Exit the dialog without saving any changes.

Session Setup (Toolbars Pane)

Setup, Toolbars... or Setup, Sessions..., Toolbars

Use the toolbars pane to setup the toolbars and status bar for your session.

Standard toolbar	Check this box to display the <u>standard toolbar.</u>
Status bar	Check this box to display the <u>status bar.</u>
Keypad Toolbar	Check this box to display the <u>keypad toolbar.</u>
Keypad Toolbar Name	A default keypad toolbar is provided for each terminal type supported by **TN3270 Plus**. You may modify the keypad toolbar or build your own customized keypad toolbar by changing the default keypad toolbar and saving it with a new name. To modify an existing keypad toolbar or to create a new keypad toolbar, click the **Customize...** button to display the <u>Customize Toolbar dialog box.</u> Once you have created a customized keypad toolbar, you can select it from the **Keypad Toolbar Name** drop-down list box.
Dockable	Check this box to allow the keypad toolbar to be docked with the **TN3270 Plus** window.
Fixed width; number of columns	Specify the number of columns for the keypad toolbar. Specify 0 to make the toolbar dynamically resizable (by dragging its frame).

Customize Toolbar dialog box

Setup, Toolbars..., Customize... button

Use this dialog box to customize your toolbars.

Step by Step Instructions for Using the Customize Toolbar dialog box

1. To add a button to the toolbar, select a button from the **Available buttons** list box and click the **Add ->** button.

2. To remove a button from the toolbar, select a button from the **Toolbar buttons** list box and click the **<-Remove** button.

3. To reposition a button on the toolbar, select a button from the **Toolbar buttons** list box and click the **Move Up** or **Move Down** button.

4. To return to the toolbar the state it was in when the dialog box was opened, click the **Reset** button.

5. When your changes are complete, click the **Close** button to save your changes.

6. (Keypad Toolbar only) The **Save As** dialog box prompts you for a **Keypad Toolbar Name**. Use this name to reference your custom keypad toolbar for use in future sessions. The **Save As** dialog box prompt is not displayed when you right click on the Keypad Toolbar.

Shortcuts:

Right click on the Standard or Keypad Toolbar.

Tips:

Changes to the standard toolbar affect all sessions not just the current session.
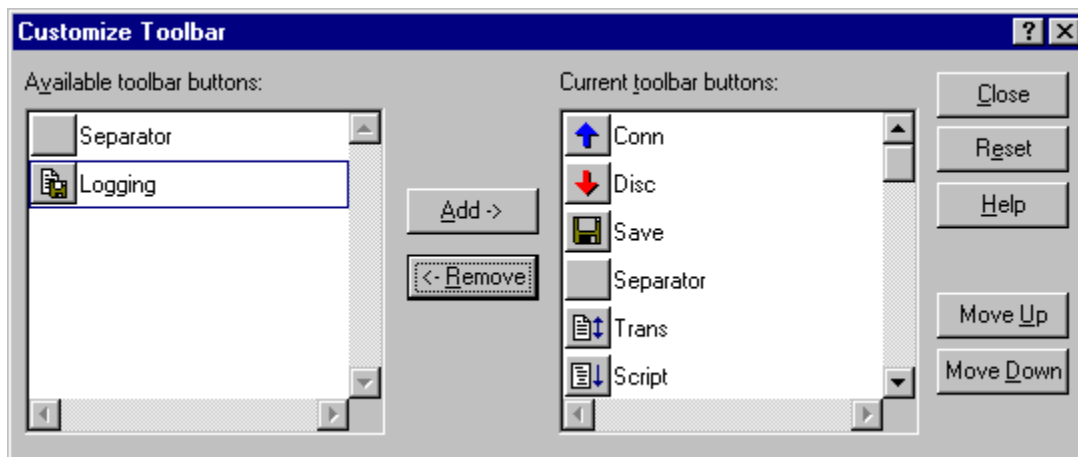
Session Setup (Proxy Server Pane)

Setup, Proxy Server... or Setup, Sessions..., Proxy Server

Use the proxy server pane to configure **TN3270 Plus** to connect to a host computer via a firewall or proxy server.

Connect using proxy server	Check this box if you are connecting via a proxy server.
Use SOCKS V4 Protocol	Check this box if your proxy server uses the SOCKS version 4 protocol.
Use proxy to resolve host names	Check this box if your proxy server is capable of resolving a hostname to an IP address as specified in the SOCKS4A extension protocol (Not common.)
Proxy Name/IP	Enter the host name or IP address of the proxy server.
Proxy Port	Enter the proxy server port number.
Connect Command	This field is used differently for non-SOCKS compliant and SOCKS compliant proxy servers.

For non-SOCKS compliant proxy servers , enter the connection command required by the proxy server. You can use the following variables in your connect command:

$HOST - Replaced with the Host Name from the Host Pane.
$PORT - Replaced with the Port Number from the Host Pane.
<CR> - Sends a carriage return to the proxy server.
<LF> - Sends a line feed to the proxy server.

For example, WinGate, a popular proxy server/firewall, prompts the user for the host name and port number. The following "Connect Command" string works with WinGate:
$HOST:$PORT<CR><LF>

For a SOCKS compliant proxy server, enter the USERID for SOCKS authentication.

WinGate™ is a registered trademark of Deerfield.com (http://wingate.deerfield.com/)

Session Setup (Security Pane)

Setup, Security... or Setup, Sessions..., Security

Use the security pane to configure **TN3270 Plus** to create a secure connection to a host computer.

SSL	Check the radio button for the desired SSL option. "No SSL" is the default. SSLv2 – Secure Socket Layer version 2. SSLv3 – Secure Socket Layer version 3. TLSv1 – Transport Layer Security version 1.
Host will initiate SSL connection (Optional)	If this option is checked, **TN3270 Plus** waits for the host to send the STARTTLS option instead of initiating the SSL handshake immediately after connection.
Display server certificate when connected (Optional)	If this option is checked, **TN3270 Plus** displays the SSL server certificate details and allow you to accept or reject the certificate.

Terminal command (Setup menu)

Setup, Terminal... or Setup, Sessions..., Terminal

Use this command to change the terminal type and terminal options for the current terminal emulation session. This command displays the **Session Setup** dialog box opened to the terminal pane.

Colors command (Setup menu)

Use this command to change the session colors for the current terminal emulation session. This command displays the **Session Setup** dialog box opened to the colors pane.

Display command (Setup menu)

Setup, Display... or Setup, Sessions..., Display

Use this command to change the screen font, cursor style and window options. This command displays the **Session Setup** dialog box opened to the display pane.

Printer command (Setup menu)

Setup, Printer... or Setup, Sessions..., Printer

Use this command to change the printer font and print options. This command displays the **Session Setup** dialog box opened to the printer pane.

Keyboard command (Setup menu)

Use this command to change the keyboard mapping for the current terminal emulation session. This command displays the **Session Setup** dialog box opened to the keyboard pane.

Toolbars command (Setup menu)

Setup, Toolbars... or Setup, Sessions..., Toolbars

Use this command to change the toolbar configuration. This command displays the **Session Setup** dialog box opened to the toolbars pane.

Proxy Server command (Setup menu)

Setup, Pro<u>x</u>y Server... or Setu<u>p</u>, <u>S</u>essions..., Proxy Server

Use this command to configure **TN3270 Plus** to connect to a host computer via a proxy server or firewall.   This command displays the **Session Setup** dialog box opened to the Proxy Server pane.

Security command (Setup menu)

Setup, Security... or Setup, Sessions..., Secuirty

Use this command to configure **TN3270 Plus** to create a secure connection to a host computer.   This command displays the **Session Setup** dialog box opened to the Security pane.

Preferences command (Setup menu)

Setu<u>p</u>, P<u>r</u>eferences...

Use this command to personalize **TN3270 Plus**. This command displays the **Preferences** dialog box, which has the following options:

Default Host Code Page

The edit box indicates the default language code page. The default language code page is used for sessions that have not explicitly specified a code page file (Setu<u>p</u>, <u>S</u>essions..., Host, Code Page). Click the Browse... button to display the <u>Code Page Setup</u> dialog box. To specify a new default language code page from the <u>Code Page Setup</u> dialog box,.select a code page from the drop-down list box or click the <u>B</u>rowse button to choose an *.cpg file.

Application Startup

o   Show Connect dialog box at startup

Check this box to display the **Connect to Host** dialog each time **TN3270 Plus** is started. If **TN3270 Plus** is configured to start sessions automatically, you may choose not to display the **Connect to Host** dialog when **TN3270 Plus** is started.

Application Termination

o   Terminate automatically when the last session closes

Check this box to terminate **TN3270 Plus** when the last session is closed. If this box is not checked, **TN3270 Plus** will remain active and display the splash screen after the last session is closed.

o   Ask for confirmation before terminating if sessions are still connected

Check this box and **TN3270 Plus** asks if you really want to exit while sessions are still active   (H<u>o</u>st, E<u>x</u>it). If this box is not checked, **TN3270 Plus** will terminate while sessions are active.

Session Termination

o   Warn me when the host closes a session

Check this box to display an information dialog box when the host computer closes a session.

o   Ask for confirmation if I close a session

Check this box to display a confirmation dialog box when you try to close a session (H<u>o</u>st, Cl<u>o</u>se).

Full Screen mode

o   Show instructions when going to full screen mode

Check this box to display the <u>Full Screen Mode</u> confirmation dialog box when you switch to full screen mode.

o   Honor session settings for toolbar, status bar and <u>OIA</u>

By default, Full Screen Mode removes the window frame, toolbar and status bar and adds the <u>Operator Information Area (OIA)</u>. Check this box to use your session settings rather than the default Full Screen Mode settings.

o   Display main menu bar

By default, Full Screen Mode removes the menu bar from the display. Check this box to display the menu bar in Full Screen Mode.

Application Window

o   Always on top

Check this box to keep the application window visible even when another application has the focus.

Warning: If this option is set when in Full Screen Mode then no other application windows are accessible until full screen mode is ended.

o   Start each session in a new window

Check this item to start new sessions in their own windows. When this option is checked, a new window is created for each session. When this option is checked, it takes precedence over the session option (Setup, Sessions…, Setup Items = Host, Start in a new window). If this option is not checked, the session option determines whether or not a new window is created.

Code Page Setup dialog box

Use the **Code Page Setup** dialog box to select a host language code page (*.cpg) file. The code page determines the character translations for the keyboard. SDI supplies code pages for many countries. The **Code Page Setup** dialog box contains the following fields:

Drop-down list box	Code page selection list.
File name	File name of the currently selected code page.
Translation table	EBCDIC and ASCII representations for each character in the language code page.

Select a code page from the drop-down list box, or enter the file name of a new code page in the File name edit box, or click the **Browse** button and select a new code page from the **Select Code Page File** dialog box.

The SDI-supplied code pages must never be modified. If you need to tailor a code page to meet your needs, make a copy of the SDI code page file that is closest to what you need. Modify your copy of the code page to fit your needs with a word processor. Save it with a unique name. You may now select your code page just as you would select one of the SDI-supplied code pages.

Full Screen Mode dialog box

View, Full Screen

The **Full Screen Mode** dialog box is optionally displayed when switching **TN3270 Plus** from window mode to full screen mode. The **Full Screen Mode** dialog box contains the following:

Instructions for returning to window mode and a brief discussion of the Full Screen Mode options.

o   Honor session settings for toolbar, status bar and OIA

By default, Full Screen Mode removes the window frame, toolbar and status bar and adds the Operator Information Area (OIA). Check this box to use your session settings rather than the default Full Screen Mode settings.

o   Display main menu bar

By default, Full Screen Mode removes the menu bar from the display. Check this box to display the menu bar in Full Screen Mode.

o   Show this reminder next time

Check this box to display this dialog each time you switch to Full Screen Mode.   Removing the check from this box suppresses the appearance of the **Full Screen Mode** dialog box. The appearance of the **Full Screen Mode** dialog box can also be suppressed by removing the check from the "Show instructions when going to full screen mode" check box in the **Preferences** dialog box (Setup, Preferences).

Trace Socket command (Setup menu)

Setup, Trace Socket...

Use this diagnostic command to trace socket activity. Normally you will not use this command unless requested to do so by SDI technical support.

To run a trace, perform the following steps:

1. Start **TN3270 Plus**.
2. Start the trace.
   a) Open the **TN3270 Plus Setup** menu and click on **Trace Socket...**
   b) In the **Select Trace File Name** dialog box, specify a name for the trace file and note the folder that it is in.
3. Connect to the host computer and run the failing application.
4. Stop the trace. Open the **TN3270 Plus Setup** menu and click on **Trace Socket...**
5. E-mail the trace file and a description of the problem to trace@sdisw.com.

Start Recording command (Macros menu)

Macros, Start Recording

Use this command to start the macro recorder. The macro recorder records your keystrokes so they can be replayed later.

For a tutorial on the macro recorder, see Using the Macro Recorder.

System Command:

MacroStartRecording

Stop Recording command (Macros menu)

Macros, Stop Recording

Use this command to stop the macro recorder.   After clicking **Stop Recording,** the **Save As** dialog box prompts you for a macro name. Enter a macro name and click the **OK** button to save the macro.

For a tutorial on the macro recorder, see Using the Macro Recorder.

System Command:

MacroStopRecording

Replay command (Macros menu)

Use this command to replay a macro. Move your mouse over the **Replay** menu item and a second level menu of macros is displayed. Click on the macro you want to play.

For a tutorial on the macro recorder, see Using the Macro Recorder.

Edit command (Macros menu)

Macros, Edit

Use this command to edit a macro. Move your mouse over the **Edit** menu item and a second level menu of macros is displayed. Click on the macro you want to edit.   The Macro Editor dialog box is displayed.

For a tutorial on the macro recorder, see Using the Macro Recorder.

Macro Editor dialog box

Use the **Macro Editor** to modify a recorded macro. Macros consist of text and keyboard function keys. Text is typed into the current session when the macro is played. Keyboard function keys are represented by the function key name enclosed in a less than and greater than sign pair **<*keyname* >**. For example, the enter key appears in a macro as follows:

<Enter>

The dialog box contains the following fields:

Macro definition:	The recorded keystrokes. You may edit the macro definition. Terminal keys are inserted by enclosing the terminal key name in a less than and greater than sign pair (<>), for example, **<enter>** or **<tab>.** Plain text is typed into the macro without the less than and greater than sign pair (<>). If it is necessary to enter a less than sign < in plain text then two less than signs must be entered <<, for example, **0 << 1**. This is to distinguish a plain text less than sign from the less than sign that introduces a function key.
Use terminal emulation keys	When this box is **not** checked, edit text in the macro definition as you would text in any edit box. You must manually enclose a terminal key name in a less than and greater than sign pair (<>).

When this box is checked, your keystrokes are recorded in the macro definition as terminal keys at the current cursor location. This option honors the terminal keyboard configuration for the current session. |
OK	Click the **OK** button to save your changes.
Save As...	Save the current macro with a new name.
Cancel	Close the **Macro Editor** dialog without saving any changes.
Help	Display the help for the **Macro Editor** dialog.

It is possible to pause macro execution if the macro needs to wait for a host response before continuing. To pause the macro, enter a one or more commas enclosed in a less than and greater than sign pair (<>). Each comma indicates a 1 second pause. For example the following will pause a macro for 2 seconds:

<,,>

The macro recorder does not insert pauses. If pauses are needed, you must enter them manually.

Delete command (Macros menu)

Macros, Delete, *macro name*

Use this command to delete a macro. Move your mouse over the **<u>D</u>elete** menu item and a second level menu of macros is displayed. Click on the macro you want to delete.

For a tutorial on the macro recorder, see Using the Macro Recorder.

Assign Key command (Macros menu)

Macros, Assign Key, *macro name*

Use this command to assign a keyboard shortcut to a macro.

Use the following steps to assign a shortcut key:

1. Move your mouse over the **Assign Key** menu item and click on a macro in the second level menu.

2. The **Type Key** dialog box is displayed.

3. Type the desired key combination or position the mouse over the instructional text and click a mouse button. (You can use a combination that includes a keyboard key and a mouse click.)

4. Click the **OK** button to complete the key assignment.

5. Click the **Retry** button to clear any current setting so that you can select a different key combination.

6. Click the **Cancel** button to exit the **Type Key** dialog box without making an assignment.

For a tutorial on the macro recorder, see Using the Macro Recorder.

Finger command (Internet menu)

Use this command to retrieve information about a user from a remote host. Specify the following information in the **Finger** dialog box:

Step by Step Instructions for Using Finger

1. Open the **Internet** menu; click on **Finger...**

2. Fill in the **Finger** dialog box.

    User   Enter the name of   the user you
                      wish to query.

    Host   Enter the host name or IP address
                      of the remote user you wish to
                      query.

3. Click the **Finger** button to begin the retrieval. Details about the user will appear in the list box.

Tip:

You may continue to work in your **TN3270 Plus** sessions while the Finger command is processing.

Whois command (Internet menu)

Internet, Whois...

Use this command to look up a user name in the Internet registry.

Step by Step Instructions for Using the Whois command

1. Open the **Internet** menu; click on **Whois...**

2. Fill in the **Whois** dialog box.

   Host name   Enter the host domain name or IP address
   or IP   of the Internet registry.
   address   RS.INTERNIC.NET is supplied by default.

   User   Enter the name of the user that you wish
                      to look up.

3. Click the **Start** button to begin the retrieval. Any data about the user contained in the Internet registry will appear in the list box.

Tip:

You may continue to work in your **TN3270 Plus** sessions while the Whois command is processing.

CheckMail command (Internet menu)

Internet, CheckMail...

Use this command to find out if you have received any new e-mail.

Step by Step Instructions for Using CheckMail

1. Open the **Internet** menu; click on **CheckMail...**

2. Fill in the **CheckMail** dialog box.

POP3 Host name or IP address	Enter the host name or IP address of your POP3 mail server.
User	Enter your POP3 mail server user name.
Password	Enter your POP3 mail server password.
Save Password	Place a check in this box to save an encrypted version of your password, so that you do not need to enter it again, even if you exit and restart **TN3270 Plus**.
Check for new mail every ?? minutes	If you wish CheckMail to query for new mail periodically, enter the number of minutes between queries in the spin control and minimize the **CheckMail** dialog box.

3. Click the **Start** button to begin the retrieval. The result of the POP3 query will appear in the list box.

Tip:

You may continue to work in your **TN3270 Plus** sessions while the CheckMail command is processing.

Ping command (Internet menu)

Internet, Ping...

Use this command to test an Internet connection. The Ping command sends the specified number of data packets to the specified host. If the host responds, **TN3270 Plus** prints the response time in the response list box in the **Ping** dialog box.

Step by Step Instructions for Using the Ping command

1. Open the **Internet** menu; click on **Ping...**

2. Fill in the **Ping** dialog box.

   Host name   Enter the host name or IP address of the
   or IP   remote computer.
   address

3. Specify the number of packets, the number of data bytes per packet, and the timeout value (in seconds).

4. Click the **Start** button to begin the retrieval.

Tip:

You may continue to work in your **TN3270 Plus** sessions while the Ping command is processing.

DNS Lookup command (Internet menu)

Use this command to get an IP address or a host name from the Domain Name Server. If you enter a host name, **TN3270 Plus** returns the IP address. If you enter an IP address, **TN3270 Plus** returns the host name.

Step by Step Instructions for Using the DNS Lookup command

1. Open the **Internet** menu; click on **DNS Lookup**.

2. Fill in the **DNS Lookup** dialog box.

Host name	Enter the host domain name or IP address of a remote computer.

3. Click the **Lookup** button. The host domain name and IP address are returned in the response list box.

Tip:

You may continue to work in your **TN3270 Plus** sessions while the DNS Lookup command is processing.

Help Topics (Help menu)

Help, Help Topics

Use this command to display the contents of the **TN3270 Plus** Help file.   From the opening screen, you can jump to step-by-step instructions for using **TN3270 Plus** and various types of reference information.

Once you open Help, you can click the Contents button whenever you want to return to the opening screen.

About TN3270 Plus... (Help menu)

Help, About TN3270 Plus...

Use this command to display the copyright notice, version number and build date of your copy of **TN3270 Plus**.

Registration Form (Help menu)

Use this command to display the **TN3270 Plus** Registration Form in the help file. The registration form contains instructions for registering **TN3270 Plus**.

Purchase Online (Help menu)

Help, Purchase Online

Use this command to purchase **TN3270 Plus** with a credit card (Visa, MasterCard, American Express, Eurocard or Optima) via the Internet. This command opens your default web browser to the **TN3270 Plus** order instructions, http://www.sdisw.com/tn3270reginst.himl

DDE

DDE Keystroke Table

Host Function Key	Mnemonic*	3270	5250	VT100
@	@@	x	x	
Alt	@A			
Attention	@A@Q	x	x	
Backspace	@<	x	x	x
Backtab (Left Tab)	@B	x	x	x
Clear	@C	x	x	x
Cursor Down	@V	x	x	x
Cursor Left	@L	x	x	x
Cursor Right	@Z	x	x	x
Cursor Select	@A@J	x	x	
Cursor Up	@U	x	x	x
Delete	@D	x	x	x
Dup	@S@x	x	x	
End	@q	x	x	x
Enter	@E	x	x	x
Erase EOF	@F	x	x	
Erase Input	@A@F	x	x	
Field Exit	@A@E		x	
Field Mark	@S@y	x	x	
Field -	@A@-		x	
Field +	@A@+		x	
Help	@H		x	
Home	@0 *(zero)*	x	x	x
Insert	@I	x	x	x
Insert Toggle	@A@I	x	x	
Host Print	@P		x	
Left Tab (Backtab)	@B	x	x	
New Line	@N	x	x	x
Page Up	@u		x	x
Page Down	@v		x	x
Record Backspace	@A@<		x	
Right Tab (Tab)	@T	x	x	x
Shift	@S			
Sys Request	@A@H	x	x	
Tab (Right Tab)	@T	x	x	x
Test	@A@C	x	x	
PA1	@x	x		
PA2	@y	x		
PA3	@z	x		
PF1/F1	@1	x	x	x
PF2/F2	@2	x	x	x
PF3/F3	@3	x	x	x
PF4/F4	@4	x	x	x
PF5/F5	@5	x	x	x
PF6/F6	@6	x	x	x
PF7/F7	@7	x	x	x
PF8/F8	@8	x	x	x
PF9/F9	@9	x	x	x
PF10/F10	@a	x	x	x
PF11/F11	@b	x	x	x
PF12/F12	@c	x	x	x
PF13	@d	x	x	x
PF14	@e	x	x	x
PF15	@f	x	x	x
PF16	@g	x	x	x
PF17	@h	x	x	x

```
PF18              @i              x         x         x
PF19              @j              x         x         x
PF20              @k              x         x         x
PF21              @l              x         x         x
PF22              @m              x         x         x
PF23              @n              x         x         x
PF24              @o              x         x         x
```

 * Note: The DDE keystroke mnemonics are case sensitive!

DDE Functions

The following DDE functions are supported.

Connect	**Topic=tn3270, Service=**_session name_	
Request	**Item=PS**	returns the presentation space (screen image)
	Item=Cursor	returns the cursor position (relative to 1)
	Item=Rows	returns the number of rows in the presentation space
	Item=Columns	returns the number of columns in the presentation space
	Item=Emulator	returns the window handle of the **TN3270 Plus** window
	Item=Keyboard	returns "Locked" if the keyboard is locked or else it returns "Clear"
	Item=OIA	returns the Operator Information Area (note that this is NOT in IBM format)
	Item=Rnn	returns the nth row in the presentation space
	Item=Fnn	returns the nth field in the presentation space
	Item=FnnU	returns the nth unprotected field in the presentation space
	Item=FnnP	returns the nth protected field in the presentation space
	Item=Pnnn[F|Lmmm]	returns a portion of the presentation space. **P** = Identifier for starting position **nnn** = starting position on screen (relative to 1) **F** = return entire field at the starting position
		L = Identifier for length
		mmm = length of data to return
		Examples: **P560** returns screen data from position 560 to the end of the field. **P560F** returns the entire field encompassing position 560. **P560L80** returns data from position 560 for a length of 80 characters.
Poke	**Item=Keystroke**	sends one or more keystrokes to **TN3270 Plus** (same format as WinHLLAPI). See the Keystroke Table for a list of all the keystrokes.
	Item=Cursor	moves the cursor position (relative to 1)
	Item=EscChar	sets the escape character for Item=Keystroke (default is '@')
Advise	**Item=PS**	sends the presentation space to the client whenever it is updated
	Item=Cursor	sends the cursor position to the client whenever it is updated

Default Keyboard Maps

Default 3270 Keyboard Map

3270 Key	PC Key Assignment	Description
Attn	Alt+A	
Backspace	Bksp	
Backtab	Shift+Tab	
CentSign	Shift+Alt+4	
Clear	Pause, Esc, Alt+C	
CursorDown	Down	move cursor down
CursorLeft	Left	move cursor left
CursorMove	MouseLeftClick	move the cursor to the mouse location
CursorRight	Right	move cursor right
CurorSelect	MouseLeftDoubleClick	for light pen detectable fields
CursorUp	Up	up arrow
Delete	Del, NumDel	
Dup	Alt+D	
EditSelectionDown	Shift+Down	select for cut or copy
EditSelectionLeft	Shift+Left	select for cut or copy
EditSelectionRight	Shift+Right	select for cut or copy
EditSelectionUp	Shift+Up	select for cut or copy
EditSelectWord		select a word for cut or copy
Enter	Enter, NumEnter, RightCtrl	
EraseEof	Shift+End, Shift+NumEnd	
EraseInput	Shift+Del, Shift+NumDel	
FastCursorDown	NumDown	move cursor rapidly down
FastCursorLeft	NumLeft	move cursor rapidly left
FastCursorRight	NumRight	move cursor rapidly right
FastCursorUp	NumUp	move cursor rapidly up
FieldEnd	End, NumEnd	
FieldMark	Alt+F	
Home	Home, NumHome	
Hotspot		activate Hotspot support
Insert	Ins	
InsertOn	NumIns	
Newline	Shift+Enter, Shift+NumEnter	
PA1	Alt+F1, PageUp, NumPageUp	
PA2	Alt+F2, PageDown, NumPageDown	
PA3	Alt+F3	
PF1 - PF6	F1 - F6	
PF7	F7, Shift+PageUp, Shift+NumPageUp	
PF8	F8, Shift+PageDown, Shift+NumPageDown	

PF9 - PF12	F9 - F12	
PF13 - PF24	Shift+F1 - Shift+F12	
Reset	Left Ctrl, Alt+R	
SystemRequest	Alt+S	
Tab	Tab	
TestRequest	Alt+T	
ToggleCrossHairCursor	Alt+X	

Entry Assist

WordDelete	Alt+Del	Delete a word.
WordLeft	Alt+Left	Move Cursor to the next word
WordRight	Alt+Right	Move Cursor to the previous word

Default 5250 Keyboard Map

5250 Key	PC Key Assignment	Description
Attn	Alt+A	
Backspace	Bksp	
Backtab	Shift+Tab	
CentSign	Shift+Alt+4	
Clear	Esc, Alt+C	
CursorDown	Down	move cursor down
CursorLeft	Left	move cursor left
CursorMove	MouseLeftClick	move the cursor to the mouse location
CursorRight	Right	move cursor right
CursorSelect	MouseLeftDoubleClick	for light pen detectable fields
CursorUp	Up	move cursor up
Delete	Del, NumDelete	
Dup	Alt+D	
EditSelectionDown	Shift+Down	select for cut or copy
EditSelectionLeft	Shift+Left	select for cut or copy
EditSelectionRight	Shift+Right	select for cut or copy
EditSelectionUp	Shift+Up	select for cut or copy
EditSelectWord		select a word for cut or copy
Enter	Enter, RightCtrl	
EraseEof	Shift+End, Shift+NumEnd	
EraseInput	Shift+Del, Shift+NumDel	
ErrorReset	LeftCtrl	
FastCursorDown	NumDown	move cursor rapidly down
FastCursorLeft	NumLeft	move cursor rapidly left
FastCursorRight	NumRight	move cursor rapidly right
FastCursorUp	NumUp	move cursor rapidly up
FieldEnd	End, NumEnd	
FieldExit	NumEnter	
FieldMark	Alt+F	
FieldMinus	Num-	Keypad minus sign
FieldPlus	NumAdd	
F1 - F12	F1 - F12	
F13 - F24	Shift+F1 - Shift+F12	
Help	Pause	
Home	Home, NumHome	
Hotspot		activate Hotspot support
Insert	Ins, NumIns	
InsertOn		
Newline	Shift+Enter	
PA1		
PA2		
PA3		
Print		
RollDown/PageUp	PageUp, NumPageUp	
RollUp/PageDown	PageDown, NumPageDown	
SystemRequest	Alt+S	

Tab	Tab	
ToggleCrossHairCursor	Alt+X	

Entry Assist

WordDelete	Alt+Del	Delete a word.
WordLeft	Alt+Left	Move Cursor to the next word
WordRight	Alt+Right	Move Cursor to the previous word

Default VT100/VT220 Keyboard Map

VT100/VT220 Key	PC Key Assignment	Description
Backspace	Bksp	
Backtab		
Clear		
CursorDown	Down	
CursorDownApplMode	Alt+Down	
CursorLeft	Left	
CursorLeftApplMode	Alt+Left	
CursorRight	Right	
CursorRightApplMode	Alt+Right	
CursorUp	Up	
CursorUpApplMode	Alt+Up	
Delete	Del	
EditSelectionDown	Shift+Down	select for cut or copy
EditSelectionLeft	Shift+Left	select for cut or copy
EditSelectionRight	Shift+Right	select for cut or copy
EditSelectionUp	Shift+Up	select for cut or copy
EditSelectWord		select a word for cut or copy
Enter	Enter	
Escape	Esc	
Hotspot		activate Hotspot support
Keypad0 to Keypad9	Num0 to Num9	
Keypad0ApplMode	NumIns	
Keypad1ApplMode	NumEnd	
Keypad2ApplMode	NumDown	
Keypad3ApplMode	NumPageDown	
Keypad4ApplMode	NumLeft	
Keypad5ApplMode	NumCenter	
Keypad6ApplMode	NumRight	
Keypad7ApplMode	NumHome	
Keypad8pplMode	NumUp	
Keypad9ApplMode	NumPageUp	
KeypadComma	NumAdd	
KeypadCommaApplMode	Shift+NumAdd	
KeypadDecimal	Num.	
KeypadDecimalApplMode	NumDel	
KeypadEnter	NumEnter	
KeypadEnterApplMode	Shift+NumEnter	
KeypadMinus	Num-	
KeypadMinusApplMode	Shift+Num-	

LineFeed	Shift+Enter
Null	Ctl+Space
PF1	F1
PF2	F2
PF3	F3
PF4	F4
ScrollLineUp	Ctl+Up
ScrillLineDown	Ctl+Down
ScrollPageUp	Ctl+PageUp
ScrollPageDown	Ctl+PageDown
ScrollHome	Ctl+Home
ScrollEnd	Ctl+End
Tab	Tab
ToggleCrossHairCursor	Alt+X
F1 - F4	Ctl+F1 - Ctl+F4
F5 - F12	F5 - F12
F13 - F20	Shift+F1 - Shift+F8
F21- F60	
UDK1-UDK20	Keys for user definition.
Home(Find)	Home
End(Select)	End
Insert	Ins
Del(VT220)	Shift+Del
PageUp	PageUp
PageDown	PageDown

TelnetAbortOutput
TelnetAreYouThere
TelnetBreak
TelnetEraseCharacter
TelnetEraseLine
TelnetInterruptProcess

Standard Toolbar

The standard toolbar is displayed across the top of the application window, below the menu bar. The toolbar provides quick mouse access to many tools used in **TN3270 Plus**.

To hide or display the standard toolbar: Choose **Standard Toolbar** from the **View** menu (ALT, V, T).

Customize:

You can customize the standard toolbar by opening the **Setup** menu and selecting **Standard Toolbar...** or right clicking on the standard toolbar.

| Click	To…
	Connect to a host computer. Select the host computer in the Connect to Host dialog box.
	Disconnect the current session from the host computer.
	Save the screen image to the active log file.
	Transfer a file to or from the host computer. File transfers are only supported for 3270 sessions.
	Run a script.
	Turn terminal activity logging on or off. This button is optional and my be added using the **Customize Toolbar** dialog box (Setup, Toolbars…, Customize… button).
	Delete selected data from the screen and move it to the clipboard.
	Copy selected data from the screen to the clipboard.
	Insert the contents of the clipboard at the current cursor location.
	Switch into or out of Full Screen mode.
	Print the terminal screen.
	Select a new font.
	Make the current font larger.
	Make the current font smaller.
	Switch to the session number on the button.

Keypad Toolbar

View, Keypad Toolbar

The keypad toolbar is a floating (or dockable)   toolbar that contains the function keys for the current terminal emulation session. This toolbar provides quick mouse access to the terminal function keys.

- To hide or display the keypad toolbar, choose **Keypad Toolbar** from the **View** menu (ALT, V, K).

- To change the keypad toolbar options (dockable, number of columns) choose **Toolbars...** from the **Setup** menu.

- You can customize the keypad toolbar by opening the **Setup** menu, selecting **Toolbar...** and clicking the keypad toolbar **Customize...** button, or by right clicking on the keypad toolbar.

Status Bar

| Ready | | 00:00.340 | 31,01 | IBM-3278-3-E | | NUM | REC |
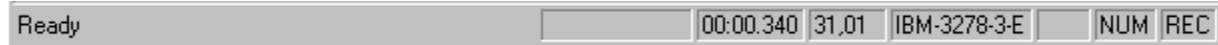
The status bar is displayed at the bottom of the **TN3270 Plus** window.   To display or hide the status bar, use the **Status Bar** command in the **View** menu.

The following table describes each of the fields on the status bar.

Field	Description
Message Area	This area contains messages to help you use **TN3270 Plus**. A few of the uses follow: 1. Displays the URL address for the current connection. 2. Displays the line number of each line in a script as the script executes. 3. Describes actions of menu items as you use the arrow keys or the mouse to navigate through the menus.
SSL indicator	The SSL padlock icon appears in this field for SSL connections. Double-click the padlock icon to display the server certificate.
Keyboard State	Displays keyboard status. The following summarizes the keyboard status symbols:

X *aid_key*	An AID generating key was pressed.	
X PROG*nnn*	Program check - a programming error was detected in the data from the host.	
X SYSTEM	The host system locked the keyboard.	
X <0>	Go Elsewhere - the cursor must be moved. It is in a protected field and an attempt has been made to enter, insert, erase or delete a character.	
X ?+	Not accepted - the last input was not accepted	
X -f	Not available - the requested function is not available.	
X NUM	Numeric - an attempt was made to enter non-numeric data into a numeric-only field.	
MSG	Message waiting (5250 only)	

Field	Description
Response Time	The elapsed time of the last command or function in **mm:ss.sss** format.
Cursor Location	Displays the cursor location in **row,column** format.
Terminal Type	Displays the terminal type. This is the terminal type used internally by telnet, this type is not always the same as the terminal name used by terminal manufacturers, so the terminal type may not match the name you selected in the **Connect to Host** dialog box.
CAPS Indicator	Displays "CAPS" when the Caps Lock key is latched down.
NUM Indicator	Displays "NUM" when the Num Lock key is latched down.

REC Indicator   Displays "REC" and blinks when a macro is being recorded.

Operator Information Area

`TA█                    3:Mainframe                    03,01   00:00.209 22:39 6/14/00`

The Operator Information Area (OIA) is displayed at the bottom of the **TN3270 Plus** terminal emulation area.   To display or hide the OIA, use the **Operator Information Area** command in the **View** menu.

The following table describes each of the fields in the OIA.

Field	Description

System Connection Information	Displays the system connection status. In the form:
	Tyz
	
	Where:
	T indicates a TCP/IP connection
	y is either "A" or "B".
	    A Connected in non-TN3270E mode.
	    B Connected in TN3270E mode.
	z is either "!" or "@"
	    ! Working with SSCP (SSCP-LU mode).
	    @ Working with host application (LU-LU mode).

Message Indicator	MSG - message waiting (5250 only)
Keyboard State	Displays keyboard status. The following summarizes the keyboard status symbols: X *aid_key* An AID generating key was pressed. X PROG*nnn* Program check - a programming error was detected in the data from the host. X SYSTEM The host system locked the keyboard. X <0> Go Elsewhere - the cursor must be moved. It is in a protected field and an attempt has been made to enter, insert, erase or delete a character. X ?+ Not accepted - the last input was not accepted X -f Not available - the requested function is not available. X NUM Numeric - an attempt was made to enter non-numeric data into a numeric-only field.
Session number	The session number of the currently displayed session.
Session name	The session name of the currently displayed session.
Insert mode indicator	Displays a caret (^) when in insert mode.
Cursor Location	Displays the cursor location in **row,column** format.
Response Time	The elapsed time of the last command or function in **mm:ss.sss** format.
Time	Displays the time in **hh:mm** format.
Date	Displays the date in **mm:dd:yy** format.

Script Commands

The following is a list of script commands. For an introduction to writing a script and the script command syntax see Using the Scripting Language.

Command	Description
AskFor	display a dialog box requesting user input. AskFor "Enter your name and click OK"
command	issue a command in the Windows command environment. command "rename test.txt test1.txt"
Connect	connect to a host using a named session. Connect "Host 1"
CursorTo	move the cursor to the specified location. CursorTo 1,1
EditSelect	select data for cut and copy. EditSelect 1,1,15,80
Exit	exit the script. Exit
FileSpec	specify the file to be used in a HostSave, HostPrintScreen, HostEnableLogging or EditSaveClipboard command. FileSpec log,c:\tn3270.log

FileTransfer	initiate a file transfer.
	    FileTransfer operation=receive,
	      pcfile=e:\download\testfile.txt,
	      hostfile="testfile upload a",
	      opsys=vm/cms,
	      pcoptions=prompt,
	    options="ascii crlf"

global	define global variable(s). global $USERID
goto	branch to a label in the script file. goto LABEL1:
include	call another script file. include c:\TN3270\script.txt
key	simulate a function key. key enter
run	run an application. run c:\program\text.exe
RunDirectory	specify the working directory for a program started by the "run" command. RunDirectory c:\program\data
session	switch to another active session. session 2
SetVar	initialize a variable. SetVar $NAME,"Sam Spade"
SSLConnect	begin an SSL connection. SSLConnect SSLv3
type	"type" characters into the session terminal.

type "sample text"

wait   wait for the specified number of milliseconds.
                        wait 2000

WaitFor   wait until the specified text string appears in the host
                        session.
                            WaitFor USERID

                        Or, wait until one of several specified text strings appears in
                        the host session. When one of the text strings is found,
                        branch to the specified label.
                            WaitFor RECON,LABEL1:,Ready,LABEL2:

AskFor - display a dialog box that asks the user for input

AskFor   "message text"[,password][,$variable][,"default data"]

Where:

   message text   is text telling the user what to enter into the AskFor dialog
                         box.
   password   an optional keyword that indicates asterisks (*) are
                         displayed rather than the text the user types into the
                         AskFor dialog box.
   $variable   an optional variable name. The data the user types into
                         the **AskFor** dialog box is associated with this variable
                         instead of typed on the screen. If the variable already
                         contains data and no default data is specified on the
                         AskFor command; the variable data appears as the
                         default data in the edit box within the AskFor dialog.
   default data   this text appears in the edit box within the AskFor dialog.
                         The user can accept this data by pressing enter or change
                         it by typing over it.

The **AskFor** command displays a dialog box requesting information from the user. The **AskFor** dialog box displays
the message text and the user accepts the default data or types the requested data into the edit box. When the user
clicks the **OK** button the characters from the edit box are typed into the session or placed in the optional $variable.
The **AskFor** command is a good way to provide additional information to lead inexperienced users through a
process.

Examples:

   AskFor   "Enter your userid and then click OK",John
   AskFor   "Enter your last name and click OK",Doe
   AskFor   "Enter your password",password
   AskFor   "Enter your name",$NAME,"John Doe"

The following script asks the user for logon information.

   Askfor   "Enter your userid and click OK"
   key   tab
   AskFor   "Enter your password and click OK",password
   key   enter
   exit

Command - issue a command in the Windows command environment

command   {command | $variable}

Where:

    command   is a command to be issued in the Windows command environment. Enclose the command in double quotation marks ("") if it contains embedded spaces, tabs or commas.

    $variable   is a variable. The text defined for the variable is substituted for the variable name and used as the command parameter.

The **command** script command allows Windows commands to be executed from within a script.

Examples:

```
command   "rename test.txt test1.txt"
command   "delete c:\test1.txt"
command   dir
command   $COMMAND
```

Connect - connect to a host using a named session

Connect   {"session name" | $variable}

Where:

session name	is the name of a session. session names are case sensitive. Enclose the session name in double quotation marks ("") if it contains embedded spaces or commas.
$variable	is a variable. The text defined for the variable is substituted for the variable name and used as the command parameter.

The **Connect** command connects the specified named session. Session names can be created and saved in the **Connect to Host** dialog box. The Session Name group box in the **Connect to Host** dialog box contains a drop-down list of the named sessions. Open the **Host** menu and select **Connect...** to display the **Connect to Host** dialog box. The **Connect** command starts the new session in the next available session.

Examples:

```
Connect   "Host 1"
Connect "Host 2"
Connect   Host_2
Connect   $SESSION
```

The following script connects the Host 2 named session.

```
Connect            "Host 2"
exit
```


CursorTo - move the cursor

CursorTo   {row | $variable},{column | $variable}

Where:

row	is the row number.
column	is the column number.
$variable	is a variable. The text defined for the variable is substituted for the variable name and used as the command parameter.

The **CursorTo** command moves the cursor to the specified row and column. The upper left-hand corner of the screen is row 1 column 1.

Examples:

```
CursorTo     1,1
CursorTo     24,80
CursorTo     $ROW,$COLUMN
```

Restrictions:

CursorTo is not supported for ANSI and VTxxx terminal emulation.

EditSelect - select data for cut and copy

EditSelect   {top | $var},{left | $var},{bottom | $var},{right | $var}

Where:

top	is the first row of the selection rectangle.
left	is the left column of the selection rectangle.
bottom	is the last row of the selection rectangle.
right	is the right column of the selection rectangle.
$var	is a variable. The text defined for the variable is substituted for the variable name and used as the command parameter.

The **EditSelect** command selects data in the specified rectangle.   The selected data may be moved to the clipboard or a file using the following commands:

```
Key EditCopy
key EditCopyAppend
Key EditCut
Key EditCutAppend
Key EditSaveClipboard
```

Examples:

```
EditSelect    1,1,10,80
EditSelect    24,1,24,80
EditSelect    $TOP,$LEFT,$BOTTOM,$RIGHT
```

The following script copies screen data to the clipboard and then saves the data to a file.

```
EditSelect       1,1,5,80
key              EditCopy
FileSpec         clipboard,c:\ClipboardData.txt",append
key              EditSaveClipboard
exit
```

Exit - exit the script

exit

The **exit** command terminates a script. The exit command has no parameters.

Example:

    exit

FileSpec - specify the file for a HostSave or HostPrintScreen command

FileSpec {log | printer | clipboard, } "filename" [,append]

Where:

log	indicates a log file specification for the HostSave or HostEnableLogging system commands.
printer	indicates a printer file specification for the HostPrintScreen system command.
clipboard	indicates a file specification for the EditSaveClipboard system command.
filename	is the full filename, including drive letter and path name for the output file.
append	append output to an existing file.

The **FileSpec** command defines the disk output files for **TN3270 Plus** system commands.

The "FileSpec log" command directs the terminal session activity to the specified output file when logging is enabled (HostEnableLogging). The HostSave system command output is also directed to the specified file. The HostSave system command can be issued with the script command "key HostSave."

The "FileSpec printer" command directs PrintScreen system command output to a disk file. The HostPrintScreen system command can be issued with the script command "key HostPrintScreen." To reset output to the printer use the following:

FileSpec printer,""

The "FileSpec clipboard" command directs EditSaveClipboard system command output to the specified file The EditSaveClipboard command can be issued with the script command "key EditSaveClipboard."

Examples:

FileSpec log,"c:\test.log",append
FileSpec printer,"c:\printer.txt"
FileSpec clipboard,"d:\Clipboard.txt",append

The following script defines c:\test.log" as the current log file and then saves the current screen to the log file.

FileSpec   log,"c:\test.log"
key   HostSave
exit

FileTransfer - initiate a file transfer

PC to Host:

FileTransfer   Operation={send | $variable},
                        PcFile={PC filename | $variable},
                        HostFile={Host filename | $variable},
                        Opsys={vm/cms | cics | mvs/tso | $variable},
                        [Blksize={blksize | $variable},]
                        [Lrecl={lrecl | $variable},]
                        [Recfm={default | fixed | variable | undefined |

$variable},]
[Mode={WSF | ScreenImage | $variable},]
[BufferSize={ buffsize | $variable},]
[Language={language | $variable},]
[Options={options | $variable},]
[Program={program | $variable}]

Host to PC:

FileTransfer Operation={receive | $variable},
 PcFile={PC filename | $variable},
 HostFile={Host filename | $variable},
 Opsys={vm/cms | cics | mvs/tso | $variable},
 PCOptions={replace | append | prompt |
 $variable},
 [Mode={WSF | ScreenImage | $variable},]
 [BufferSize={buffsize | $variable},]
 [Language={language | $variable},]
 [Options= {options | $variable},]
 [Program={program | $variable}]

Where:

$variable	is a variable. The text defined for the variable is substituted for the variable name. A variable may be used in place of any of the FileTransfer command keyword parameters.
send	send a file from the PC to the session host computer (upload). This parameter is not case sensitive.
receive	move a file from the session host computer to the PC (download). This parameter is not case sensitive.
PC filename	is the full filename, including drive letter and path, of a PC file. Enclose the PC filename in double quotation marks ("") if it contains embedded spaces or commas.
Host filename	is the name of a file on the host computer. Enclose the Host filename in double quotation marks ("") if it contains embedded spaces or commas.
vm/cms	cics	mvs/tso	is the operating system on the host computer. Specify "vm/cms", "cics" or "mvs/tso."
blksize	is the block size for the transferred file. A valid blksize is between 1 and 32760. (MVS/TSO send operations only)
lrecl	is the logical record length for the transferred file. A valid lrecl is between 1 and 32760. (Send operations only)
default	fixed	variable	undefined	is the record format for the host file. Specify one of the following: "default", "fixed", "variable" or "undefined". (Send operations only)
	default use the default record format for the host system.
	fixed indicates fixed length records.
	variable indicates variable length records.
	undefined indicates the record format is not defined.
replace	append	prompt	is one of the following options: "replace", "append" or "prompt". (Receive operations only)
	replace if the PC file already exists, replace it with the download file.
	append if the PC file already exists, add the download file to

		the end of the existing file.
	prompt	if the PC file already exists, prompt the user to replace the file or cancel the transfer operation.
WSF | ScreenImage		is the type of file transfer. WSF indicates a Write Structured Field file transfer with the buffer size specified in the BufferSize parameter. Screen images indicates a screen image file transfer. The default is WSF.
buffsize		is the buffer size for WSF file transfers. A valid buffsize is between 512 and 65535. The default is 8192.
language		specify the name of the host language code page (*.cpg) to use for this file transfer operation. If a language file is not specified, the host language code page defined for the session is used by default.
options		specify other IND$FILE options. The options in this parameter are passed directly to IND$FILE exactly as they appear. There is no editing of the options in this field. This allows you to pass options specific to your version of IND$FILE. Enclose the options string in double quotation marks ("") if it contains embedded spaces or commas. Some common options are:
	ascii	Converts ASCII to EBCDIC when the PC sends a file to the host, and converts EBCDIC to ASCII when the PC receives a file from the host.
	crlf	Replaces the carriage return/line feed characters with line breaks when the PC sends a file to the host, and replaces line breaks with carriage return/line feed characters when the PC receives a file from the host.
	append	Appends the transferred file to the host file. (Send operations only.)
	notrunc	Do not truncate trailing blanks.
	file=rdr | lst | pun	specify the POWER queue location for the host file. (VSE file transfers only)
	file=ts	specify the host file location is in CICS/VSE temporary storage. (VSE file transfers only)
	file=lib	specify the host file is in a VSE library. (VSE file transfers only)
	l=libname	specify the name of the VSE library. (VSE file transfers only)
	s=sublib	specify the name of the VSE sublibrary. (VSE file transfers only)
program		specify the file transfer program name. By default the program name is IND$FILE.

The **FileTransfer** command initiates a file transfer. File transfer operations are only valid for 3270 sessions.

Examples:

```
FileTransfer        operation=send,
                    pcfile=e:\download\testfile.txt,
                    hostfile="testfile upload a",
                    opsys=vm/cms,
                    lrecl=80,
                    recfm=fixed,
```

```
                                options="ascii crlf"

        FileTransfer            operation=receive,
                                pcfile=e:\download\testfile.txt,
                                hostfile="testfile upload a",
                                opsys=vm/cms,
                                pcoptions=prompt,
                                options="ascii crlf"

        FileTransfer            operation=receive,
                                pcfile=e:\test.txt,
                                hostfile="test file a",
                                opsys=vm/cms,
                                pcoptions=prompt,
                                language="C:\Program Files\SDI\TN3270 Plus\france.cpg",
                                options="ascii crlf"

        FileTransfer            operation=send,
                                pcfile=e:\test.txt,
                                hostfile='APPL.TEST.DSN(TEST)',
                                opsys=mvs/tso,
                                options="ascii crlf"

        FileTransfer            operation=receive,
                                pcfile=e:\test.txt,
                                hostfile='APPL.TEST.DSN(TEST)',
                                opsys=mvs/tso,
                                mode=wsf,
                                buffersize=65535,
                                pcoptions=prompt,
                                options="ascii crlf"
```

The following script transfers file "profile exec a" from the VM/CMS host to "C:\download\profile.txt" on the PC.

```
        FileTransfer            operation=receive,
                                pcfile=c:\download\profile.txt,
                                hostfile="profile exec a",
                                opsys=vm/cms,
                                pcoptions=prompt,
                                options="ascii crlf"
        exit
```

The following script sends file "C:\download\profile.txt" on the PC to "test exec a" on the VM/CMS host.

```
        FileTransfer            operation=send,
                                pcfile=c:\download\profile.txt,
                                hosfile="test exec a",
                                opsys=vm/cms,
                                lrecl=80,
                                recfm=default,
                                options="ascii crlf"
        exit
```


Global - define a global variable

global $var1[,$var2] ... [,$varn]

Where:

$varn	is a variable. The variable is available to scripts called by using the include script command.

The **global** command defines global variables. The data in global variables is available to scripts called using the include script command. Normal variables are not available to scripts called using the include command.

Examples:

```
global $NAME
global $USERID, $PASSWORD
```

GoTo - branch to a label in the script file

goto {label name | $variable},

Where:

label name	is a label in the script. label names are case sensitive, contain no embedded blanks and end with a colon.
$variable	is a variable. The text defined for the variable is substituted for the variable name and used as the command parameter.

The **goto** command branches to the specified label name. Labels are defined by placing a label name on a script line starting in column one.

Examples:

```
goto TEST_LABEL:
goto LABEL1:
goto $LABELNAME
```

The **goto** command in the following script branches to label "EXIT:", skipping the two commands between "LABEL2:" and "EXIT:".

```
WaitFor         RECON,LABEL1:,Ready,LABEL2:
LABEL1:
type            begin
key             enter
goto            EXIT:
LABEL2:
type            test
key             enter
EXIT:
exit
```

Include - call another script file

include   {script filename | $variable},

Where:

script filename	is the full filename, including drive letter and path

name, of a script file. Enclose the script filename in double quotation marks ("") if it contains embedded spaces or commas.

$variable is a variable. The text defined for the variable is substituted for the variable name and used as the command parameter.

The **include** command calls another script file. All the commands in the called script file are executed, and then processing continues in the calling script. An included script file may include additional script files. There is no limitation on how deeply script files can be nested.

If you have a group of commands that are used in many different scripts, put the group of commands into a separate script file and include that script file in place of the actual commands. Variables defined in the calling script are not available to the included script unless they are defined using the global script command.

Examples:

```
include   c:script.txt
include   c:\scripts\script.txt
include   $FILENAME
```

The following script calls scripts to logon 2 users.

```
include          "c:\scripts\logon user 1.txt"
include          "c:\scripts\logon user 2.txt"
exit
```

Key - simulate a function key

key   {keyname | command | $variable},

Where:

keyname	is the name of the key on the host keyboard.
command	is the name of a system command. This parameter allows **TN3270 Plus** menu commands to be issued from within a script.
$variable	is a variable. The text defined for the variable is substituted for the variable name and used as the command parameter.

The **key** command specifies the key to be simulated. The complete list of keynames can be found in the **Keyboard Map Setup** dialog box. To display the **Keyboard Map Setup** dialog box, open the **Setup** menu, select **Sessions...** from **Setup Items** choose **Keyboard** and then click the **Configure...** button. Select Terminal Keys in the **Function Group** drop-down list box.

You may also consult the default keyboard maps in this help file:

Default 3270 Keyboard Map
Default 5250 Keyboard Map
Default VT100/VT220 Keyboard Map

The **key** command can also issue a system command from within a script. The complete list of system commands can be found in the **Keyboard Map Setup** dialog box. To display the **Keyboard Map Setup** dialog box, open the **Setup** menu, select **Sessions...** from **Setup Items** choose **Keyboard** and then click the **Configure...** button. Select System Commands in the **Function Group** drop-down list box.

Examples (3270):

```
key   enter
key   tab
key   PA2
key   PF1
key   $KEY
key   HostExit          Exit TN3270 Plus
```

Examples (5250):

```
key   enter
key   tab
key   RollDown/PageUp
key   F1
```

Examples (VT100/VT220):

```
key   enter
key   tab
key   PageUp
key   F1
```

Examples (System Commands):

key EditCopy	Copy selected data to the clipboard
key EditPaste	Paste data into a session
key EditSelectionLeft	Select the character to the left of the cursor for cut or copy
key HostClose	Close the session

Key HostEnableLogging	Enable terminal session activity logging
key HostExit	Exit **TN3270 Plus**
key HostPrintScreen	Print the current screen

The following script types "this is a test" and then "presses" the enter key.

```
type        "this is a test"
key         enter
exit
```

Run - run an application

run   {filename | $variable},

Where:

filename	is the full file name, including drive letter and path, of an application or batch file. Enclose the filename in double quotation marks ("") if it contains embedded spaces or commas. You can append command line parameters to the filename on the Run script command (within the double quotes, separated by a space).
$variable	is a variable. The text defined for the variable is substituted for the variable name and used as the command parameter.

The **run** command runs the specified application or batch file. filename may specify a .com, .exe, .bat or .pif file.

Examples:

run   "c:\batch\tasks job.bat"
run   c:\skey.exe
run $PROGRAM
run   "c:\Program Files\sdi\TN3270 Plus\TN3270.exe mainframe"

RunDirectory - specify the working directory

RunDirectory   {directory | $variable},

Where:

    directory   is a directory. Enclose the directory in double quotation
                   marks ("") if it contains embedded spaces or commas.
    $variable   is a variable. The text defined for the variable is substituted
                   for the variable name and used as the command parameter.

The **RunDirectory** command specifies the working directory for the application started by the **run** command. This is useful for applications that use a working directory for their files.

Examples:

```
RunDirectory   "c:\program files\data"
RunDirectory   c:\test\data
RunDirectory   $DIRECTORY
```

The following script starts the program test.exe with a working directory of c:\program\data.

```
RunDirectory          c:\program\data
Run                   c:\program\test.exe
```

Session - switch sessions

session   {session number | $variable},

Where:

session number   is the session number. Session numbers 1 to 9 are
                  valid.

$variable   is a variable. The text defined for the variable is
                  substituted for the variable name and used as the
                  command parameter.

The **session** command switches sessions while a script is processing. A script continues processing in the same session until a **session** command switches the script to another session.

Examples:

    session   1
    session   2
    session $SESSION

SetVar - initialize a variable

SetVar   **$**variable,{"string1" | **$**var1}[,{"string2" | **$**var2}...]

Where:

$variable	is the name of the variable to be set.
string_n	is a string of characters. string_n is case sensitive. Enclose string_n in double quotation marks ("") if it contains embedded spaces or commas.
$var_n	is a variable. The text defined for the variable is substituted for the variable name and used as the command parameter.

The **SetVar** command initializes a variable to the specified text string or variable. If multiple string_n and/or $var_n parameters are used they are concatenated together to form a new **$**variable.

Use the variable in place of the text in any script commands that accept a variable as a parameter.

Examples:

```
SetVar   $NAME,"Sam Spade"
SetVar   $firstname,Sam
SetVar   $lastname,Spade
SetVar   $NAME,$firstname,"   ",$lastname
```

SSLConnect – begin an SSL connection

SSLConnect {SSLv2 | SSLv3 | TLSv1 | $variable}

Where:

SSLv2	is SSL version 2.
SSLv3	is SSL version 3.
TLSv1	is TLS version 1.
$variable	is a variable. The text defined for the variable is substituted for the variable name and used as the command parameter.

Use the SSLConnect command to begin an SSL connection when the host computer resides behind a proxy server or firewall.

If the host is behind a proxy server and an SSL connection is required then the connection must be made using a script instead of specifying SSL in the Host pane of the **Session Setup** dialog box. The reason for this is that if the SSL connection is made in the normal manner (using the radio buttons in the Host pane of the **Session Setup** dialog box) then the SSL handshake will take place with the proxy server instead of the host. Insert the **SSLConnect** command at the appropriate place in the script to cause the SSL connection to be made.

Examples:

```
SSLConnect   SSLv2
SSLConnect   SSLv3
SSLConnect   TLSv1
```

The following is a sample using the SSLConnect command.

```
*                    Proxy Server login
WaitFor              username
type                 john
key                  enter
WaitFor              password
type                 smith
key                  enter
*                    Login complete, connect to host
waitfor              "Login complete"
type                 connect 127.0.0.1
key                  enter
*                    Initiate SSL handshaking
SSLConnect           SSLv3
```

Type - "type" characters into the session terminal

type   {"text" | $variable}

Where:

text   is the text to be typed into the session. This field is case sensitive.
                  Enclose the text in double quotation marks ("") if it contains
                  embedded spaces or commas. If a double quote (") needs to be
                  included in the text enter two double quotes (""). The two double
                  quotes will be replaced by a single double quote when the text is
                  typed.

$variable   is a variable. The text defined for the variable is substituted for the
                  variable name and used as the command parameter.

The **type** command enters the text into a session at the current cursor location. If $variable is specified, the text
associated with the variable is substituted for $variable and entered into a session at the current cursor location.

Examples:

    type "query names"
    type $NAME
    type "This is how to include ""double quotes"" in the text"

The following script enters the "query names" command into a session.

    type   "query names"
    key   enter
    exit

Wait - wait for the specified number of milliseconds

wait   { milliseconds | **$**variable}

Where:

milliseconds	is the number of milliseconds script processing should wait before continuing with the next command.
$variable	is a variable. The text defined for the variable is substituted for the variable name and used as the command parameter.

The **wait** command pauses script processing for the specified number of milliseconds. If you wish to wait for a host response before continuing script processing, the **wait** command may not be the best choice. Since response times are difficult to predict and inconsistent, the wait must be long enough for the longest possible response. This is not very efficient. It may be better to use WaitFor or AskFor to pause the script.

Examples:

```
wait   1000
wait   2000
wait   $TIME
```

WaitFor - wait for the specified text to appear in the session

WaitFor   {string1 | $var1} [,label1:] [,{string2 | $var2},label2:...,{string10 | $var10},label10:]
[,minimized | hidden]

Where:

string*n*	is a string of characters. string*n* is case sensitive. Enclose string*n* in double quotation marks ("") if it contains embedded spaces or commas.
$var*n*	is a variable. The text defined for the variable is substituted for the variable name.
label*n*:	is the name of the label in the script. Label*n*: is case sensitive.
minimized	minimize the WaitFor dialog.
hidden	hides the WaitFor dialog, so the user will not see it displayed.

The **WaitFor** command accepts a single parameter or up to 10 string,label: or $var,label: pairs.

WaitFor with a single parameter

Examples:

    WaitFor   USERID,minimized
    WaitFor   ===>,hidden
    WaitFor $NAME
    WaitFor   "Test text"
    WaitFor   ""

When the **WaitFor** command is used with a single parameter, the **WaitFor** command repeatedly scans the session screen buffer for the specified string or the string substituted for the $var.   When the string is found, script processing continues with the next command. The **WaitFor** command displays a dialog box containing the scan string. If the scan cannot locate the string, the user can click the **Cancel Script** button in the dialog box to cancel the script or the **Cancel Scan** button to cancel the scan and continue with the next script command.

If the Waitfor command is specified with a null sting parameter:

        Waitfor   ""

the script waits until the next time the host updates the screen and then continues with the next command.

The purpose of this Waitfor command is to wait for a screen response from the host and then continue script processing. Use this command to prevent a script from issuing commands before the host is ready to receive them.

WaitFor with multiple parameters

Examples:

    WaitFor   RECONNECTED,LABEL1:,Ready,LABEL2:
    WaitFor   abcd,LA:,efgh,LE:,ijkl,LI:,mnop,LM:,qrst,LQ:,uvwx,LU:,yz,LY:

When the **WaitFor** command is used with multiple parameters, the **WaitFor** command repeatedly scans the session screen buffer looking for the string(s). When it finds one of the strings, it branches to the associated label. The purpose of this command is to wait for a screen response from the host and then take the appropriate action based upon what the host returns.

Warning:

The **WaitFor** command scans the entire screen buffer each time it is updated. If one of the strings in the **WaitFor**

parameters is already on the screen when the **WaitFor** command is issued, the search is satisfied immediately. This defeats the purpose of waiting for a host response. Make sure any string you specify will not be on the screen when the **WaitFor** command is issued.

In the following script, the **WaitFor** command scans the session screen buffer for the strings "RECONNECTED" or "Ready". If the **WaitFor** command finds "RECONNECTED", it branches to "LABEL1:." If the **WaitFor** command finds "Ready", it branches to "LABEL2:."

```
WaitFor          RECONNECTED,LABEL1:,Ready,LABEL2:
LABEL1:
type             begin
key              enter
goto             EXIT:
LABEL2:
type             test
key              enter
EXIT:
exit
```

FAQ (Frequently Asked Questions)

This section contains frequently asked questions and answers. SDI also maintains an FAQ page on our web site, so if you do not find the answer to your question here please check the following web site page:

http://www.sdisw.com/TN3270FAQ.html

Connection Problems

How do I enter a telephone number into **TN3270 Plus**?
Failed to Create New Socket.
Host www.xxx.yyy.zzz Is Unreachable.
Session x: Socket Error 10060: WSAETIMEDOUT.
Session x: Socket Error 10061: WSAECONNREFUSED.
Session x disconnected by host www.xxx.yyy.zzz.

General Questions

IKT00405I SCREEN ERASURE CAUSED BY ERROR RECOVERY PROCEDURE ***
 When I try to run Internet,Ping..., I get a message saying ICMP.DLL not found.
How do I setup **TN3270 Plus** so it connects to the same host every time it is started?
Is there a Macintosh version of **TN3270 Plus**?
How do I type the EBCDIC logical not sign (¬) into a terminal session?
Is it possible to change the character assignment for a keyboard key?
Can TN3270 Plus be installed on a network server?
What screen fonts are available in **TN3270 Plus**?

How do I enter a telephone number into TN3270 Plus?

You cannot enter a telephone number into **TN3270 Plus**. **TN3270 Plus** does not support a direct dial connection to a host computer. **TN3270 Plus** connects to a host computer via TCP/IP using the Internet or an intranet as the communication link. As an example, SDI employees use **TN3270 Plus** to connect via the Internet to our IBM mainframe. To connect a user:

1.   Establishes an Internet connection through their ISP.

2.   Starts **TN3270 Plus** and enters the IP address of the mainframe in the **Connect to Host** dialog box and clicks the Connect button.

3.   The connection is made across the Internet to TCP/IP running on the mainframe.

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Failed to Create New Socket

This problem occurs because **TN3270 Plus** can not find TCP/IP.

You do not have TCP/IP installed on you computer.

To install TCP/IP on Windows 95, click "Start" button and select "Help." In the "Help" dialog click on the index tab and then type "TCP" in the first edit box. In the second edit box click on "installing" under "TCP/IP protocol." Follow the instructions for installing TCP/IP.

To install TCP/IP on Windows 98, open the **Network** dialog box by clicking the **Start** button, pointing to **Settings**, clicking **Control Panel**, and then double-clicking **Network.** In the **Network** dialog box, click on the **Add** button. In the **Select Network Component Type** dialog box, select **Protocol** and click on the **Add** button. In the **Select Network Protocol** dialog box, select **Microsoft** in the Manufacturers list and then select **TCP/IP** from the Network Protocols list and click the **OK** button.

Return to Questions

Host www.xxx.yyy.zzz Is Unreachable

This message is normally caused by one of the following:

1. You are not connected to the Internet. You must make your connection to the internet before using **TN3270 Plus** to connect to a host computer. If you are an America Online (AOL) user, you must connect to AOL and login before trying to connect using **TN3270 Plus**.

2. There is a problem on the Internet and currently there is no route to the host computer. Try again later.

3. If the IP address in the message is incorrect, then you have the wrong "Host Name:" in the **TN3270 Plus** "Connect to Host" dialog box.

4. You have the incorrect port number specified in the "Connect to Host" dialog box.

5. If you are using WinGate to share a modem between computers, you must specify the WinGate IP address (normally, 192.168.0.1) in the "Host Name:" edit box in the **TN3270 Plus** "Connect to Host" dialog instead of the host computer IP address or name.

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Socket Error 10060: WSAETIMEDOUT.

This message means that **TN3270 Plus** has sent communication to the host computer and the host computer did not respond before the end of the timeout period. The timeout period is monitored by the Windows socket. When the end of the timeout period is reached the Windows socket indicates the error to **TN3270 Plus** and **TN3270 Plus** reports the error.

This message is normally caused by one of the following:

1. You have the incorrect IP address or Host Name in the "Connect to Host" dialog box.

2. You have the incorrect port number specified in the "Connect to Host" dialog box.

Try pinging the host computer to see if it is responding. You can do this with **TN3270 Plus** (Internet, Ping...) or you can do this from the MS-DOS command prompt (Start, Programs, MS-DOS Prompt)   by entering "ping *hostname*" or "ping *IP address*" on the command line. If Ping times out, there is a problem at the host. Talk to a network administrator at the host site and see if they can help you.

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Socket Error 10061: WSAECONNREFUSED

This error occurs when the remote system rejects your attempt to connect with it, either because no server is listening on the specified port or it's unable to accept any additional connections. Verify you are using the correct port number and then contact the Network Administrator at the host computer site.

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Session x disconnected by host www.xxx.yyy.zzz

This message is the result of a disconnect command received by **TN3270 Plus**.

This message is normally caused by one of the following:

1. The host computer disconnected you due to inactivity or technical problems.

2. If you are using an Internet connection

   a.)Your ISP disconnected you due to inactivity or technical problems.

   b.) You were disconnected from your ISP due to technical problems. For example, if you manually disconnect your ISP while **TN3270 Plus** is connected a host computer you will get the "Session x disconnected by host" message.

3. There is problem on a firewall, proxy server or router along the connection route.

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IKT00405I SCREEN ERASURE CAUSED BY ERROR RECOVERY PROCEDURE ***

The host sent a data stream that is not supported by 3278 terminal emulation. Change your terminal type from 3278 to 3279 (Host, Connect..., Advanced button, Setup Items = Terminal).

Return to Questions

When I try to run Internet,Ping..., I get a message saying ICMP.DLL not found

If your are running Windows 95, this problem is caused by not having the Microsoft TCP/IP protocol stack installed, or installed incorrectly. Reinstall the Microsoft TCP/IP protocol from your Windows 95 CD or diskettes.

To reinstall TCP/IP on Windows 95, click "Start" button and select "Help." In the "Help" dialog click on the index tab and then type "TCP" in the first edit box. In the second edit box click on "installing" under "TCP/IP protocol." Follow the instructions for installing TCP/IP.

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How do I setup TN3270 Plus so it connects to the same host every time it is started?

There are two ways to automatically start a session when **TN3270 Plus** is started:

1. Set the "Connect at Startup" option on for the session.

2. Include the session name on the **TN3270 Plus** command line.

"Connect at Startup" option:

1. Open the **Setup** menu and select **Sessions...**

2. In the **Session Setup** dialog box, click on the **Connect at startup** check box.

3. You may set this option on for multiple sessions and each session will connect when **TN3270 Plus** is started.

Include the Session Name on the Command Line:

You can include a session name on the command line when **TN3270 Plus** is started.

"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" "session_name"

When the session name is included, **TN3270 Plus** connects to that session when it starts. For example:

"C:\Program Files\SDI\TN3270 Plus\tn3270.exe" "P/390 27x132"

Where:

"P/390 27x132" is the session name.

Tips:

1. The session name is case sensitive.

2. If the session name contains any spaces, it must be enclosed in double quotes as in the example above.

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Is there a Macintosh version of TN3270 Plus?

TN3270 Plus only supports Windows XP, 2000, NT, ME, 98, 95 and 3.1x. We currently have no plans to support the Macintosh, but if we get enough inquires we will look into it. If you have an interest in a version of **TN3270 Plus** for the Macintosh, please send an e-mail to support@sdisw.com.

Return to Questions

How do I type the EBCDIC logical not sign (¬) into a terminal session?

You can assign any character to any keyboard and/or mouse button combination you wish. The following example assigns the logical not sign (¬) to the shift key plus the number 6 (shift+6).

1. Open the **Setup** menu and select **Keyboard...**

2. In the **Session Setup** dialog box, click the **Configure...** button.

3. In the **Keyboard Setup** dialog box, select "Characters" in the "Function Group" drop-down list box.

4. In the Function list box, scroll down to the logical not sign, "¬ (172, 0xAC)" and select it.

5. Click the **Add Key...** button.

6. In the **Type Key** dialog box, hold down the shift key and press the number 6. The edit box should display "shift+6."

7. Click the **Retry** button to correct an error and click the **OK** button to make the assignment.

8. In the **Keyboard Setup** dialog box, click the **OK** button.

9. In the **Session Setup**, dialog box, click the **OK** button.

Return to Questions

Is it possible to change the character assignment for a keyboard key?

You can assign any character to any keyboard and/or mouse button combination you wish. The following example assigns a comma to the decimal point key on the numeric keypad (Num.).

1. Open the **Setup** menu and select **Keyboard...**

2. In the **Session Setup** dialog box, click the **Configure...** button.

3. In the **Keyboard Setup** dialog box, select "Characters" in the "Function Group" drop-down list box.

4. In the Function list box, scroll down to the comma, ", (44, 0x2C)" and select it.

5. Click the **Add Key...** button.

6. In the **Type Key** dialog box, insure num lock is on and press the decimal point on the numeric keypad. The edit box should display "Num." (That is "Num" followed by a decimal point.)

7. Click the **Retry** button to correct an error and click the **OK** button to make the assignment.

8. In the **Keyboard Setup** dialog box, click the **OK** button.

9. In the **Session Setup**, dialog box, click the **OK** button.

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Can TN3270 Plus be installed on a network server?

Yes, **TN3270 Plus** can be installed on a network server and used by multiple users. See Using **TN3270 Plus** on an Intranet (Network) for installation instructions. See the License Agreement for licensing requirements.

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What screen fonts are available in TN3270 Plus?

TN3270 Plus can use any of the fixed-pitch fonts installed on your Windows system. In a fixed-pitch font, all the characters in the font are the same width. In a variable-pitch font, different characters have different widths. For example, a "W" is wider than an "i". A fixed-pitch font is required to align the characters in the columns on the emulated screen.

Try using Courier New with the style set to bold. This creates a clear readable screen on most monitors at most sizes. Select the font size in the font selection dialog (Setup, Display, Change... button) rather than resizing the terminal Window. **TN3270 Plus** may "stretch" or "compress" the font as you resize the Window. If the aspect ratio of the window is different than that of the font the font may look distorted. Choosing a specific font size avoids this problem.

Many users like the following fonts. You can download them for free and they work well with **TN3270 Plus**.

Font	Sample TN3270 Plus display
Andale Mono	
MS Line Draw	

Let us know if you find other fonts you think work well with **TN3270 Plus**.

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Glossary

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AID (Attention Identification)

A code that **TN3270 Plus** sends to the host computer to indicate operator action. An AID code is sent by keys that cause data to be transmitted to the host computer. The following are AID generating keys:

3270: PF1 - PF24, PA1 - PA3, CLEAR or ENTER

5250: F1 - F24, PA1 -PA3, CLEAR, ENTER or HELP

control file

An LPD control file contains the following information. Each piece of information is preceded by a symbol indicating the type of information:

Symbol	Description
H	Originating host
P	User identification
J	Job name for banner page (optional).
L	Print banner page (optional).
M	Mail when printed (optional).
f	print formatted file.
l	print file leaving control characters.
o	print postscript output file.

Current Session

The session currently displayed in the **TN3270 Plus** window. You may have multiple active sessions, but only one current session.

daemon

A background process usually started at system initialization that runs continuously and performs a function required by other processes.

DDE (Dynamic Data Exchange)

DDE allows interprocess communication between applications and **TN3270 Plus**. Applications can send data to and request data from a host computer via **TN3270 Plus**.

EAB (Extended Attribute Byte)

A set of 3270 terminal formatting codes that include highlighting, reverse image, blinking, and seven colors. You can configure a display session to support EABs by using 3279 as your terminal type.

EHLLAPI

Emulator High-Level Language Application Programming Interface (EHLLAPI) allows personal computer (PC) programs to interact with a host using 3270 or 5250 emulation.

IBM reference documents:
IBM 3270 PC High Level Language API Programming Reference. SC23-2473

Evaluation Version/Unlicensed Version/Licensed Version

The **TN3270 Plus** evaluation version will run for 30 days. After 30 days **TN3270 Plus** will no longer run.

To convert the evaluation version into a licensed version, you must register the product with SDI and receive a license code. See the registration form included in this help file.

fixed-pitch font

A font in which all the characters are the same width. For example "W" is the same width as "i". In a variable-pitch (proportional) font, different characters have different widths. For example, a "W" is wider than an "i". A fixed-pitch font is required to align the characters in columns on a screen or printer. **Courier** and **Courier New** are fixed-pitch fonts.

```
This is Courier New, a fixed-pitch font.
```

This is Arial, a variable-pitch font.

Host Computer

The computer to which your PC connects. Normally an IBM mainframe or AS/400.

Hotspot

Hotspot support allows words on the terminal screen to act as AID generating keys or active URL links.

LPD

Line Printer Daemon - Receives print jobs from a Line Print Requestor (LPR) and prints the jobs on a printer.

LPR

Line Print Requester - Sends print jobs via TCP/IP to a remote computer running a Line Printer Daemon.

OIA (Operator Information Area)

The Operator Information Area (OIA) is a simulation of the Operator Information area on a terminal. When it is displayed, the OIA is the last line in the terminal emulation area. The OIA contains the session number, terminal type, cursor location, keyboard status, response time, time and date of the current session.

POP3

POP3 (sometimes abbreviated as POP) stands for Post Office Protocol, Version 3 which is a protocol used to retrieve mail from mail servers. "POP3 mail server" refers to the mail server on your Internet provider's server.

resource name

Resource name is a generic term for any of the following names: device name, LU name, network name or a device pool name. You many specify a device name, LU name, network name or device pool name anytime a resource name is requested.

system command

System commands are shortcuts to commands on the **TN3270 Plus** menu. You will find the system commands in the Keyboard Setup dialog (Setup, Keyboard..., Configure... button, Function group = System Commands) where you can assign keyboard key or mouse shortcuts to them.

System commands may also be called from a script by using the script "key" command. This allows you to execute any menu command from within a script.

key *system_command*

For example:

key EditCopy
key EditPaste
key HostPrint
key HostEnableLogging
key HostExit

SSL (Secure Socket Layer)

The SSL (Secure Sockets Layer) protocol allows the secure transmission of data across the Internet. **TN3270 Plus** SSL allows a secure connection to a host computer. Data transmitted to and from the host computer is safe from viewing and tampering by outside parties.

TN3270 Plus supports SSL Version 2, SSL Version 3 and TLS version 1. TN3270 Plus also supports up to 128-bit encryption.

TSO (Time Sharing Option)

An interactive mainframe system that runs under the IBM MVS (also called OS/390) operating system; it provides editing and file management functions.

VM (Virtual Machine)

An IBM mainframe operating system that provides time-sharing functions for many users, but appears to each user as a fully dedicated computer system. CMS (Conversational Monitor System) is the application used by most VM users.

Windows folder

The Windows folder is found in different locations on different versions of Windows. The default locations are as follows:

```
Windows 9x        C:\Windows
Windows NT        C:\WINNT
Windows 2000      C:\WINNT
```

WinHLLAPI

Windows HLLAPI is a programming interface that allows a PC application and an IBM mainframe or midrange computer to share data via a terminal emulation program.

Windows HLLAPI defines a standard and consistent IBM EHLLAPI-style API for the 16- and 32-bit versions of the Microsoft Windows graphical environment. It encompasses both familiar IBM EHLLAPI-style routines and a set of Windows-specific extensions designed to allow the programmer to take advantage of the message-driven nature of the Windows graphical environment.

Windows Temp folder

The Windows temp folder is found in different locations on different versions of Windows. The location is defined by the TEMP (or TMP) environmental variable. The default locations are as follows:

Windows 9x   C:\Windows\Temp
Windows NT   C:\WINNT\Temp
Windows 2000   C:\Documents and Settings*logged_on_user*\Temp