AFFIRMATIVE®
computer products

YES*tation* LE Text Based Terminal Model 2509 User's Guide

Version 2.2.30

October 2002

YES*tation* Limited Warranty

General Terms and Conditions

Limited Product Warranty. Affirmative Computer Products warrants that the YES*tation* Hardware Product (Logic unit and keyboard) shall be free from defects in materials and workmanship that arise under proper and normal use and service for three years from the date of purchase. A warranty extension of two years is available at extra cost, if obtained at the time of the original YES*tation* purchase. In the event that the YES*tation* Hardware Product fails to comply with the warranty set forth above, Affirmative Computer Products will repair or replace the Product.

Software Warranty. Affirmative Computer Products warrants that, for a period of ninety (90) days from the date of purchase by the End User, its Software Products shall conform to its published specifications under normal usage. AFFIRMATIVE COMPUTER PRODUCTS DOES NOT WARRANT THAT THE OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR FREE, OR THAT ALL SOFTWARE DEFECTS WILL BE CORRECTED. In the event that a Software Product fails to comply with the warranty set forth above, Affirmative Computer Products will replace the product. End User must, however, return all copies of the Software, along with proof of purchase, to Affirmative Computer Products within 90 days from the Software purchase date.

Warranty Limitations. End User's sole remedy under any Warranty provided by Affirmative Computer Products shall be limited to the replacement or repair of the Product or, at Affirmative Computer Products' sole discretion, a refund of the purchase price. AFFIRMATIVE COMPUTER PRODUCTS GRANTS NO WARRANTY, EXPRESS OR IMPLIED, OTHER THAN THE WARRANTIES STATED ABOVE. EXPRESSLY EXCLUDED ARE THE IMPLIED WARRANTIES OF MERCHANTIBILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL AFFIRMATIVE COMPUTER PRODUCTS BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INSTALLATION COSTS, LOST REVENUE OR PROFITS, OR ANY OTHER COSTS INCURRED AS A RESULT OF THE USE OF ANY AFFIRMATIVE COMPUTER PRODUCTS PRODUCT, WHETHER OR NOT USED IN ACCORDANCE WITH INSTRUCTIONS.

Warranty Procedure. Affirmative Computer Products will replace any defective, undamaged units for which a Return Material Authorization number (RMA#) has been obtained from the Technical Support Department. (Contact 888-353-5250 or 480-946-1444 or support@affirmative.net)

Copyright and Trademarks

Copyright Notice

Note: Information in this document is subject to change without notice.

Trademarks Notice

- YES*tation*® is a registered trademark of Affirmative Computer Products®.
- YES*term*/IP™ is a trademark of Affirmative Computer Products®.
- Microsoft® is a registered trademark of Microsoft® Corporation.
- Windows® is a registered trademark of Microsoft® Corporation.
- Other company and brand, product and service names are trademarks or registered trademarks of their respective holders.

THIS PAGE INTENTIONALLY LEFT BLANK.

End User License Agreement

End User License Agreement (EULA)

EULA for Microsoft Windows CE Operating System for Windows-based Terminal Devices Version 1.5

IMPORTANT! READ CAREFULLY

This End User License Agreement (EULA) is a legal agreement between you (either an individual or a single entity) and the manufacturer (MANUFACTURER) of the special purpose computing device (SYSTEM) you acquired which includes certain Microsoft software product(s) installed on the SYSTEM and/or included in the SYSTEM package (SOFTWARE). The SOFTWARE includes computer software, the associated media, any printed materials, and any online or electronic documentation. By installing, copying or otherwise using the SOFTWARE, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, MANUFACTURER and Microsoft Licensing, Inc. (MS) are unwilling to license the SOFTWARE to you. In such event, you may not use or copy the SOFTWARE, and you should promptly contact MANUFACTURER for instructions on return of the unused product(s) for a refund.

SOFTWARE LICENSE

The SOFTWARE is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE is licensed, not sold.

1. GRANT OF LICENSE

SOFTWARE includes software already installed on the SYSTEM (SYSTEM SOFTWARE) and, if included in the SYSTEM package, software contained on the CD-ROM disk and/or floppy disk(s) labeled "Desktop Software for Microsoft Windows CE" (DESKTOP SOFTWARE). This EULA grants you the following rights to the SOFTWARE:

- **System Software.**

  You may use the SYSTEM SOFTWARE only as installed in the SYSTEM.

- **Desktop Software.**

  DESKTOP SOFTWARE might not be included with your SYSTEM. If DESKTOP SOFTWARE is included with your SYSTEM, you may install and use the component(s) of the DESKTOP SOFTWARE in accordance with the terms of the end user license agreement provided with such component(s). In the absence of a separate end user license agreement for particular component(s) of the DESKTOP SOFTWARE, you may install and use only one (1) copy of such component(s) on a single computer with which you use the SYSTEM.

- **Use of Windows CE Operating System for Windows-Based Terminal Devices with Microsoft Windows NT Server, Terminal Server Edition.**

  If the SOFTWARE is Windows CE operating system for Windows-Based Terminal devices, the following special provisions apply. In order to use the SYSTEM in connection with Windows NT Server, Terminal Server Edition, you must possess (1) a Client Access License for Windows NT Server, Terminal Server Edition and (2) an end user license for Windows NT Workstation or an end user license agreement for Windows NT Workstation for Windows-Based Terminal Devices (please refer to the end user license agreement for Windows NT Server, Terminal Server Edition for additional information). MANUFACTURER may have included a Certificate of Authenticity for Windows NT Workstation for Windows-Based Terminal Devices with the SYSTEM. In that case, this EULA constitutes an end user license for the version of Windows NT Workstation for Windows-Based Terminal Devices indicated on such Certificate of Authenticity.

- **Back-up Copy.**

  If MANUFACTURER has not included a back-up copy of the SYSTEM SOFTWARE with the SYSTEM, you may make a single back-up copy of the SYSTEM SOFTWARE. You may use the back-up copy solely for archival purposes.

2. Description of Other Rights and Limitations.

- **Speech/Handwriting Recognition**

  If the SYSTEM SOFTWARE includes speech and/or handwriting recognition component(s), you should understand that speech and handwriting recognition are inherently statistical processes; that recognition errors are inherent in the processes; that it is your responsibility to provide for handling such errors and to monitor the recognition processes and correct any errors. Neither MANUFACTURER nor its suppliers shall be liable for any damages arising out of errors in the speech and handwriting recognition processes.

- **Limitations on Reverse Engineering, Recompilation and Disassembly**

  You may not reverse engineer, decompile, or disassemble the SYSTEM SOFTWARE, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation.

- **Single SYSTEM**

  The SYSTEM SOFTWARE is licensed with the SYSTEM as a single integrated product. The SYSTEM SOFTWARE installed in Read Only Memory (ROM) of the SYSTEM may only be used as part of the SYSTEM.

- **Single EULA**

  The package for the SYSTEM SOFTWARE may contain multiple versions of this EULA, such as multiple translations and/or multiple media versions (e.g., in the user documentation and in the software). Even if you receive multiple versions of the EULA, you are licensed to use only one (1) copy of the SYSTEM SOFTWARE.

- **Rental**

  You may not rent or lease the SOFTWARE.

- **Software Transfer**

  You may permanently transfer all of your rights under this EULA only as part of a sale or transfer of the SYSTEM, provided you retain no copies, you transfer all of the SOFTWARE (including all component parts, the media, any upgrades or backup copies, this EULA and, if applicable, the Certificate(s) of Authenticity), and the recipient agrees to the terms of this EULA. If the SOFTWARE is an upgrade, any transfer must include all prior versions of the SOFTWARE.

- **Termination**

  Without prejudice to any other rights, MANUFACTURER or MS may terminate this EULA if you fail to comply with the terms and conditions of this EULA. In such event, you must destroy all copies of the SOFTWARE and all of its component parts.

3. Upgrades.

If the SYSTEM SOFTWARE and this EULA are provided separate from the SYSTEM by MANUFACTURER and the SYSTEM SOFTWARE is on a ROM chip, CD ROM disk(s) or floppy disk(s), and labeled "For ROM Upgrade Purposes Only" ("ROM Upgrade"), you may install one copy of the ROM Upgrade onto the SYSTEM as a replacement copy for the SYSTEM SOFTWARE originally installed on the SYSTEM and use it in accordance with Section 1 of this EULA.

4. Copyright.

All title and copyrights in and to the SOFTWARE (including but not limited to any images, photographs, animations, video, audio, music, text and "applets," incorporated into the SOFTWARE), the accompanying printed materials, and any copies of the SOFTWARE, are owned by MS or its suppliers (including Microsoft

Corporation). You may not copy the printed materials accompanying the SOFTWARE. All rights not specifically granted under this EULA are reserved by MS and its suppliers (including Microsoft Corporation).

5. Product Support.

Product support for the SOFTWARE is not provided by MS, its parent corporation, Microsoft Corporation, or their affiliates or subsidiaries. For product support, please refer to MANUFACTURER'S support number provided in the documentation for the SYSTEM. Should you have any questions concerning this EULA, or if you desire to contact MANUFACTURER for any other reason, please refer to the address provided in the documentation for the SYSTEM.

6. Export Restrictions.

You agree that you will not export or re-export the SOFTWARE to any country, person, or entity subject to U.S. export restrictions. You specifically agree not to export or re-export the SOFTWARE: (i) to any country to which the U.S. has embargoed or restricted the export of goods or services, which as of March 1998 include, but are not necessarily limited to Cuba, Iran, Iraq, Libya, North Korea, Sudan and Syria, or to any national of any such country, wherever located, who intends to transmit or transport the products back to such country; (ii) to any person or entity who you know or have reason to know will utilize the SOFTWARE or portion thereof in the design, development or production of nuclear, chemical or biological weapons; or (iii) to any person or entity who has been prohibited from participating in U.S. export transactions by any federal agency of the U.S. government.

If the SOFTWARE is labeled "North America Only Version" above, on the Product Identification Card, or on the SOFTWARE packaging or other written materials, then the following applies: The SOFTWARE is intended for distribution only in the United States, its territories and possessions (including Puerto Rico, Guam, and U.S. Virgin Islands) and Canada. Export of the SOFTWARE from the United States is regulated under "EI controls" of the Export Administration Regulations (EAR, 15 CFR 730-744) of the U.S. Commerce Department, Bureau of Export Administration (BXA). A license is required to export the SOFTWARE outside the United States or Canada. You agree that you will not directly or indirectly, export or re-export the SOFTWARE (or portions thereof) to any country, other than Canada, or to any person or entity subject to U.S. export restrictions without first obtaining a Commerce Department export license. You warrant and represent that neither the BXA nor any other U.S. federal agency has suspended, revoked or denied your export privileges.

7. Note on Java Support.

The SYSTEM SOFTWARE may contain support for programs written in Java. Java technology is not fault tolerant and is not designed, manufactured, or intended for use or resale as on-line control equipment in hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines, or weapons systems, in which the failure of Java technology could lead directly to death, personal injury, or severe physical or environmental damage.

8. Limited Warranty.

- **Limited Warranty**

  MANUFACTURER warrants that the SOFTWARE will perform substantially in accordance with the accompanying written materials for a period of ninety (90) days from the date of receipt. Any implied warranties on the SOFTWARE are limited to ninety (90) days. Some states/jurisdictions do not allow limitations on duration of an implied warranty, so the above limitation may not apply to you.

- **Customer Remedies**

  MANUFACTURER'S and its suppliers' entire liability and your exclusive remedy shall be, at MANUFACTURER'S option, either (a) return of the price paid, or (b) repair or replacement of the SOFTWARE that does not meet the above Limited Warranty and which is returned to MANUFACTURER with a copy of your receipt. This Limited Warranty is void if failure of the SOFTWARE has resulted from accident, abuse, or misapplication. Any replacement SOFTWARE will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer.

- **No Other Warranties**

  EXCEPT AS EXPRESSLY PROVIDED IN THE LIMITED WARRANTY SECTION ABOVE, THE SOFTWARE IS PROVIDED TO THE END USER "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY, AND/OR FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK OF THE QUALITY AND PERFORMANCE OF THE SOFTWARE IS WITH YOU.

- **No Liability for Consequential Damages**

  MANUFACTURER OR MANUFACTURER¡¦S SUPPLIERS, INCLUDING MS AND ITS SUPPLIERS, SHALL NOT BE HELD TO ANY LIABILITY FOR ANY DAMAGES SUFFERED OR INCURRED BY THE END USER (INCLUDING, BUT NOT LIMITED TO, GENERAL, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES INCLUDING DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION AND THE LIKE), ARISING FROM OR IN CONNECTION WITH THE DELIVERY, USE OR PERFORMANCE OF THE SOFTWARE.

If you acquired this EULA in the United States, this EULA is governed by the laws of the State of Washington.

If you acquired this EULA in Canada, this EULA is governed by the laws of the Province of Ontario, Canada. Each of the parties hereto irrevocably attorns to the jurisdiction of the courts of the Province of Ontario and further agrees to commence any litigation which may arise hereunder in the courts located in the Judicial District of York, Province of Ontario.

If this EULA was acquired outside the United States, then local law may apply.

Should you have any questions concerning this EULA, please contact the MANUFACTURER of your SYSTEM.

U.S. GOVERNMENT RESTRICTED RIGHTS

The SOFTWARE and documentation are provided with RESTRICTED RIGHTS. Use, duplication, or disclosure by the Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 or subparagraphs (c)(1) and (2) of the Commercial Computer Software XRestricted Rights at 48 CFR 52.227- 19, as applicable. MANUFACTURER is Microsoft Corporation/One Microsoft Way/Redmond, WA 98052-6399.

AFFIRMATIVE® computer products

Table of Contents

THIS PAGE INTENTIONALLY LEFT BLANK.

AFFIRMATIVE® computer products

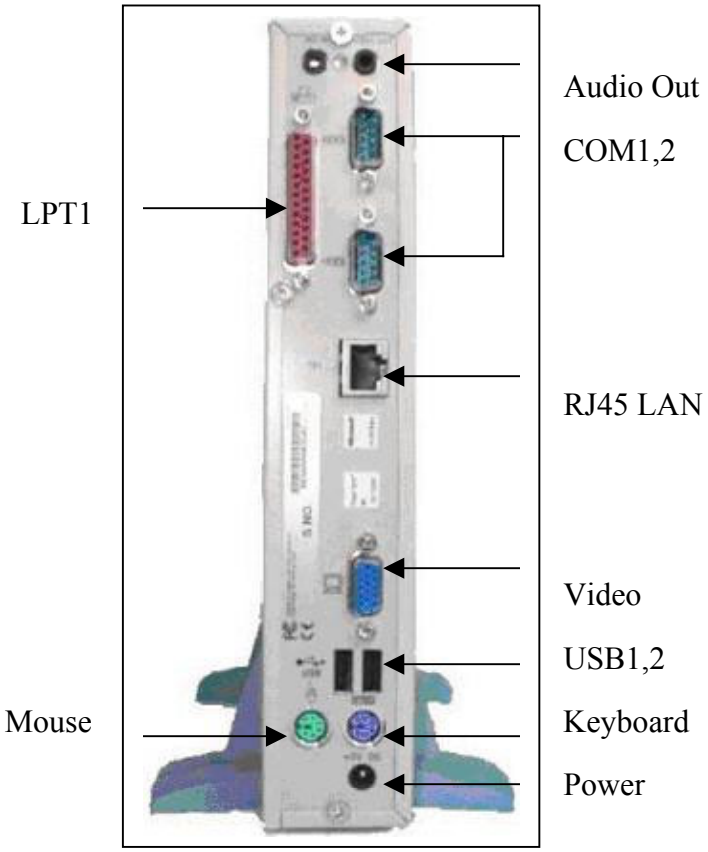
Installing Your TBT

Mounting the TBT

The TBT should be placed vertically on a flat surface. The TBT has no internal fan, and relies on natural airflow for cooling. When you mount the TBT, *make sure to keep as many ventilation holes, as possible, unobstructed*. Use the provided mounting stand for support and to provide airflow to the enclosure ventilation holes. The figure on the front cover of this manual shows proper use of the mounting stand.

Connecting the TBT

To connect the TBT to your server, please make all connections to the rear panel before turning on the power. The following figure shows the TBT's rear panel connectors.



Rear Panel Connectors

Please follow the procedure below:

1. Connect the monitor to the Video connector.
2. Connect the PS/2 keyboard to the Keyboard connector.
3. Connect the PS/2 mouse to the Mouse connector (if you are using a mouse).
4. Connect a CAT5 UTP cable to the LAN connector (if you are using a LAN).
5. Connect an external modem to one of the COM connectors (if you are using dial-up).
6. Connect the touch-screen serial connector to one of the COM connectors (if you are using a touch screen).
7. Connect speakers to the Audio Out port (if you are using external speakers).
8. Connect the power adapter cable to the Power connector.
9. Plug the power adapter AC cord into an AC outlet.
10. You are ready to use the TBT now.

AFFIRMATIVE® computer products

Troubleshooting Your TBT

The following table provides some solutions to common problems that can occur during setting up or using your Text Based Terminal (TBT).

	Problems	Solution
1	The monitor screen is blank	• Make sure the TBT is turned on. • Make sure the monitor is plugged into an AC outlet and turned on. • Make sure the VGA connector is plugged into the TBT.
2	Your monitor can not display after advancing past the logo screen or after changing the display setting	The display setting may be at a higher resolution or refresh frequency than the monitor will support. Execute one of the following recovery options: • Use a better monitor for display. • Use a better monitor for display while changing the display settings to be compatible with the original monitor. • Ask your MIS or network administrator to reset your TBT to factory default settings through the Remote Management" software, if it is installed at your server site.
3	The mouse does not work	• Make sure the mouse is plugged into the mouse port, not the keyboard port. • Test the TBT using a known good PS/2 mouse.
4	The keyboard does not respond	• Make sure the keyboard is plugged into the keyboard port, not the mouse port. • Test the TBT using a known good PS/2 keyboard.

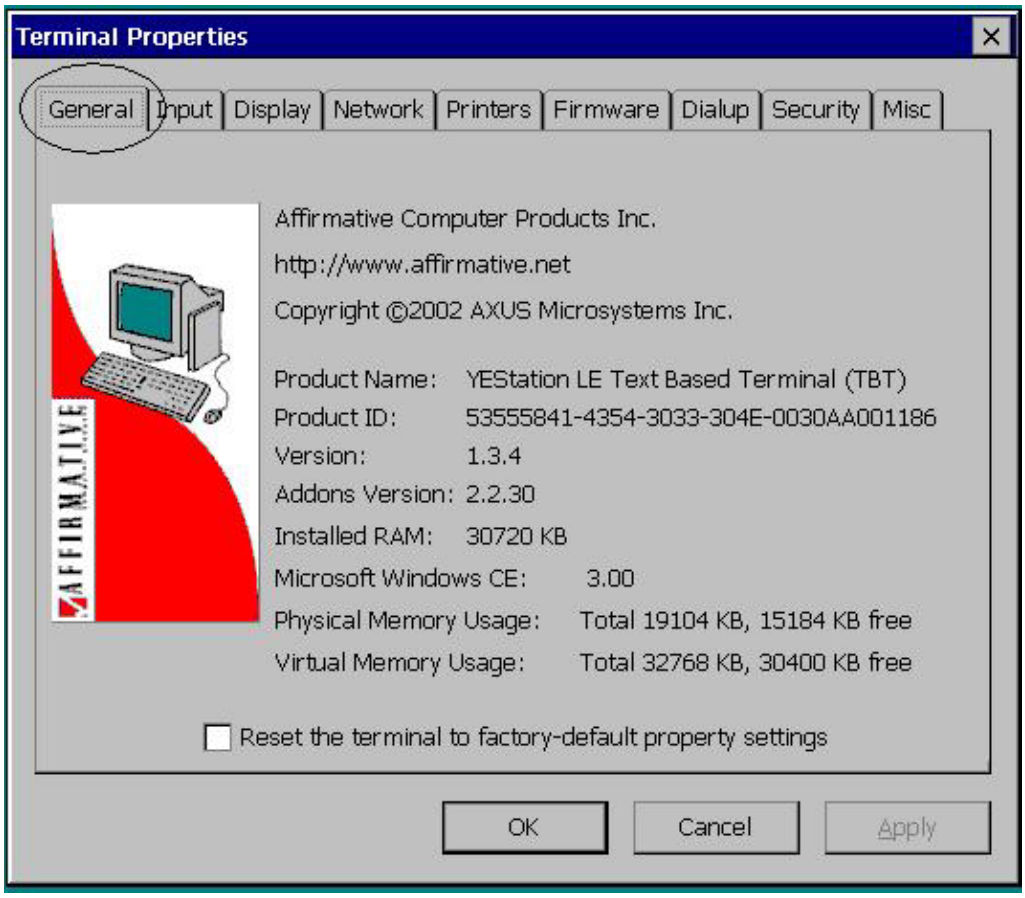
5	The network connection does not work	• Check the network connection. • Verify the TBT IP address is correct in the Network properties sheet of Terminal Properties. • Check the server's IP address. • If you are using the TBT default setting of DHCP address assignment, make sure there is a workable DHCP server on your network. • If you are using a specified IP address, make sure that there is not another network device with the same IP address.
6	Forgot the password setting and cannot reconfigure the TBT.	• Ask your MIS or network administrator to reset your TBT to factory default settings through the Remote Management software, if it is installed at your server site. .
7	You have created a Dial-up session, but it cannot dial out through an external modem.	• Make sure that the Dialing Properties are correct in the Dial-Up Connection dialog box of the Dialup properties sheet of Terminal Properties..
8	Your Dial-up session dials out through your external modem, but it cannot make a connection with the server.	• Your modem may not be 100% Hayes-compatible. If not, you will have to specify a special modem initialization string in the Call Options dialog box. • Your Login Name or Password may be incorrect. in the Dial-Up Connection dialog box of the Dialup properties sheet of Terminal Properties... • Your Connection Preferences are incorrect in the Port Settings part of the Device Properties dialog box in the Dialup properties sheet of Terminal Properties.

Navigating Without a Mouse

Many people who work with terminals and terminal emulation are not familiar with mouse techniques and do not wish to learn them. The TBT can be set up and operated with or without a mouse, and most parameters can be configured without a mouse. However, it is strongly suggested that you have a mouse available when configuring emulator sessions. Some areas of emulator configuration, such as code pages, keyboard maps, attributes, hot spots, and keypads, are difficult or impossible to configure without a mouse.

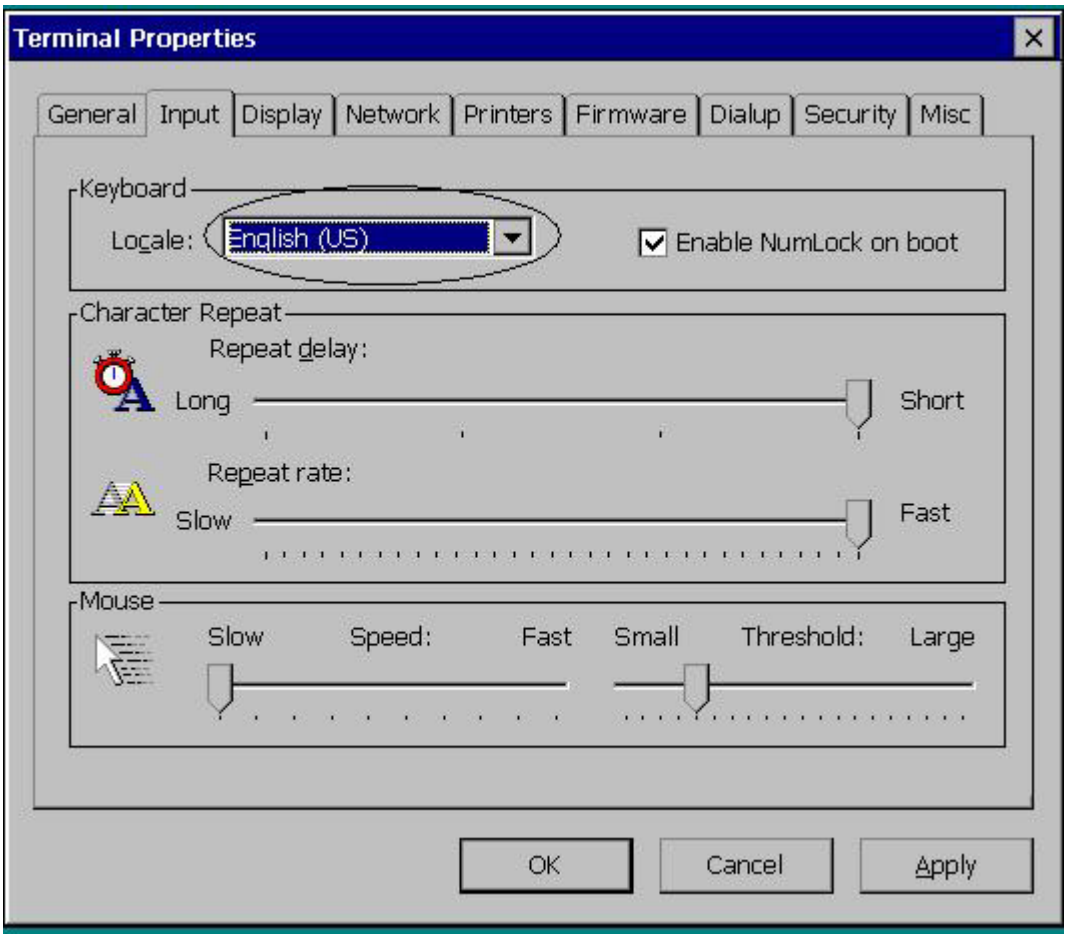
Navigating among screens or among setup variables without a mouse requires observance of several techniques.

- In general, the **Tab** key is used to navigate among setup variables and action buttons. If you look closely, you can see that the current item in focus is marked by a faint dotted rectangle, a highlighted dropdown list, an input field with a blinking cursor, or a bold box outline. Some screens, such as Terminal Properties, show multiple tabs. The active tab will appear to be in front of the other tabs. To move among the tabs, press the **Tab** key until the focus is on the tab itself, and then use the **LeftArrow** and **RightArrow** keys to change tabs. In the screen below, the General tab is in focus. Note that it appears to be in front of the other tabs, and that there is a faint dotted rectangle in the tab.



General Tab in Focus

- When a setup variable is in focus, the **UpArrow**, **DownArrow, LeftArrow,** and **RightArrow** keys are used to move among radio buttons or to show values in drop-down lists. If it is a drop-down list, you will see the current selection highlighted, as shown below. In this case, you can use the **UpArrow** and **DownArrow** to see the other locale choices.

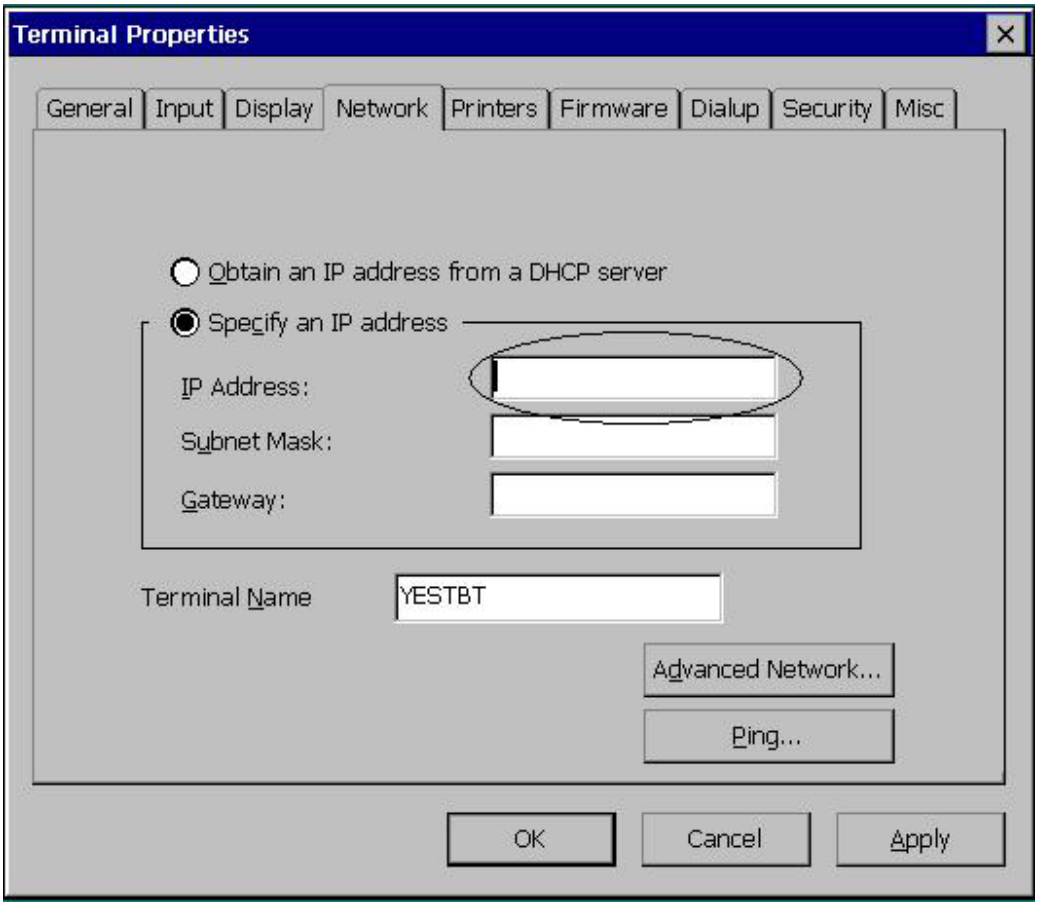


Drop-Down List in Focus

In this screen, you will advance to the **Enable NumLock…** variable if you strike the **Tab** key. Then pressing the **Space** bar will toggle the check mark off and on.

If you press the **Tab** key again, you will advance to the **Repeat delay** slider. Use the **LeftArrow** and **RightArrow** keys to move the slider left or right.

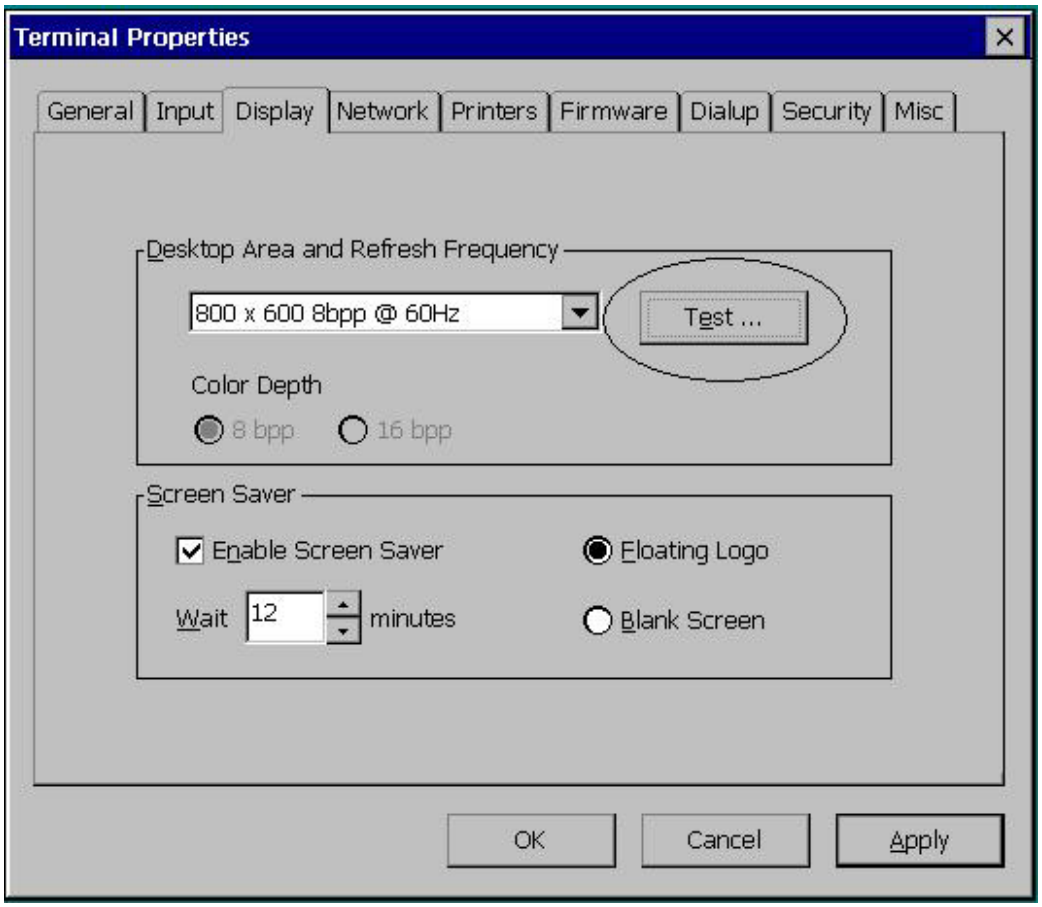
- When an input field is in focus, you will also see the blinking cursor in the field, as shown in the following screen where the IP Address input field is in focus.



Input Field in Focus

This screen also shows a way to shortcut your navigation. Note that each of the field names and action button names has one unique letter that is underlined. If you press **Alt + unique letter** for a variable or input field, that item will immediately be in focus. For example, **Alt + n** will bring the Terminal Name input field into focus. If you press **Alt + unique letter** for an action button, that action will immediately be executed. For example, **Alt + p** will open the Ping dialog box.

- When the focus is on a button, such as **OK, Enter, Cancel, Next**, **Configure**, etc., pressing the PC **Enter** key or the **Space** bar will cause the action to occur.



Button in Focus

Here, the **Test** button is in focus. If you press either the **Space** bar or the PC **Enter** key, a video test will be initiated.

In all of the Terminal Properties screens, the **Esc** key has the same effect as a focused **Cancel** or **Close** button. For example, in the above screen, pressing **Esc** will take you back to the Terminal Connection Manager screen, just as if you had pressed on a focused **Cancel** button or mouse-clicked on the **X** in the upper right hand corner.

THIS PAGE INTENTIONALLY LEFT BLANK.

TBT Setup Wizard

The TBT Setup Wizard is used for the TBT initial setup. The wizard runs when:

- In the Terminal Properties dialog box, you select "Reset the terminal to factory-default" to restart the TBT.
- A TBT is first booted up after being received from the factory.
- The TBT firmware is upgraded.

The TBT Setup Wizard sets the basic TBT network configuration and display parameters. Any parameters set in the TBT Setup Wizard can be changed later from Terminal Properties. You can launch Terminal Properties by pressing the **F2** key at any time from the Terminal Connection Manager window. Please refer to Configure Terminal Properties.

When proceeding through the TBT Setup Wizard process:

- Activate the **Next** or **Accept** buttons

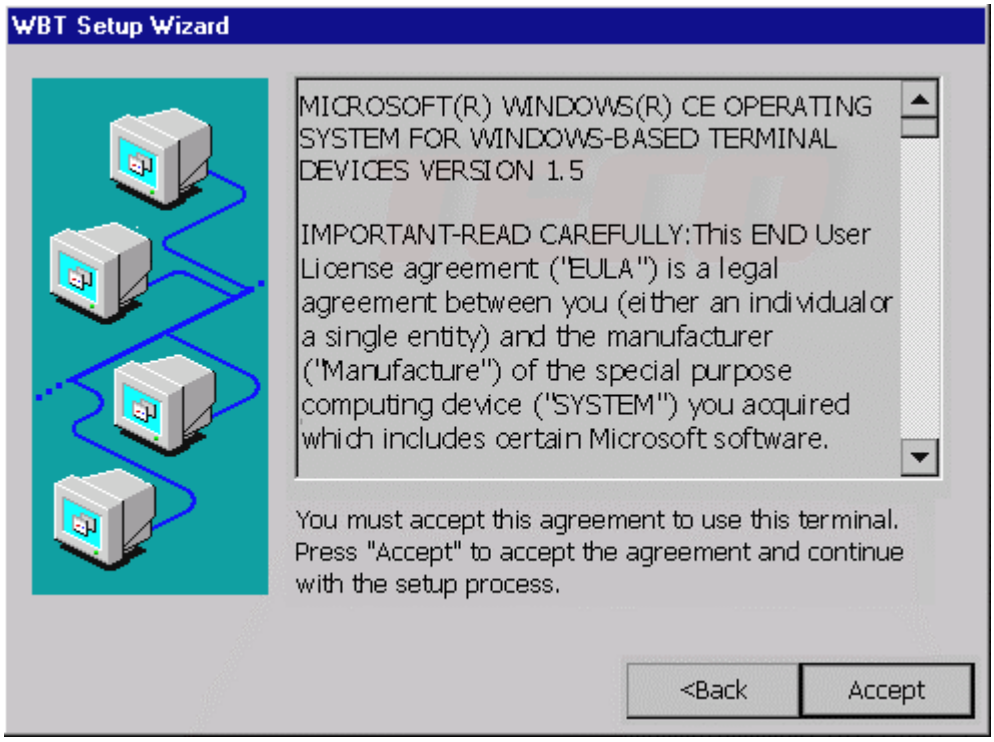
To display the next dialog box in the sequence.

- Activate the **Back** button

  To return to the previous dialog box.

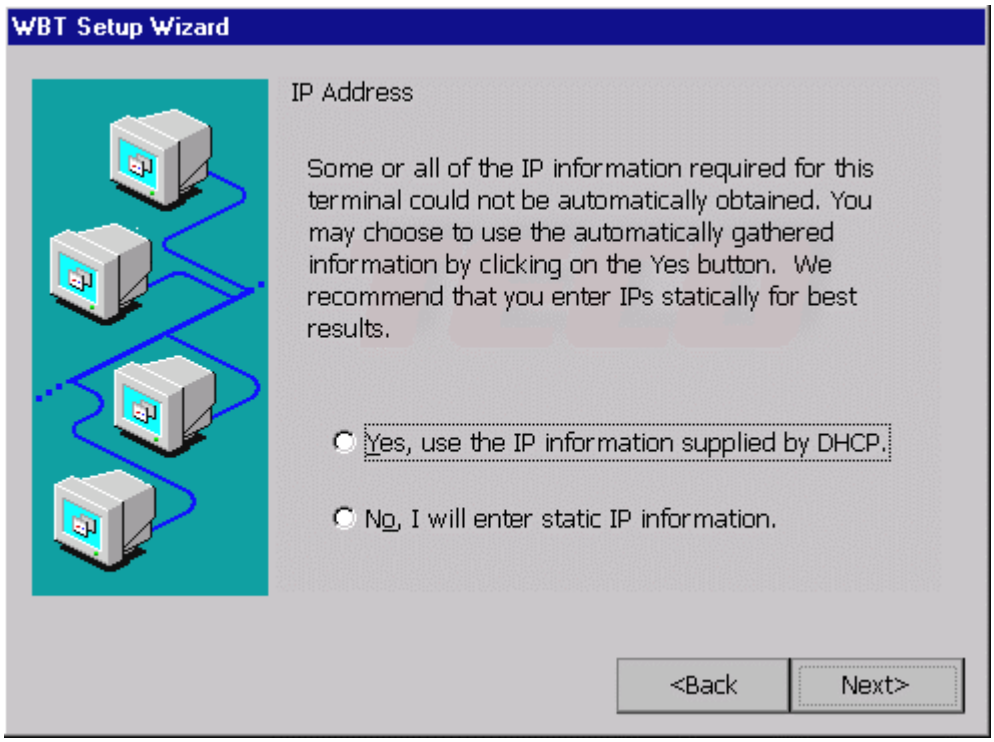
- Activate the **Cancel** button

  To quit and display the TBT's Terminal Connections Manager.



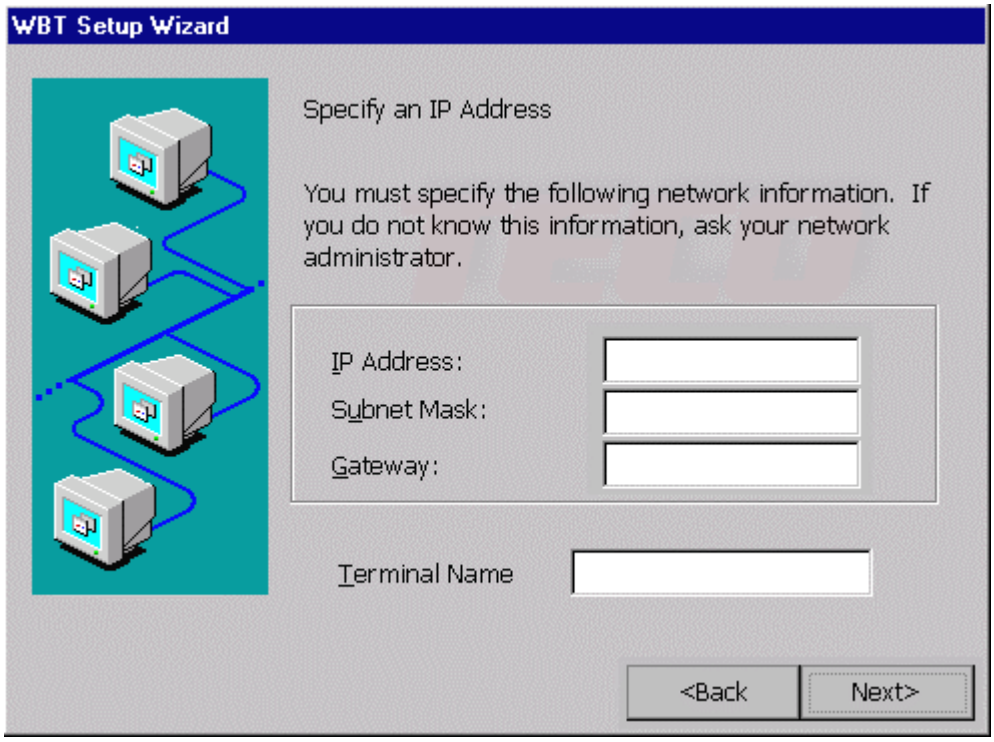
EULA Dialog Box

Please read the license agreement carefully.



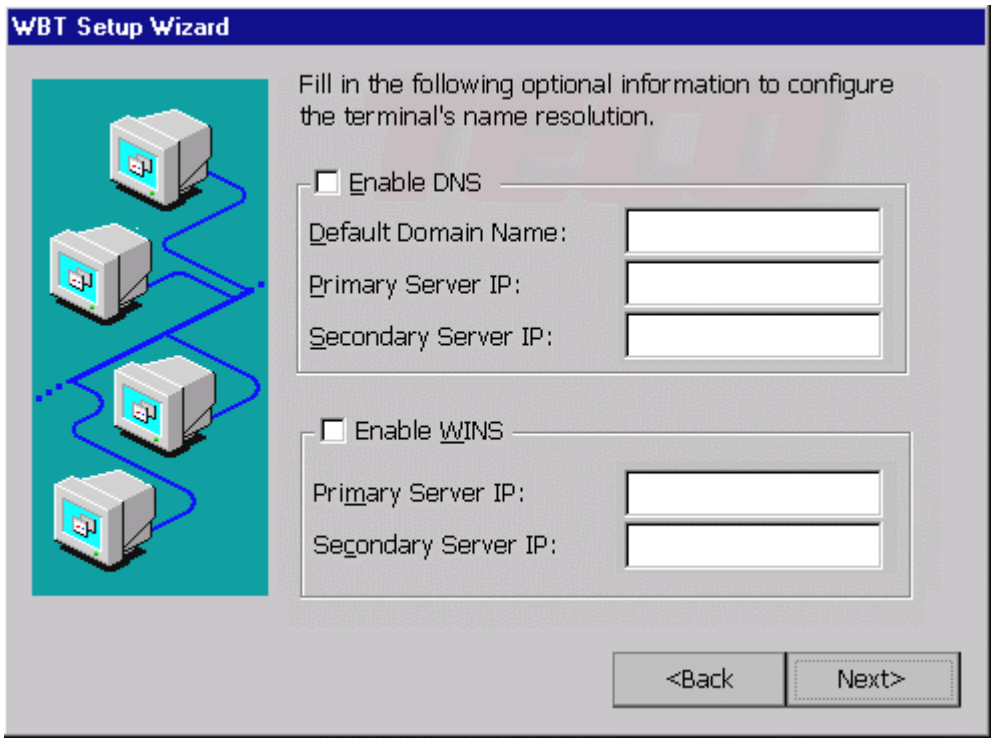
IP Address Dialog Box

- Select **Yes** to use the IP address information supplied by the DHCP server.
- Select **No** to use static IP address information. Then the Specify an IP Address and Name Server dialog boxes will display.

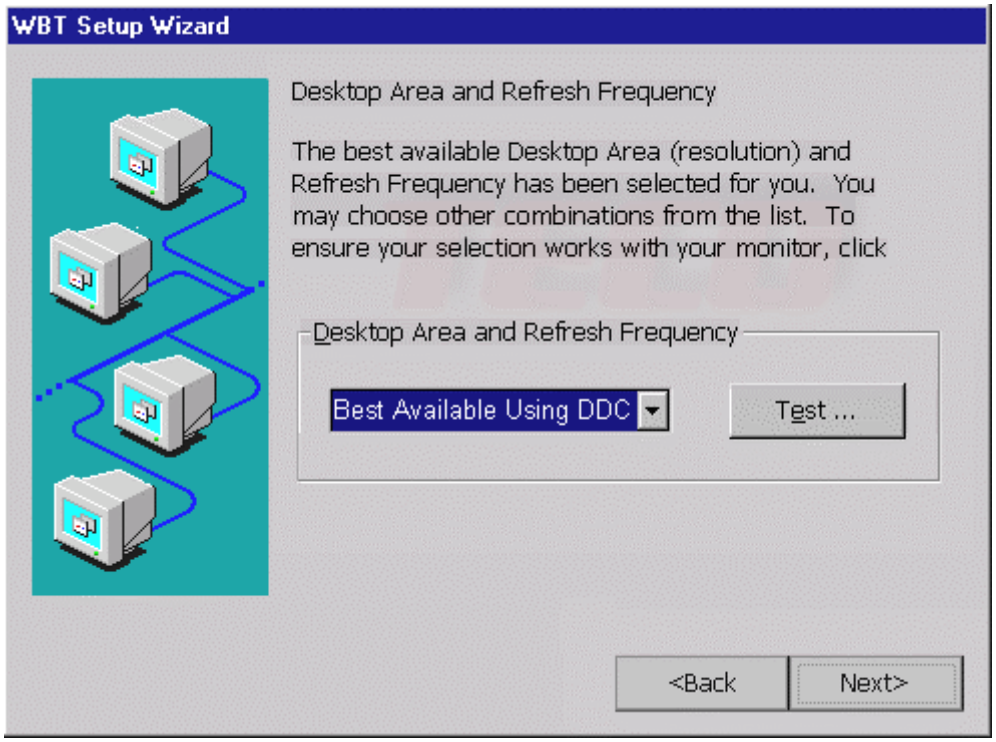


Specify an IP Address Dialog Box

If you wish to use static information, ask your network administrator for the IP addresses to enter here.



Name Server



Desktop Area/Refresh Freq. Dialog Box

Note: The default setting is 800 x 600 8bpp @ 60Hz, not "Best Available Using DDC" as shown in the screen shot.

The Color Depth radio buttons are not active, but you can select either 8bpp or 16bpp from the drop-down list. If you select a different setting from the drop-down list, please be sure to use the Test button before proceeding. If you enter a setting that your monitor cannot support, you will be faced with an unusable screen when you reboot the TBT. See Troubleshooting Q&A if this occurs.

Finish Dialog Box

This dialog box is informational.

- Activate **Finish** to apply your selections and quit the TBT Setup Wizard.
- Activate **Back** to return to the previous dialog box.
- Activate **Cancel** to forget the whole thing. If you do this, you will be faced with the Setup Wizard again the next time you restart the TBT.

THIS PAGE INTENTIONALLY LEFT BLANK.

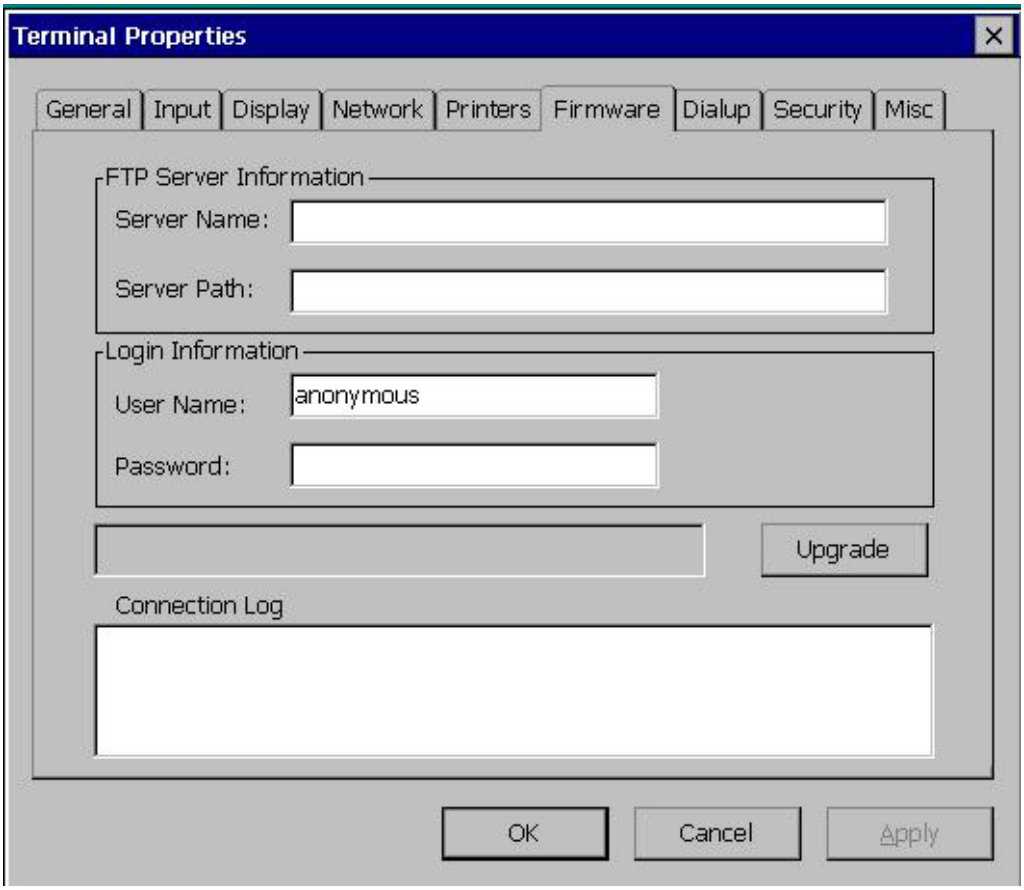
Firmware Upgrade Utilities

There are two methods to upgrade your firmware.

Upgrade from Local FTP Server

This function can only run when the FTP server is available on your Local Area Network (LAN). Also, the FTP server must be able to respond to a file size query from the terminal. The FTP server included in Windows 2000 servers does provide this information, but some shareware FTP servers do not.

1. Download the latest-version firmware from the Affirmative Computer Products web site, per the Affirmative Computer Products Technical Support instructions.
2. Extract the downloaded file. You will see a .nkb file.
3. Save the extracted .nkb file in your local FTP server with a known path.
4. **NOTE that you will lose** all your configuration information during the upgrade. So record your configuration information before upgrading.
5. Invoke the Terminal Properties dialog box by pressing the [F2] key in the Terminal Connection Manager window.
6. In the Terminal Properties box, select the Firmware tab.



Firmware Properties Sheet

7. Enter the information in the fields.
   - Server Name

     Enter the local FTP server's IP address.
   - Server Path

     Enter the latest version firmware .nkb file name.
   - User Name

     Enter your User Name to access the FTP server.
   - Password

     Enter your Password to access the FTP server
8. Activate the **Upgrade** button to start the firmware upgrade.

Important Notes**:**

DO NOT make any change that may corrupt the upgrade procedure, such as turning off power or disconnecting from the network, after you activate the "Ready" button. This may cause serious damage to the flash memory in your TBT.

Your local FTP server should not have Proxy protection.

9. A progress bar will show if you connect to the FTP server successfully, and the Connection Log will show a series of entries. The upgrade process is done in two phases. In phase 1, the new firmware is transferred over the network into TBT RAM.

10. After the transfer, you will be asked if you want to "Proceed to Upgrade Now?" If you answer **Yes**, the new firmware will be written into flash memory; you will not see any progress bar during this part of the process, so be patient for several seconds until you get an "Upgrade Finished" message. If you answer **No**, the upgrade will be aborted.

11. When you **OK** out of the "Upgrade Finished" message, you will be told that the TBT must be rebooted before the upgrade takes effect. You may think that you have a choice at this point, but you really don't. You cannot proceed any further without rebooting.

12. If there are any problems during the upgrade, an error message will pop up. Activate the "OK" button and re-check your upgrade information. Check the file name for accuracy and verify that you have established the correct path information at your FTP server. The error may also possibly be caused by incorrect settings in the Network tab.

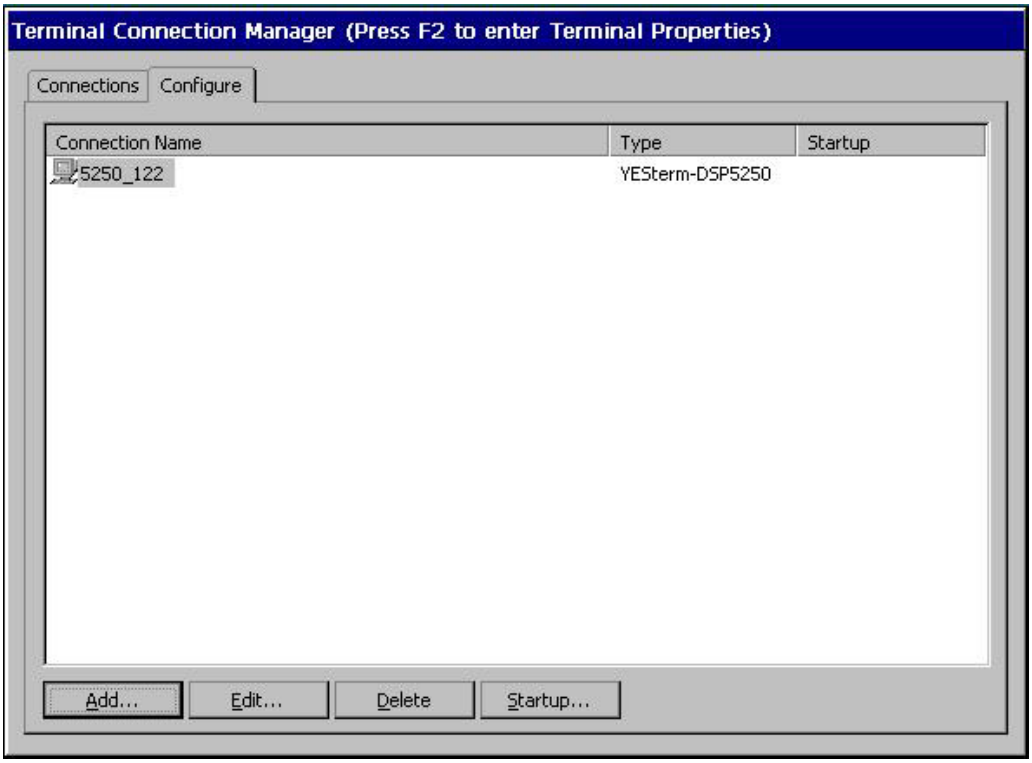
Upgrade Using Remote Central Management

If the YES*Manager* central management software is installed on your network, you can use this method to upgrade your firmware. This method is usually used on large network systems with a large quantity of TBTs. Please see the YES*Manager* User Guide for this upgrade procedure.

Terminal Connection Manager

In the Terminal Connection Manager window, you can select either the Connections or the Configure tab to manage your TBT's network connections. But the Connections tab will be empty until you configure one or more sessions.

Configure



Configure Tab

The Configure tab allows four basic functions. The terms “connection” and “session” are used interchangeably in this section.

Add (Alt+a)

Activate the **Add** button to create a new session. A New Connection dialog box is displayed.

New Connection Dialog Box

Select one of the four types of emulator sessions shown in the drop-down list, and activate **OK**. A Wizard will then pop up to lead you through the basic steps to configure that session. Please refer to YES*term*/IP TN5250E Setup and Configuration for more information about adding a new 5250 connection. As sessions are added, they will be displayed alphabetically in the Connection Name list.

Edit (Alt+e)

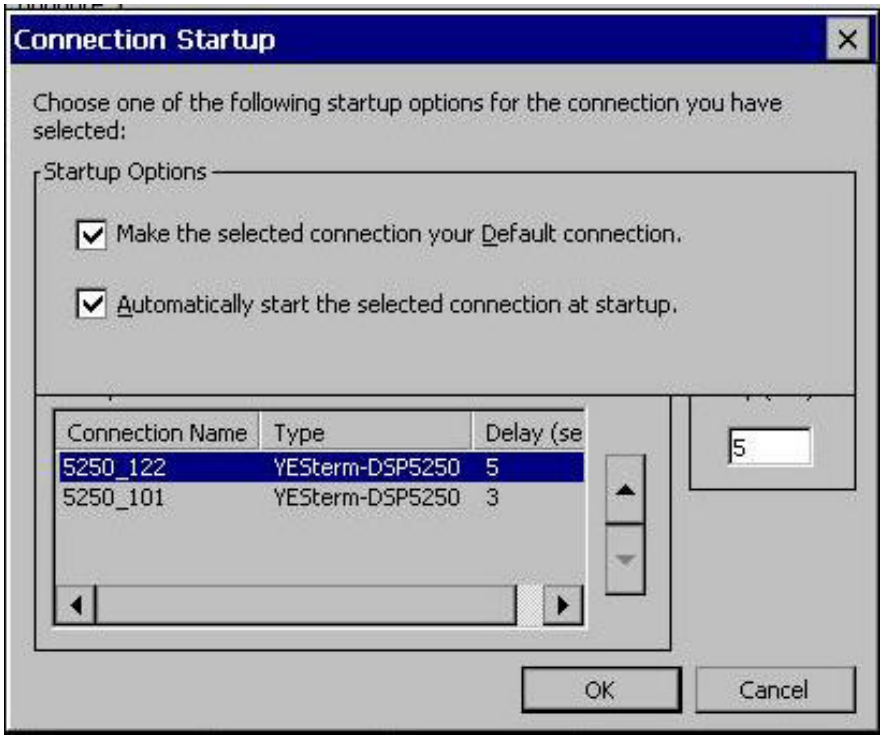
Activate the **Edit** button to edit the properties of a selected connection. A Sessions Properties window will pop up. Please refer to the YES*term*/IP TN5250E Setup and Configuration section for more information about editing a connection.

Delete (Alt+d)

Activate the **Delete** button to delete a connection. When you activate this button, a Confirm Connection Delete dialog box is displayed. Activate the **Yes** button to complete the deletion. Activate **No** to cancel the deletion.

Startup (Alt+s)

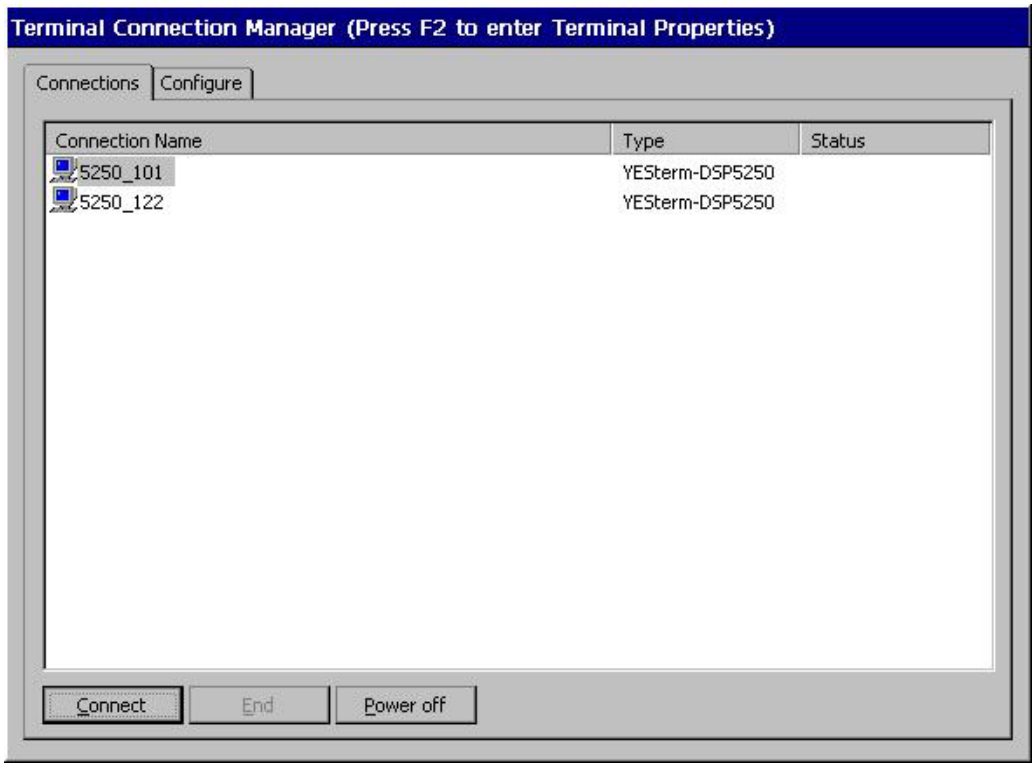
Activate the **Startup** button to specify this connection option when the TBT starts up. The Connection Startup dialog box displays after the Startup button is pressed. Using the Connection Startup dialog box, your TBT can be set to automatically connect to a server when the TBT is turned on. Any or all sessions can be configured for automatic startup.



Connection Startup Dialog Box

- Make the selected connection your Default connection. Enable this function to use the selected connection as the default connection. This connection will be highlighted in Connection Manager when the TBT is powered up. As shown in the above dialog box, one, and only one, session can be specified for both default and Autostart.
- Automatically start the selected connection at startup. Enable this function to automatically start the selected connection when the TBT starts up. You will see a list of all the sessions that are set to Autostart, in order, top-to-bottom, of their startup priority. You can change the priority by selecting a session and then activating the up-arrow or down-arrow buttons. You can also set the delay time, in seconds in the unlabeled Delay Time field at the right side of the dialog box, before a session begins its Autostart procedure. These delay times are consecutive if there are multiple Autostart sessions. If your network name server is slow in resolving host names, you will need to increase the delay time for the top-priority Autostart session.
- OK Activate **OK** to quit the dialog box and save the changes.
- Cancel. Activate **Cancel** to quit the dialog box without any change.

Connections



Connections Tab

Connections is used to make or end network connections with the server(s). Select the session of interest Then:

- Connect (Alt+C). Activate the **Connect** button to make a network connection.
- End. Activate the **End** button to end a connection shown as Active in the status field. A dialog box will pop up warning you that the session is active and asking for confirmation. You can also end a session from the session screen itself, without going to Connections, and that is the recommended way to end a session.
- Power off (Alt+P). Activate the **Power off** button to open the Terminal Power Off dialog box.

Terminal Power Off Dialog Box

Follow the instructions to turn power off, restart (reboot) without turning off power, or return to the Terminal Connection Manager. You can also turn power off by pressing the Power switch on the front panel of the TBT.

This Page Intentionally Left Blank.

Multiple Sessions

Start Multiple Sessions

You can configure any or all sessions to start automatically at TBT boot-up, as described in Terminal Connection Manager|Configure|Startup. If you choose not to do this, you can invoke the Terminal Connection Manager from any working session by pressing **Ctrl+Alt+End**. Then, in the Connections tab, highlight another connection and activate **Connect** to start a new session.

Toggle Between Sessions

- Press **Ctrl+Alt+UpArrow** to proceed to the next session.
- Press **Ctrl+Alt+DownArrow** to proceed to the previous session.
- Every emulator session Buttons toolbar contains the icons I, II, III, and IV. These icons represent the sessions, shown from top to bottom, in the Terminal Connection Manager. Click on an icon to switch to the corresponding session – if it is already active.
- Press the **Jump** key on your keyboard.
    - **Alt+PgDn** for a 122-key 5250 keyboard.
    - **Shift+PgDn** for a 122-key 3270 keyboard.
    - **Alt+PgUp** for a 101-key 5250 keyboard.

This Page Intentionally Left Blank.

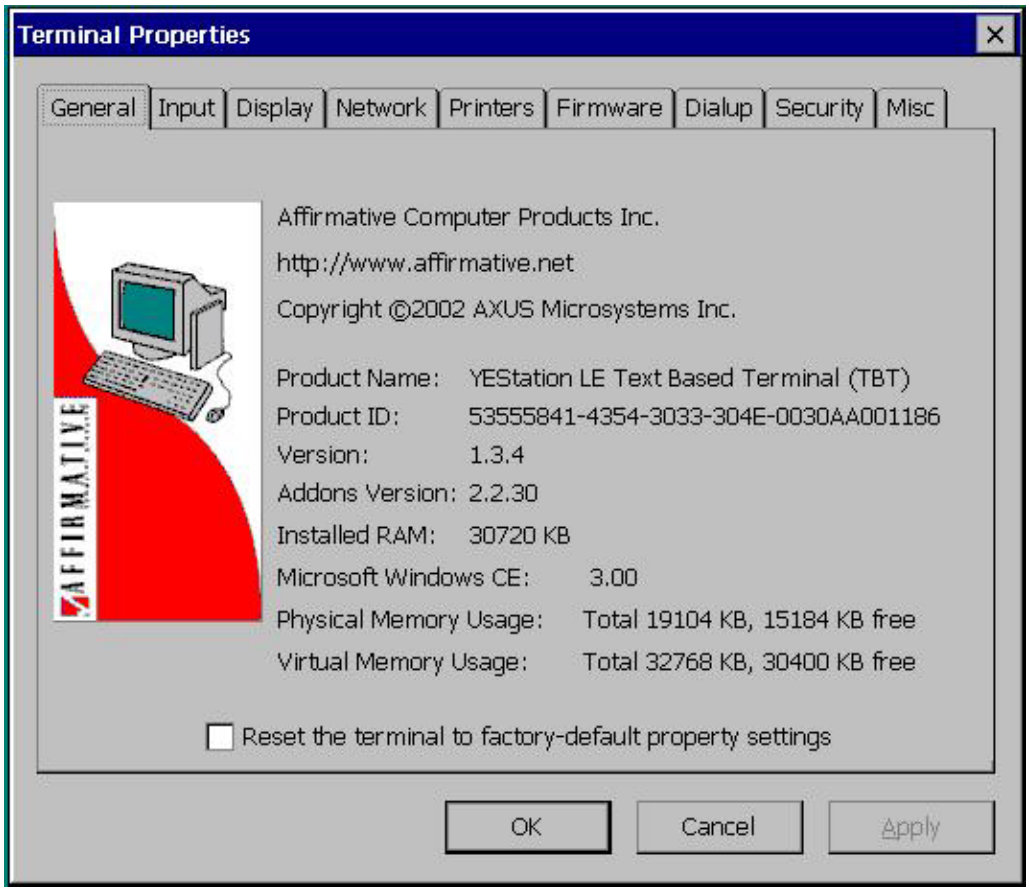
Configure Terminal Properties

Using the Terminal Properties window, you can change the TBT properties. Invoke this window by pressing the **F2** key in the Terminal Connection Manager window. The Terminal Properties window consists of nine property sheets that can be invoked by activating their individual tabs. At the bottom of each sheet are three buttons:

- OK. Activate **OK** to save changes and quit Terminal Properties *after* you have set desired properties in *all* the property sheets.
- Cancel. Activate **Cancel** to quit Terminal Properties without saving any changes.
- Apply. Ignore this button.

If a password has been enabled for this TBT, you will see the Setup Password dialog box when you press **F2**. Type in your password and activate **OK**.

General Properties

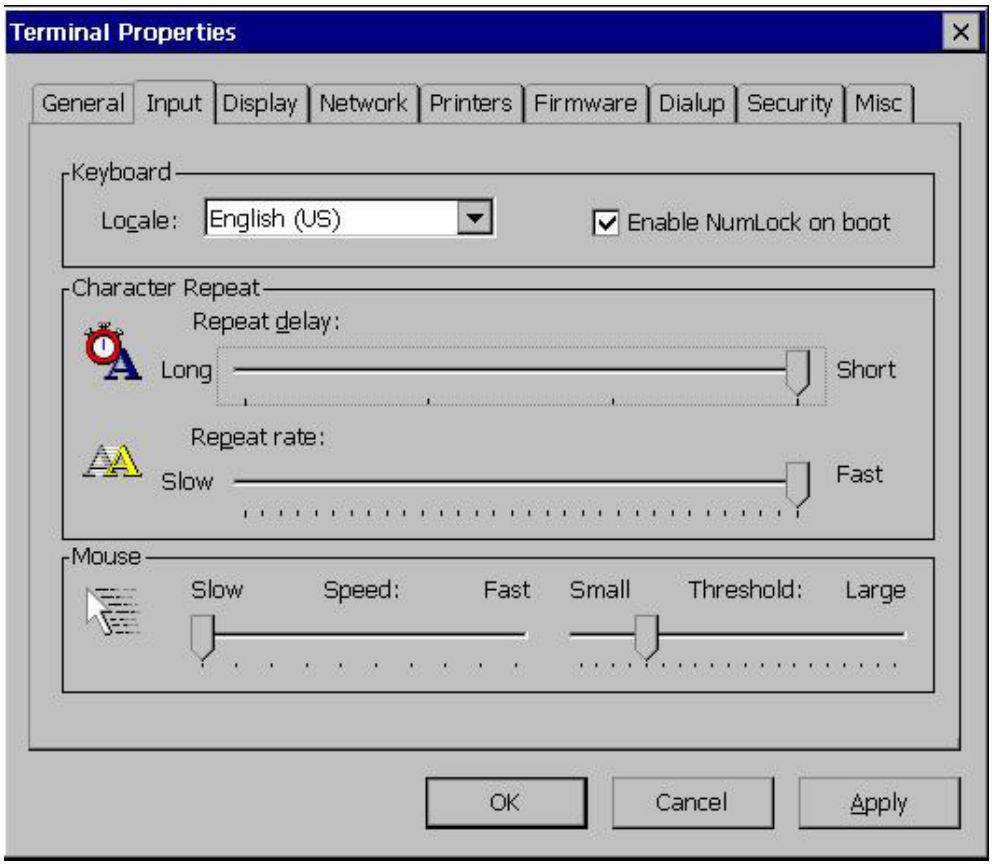


General Properties Sheet

- Product ID. This is a unique product identification code. The last 12 positions are used as the "UUID" by the Remote Management software and are the same as the terminal MAC address.
- Version.
- Addons Version.
- Installed RAM. This shows the amount of DRAM in the TBT, less the amount (typically 2MB) reserved for the video display. DRAM is used for working storage. The standard amount is 32MB (less 2MB)..
- Microsoft Windows CE. This is the version of the Windows CE operating system that is installed in the TBT. The operating system can only be upgraded as part of a general firmware upgrade; it cannot be upgraded by itself.
- Physical Memory Usage.
- Virtual Memory Usage.
- Reset the terminal to factory-default property settings. Activate this check box to reset the TBT to its factory default settings. When you do this, you will get a dialog box asking you to confirm your intentions.

Input Properties

Use the Input properties sheet to configure your TBT's keyboard and mouse properties.

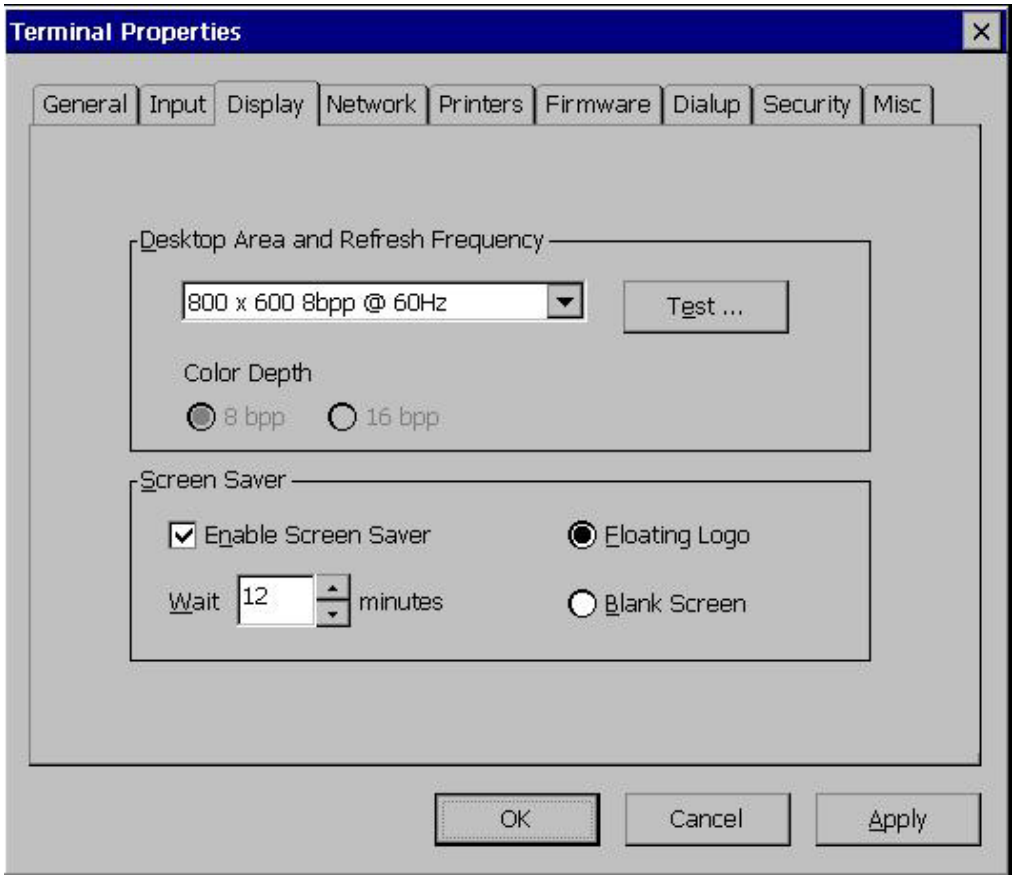


Input Properties Sheet

- Locale (**Alt+c**). Use the scroll list to select a language. Default is **English**.
- Enable NumLock on Boot. Check to force Numeric Pad NumLock when the TBT starts up
- Character Repeat. Use the Repeat Delay (**Alt+d)** slider control to define how long a character key must be held down before that character will start to repeat on the screen. Use the Repeat Rate (**Alt+p**) slider control to define how often a character will repeat when that character key is held down.
- Mouse. Use the Speed slider control to specify how fast the cursor moves on the screen as you move the mouse. Use the Threshold slider control to specify the mouse sensitivity to double clicks.

Display Properties

Use the Display properties sheet to configure the TBT's display screen.



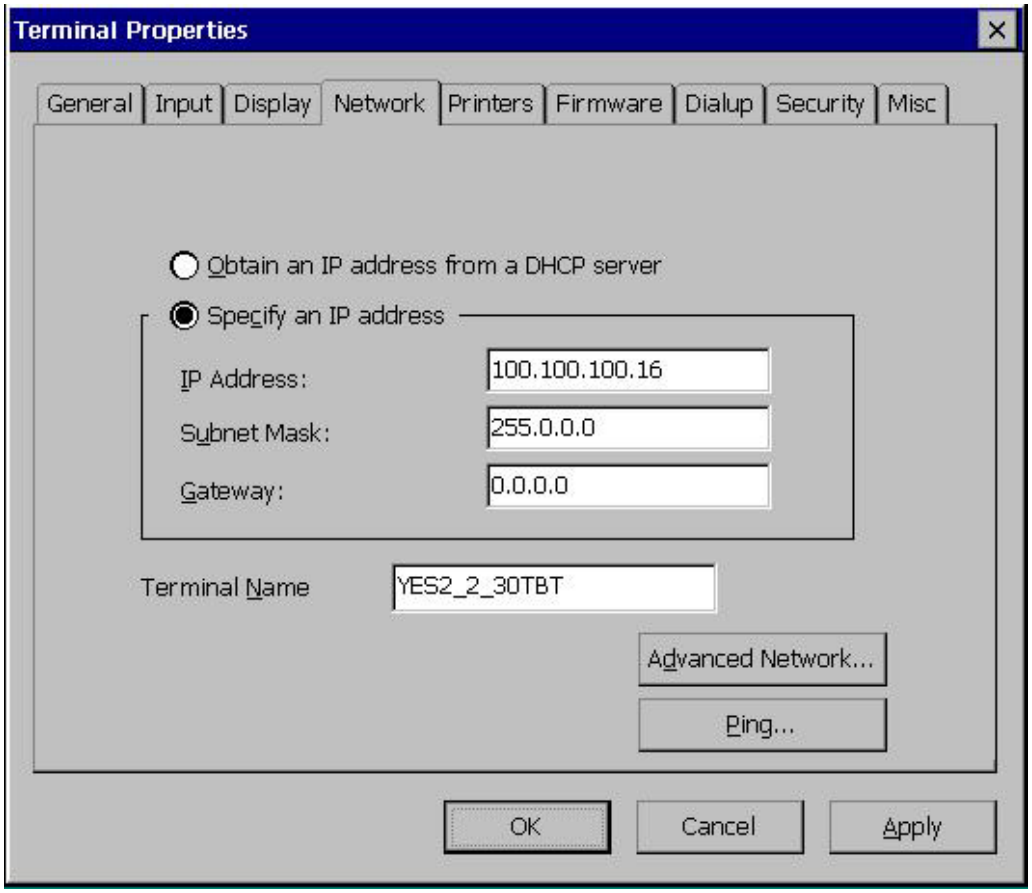
Display Properties Sheet

- Desktop Area and Refresh Frequency (**Alt+d**). Use the scroll list to select the TBT display resolution. The TBT will support resolutions from 600x480x8x60 up to1024x768x16x85 if the monitor will support them. Eight-bit color is typically sufficient for emulator sessions. Another available setting is **Best Available Using DDC**, which will automatically choose the best available monitor resolution if that monitor is DDC-compatible. NOTE: Be sure to test your new setting if you are going up in frequency or resolution. If you don't test, you could be faced with an unreadable screen after boot-up.

- Color Depth. These radio buttons are enabled only if you choose **Best Available Using DDC.** They allow you to search for the best available 8-bit setting or the best available 16-bit setting.
- Test (**Alt+e**). Use this button to preview the resolution and frequency selected on the scroll list. Testing is recommended before locking in this setting; if the monitor will not support your selection, you will be faced with an unreadable screen after boot-up. See Troubleshooting Your TBT if this situation occurs.
- Enable Screen Saver (**Alt+n**). Check here to enable the screen saver. By default this function is activated. Use the Wait (**Alt+w**) box to adjust the amount of idle time before the screen saver is activated. Then choose, via the radio buttons, either a floating logo (**Alt+f**) screen saver or a blank (**Alt+b**) screen..

Network Properties

The Network properties sheet lets you enable DHCP addressing or specify an IP address.



Network Properties Sheet

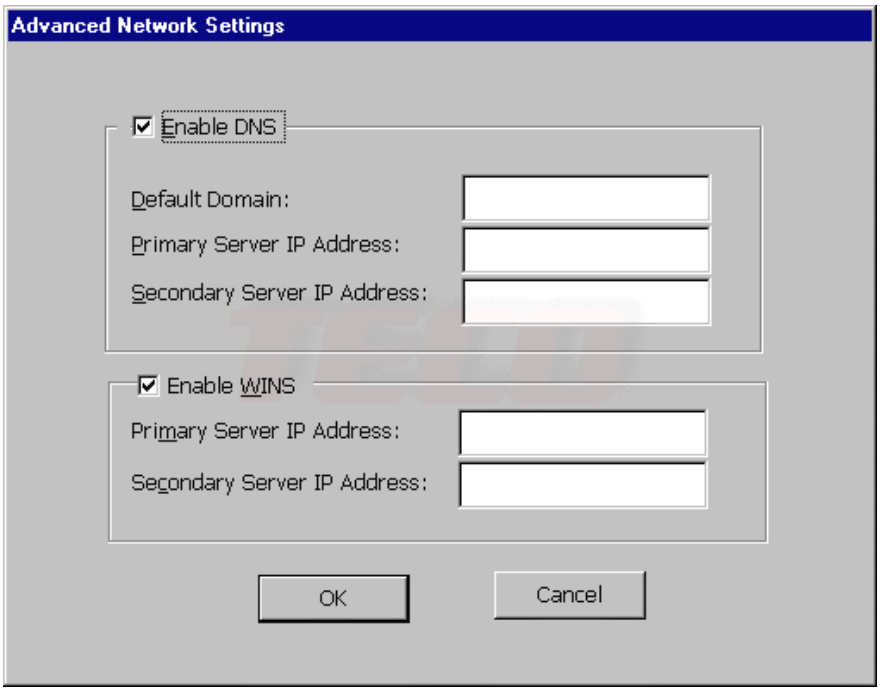
- Obtain an IP address from a DHCP Server (**Alt+o**). Select this radio button to enable DHCP addressing.
- Specify an IP address (**Alt+c**). Select this radio button to enable the following three fields for a specific IP address setting.
  - IP Address (**Alt+i**). Enter a static IP address in this field.

- Subnet Mask (**Alt+u**). Enter the subnet mask of the local network.
- Gateway (**Alt+g**). Enter the IP address of a gateway if any server is not on the local sub-net.

- Terminal Name (**Alt+n**). You can enter an identifier here to be used by Remote Management software.

Advanced Network (Alt+d)

Activate this button to configure DNS and WINS settings.

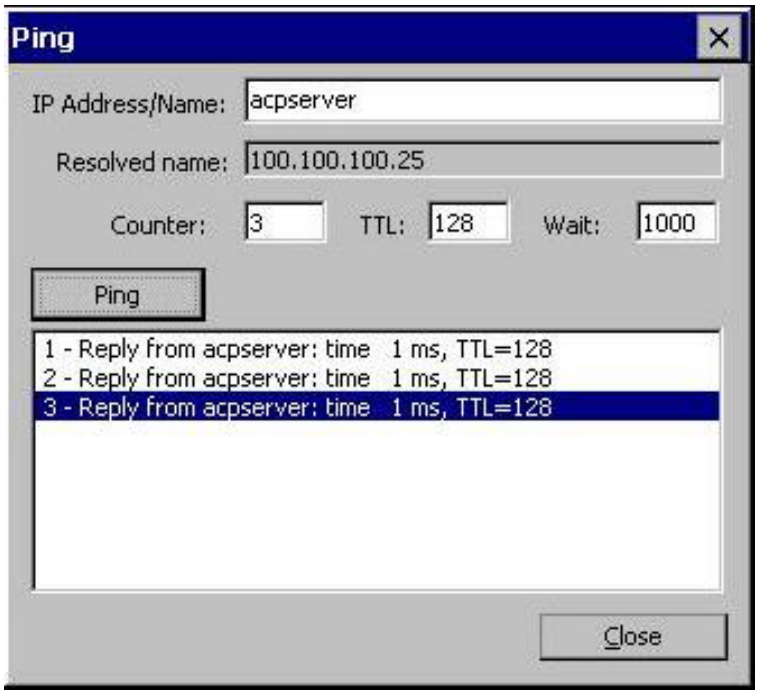


Advanced Network Settings Dialog Box

- Enable DNS (**Alt+e).** Activate this check box to enable the following three fields for the DNS setting.
  - Default Domain (**Alt+d**). Enter the default domain name in this field.
  - Primary Server IP Address (**Alt+p**). Enter the primary DNS server IP address in this field.
  - Secondary Server IP Address (**Alt+s**). Enter the secondary DNS server IP address in this field.
- Enable WINS (**Alt+w**). Activate this check box to enable the following two fields for the WINS setting.
  - Primary Server IP Address (**Alt+m**). Enter the primary WINS server IP address in this field.
  - Secondary Server IP Address (**Alt+c**). Enter the secondary WINS server IP address in this field

Ping … (Alt+p)

Activate this button to display the Ping dialog box. You can ping the name or IP address of a host or any other device connected on the network. You even can ping a web site through a gateway.



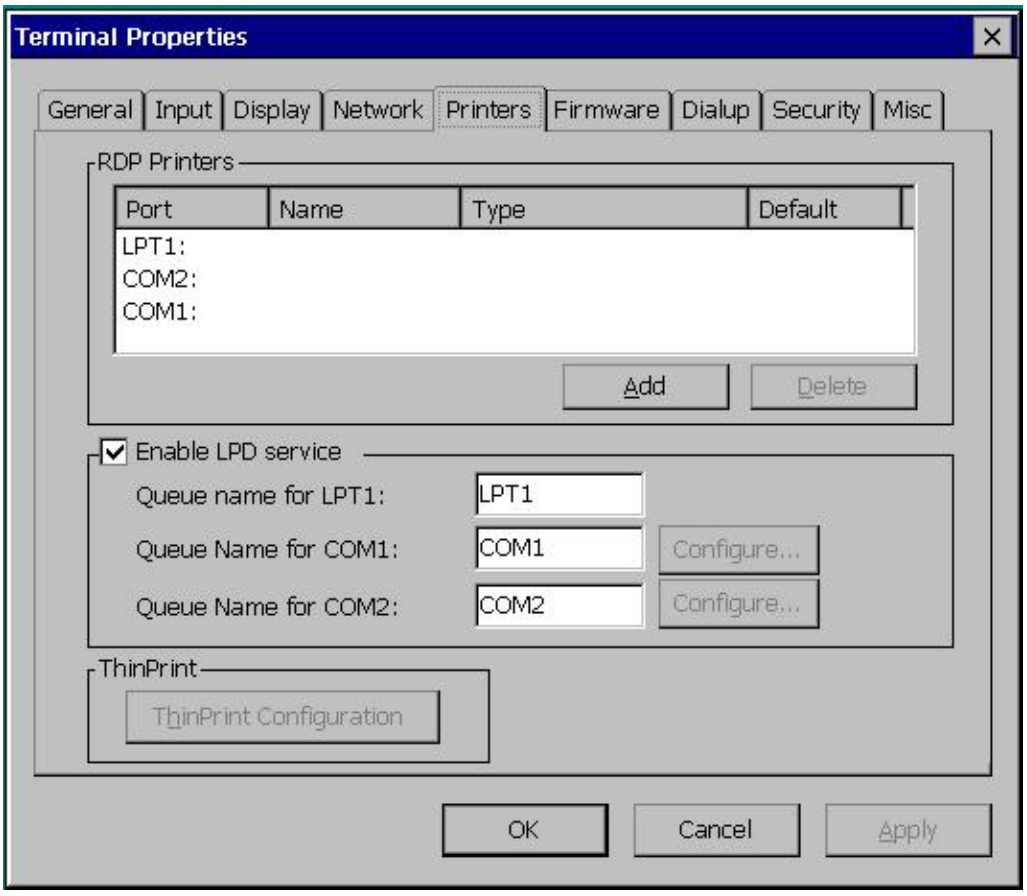
Ping Dialog Box

- IP Address/Name. Enter the network name or the IP address of the device to be pinged.
- Resolved Name. If you entered a network name above, and if the local name server recognizes that name, you will see the actual IP address of the device here.
- Counter. Enter the desired number of ping attempts.
- TTL. Enter the desired Time to Live in milliseconds. This is an esoteric number that is usually never changed from the default value of **128**.
- Wait. Enter the desired wait time, in milliseconds, before a ping attempt is recorded as failed.
- Ping. After entering the parameters above, activate this button to execute pings. The results will be shown in the list box below the **Ping** button.

Printers Properties

This properties sheet is used only if you wish to use one or more locally attached printers as network LPD printers. You can attach up to three printers to your TBT, one on each of the LPT1, COM1, and COM2 ports.

If your local printers are only going to be used with printer emulation sessions, you do not need to configure them here. They will be configured in the individual emulation sessions. See YES*term*/IP TN5250E Emulation|Setup and Configuration|Printer Emulation.

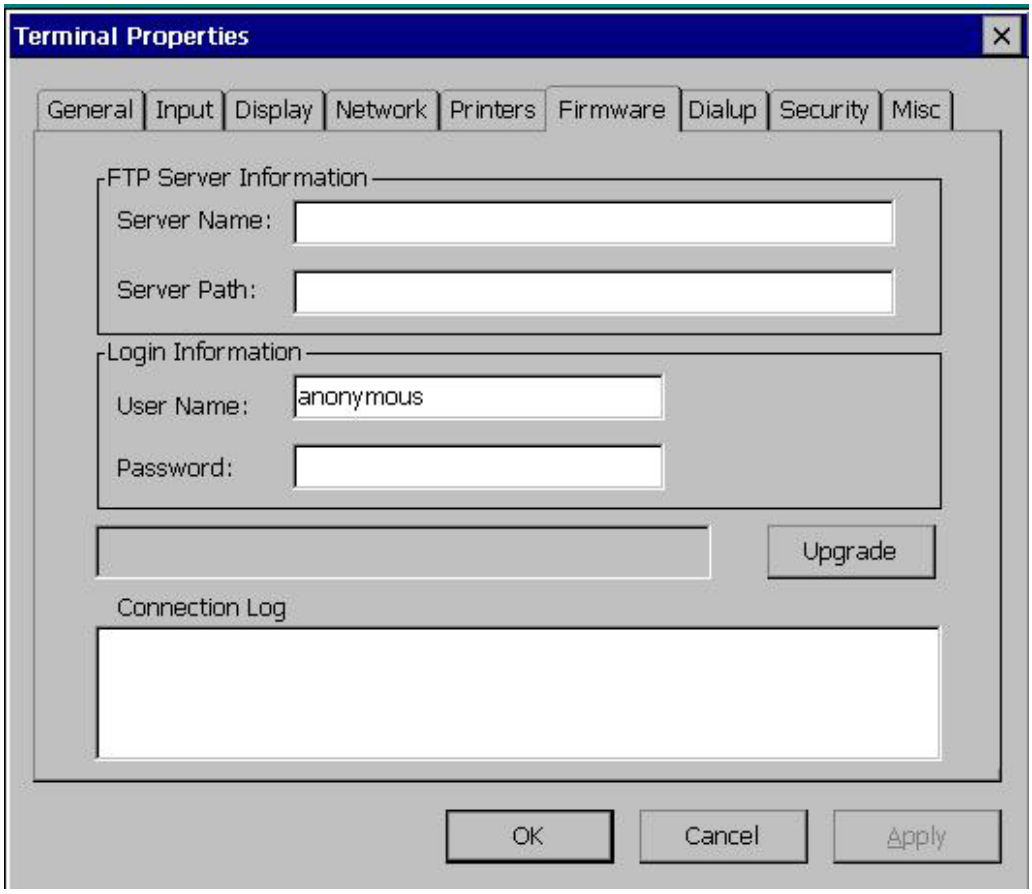


Printers Properties Sheet

- RDP Printers. Not applicable in the TBT.
- Enable LPD Service. Check this box if you wish to use one or more local printers as a network LPD printer.
  - Queue Name for LPT1. If your local printer is attached to the parallel port, enter the network queue name here.
  - Queue Name for COM1. If your local printer is attached to the #1 COM port, enter the network queue name here. Activate the adjacent **Configure** button if you need to change the default COM1 settings. If the **Configure** button is grayed out, uncheck and recheck the **Enable LPD Service** box.
  - Queue Name for COM2. If your local printer is attached to the #2 COM port, enter the network queue name here. Activate the adjacent **Configure** button if you need to change the default COM2 settings. If the **Configure** button is grayed out, uncheck and recheck the **Enable LPD Service** box.
- ThinPrint. Not applicable in the TBT.

Firmware Properties

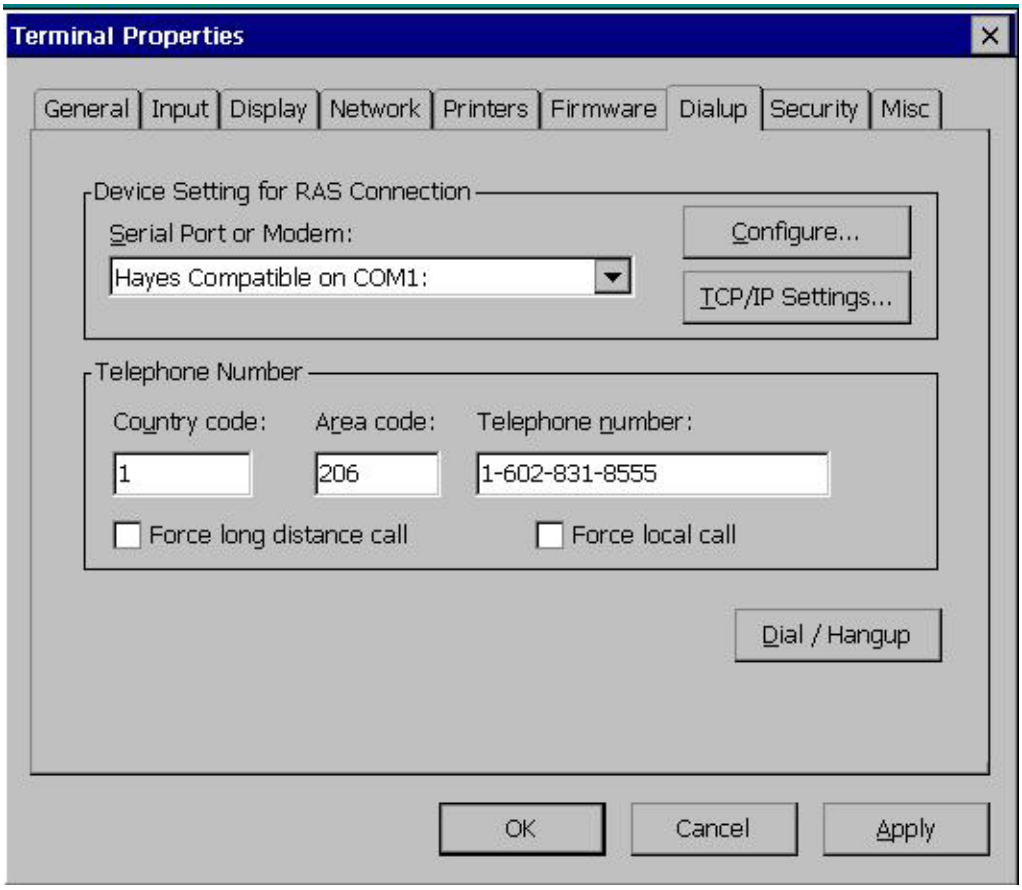
Use the Firmware sheet If you wish to update your TBT's firmware from a local FTP server. For more information, please refer to the Firmware Upgrade Utilities section.



Firmware Properties Sheet

Dial-Up Properties

Use the Dial-Up properties sheet to configure your dial-up settings and your COM ports, including any COM ports that you are using for serial printers.



Dial-Up Properties Sheet

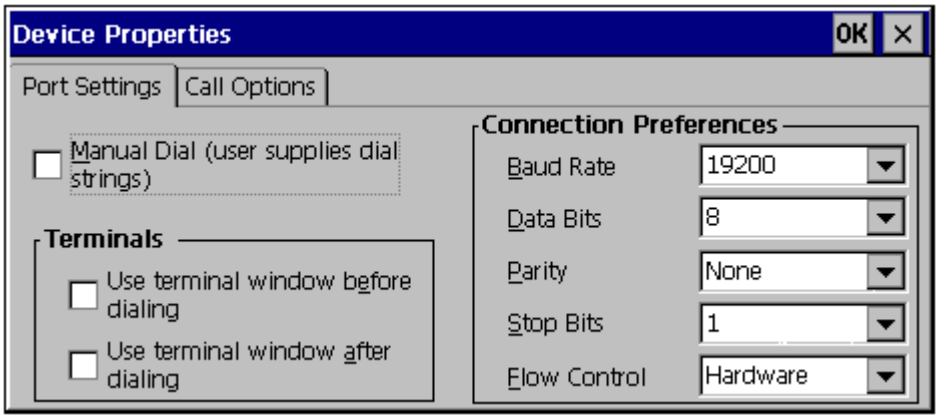
Device Settings for RAS Connection

- Serial Port or Modem (**Alt+s**). There are four choices in the drop-down list. The configuration parameters are common for all four choices.

Configure.

When this button is pressed, the Device Properties dialog box displays with two tabs.

Port Settings

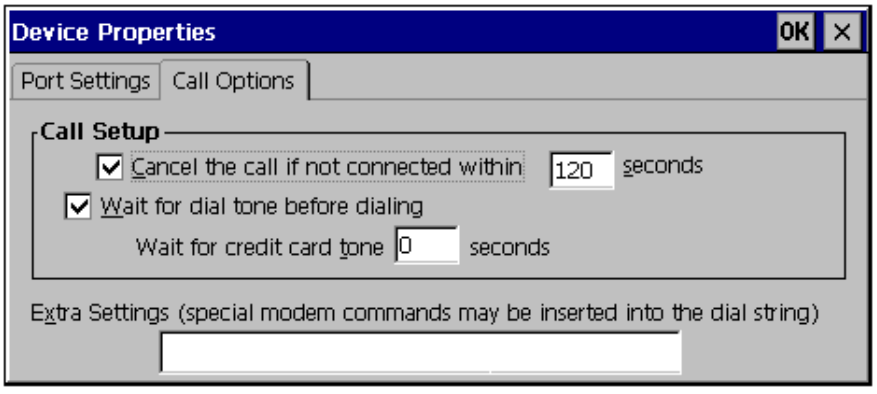


Port Settings Dialog Box

- Manual Dial (**Alt+m**). Check this box to use manual dialing instead of the number entered in Telephone Number.
- Terminals. Per your application requirement, you can select "Use terminal window before dialing" or "Use terminal window after dialing". The default setting disables both check boxes and executes an automatic log-on to the server.
- Connection Preferences. Select the serial connection preferences from the drop-down lists**.** These preferences will be identical for all COM connections.

Note: A common problem encountered here is that some "Hayes-compatible" modems, including some from a very popular vendor, are not really 100% Hayes compatible. When that occurs, it can usually be fixed by entering a modem initiation string in the Extra Settings field of Call Options. Talk to your modem vendor for the details of this initiation string.

Call Options



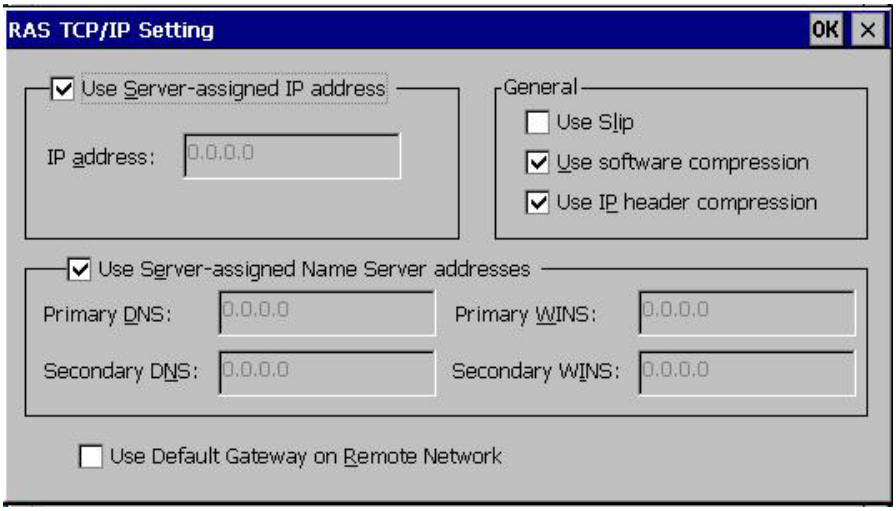
Call Options Dialog Box

- Call Setup. Check the appropriate boxes and set the time to wait for connection or dial tone before canceling a call.

- Extra Settings (**Alt+x**). Enter any necessary modem initialization commands here. If your modem is not 100% Hayes compatible, you will need something here.

TCP/IP Settings

Activate the **TCP/IP Settings** button to set TCP/IP dial-up settings.



TCP/IP Settings Dialog Box

The default settings you see here are commonly used to access a RAS server, and seldom need changing. Your network administrator will give you any changes that are necessary.

Telephone Number

- Country Code (**Alt+u**). Ignore this field.
- Area Code (**Alt+r**). Ignore this field
- Telephone Number (**Alt+n**). Put the complete number, including area code, here. If you are making an international call, enter the international prefix (011) and the country code also.
- Force local/long distance. Leave these boxes unchecked.

Dial/Hangup

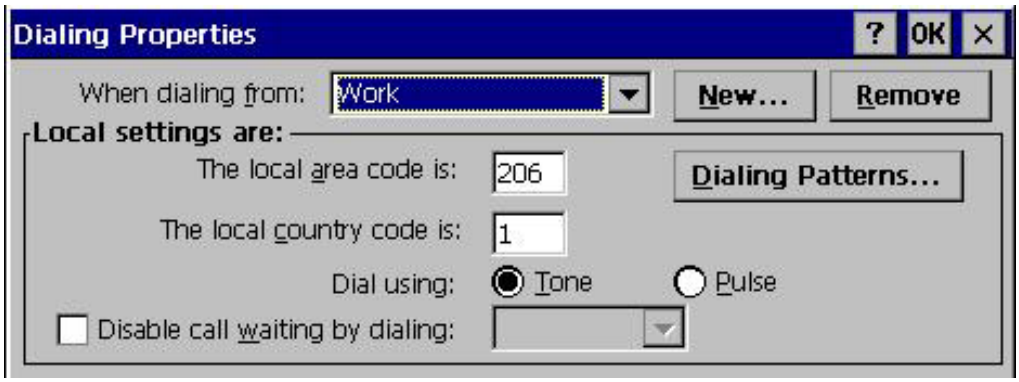
RAS connections must be initiated and terminated using this button. Activate **Dial/Hangup** to open the Dialup Connection dialog box.

Dial-Up Connection Dialog Box

- User Name (**Alt+u**). Enter the log-in name for your RAS server.
- Password (**Alt+p**). Enter the password for your log-in name.
- Domain (**Alt+o**). Enter the RAS server domain name, if applicable.
- Save Password (**Alt+s**). Check this box if you want the password to be saved for future calls.
- Connect. After all dialing properties are entered, activate the **Connect** button to initiate the call.

Dial Properties…

Activate this button to open the Dialing Properties dialog box.



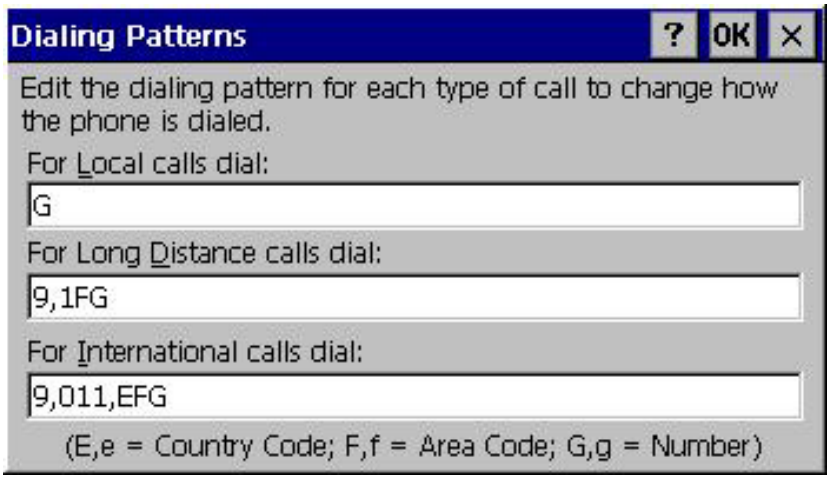
Dialing Properties Dialog Box

- When Dialing From. Ignore this parameter.
- The Local Area/Country Code. Ignore these fields.
- Dial Using. Select the appropriate radio button.

- Disable Call Waiting By. Check this box, if applicable, and enter the appropriate disable sequence.

Dialing Patterns

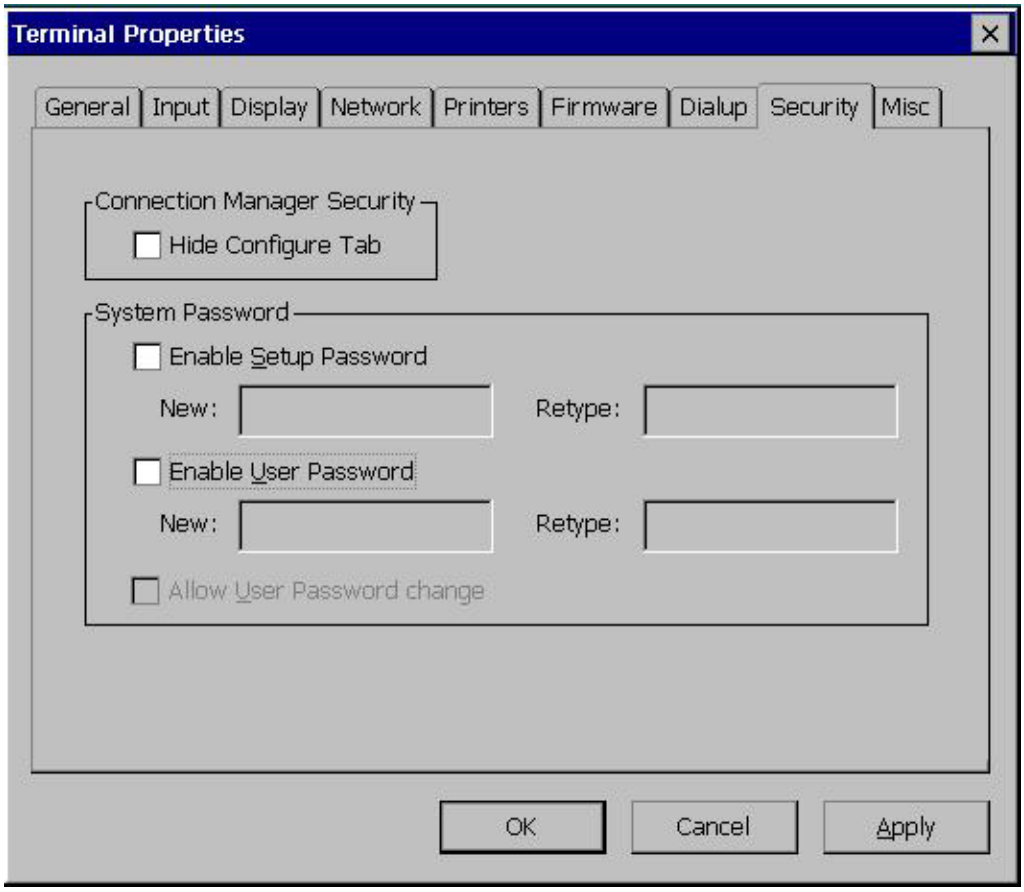
Activate this button to open the Dialing Patterns dialog box.



Dialing Patterns Dialog Box

All calls are treated as local calls. Ignore the Long Distance and International fields, and delete everything except G from the Local field unless you have to dial a 9 to get an outside line. In that case, add a 9 to the Local field (i.e. 9,G).

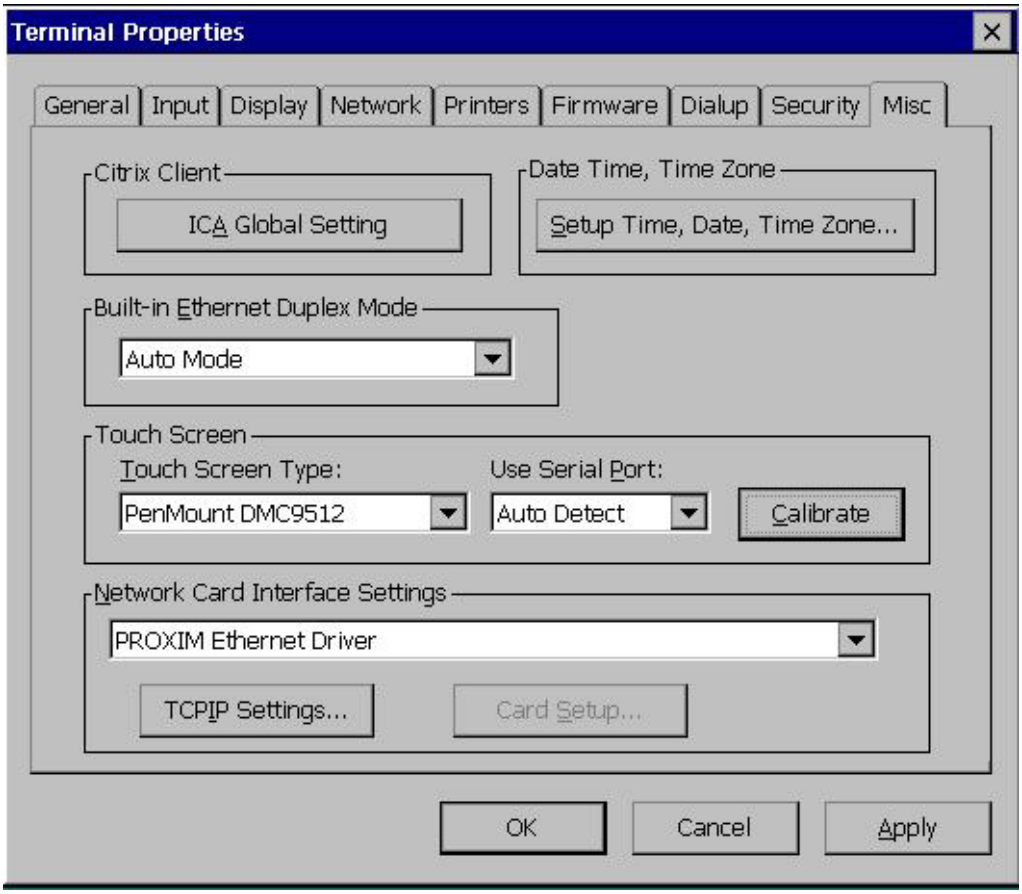
Security Properties



Security Properties Sheet

- Hide Configure Tab. Check this box to hide the Configure tab in the Terminal Connection Manager window. This will prevent the user from making any changes, if you also enable a setup password.
- Enable Setup Password (**Alt+s**). Check this box, and enter the desired password, to control access to Terminal Properties. If this is enabled, a password will be requested whenever **F2** is pressed from the Terminal Connection Manager. NOTE: Do not forget this password. There is no workaround if the Setup Password is enabled, unless you have Remote Management software on your network. Otherwise, Affirmative Computer Products must re-burn the flash memory.
- Enable User Password (**Alt+u**). Check this box, and enter the desired password, to control access to the terminal. If this is enabled, a password will be requested whenever the terminal is booted up and whenever the terminal recovers from the screen saver. NOTE: Do not forget this password. There is no workaround if the User Password is enabled, unless you have Remote Management software on your network. Otherwise, Affirmative Computer Products must re-burn the flash memory.
- Allow User Password Change. Check this box to allow the user to change the User password. This opportunity will be provided whenever the User password is requested.

Miscellaneous Properties



Miscellaneous Properties Sheet

- Citrix Client. Not applicable in the TBT.
- Date, Time, Time Zone. This information can be entered, and it will be maintained in the TBT. But the information is not used anywhere else, and can only be accessed through the Miscellaneous properties sheet. So you may not want to bother with it.
- Built-In Ethernet Duplex Mode (**Alt+e**). Select the desired mode from the drop-down list.
- Touch Screen. The TBT supports two types of touch screens, the PenMount DMC9512 and the Elo Touch.
  - Touch Screen Type (**Alt+t**). Select one of the two types in the drop-down screen.
  - Use Serial Port (**Alt+p**). Select the COM port to which the touch screen is attached.
  - Calibrate (**Alt+c**). If the TBT detects a touch screen on the specified serial port, the **Calibrate** button will open a calibration screen.
- Network Card Interface Settings. The TBT has built-in LAN circuitry, so this property is not applicable.

THIS PAGE INTENTIONALLY LEFT BLANK.

YES*term*/IP TN5250E Emulator

Overview

AS/400 or iSeries Requirements

- OS/400 V3R2 with appropriate PTFs or higher

Technical Characteristics

The YES*term*/IP TN5250E emulator is one of the YES*term* 5250 TCP/IP solutions developed by Affirmative Computer Products. It is a powerful Telnet TN5250e emulator that provides Windows CE users with the capability to connect to an AS/400 via the TCP/IP protocol. YES*term*/IP TN5250E provides enhanced emulation functions for a wide range of IBM terminals and a "true" IBM 3812 Printer emulation with the support of all the enhanced features normally available only on very expensive 5250 printer interfaces. YES*term*/IP can easily support up to 4 concurrent TCP/IP connections with different AS/400 and/or mainframe hosts. In addition, YES*term*/IP TN5250E supports the "Enhanced Display Auto-Signon and Password Encryption" allowing a secure connection to the AS/400, with no need of any SSL option. The configuration of Telnet sessions is made simple by a Wizard application that guides the user during the configuration process.

Display Session Characteristics

- IBM emulations supported: 5251, 5291, 3196, 3180-2, 3477-FG, 3477-FC.
- Includes numerous resident national keyboard templates and Code Pages.
- Includes enhanced keyboard mapping and customization, using Shift, Caps Lock, Alt, Ctrl, function keys, etc.
- EURO (€) symbol supported.
- Includes enhanced copy and paste options.
- Includes Hotspot, Macros and programmable Keypad.
- Includes tools for keyboard mapping and attributes editing.
- Includes enhanced customizable Hot Spot feature.
- Includes enhanced Record/Playback feature.
- *Supports "Enhanced Display Auto-Signon and Password Encryption" allowing a secure connection to the AS/400.*
- **Choice of Windows or 5250 Text presentation modes.** See Setup|Display Emulation|Advanced|Status Bar Type for details.

Printer Session Characteristics

- IBM Emulation supported: 3812.
- Support for continuous forms, multi drawers, envelope, manual feeders, simplex/duplex, auto page orientation, and COR (Computer Output Reduction).
- Supports CPI, LPI Override and LQ, NLQ.
- Supports Host Transform Feature.
- Supports Hex Pass-Through (HPT) feature, with customizable leading and ending sequences and support of "non-printable characters".
- Supports EURO symbol (€).

Emulator Setup and Configuration

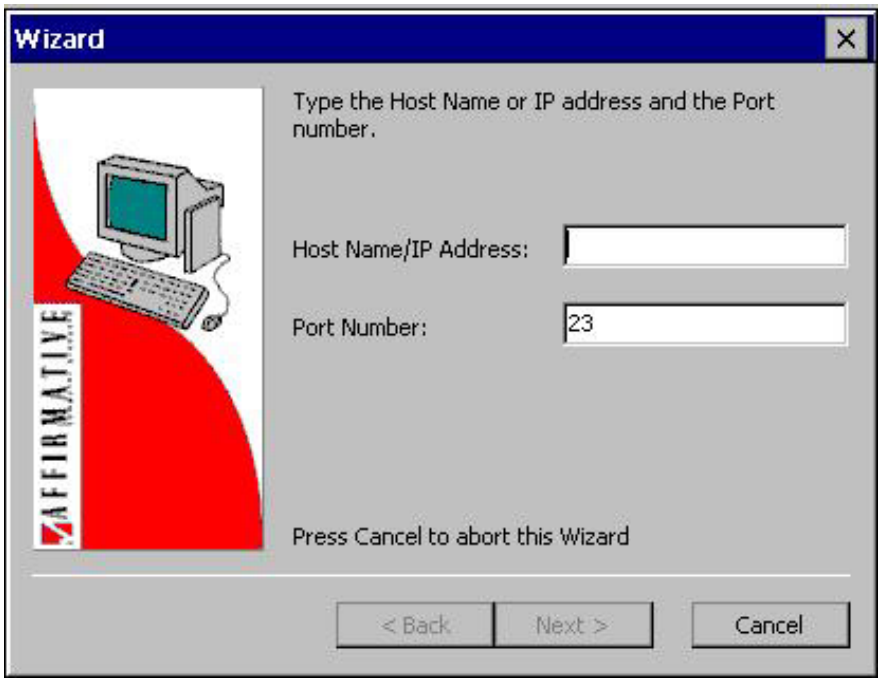
Setup and configuration are initiated from the Terminal Connections Manager screen. Activate the **Configure** tab, and then activate **Add**. You are faced with a choice of two 5250 emulation types. After choosing either a YES*term*/IP 5250 display or a YES*term*/IP 5250 printer emulation, a wizard will guide you through setup. You can have a maximum of four emulation sessions, with any mixture of 5250 and 3270 emulations.

After your setup and configuration are complete, you can secure parameters from any user changes as follows:

1. From the Connection Manager screen, press **F2**.
2. Select the Security tab.
3. Check the box for "Hide Configure Tab".
4. Check the box for "Enable Setup Password".
5. Choose and confirm a password.
6. Activate **OK**.

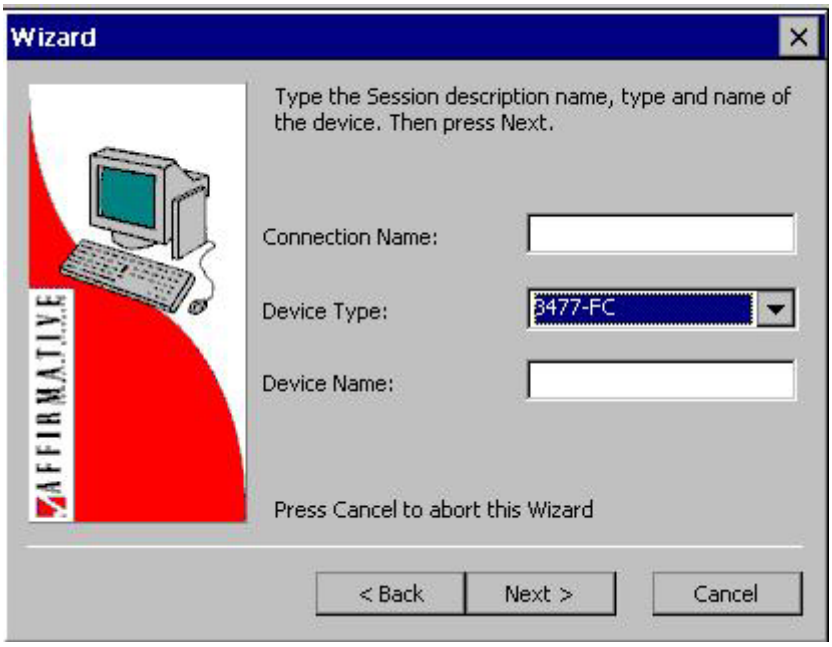
Display Emulation

A Setup Wizard will take you through three screens. Activate **Next** to go to the next screen, **Back** to return to the previous screen, and **Cancel** or the **Esc** key to abort the process.



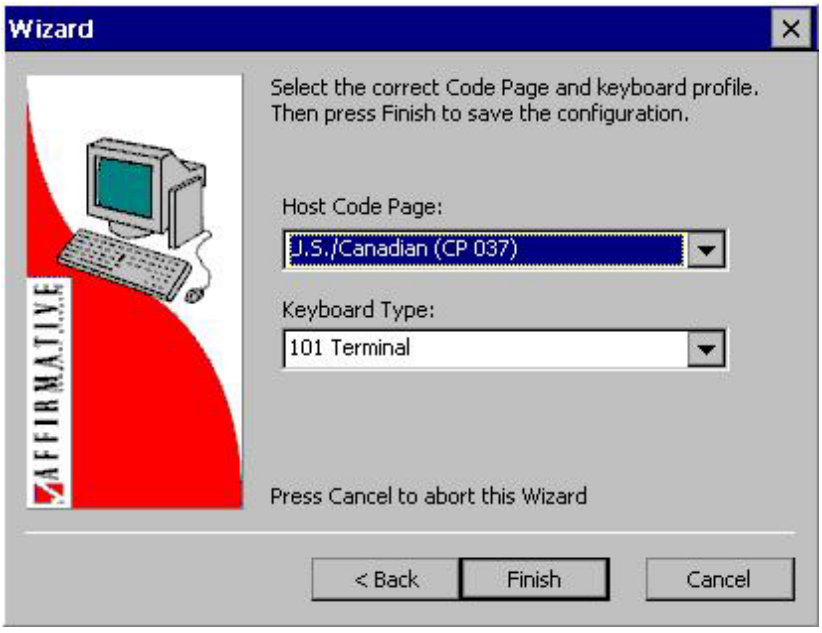
Display Setup Screen #1

- Host Name/IP Address: If you have a local DNS or WINS server, you can type in the AS/400 host network name. Otherwise, type in the IP address of the AS/400 server.
- Port Number: Use the default of **23** unless directed to do otherwise by your AS/400 administrator.



Display Setup Screen #2

- Connection Name: This is the friendly name that will appear in the Connection Manager screen.
- Device Type: Select one from the drop-down list. The default **3477-FC** works well unless you have special needs.
- Device Name: If you are using named sessions, enter the session name here.



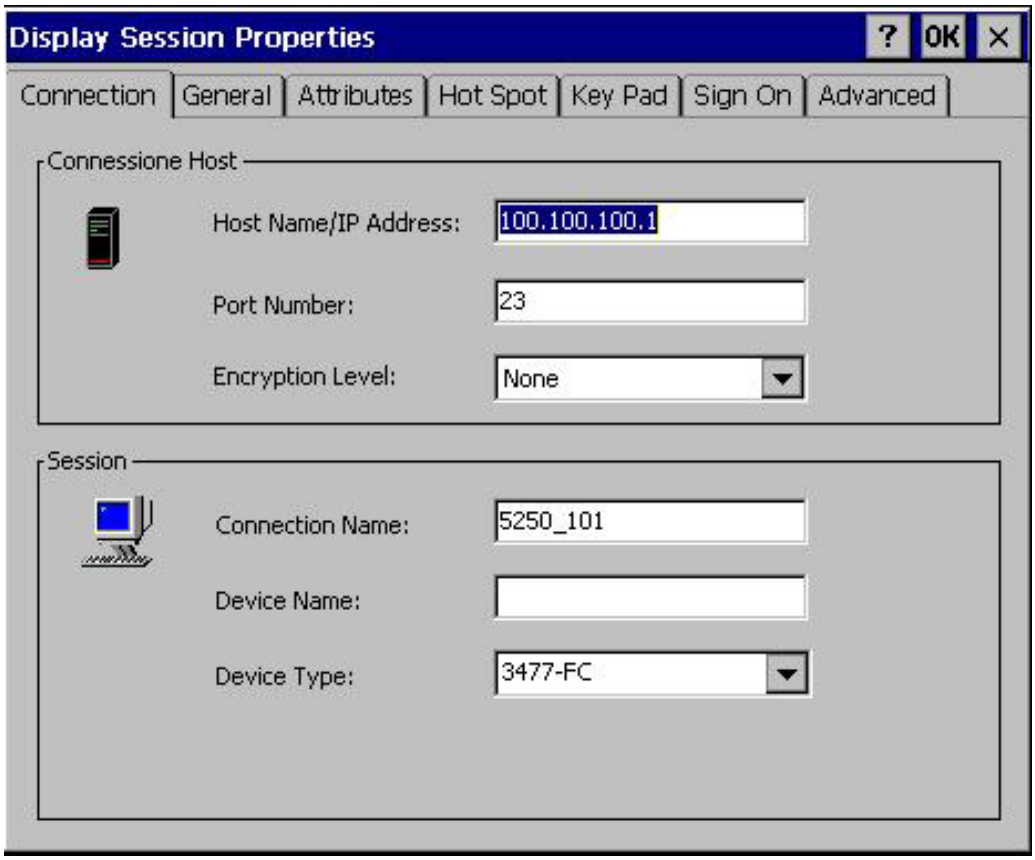
Final Display Setup Screen

- Host Code Page: Choose the applicable country from the drop-down list.
- Keyboard Type: Choose **101 Terminal** if you are using the Affirmative Computer Products 1010 101-key keyboard; choose **122 keys** if you are using the Affirmative Computer Products 1220 122-key keyboard; otherwise, choose **101 PC**.

This concludes the configuration parameters covered by the wizard. However, you can customize many more parameters in each Display Session by highlighting the connection name in the

Configure tab of Connection Manager and activating **Edit**. You will see the Display Sessions Properties sub-window with seven property sheet tabs.

Connection

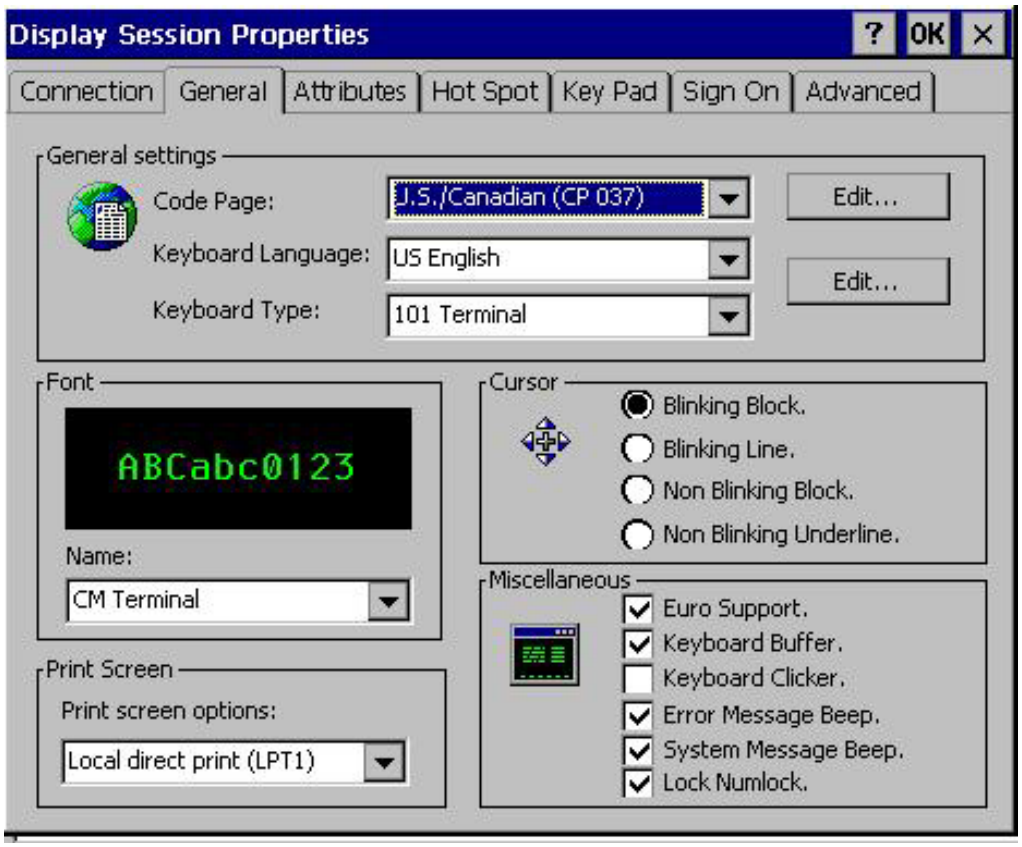


Connection Properties Sheet

Five of the six parameters on this property sheet were already configured in the Setup Wizard, although you can change them here if you wish. If you want to use sign-on encryption, choose an appropriate encryption level from the drop-down list in the **Encryption Level** field. Your AS/400 must also be configured for this encryption level.

.

General



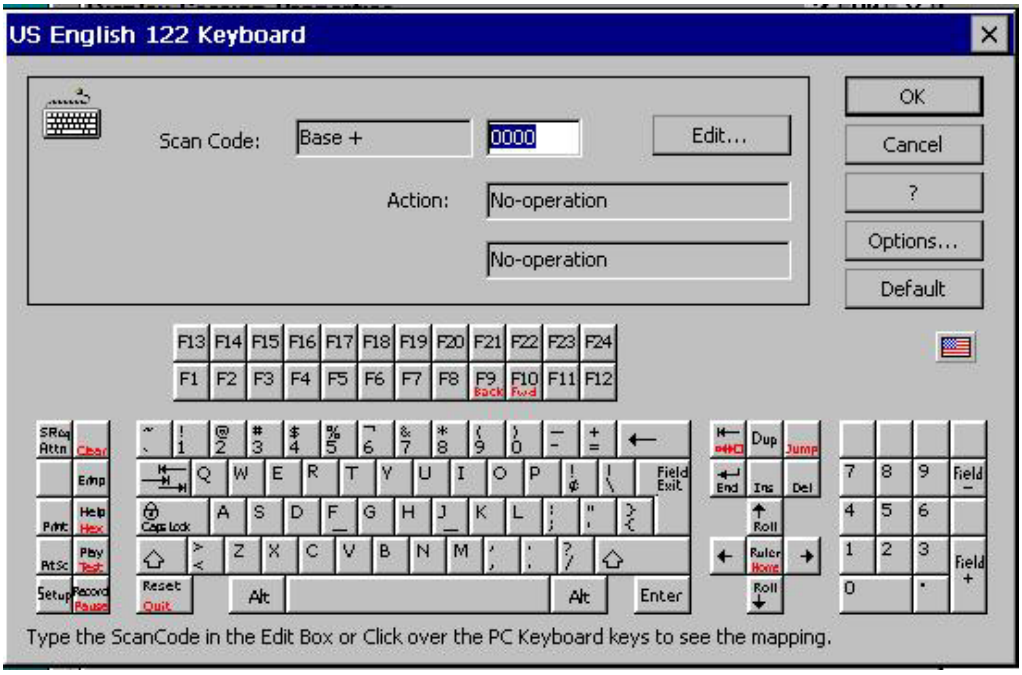
General Properties Sheet

Code Page

YES*term*/IP supports numerous language Code Pages. The Code Page selected here from the drop-down list should be the same one configured on the AS/400 for this specific device. It is also possible to create a new custom Code Page Table. See How To…|Create a Custom Language Code Page for instructions.

Keyboard Type

YES*term*/IP supports 3 different keyboard types (101 PC, 101 Affirmative Computer Products Terminal, and 122 Affirmative Computer Products Terminal) for several different languages. It is also possible to create a new custom keyboard map. Click on **Edit** to get to the keyboard map page.



Keyboard Map Page for 5250 122-Key U.S. English Keyboard

You can check the current mapping in one of two ways:

- Scan Codes. The keyboard sends a unique scan code to the terminal when a key is pressed. If you want to see what key is associated with a specific scan code, type that code in the Edit box, shown highlighted in the above figure. The associated key will highlight, and any command mapped to that key will show in the Action boxes. Of course, most people couldn't care less about scan codes, so this method may be of little use to you.
- Mouse Clicks. If you have a mouse, position the cursor over the key of interest and left-click. The scan code for that key will show in the Edit box, and any mapped command will show in the Action boxes. If you want to see the effect of that key plus a modifier key (**Shift, Alt, Ctrl**), click on the modifier key and then on the action key.

Edit

Activate this key to initiate custom keyboard mapping. See: How To …|Create a Custom Keyboard Map for the mapping procedure.

Default

This button will erase any custom mapping that exists in this map. Everything goes back to defaults. Obviously, you want to be very careful around this key if you have done much custom mapping.

Keyboard Options Dialog Box

This key opens a special dialog box where you can specify the Keyboard ID, the Host Keyboard Language Option, and enable the Multinational character set .

Font

Select the Font style to be used as Default Font for the Display Session

Print Screen

From the drop-down list, select how the Print Screen function is to be performed:

- Local Direct Print. Make this selection if you wish to print to a printer attached to the terminal's LPT1 port.
- Through the Host. Make this selection if you wish to print to a remote printer through the AS/400.
- Extended Local Print. This selection provides local printing on steroids. To use it, you must create a printer emulation session. This session is used only for local or LAN printing, and it allows you to format your print output to the local or LAN printer. See Printer Emulation for more information.
- Function Disabled. Screens cannot be printed.

The Print Screen function can be activated from:

- Emulator Button bar.
- Emulator Menu bar (Tools… Print Screen)
- Keyboard in accordance with the keyboard map.
- Key Pad, if it contains a corresponding button.

Cursor

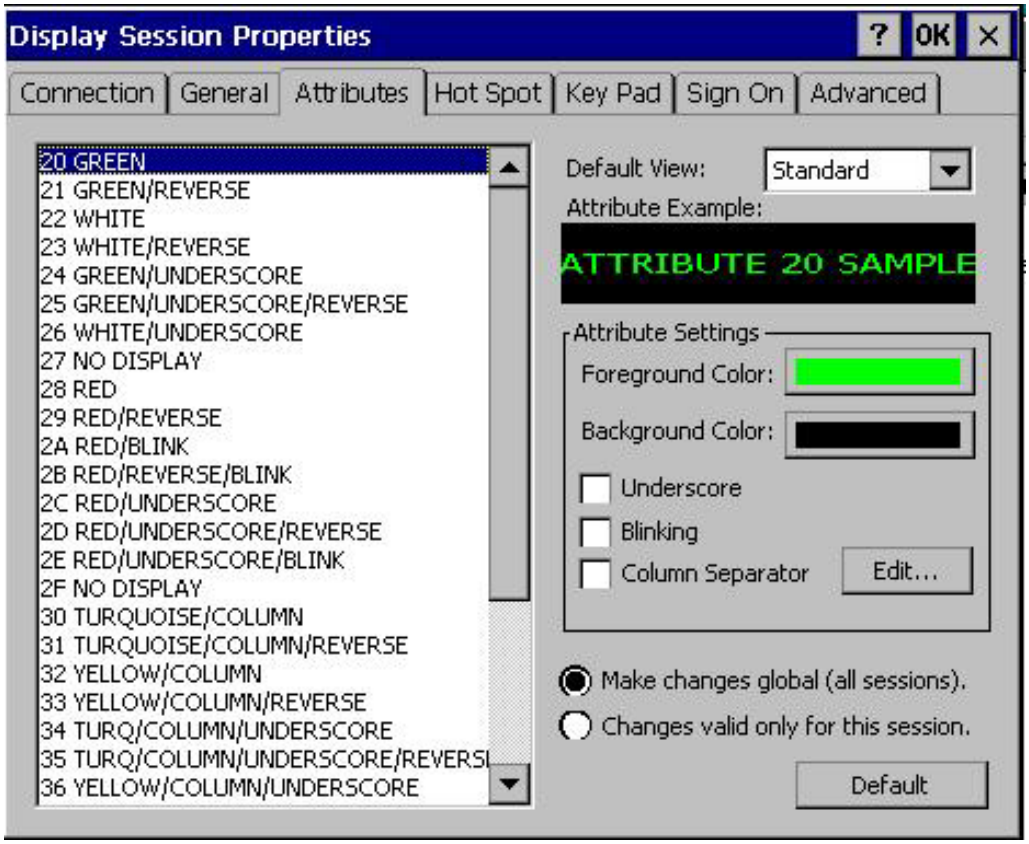
Select the type of cursor you want to use.

Miscellaneous

- Euro Support. When this option is enabled, you will enter the Euro symbol when you press **Alt+E**.
- Keyboard Buffer. This option enables Typeahead.
- Keyboard Clicker. If this option is enabled, you can hear a "click" every time you press a key on the keyboard.
- Error Message Beep. If this option is enabled, you can hear a "Beep" when an input error is made.
- System Message Beep. If this option is enabled, you can hear a "Beep" when a message is received from the Host.
- Lock NumLock. This option has no effect. NumLock is always enabled in an emulator session.

Attributes

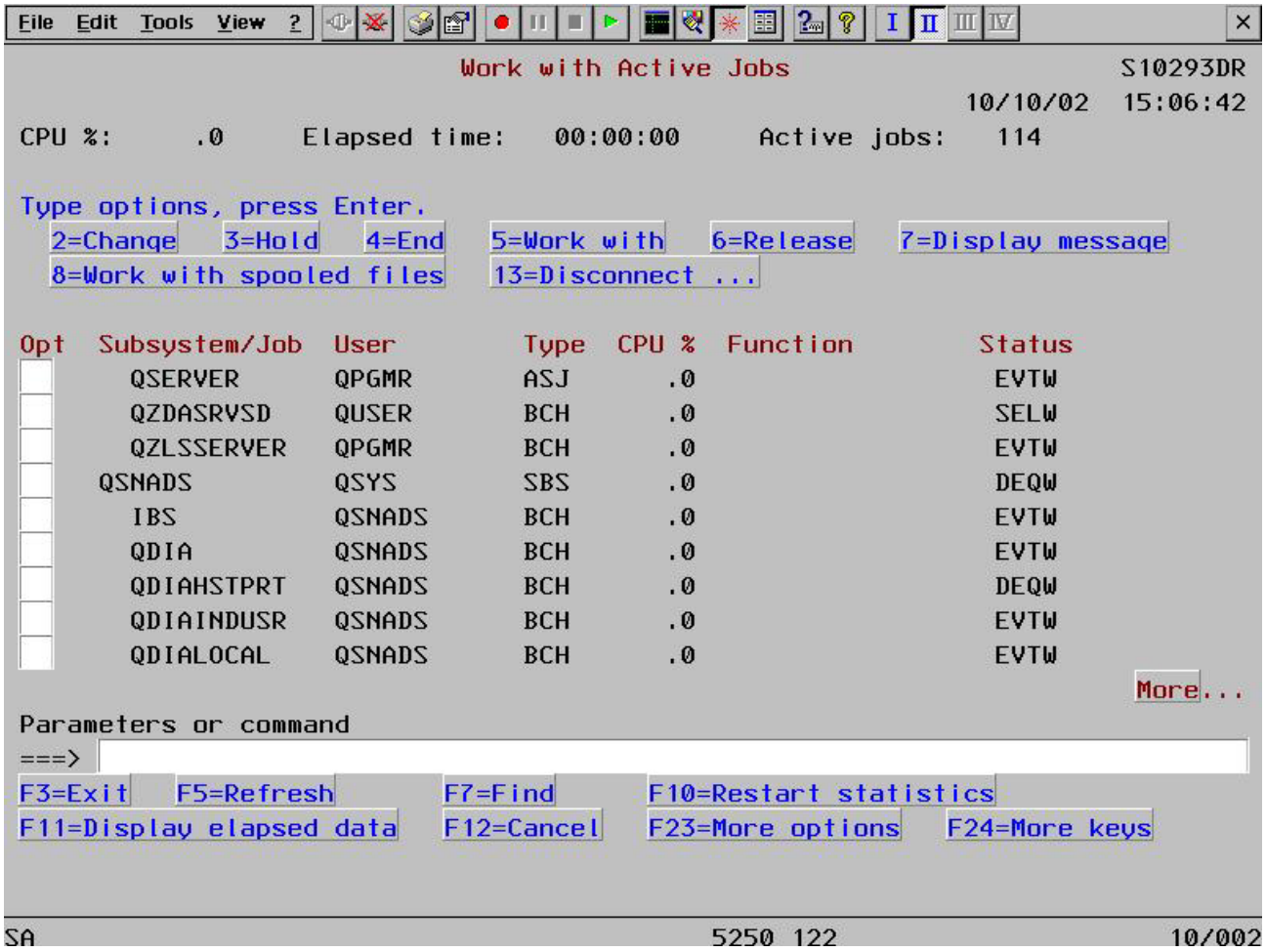
This properties sheet allows extensive editing of your screen appearance. At the lower right corner of this sheet are two radio buttons allowing you to make these edits global for all sessions, or restricting their use to this session only.



Attributes Properties Sheet

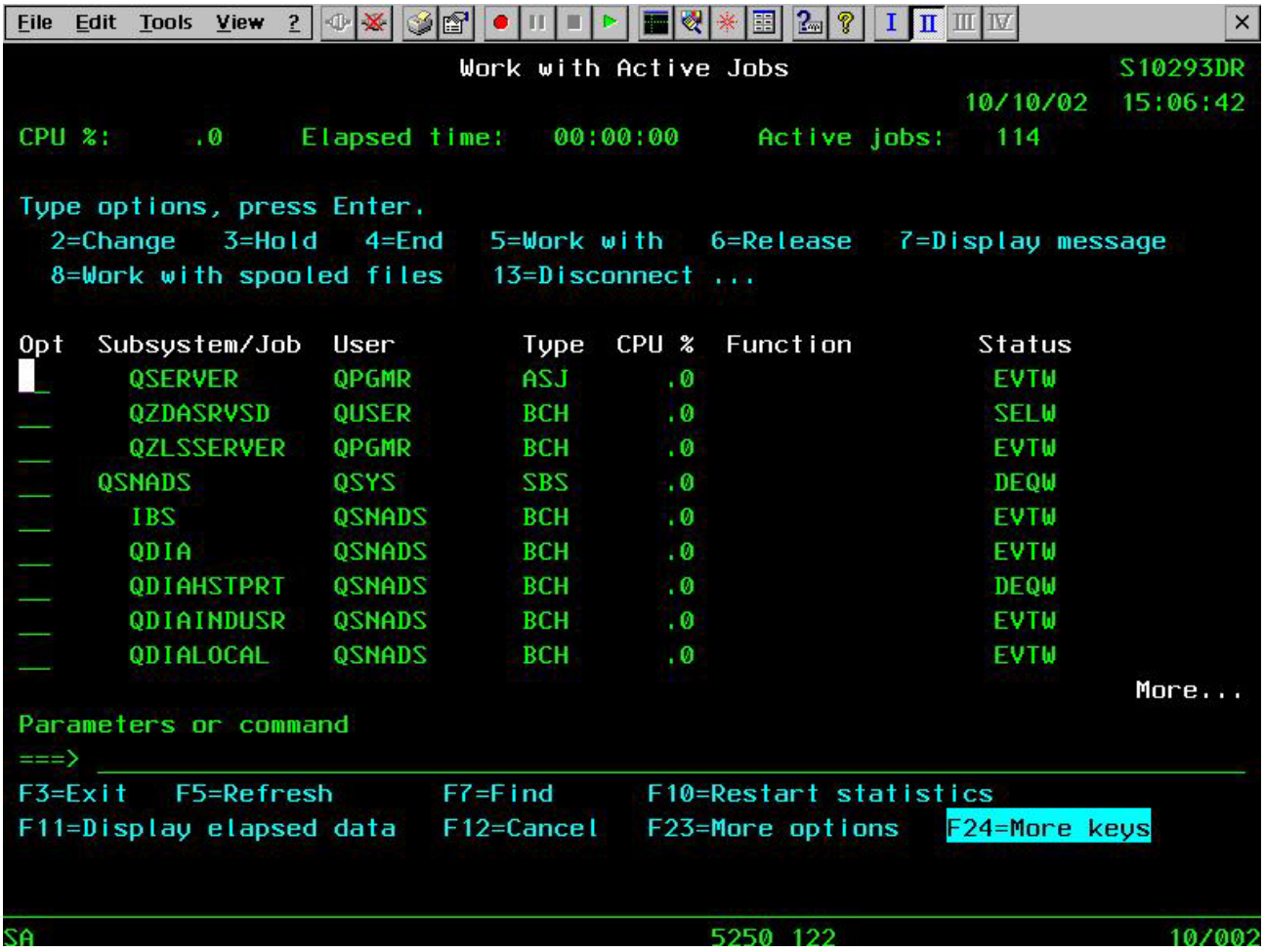
Default View

- Advanced. This selection provides a “graphics” appearance for your session screens, resembling a Windows application. All the Hot Spots are shown as raised buttons.



Display Emulation Screen with Advanced View and Hot Spots

- Standard. This selection provides the standard green screen "text" appearance for your session screens, duplicating terminal screens. Hot Spots are invisible unless the mouse cursor is placed over one of them, and then only that one Hot Spot is visible.



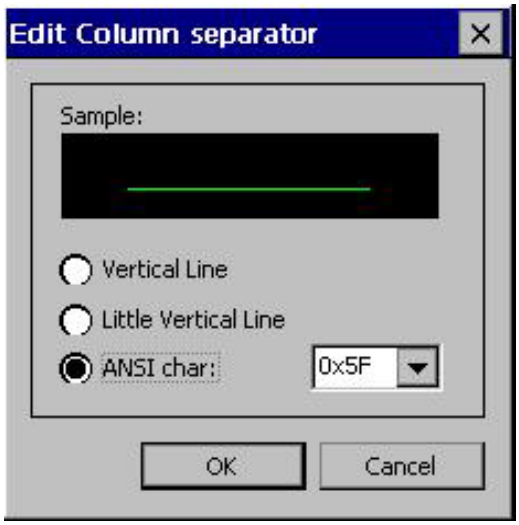
Display Emulation Screen with Standard View and Hot Spots

Either default view can be overridden from the emulation screen Toolbars if desired.

Attribute Settings

Set how the attribute font appears on the screen. This includes properties such as foreground and background color, blinking, underscore, and the use of column separators. You will see a preview of the "new look" in the Sample field. Be careful with the colors you choose; a wrong choice can cause text or fields to be invisible on the screen because of lack of color contrast.

- Edit (Column Separator). Click on this button to invoke this dialog box.

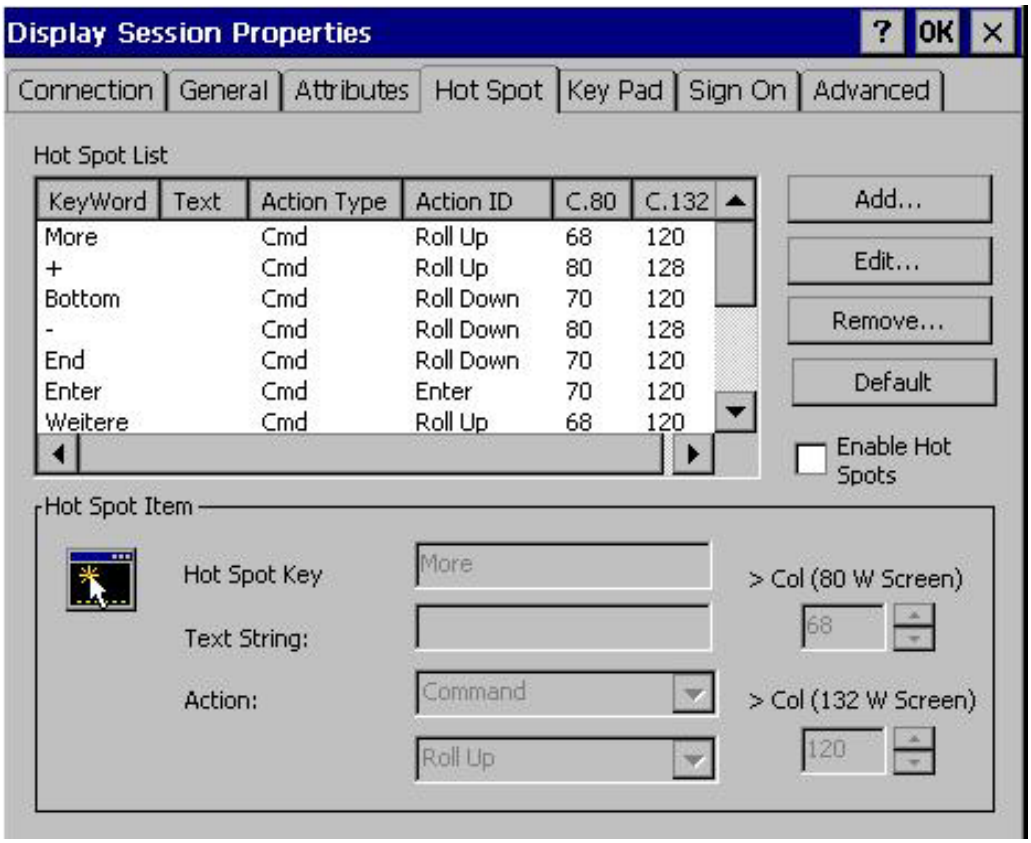


Edit Column Separator Dialog Box

Make your choices and view them in the Sample field.

Hot Spot

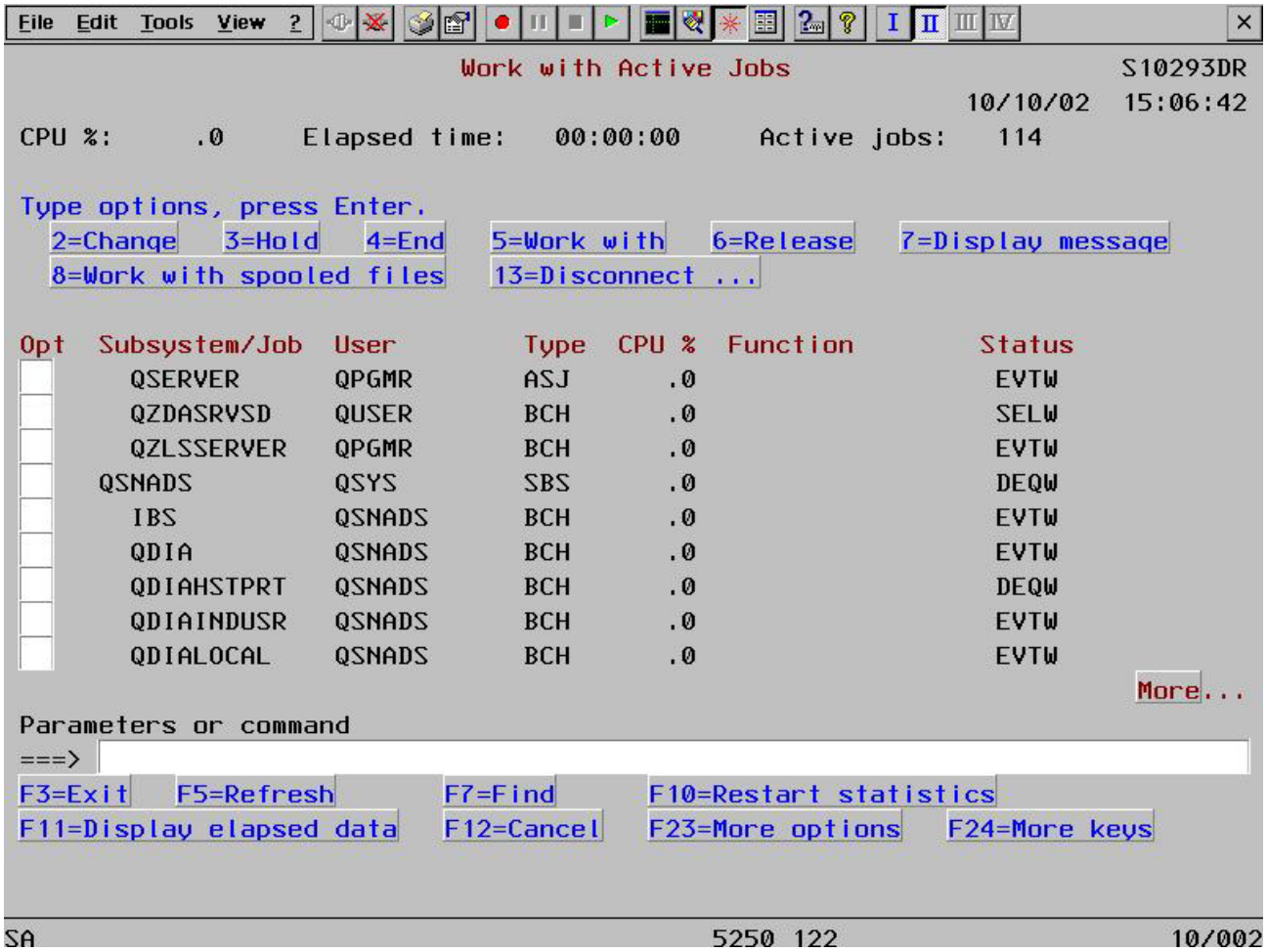
Changes made in this property sheet affect all sessions. There is only one Hot Spot configuration per emulator, not one per session.



Hot Spot Properties Sheet

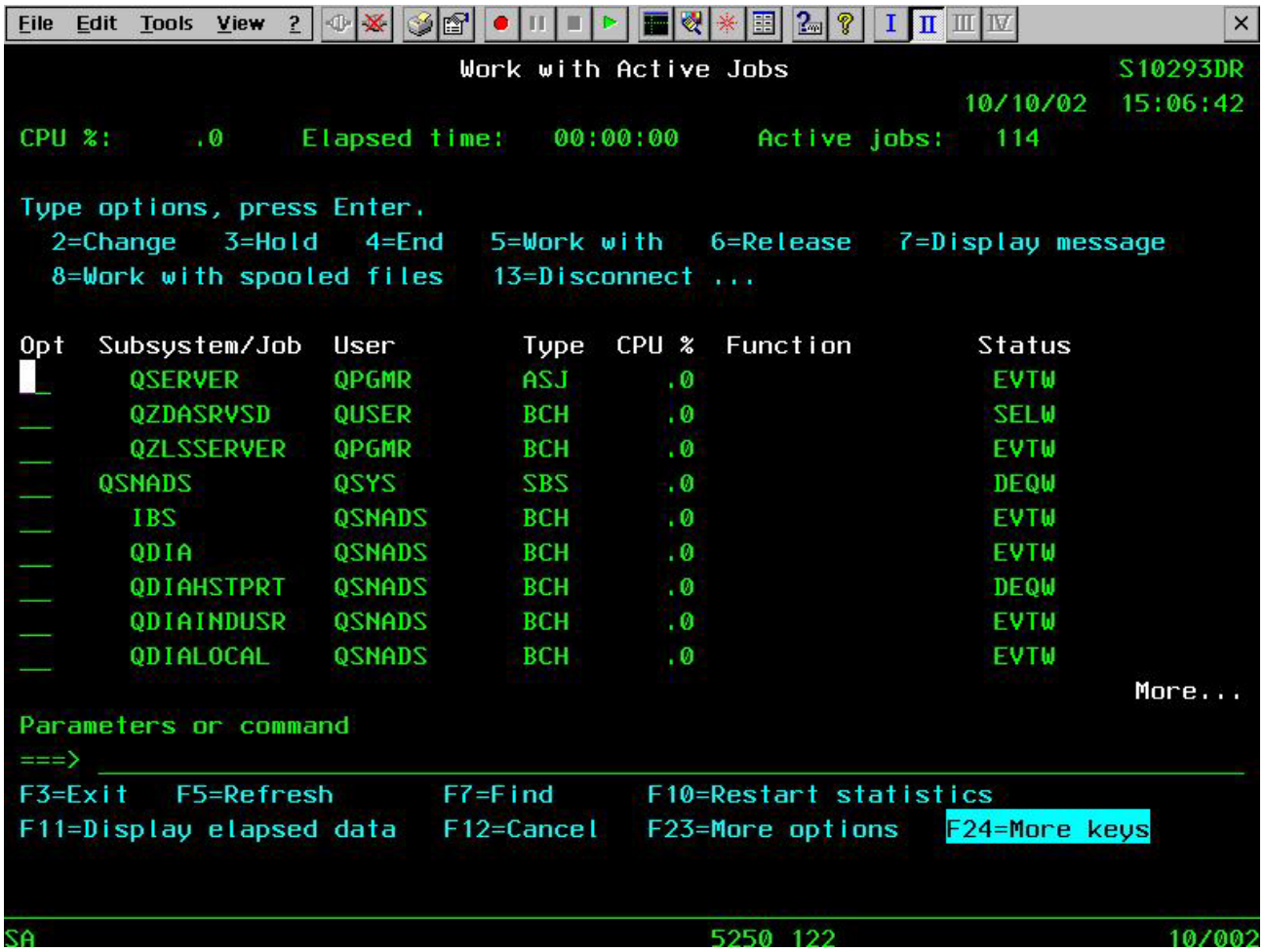
A Hot Spot is an area of the session window on which you can single-click the left mouse button to execute a command or function. Actually, a Hot Spot is the result of a text search by the emulator for the specified Keyword on the screen. The Function Key and Numeric fields (from 1 to 99 followed by a "period" or "space") Hot Spots are active by default, but you can add other Hot Spot keys and/or edit/remove them. You must use a mouse or a touch-screen monitor for Hot Spots - they really provide a way of performing functions with a mouse or by touch rather than with keys.

Hot Spots are displayed as raised buttons if the Advanced View option is selected in the Attributes tab or the emulation screen Toolbars.



Emulation Screen with Advanced View and Hot Spots

If the Standard View is selected in the Advanced tab or the emulation screen Toolbars, Hot Spots are invisible until the mouse cursor is dragged over them, and then only the one under the mouse cursor becomes visible.



Emulation Screen with Standard View and Hot Spots

A Hot Spot can be used to:

- Simulate a function key.
- Execute a Recorded Sequence that has the same name as the word that you select on the screen.
- Execute a command that you select.

To enable the use of Hot Spots, you must check the **Enable Hot Spots** box.

To Edit a Hot Spot:

1. Select the Function Key you want to modify.
2. Click on **Edit.**
3. If you want to send a Text String to the host every time you press the Function key, type it into the Text String field.
4. Select the Action from the Drop-Down List
5. From the drop-down list, select the command or the Recorded sequence that you want to associate to the Hot Spot key.
6. In c.80, specify where, in an 80-column screen, the text search engine should start looking for the specified Keyword. For example, the default start for the word “More” is column 68. So if

there is a word “More” to the left of that column, it will not be defined as a Keyword or Hot Spot.
7. In c.132, specify where, in a 132-column screen, the text search engine should start looking for the specified Keyword.
8. Click on **Accept.**
9. Click on **Apply**.

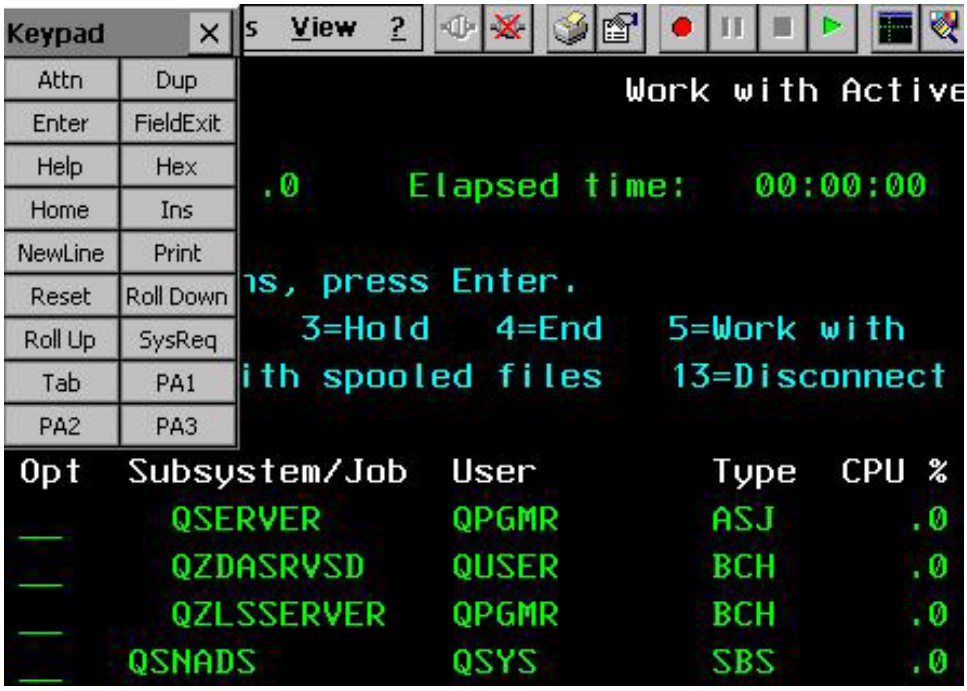
To Remove a pre-defined Hot Spot:
1. Select the Function Key.
2. Click on **Remove**.

.

To Add a Hot Spot:
1. Click on **Add**.
2. Type the Hot Spot Key Word you want to detect. If you want to send a Text String to the host, type it into the Text String field.
3. Select the Action from the Drop-Down List
4. From the drop-down list, select the command or the Recorded that you want to associate to the Hot Spot.
5. Specify the text search start columns in c.80 and c.132.
6. Click on **Accept**.
7. Click on **Apply**.

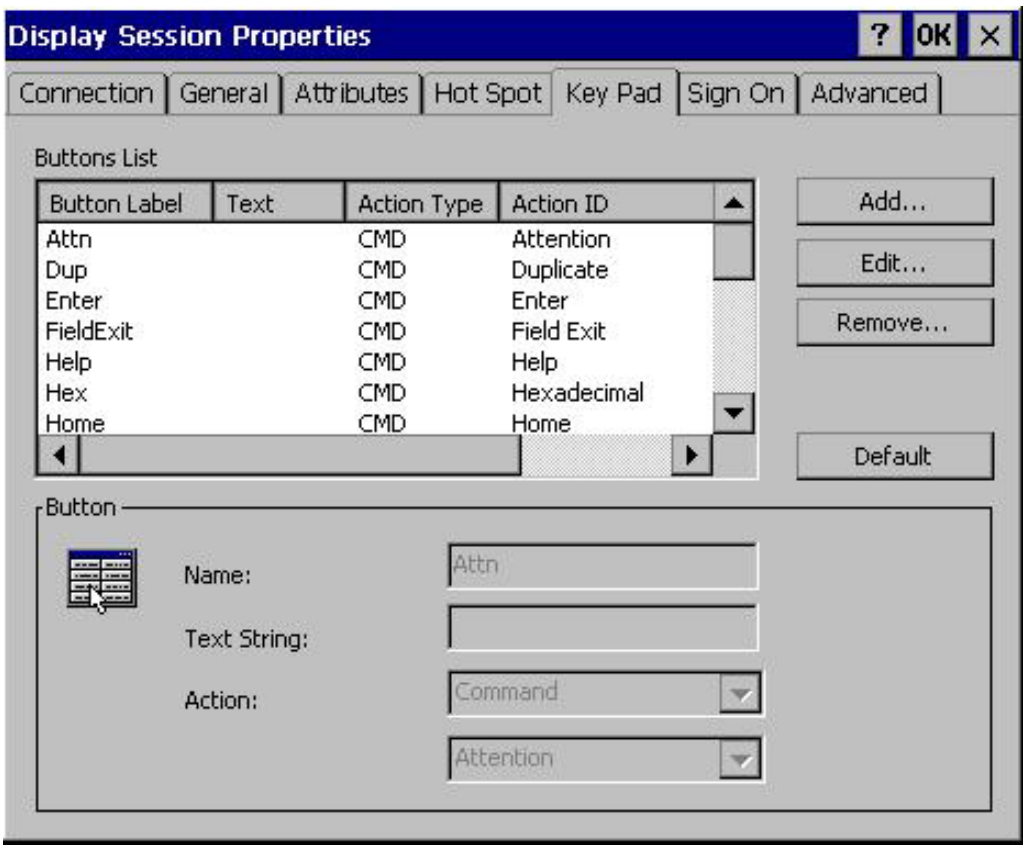
Key Pad

A Key Pad is a small window with several customizable push buttons, each having an assigned function. You can make it visible on the screen by clicking on the Key Pad button on the Buttons toolbar, or selecting **View/Key Pad** from the Menu bar. You can choose a function from the Key Pad with your mouse instead of typing the equivalent command, pressing a key, or running a Recorded Sequence.



Emulation Screen with Key Pad

The Key Pad tab allows you to change the characteristics of the pop-up Key Pad. Changes made in this property sheet affect all sessions. There is only one Key Pad configuration per emulator, not one per session.



Key Pad Properties Sheet

To Edit a Key Pad button:

1. Select the Function Key you want to modify from the Button Label list.
2. Click on **Edit**.
3. If you want to send a Text String to the host every time you press the Function key, type it into the Text String field.
4. Select the Action from the Drop-Down list
5. Select the command or the Recorded sequence from the Drop-Down list that you want to associate to the Hot Spot key.
6. Click on **Accept**.
7. Click on **Apply**.

To Remove a Key Pad button:

1. Select the Function Key you want to remove.
2. Click on **Remove**.

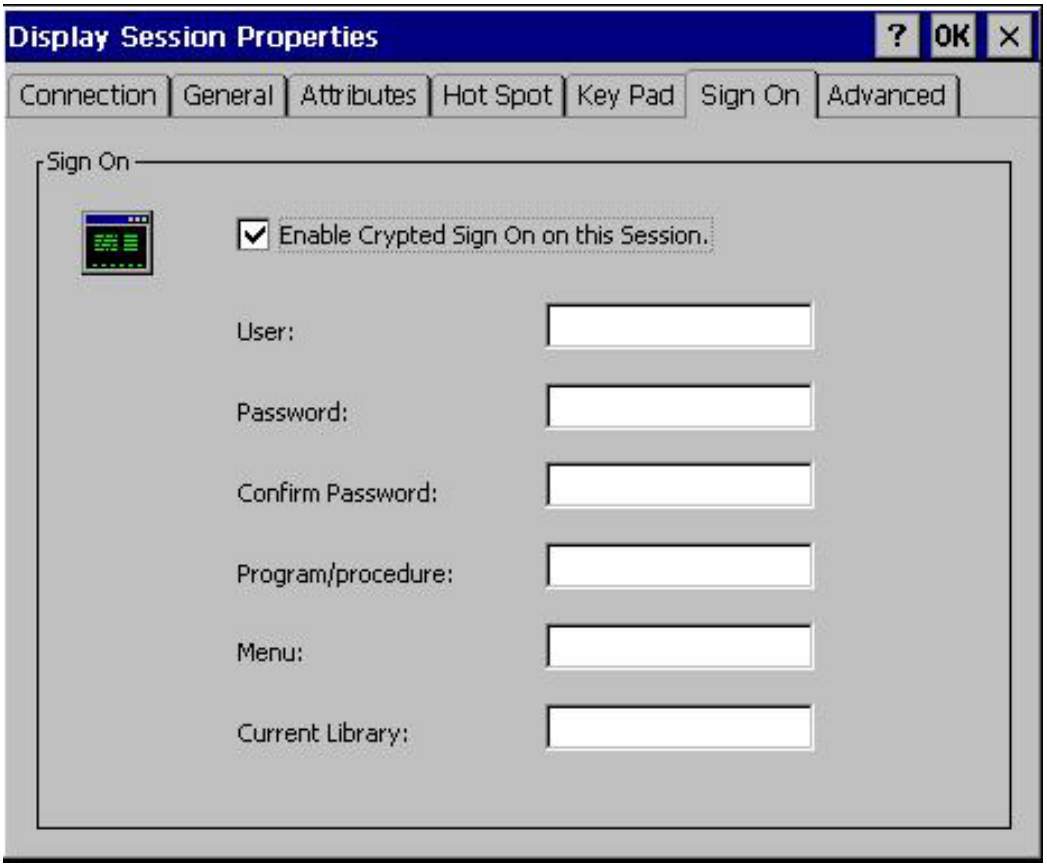
To Add a Key Pad button:

1. Click on **Add**.
2. In the Name field, type the text you want to associate to the button when you pop up the Key Pad.
3. If you want to add a Text String to be sent to the host, type it into the Text String field.

4. Select the Action from the Drop-Down List.
5. From the Drop-Down list, select the command or the Recorded sequence that you want to associate to the Key Pad button.
6. Click on **Accept**.
7. Click on **Apply**.

Sign On

The Sign On feature of the emulator uses the "Enhanced Display Auto-Signon and Password Encryption" feature of the AS/400 to allow a secure connection to the AS/400without using SSL.

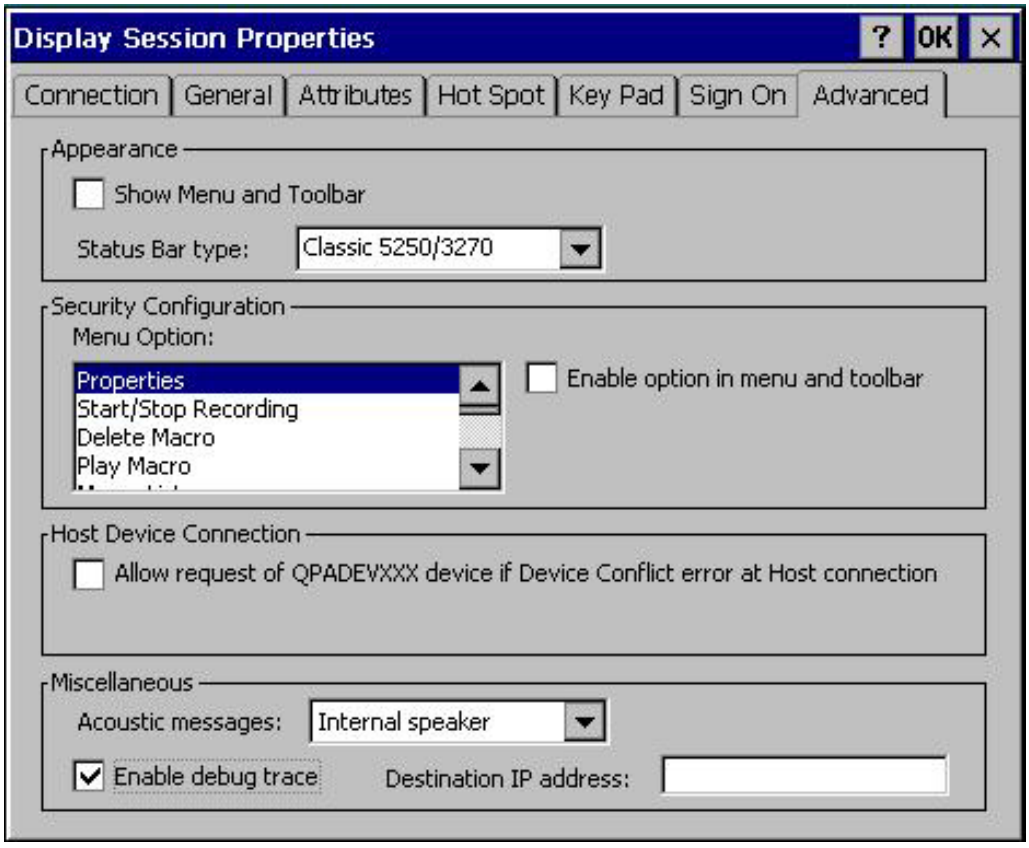


Sign On Properties Sheet

For this feature to work to your benefit, the "Remote Signon" parameter of the AS/400 configuration should be enabled. To verify if this parameter is enabled, use the WRKSYSVAL command. To enable this parameter, you may use the following command:
CHGSYSVAL SYSVAL(QRMTSIGN) VALUE('*VERIFY')

Advanced

The Advanced property sheet allows enabling/disabling several useful features.



Advanced Properties Sheet

Appearance

- **Show Menu and Toolbar**. *If you want to eliminate the "Windows" look, uncheck this box. In addition to changing the appearance, this will also prevent the user from using Hot Spots or Key Pad, and from viewing the keyboard mapping.*
- **Status Bar type**.
    - *Classic 5250. Provides the classic "green screen" look in the status bar. This also enables the assignment of recorded key sequences to F keys in the classic terminal fashion, using the Record and Play keys (on a 122-key keyboard).*

    - *Graphic. Provides the "Windows" look to the status bar and displays the connection name. This disables the classic assignment of recorded key sequences to F keys, although macros can still be assigned to F keys, or any other keys, via the keyboard map editor.*

Security Configuration

YES*term*/IP provides extreme flexibility in allowing, or prohibiting, the user to view and change the characteristics of the display screen. If you choose to show the menu and Tool bar in Appearance above, you can choose to individually enable or hide every option item, and its corresponding button in the Buttons bar, shown in the Menu bar. The default is that all options except Properties are enabled.

1. Select the appropriate item from the drop-down list
2. Press **Tab** to advance to the **Enable…** check box.
3. Press the **Space** bar to insert a check in the check box, or to remove one that is already there.
4. Perform a **BackTab** function (**Shift+Tab**) to return to the drop-down list.
5. Use the **UpArrow** and **DownArrow** keys to move to other items of interest, and repeat steps 2-4.

Host Device Connection

When using named devices, careless name assignment or unusual session activation circumstances, such as a power failure/reconnect, can cause two sessions to request the same name. In such a case, the AS/400 will not open the second session. Checking the **Allow request of….** box will cause the emulator to request a virtual assignment for the second session if it is rejected because of name conflict. This doesn't fix the basic problem, but at least the session can be opened.

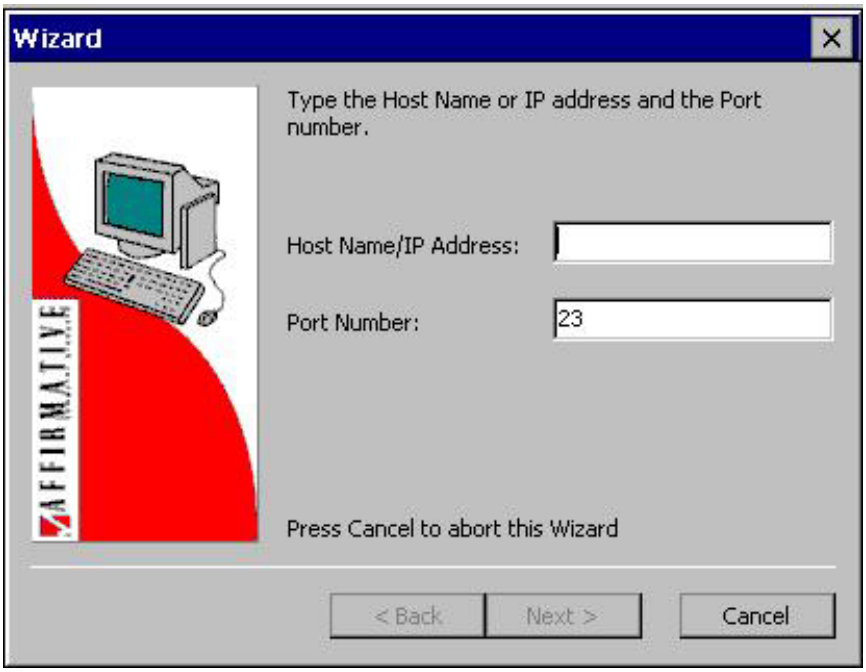
IBM recommends setting the AS/400 "Keep Alive Timeout" to 40 seconds in order to facilitate reconnection of named sessions. The AS/400 command CHGTELNA, executed from an AS/400 green screen, followed by the F4 key will display the screen that controls the setting of this parameter.

Miscellaneous

- Acoustic messages. Select **Wave device** if you want to use external speakers.
- Enable debug trace. If you enable the trace, enter the Destination IP Address.

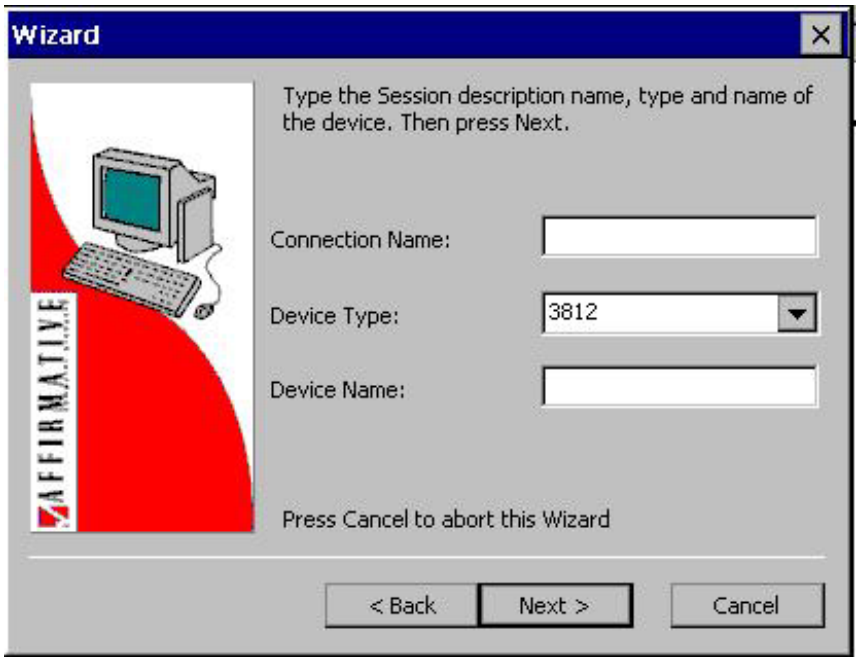
Printer Emulation

You can have multiple local printers, but you must create a printer session for each one. A Setup Wizard will take you through three screens.



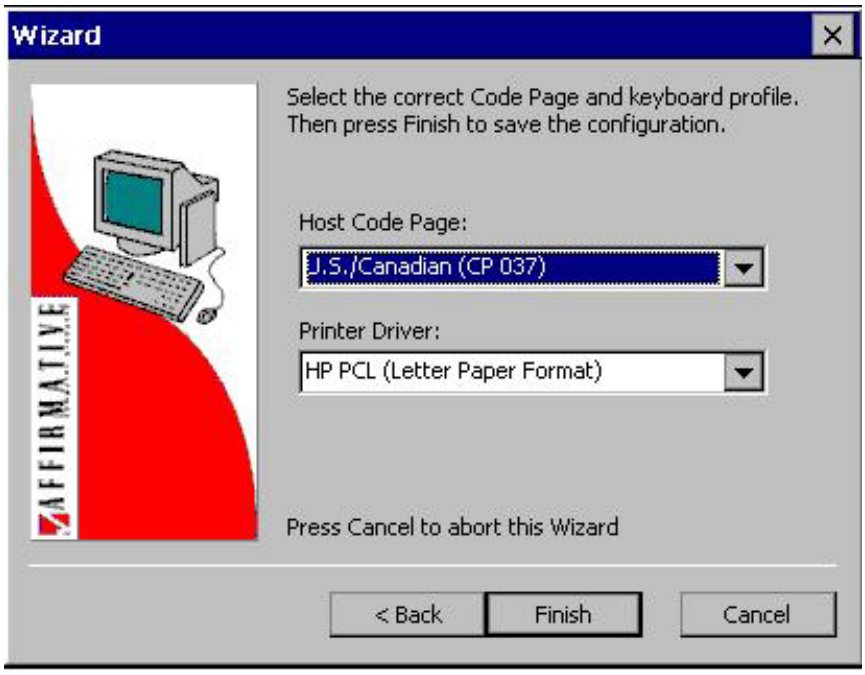
Printer Setup Screen #1

- Host Name/IP Address: If you have a local DNS server, you can type in the AS/400 host network name. Otherwise, type in the IP address of the AS/400 server. If you are creating this session for Extended Local Printing, an IP address is irrelevant, but you must enter at least one character to satisfy the Wizard.
- Port Number: Use the default of **23.**



Printer Screen #2

- Connection Name: This is the friendly name that will appear in the Terminal Connection Manager screen.
- Device Type: Only **3812** is available for TCP/IP devices.
- Device Name: If you are using named sessions, enter the session name here.



Printer Setup Screen #3

- Host Code Page: Choose the applicable country from the drop-down list.
- Printer Driver: If you are doing local or extended local Print Screens, or if you are not using the AS/400 Host Print Transform, choose a driver here that is compatible with the local-attached or LAN printer. If you can't find one in the list, try **Empty Driver**.

This concludes the configuration parameters covered by the wizard. However, you can customize many more parameters in each Printer Session by highlighting the connection name in the Configure tab of Terminal Connection Manager and activating **Edit**. You will see the Printer Sessions Properties sub-window with six property sheet tabs

Connection

Connection Properties Sheet

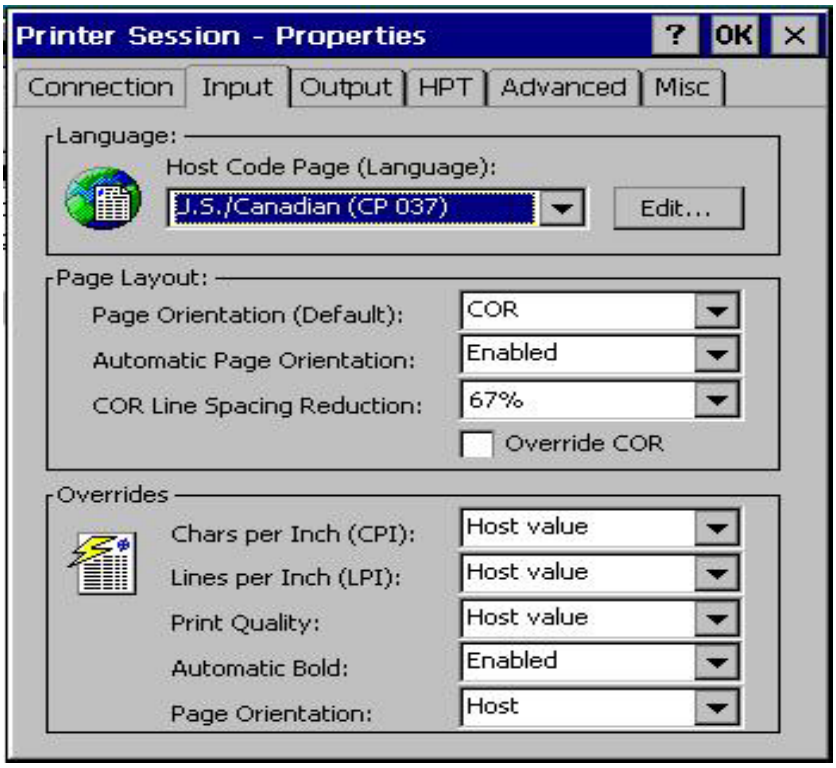
Five of the seven parameters on this property sheet were already configured in the Setup Wizard, although you can change them here if you wish. The additional two parameters are:

- Encryption Level. If you want to encrypt the network traffic with the host, choose an appropriate encryption level from the drop-down list. Your AS/400 must also be configured for this encryption level.
- Use this session to support….. If this session is used for Extended Local Printing, check this box.

.

Input

The Input Tab allows you to define specific parameters that affect the appearance of the printed page.



Input Properties Sheet

Language

YES*term*/IP supports a number of different Code Pages. The Code Page selected here should be the same as that configured on the AS/400 for the specific device.

It is also possible to create a new custom Code Page Table. See How To…|Create a Custom Language Code Page for instructions.

.

Page Layout

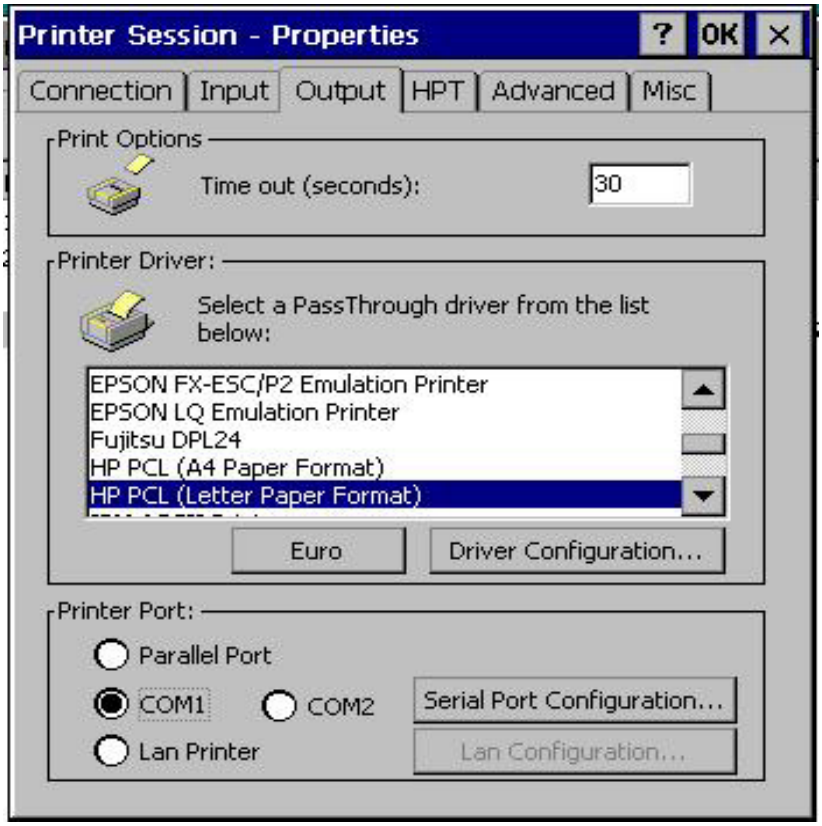
Set the Default Page layout. Parameters are:

- Page Orientation. Select from Portrait, Landscape, and COR (Computer Output Reduction). **Note:** If you are using an impact dot-matrix printer, **Portrait** is recommended.
- Automatic Page Orientation. This option is enabled by Default. **Note:** If you are using an impact dot-matrix printer, it is recommended that this be **Disabled**.
- COR Line Spacing Reduction**.** This feature solves the problem of nonprintable margin area on the printer. **Note**: It is recommended that this feature be used only laser printers.
- COR Override. This function corresponds to the IBM 3812 configuration parameter and defines that a job with draft quality is printed in COR.

Overrides

If you wish to override the host system output settings, you can do so here.
Note: If you are using an impact dot-matrix printer, it is recommended that you set Print Quality to **Force Draft**.

Output



Output Properties Sheet

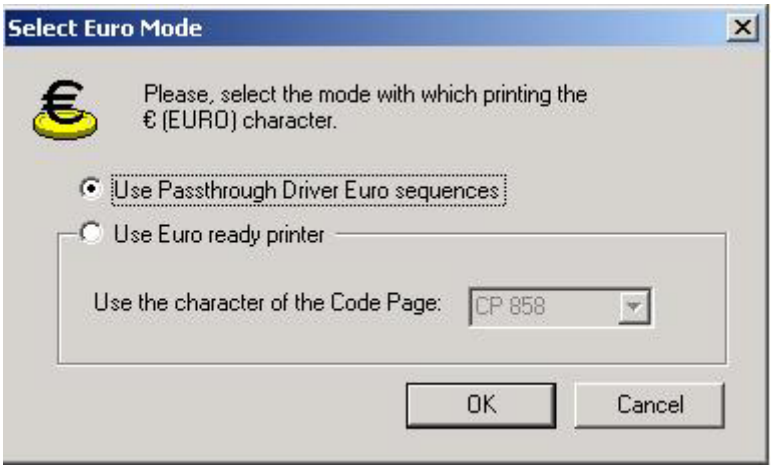
Time Out

This parameter defines a timer (in seconds) that starts to count down every time, during a printing job, the host system stops sending data. If no more data are received within the timeout value selected, the Printer Session will assume that the print job is finished, and a Form Feed command is sent to the printer.

Printer Driver

The Passthrough Drivers offered here, specifically developed by Affirmative, generate a standard text data stream. This means that everything is sent to the printer in text mode allowing better control of the printer and better performance.

- Select a PassThrough Driver…. YES*term*/IP provides a drop-down list of pre-configured Printer Profiles for your selection and use. Even if your printer is not on this list, it probably emulates one of the listed printers. **Note:** There are two HP PCL drivers. It is recommended that you use **HP PCL (Standard COR)** for U.S. operation and **HP PCL Laser Emulation** for European operation.
- Euro. If your printer is Euro ready, you may with to bypass the PassThrough Euro sequence. To do so, activate the **Euro** button to bring up the Euro Mode dialog box. Make your selection and choose a Code Page character.



Euro Mode Dialog Box

- Driver Configuration. If you wish, you can modify parameters of a listed driver. For more information on how to customize or create a new Passthrough Printer Driver, refer to: How To…..|Modify the Passthrough Driver.

.

Printer Port

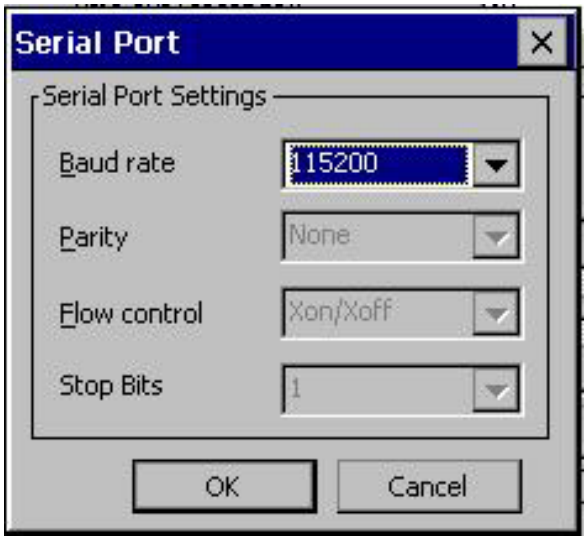
Choose and configure the local or network printer port used in this session.

LPT1

The parallel port does not need any configuration.

COM1/2

If you choose one of the serial ports, you can change the default parameters for Baud Rate, Flow Control, Parity, and Stop Bits if you wish. Activate the **Serial Port Configuration** button to open the Serial Port dialog box.

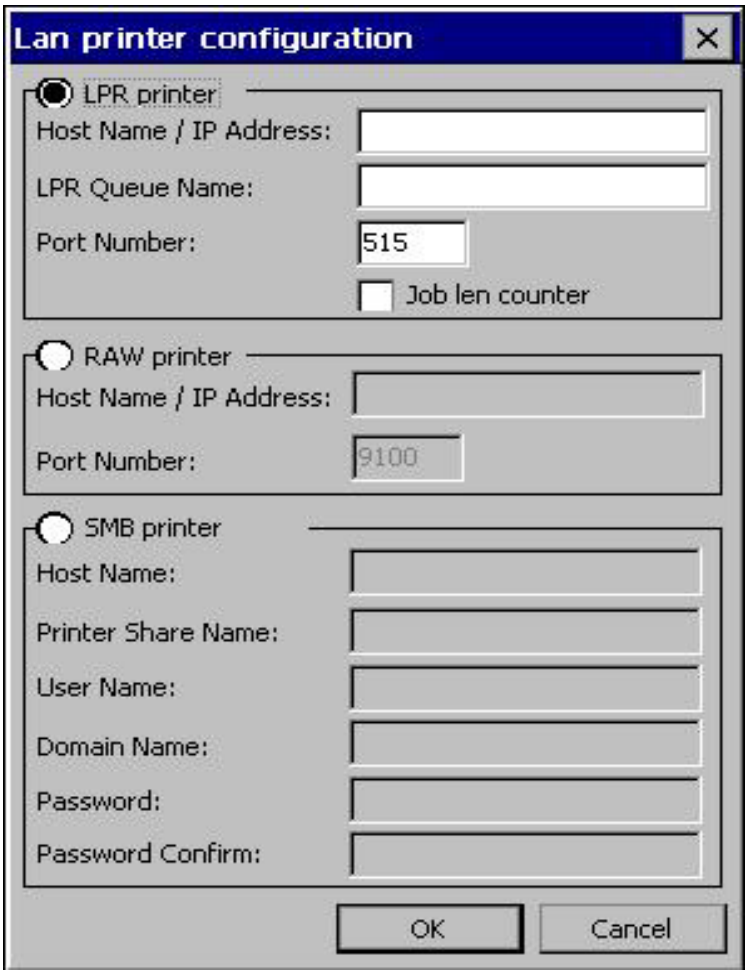


Serial Port Dialog Box

Any change made to COM1 also affects COM2, and vice-versa.

LAN Printer

If you wish to print to a network printer, you must supply configuration parameters. Activate the **LAN Configuration** button to open the LAN Printer Configuration dialog box.

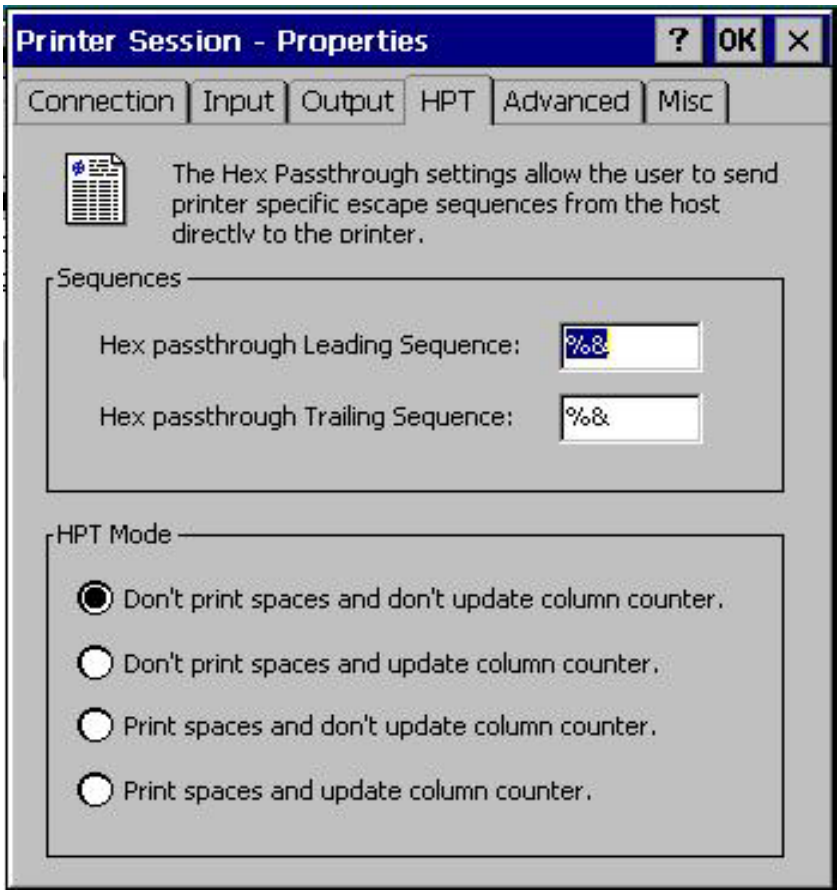


LAN Printer Configuration Dialog Box

- LPR printer. If there is an LPD printer on your network, you can make this selection and enter the appropriate parameters.
- RAW printer. If you have a network printer that can take direct print stream input without being LPD-ready, make this selection and enter the appropriate parameters
- SMB printer. If your network printer is accessed through a print server, make this selection and enter the appropriate parameters.

Hex Passthrough (HPT)

Hex Passthrough allows portions of a data stream to be sent directly from the host to the printer. There is no modification done to these portions by the emulator driver. In order for the emulator to recognize these inviolate data stream portions, they must be identified at the beginning and end by escape sequences – a combination of special characters that the emulator can identify.

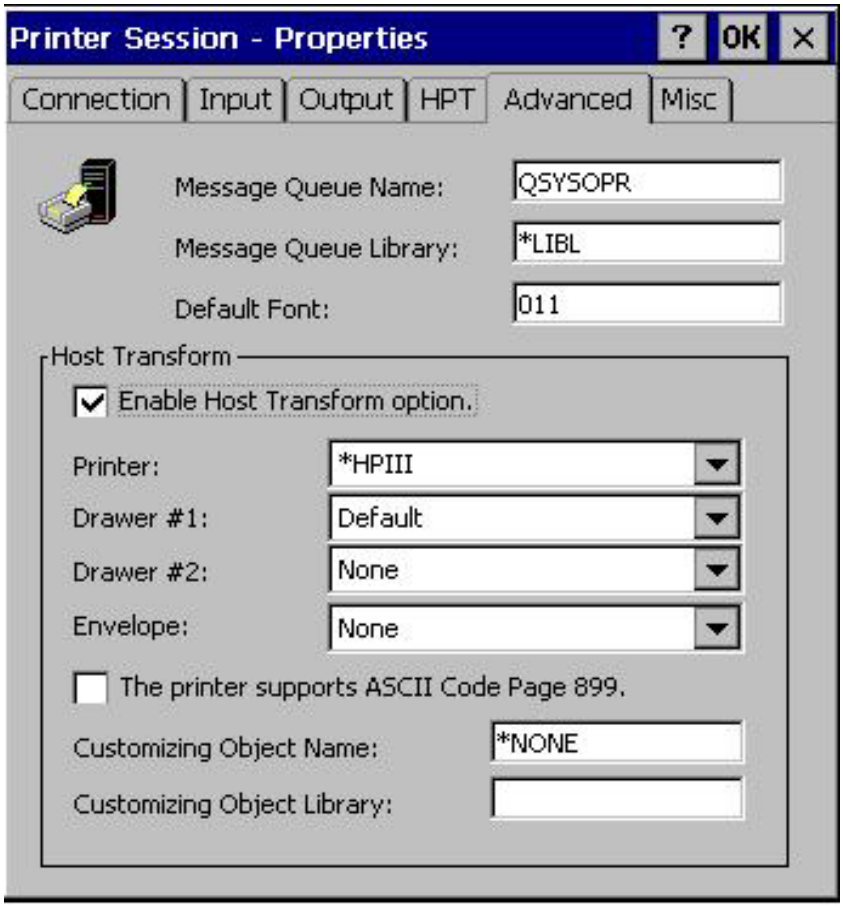


Hex Passthrough Properties Sheet

- Sequences. Enter the Leading Sequence and the Trailing Sequence you want to use. The default sequences are %&, %&. You can enter up to 4 characters for each sequence.
- HPT Mode. Select one of four modes to define rather or not HPT prints spaces and rather or not it updates the column counter.

Advanced

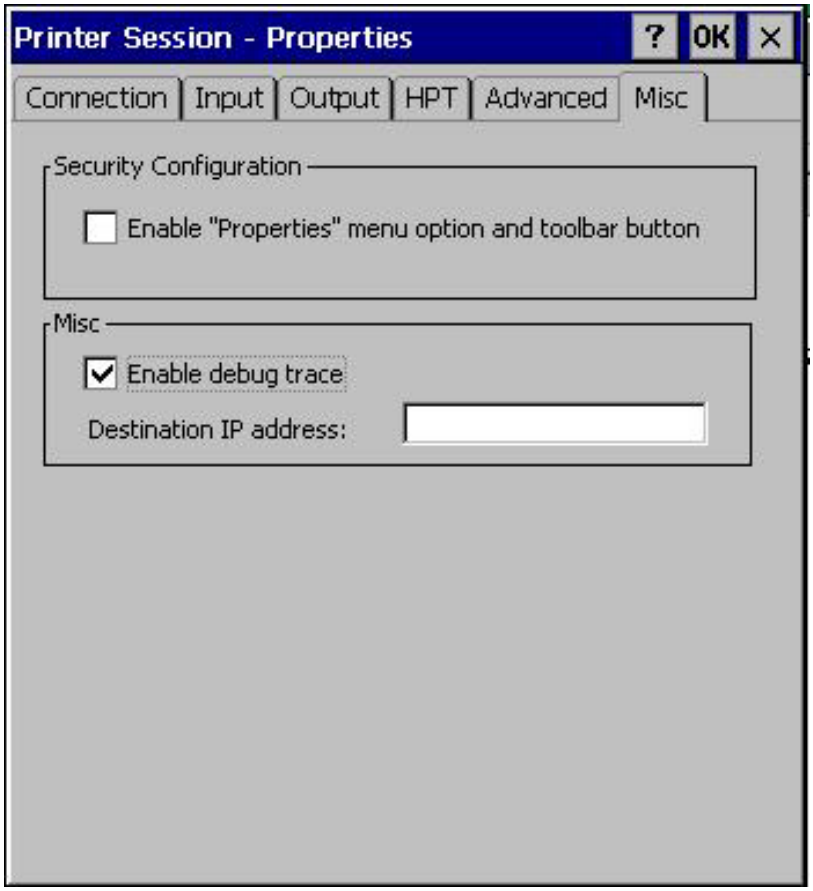
The Advanced Tab allows you to set Default parameters and enable the Host Transform feature.



Advanced Properties Sheet

- Message Queue Name. Default is **QSYSOPR**.
- Message Queue Library. Default is ***LIBL**.
- Default Font. Default is **011**.
- Host Transform. When Host Print Transform is enabled, the host does the EBCDIC-to-ASCII conversion of the print stream, and the local Passthrough Driver is not used.
  - Printer. You must choose a compatible model from the drop-down list. Your AS/400 may have a more extensive list of compatible printers. If your printer is on the AS/400 list, but not on our list, you can type in the printer model here as it appears in the AS/400 list; be sure to put an asterisk in front of the model name.
  - Drawer # 1. Choose an input print media size if applicable.
  - Drawer # 2. Choose an input print media size if applicable.
  - Envelope. Choose an envelope size if applicable.
  - Customizing Object Name. Enter the object name here if you have chosen ***WSCTS** from the Printer drop-down list.
  - Customizing Object Library. Enter the object library name here if you have chosen ***WSCTS** from the Printer drop-down list.

Miscellaneous



Miscellaneous Properties Sheet

- Security Configuration. Default mode is to hide the Properties entries from the Tool bar and the Menu bar so that the user cannot make configuration changes. Check this box if you wish to provide user access to the configuration parameters.
- Debug Trace. If you enable the trace, enter the Destination IP Address.

Emulator Operation

Display Session Menu Bar

Menu-bar commands of the Display Session window consist of commands and functions that are unique for each window (session).

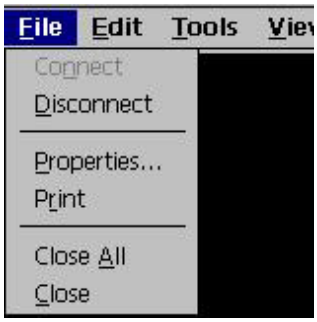
Display Session Menu Bar

The system administrator may disable any or all of the Menu bar commands. See Emulator Setup and Configuration|Display Emulation|Advanced|Security Configuration.

If you have a mouse, open the desired menu by left-clicking on the menu name. Without using a mouse, you can view the File menu by pressing and releasing either **Alt** key. Then you can use the **Tab** or **RightArrow** keys to move to other menus.

The Menu bar may be enabled but invisible, if visibility is not enabled in Emulator Setup and Configuration|Display Emulation|Advanced|Appearance. In this case, use the mouseless method of menu viewing described above

File (Alt)



Display File Menu

- Connect (**n**). A display session typically comes up in the connected state. But if, for some reason, the session is not connected, this command will attempt to connect the Display Session to the host.
- Disconnect (**d**). This command disconnects the Display Session from the host. It is recommended that you disconnect only from the Sign-On screen.
- Properties (**p**)… This command allows you to edit/modify the Properties of the Display Session in use. For more information on this function, please refer to Emulator Setup and Configuration|Display Emulation. When you change properties here, most changes are effective immediately. .
- Print (**r**). This command prints the contents of the display screen to the printer designated in Emulator Setup and Configuration|Display Emulation|General|Print Screen
- Close All (**a**). This command closes all active sessions, including printer sessions.
- Close (**c**). This command closes the Display Session in use.

Edit

Display Edit Menu

- Copy (**c**). This command copies, into the Clipboard, data contained in the selected area without removing (clearing) it from the display. A mouse is required for this operation, since the mouse cursor is used to draw a box around the selected area. The copy process is:
  1. Use the mouse cursor to draw a box around the area to be copied. Be precise when you draw the box, or else the paste process may try to copy the data into a restricted area. The selected area will be highlighted in white.
  2. Open the **Edit** menu.
  3. Activate **Copy.** **Note:** Copy does not duplicate host attributes such as color and intensity.
  4. Return the mouse cursor to the green screen and left click. The white highlight will disappear.
- Paste (**p**). This command pastes the current contents of the Clipboard onto the session window, starting at the current cursor position. **Note:** When pasting into a Windows or browser screen, fonts and colors are determined by the receiving application. If the contents of the clipboard are larger than the space available in the presentation space (screen), they may be clipped. Paste does not overlay the clipboard contents onto areas that are protected by the host application.

Tools

Display Tools Menu

Tools commands allow you to work with the Record/Playback function. If you regularly do the same things when you work with a host system, it is convenient to record the keystrokes you make and have YES*term*/IP play them back when you want to do the same job again. Record/Playback allows you to do this. All your keystrokes can be saved in a macro file; when you play the file back (Playback), everything that happened will be reproduced exactly. Any macro that you create is available in all display emulation sessions. For more information on how to work with Record/Playback, refer to: How To…|Record a Keystrokes Sequence.

- Start Recording (**s**). This command starts the Keystrokes Recording process.
- Stop Recording (**r**). This command stops the Keystrokes Recording process.

Macro Recording Dialog Box

When you Stop Recording, the Macro Recording dialog box will be displayed, allowing you to save the recorded keystrokes into a named file for subsequent playback.

- Pause Recording (**p**). Including a Pause command into a recorded sequence will cause the Playback operation to pause at this point in the sequence. This pause is typically used to enter variable data during Playback.
- Delete Macro (**d**). This command will bring up the Recorded Macro Delete dialog box.

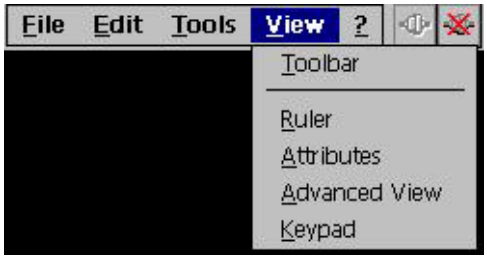
Recorded Macro Delete Dialog Box

In this box will be a list of the available macros for this session. Select the one to be deleted and activate **OK**. This macro will now be deleted from all display emulation sessions.

- Playback. No, you don't see an actual Playback command. But, at the bottom of the Tools menu below the line, you will see a list of the available macros for this session. Select the one to be played and press the PC **Enter** key; that macro will then be executed.

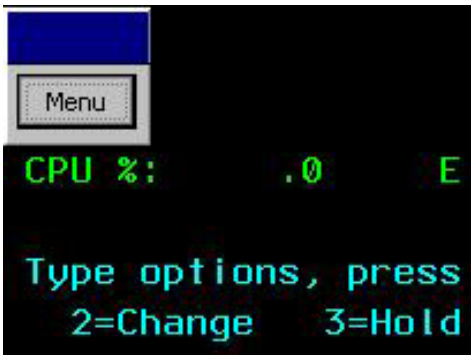
View

Commands in the View menu are used to manipulate the Emulator display window.



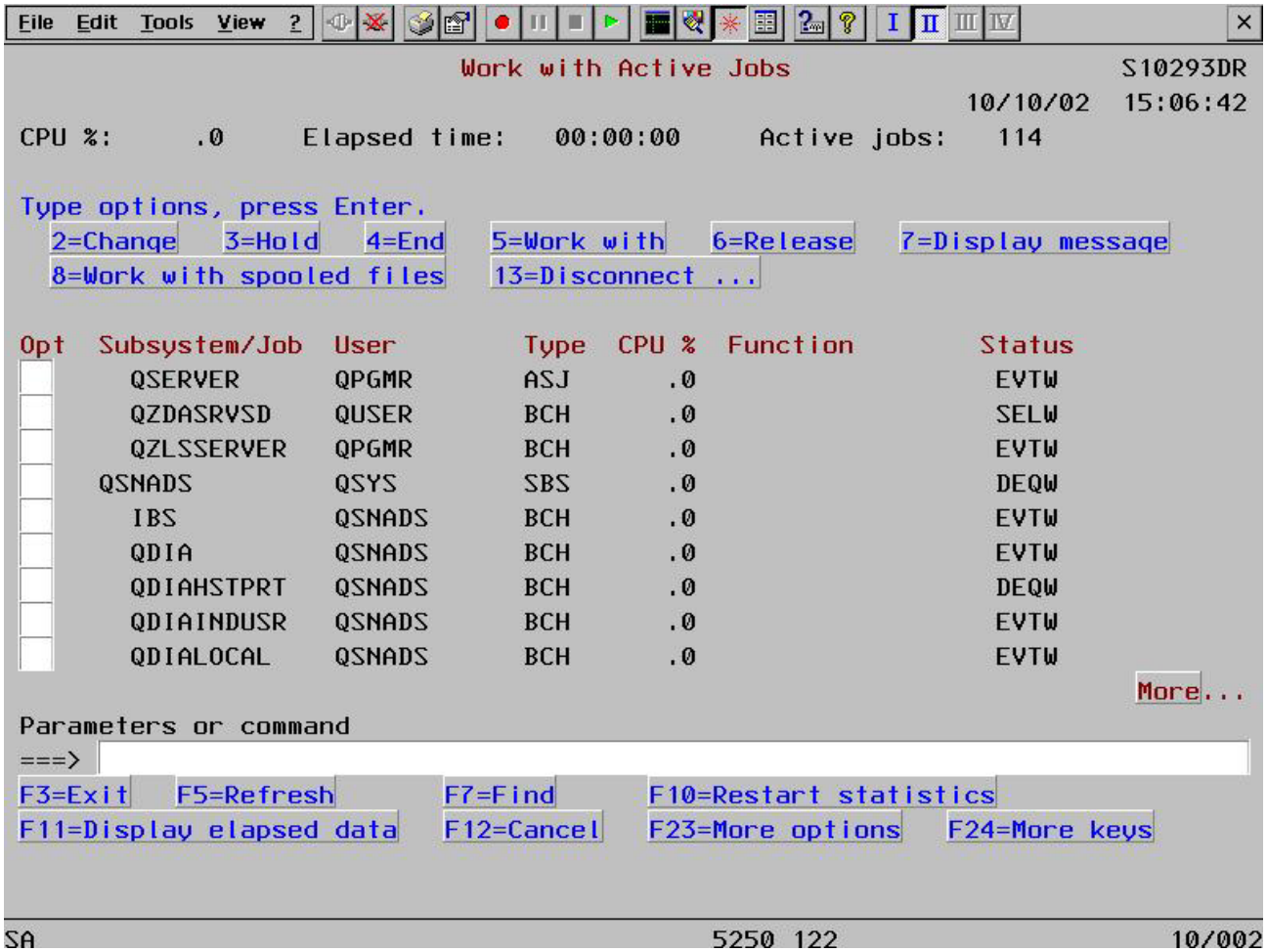
View Menu

- Toolbar (**t**). This toggle command hides or displays the Menu and Buttons toolbars. When the bars are hidden, you will see a Menu button in the upper left corner.



  Click on this button to reveal the toolbars again. This is not a useful option if you have no mouse; after you hide the toolbars you will not be able to get the cursor into an input field using only the keyboard.
- Ruler (**r**). This toggle command hides or displays the crosshairs Ruler. It has the same effect as the Rule key on the keyboard. When the command is checked, the Ruler is displayed.
- Attributes (**a**). This toggle command hides or displays the 5250 attribute fields.

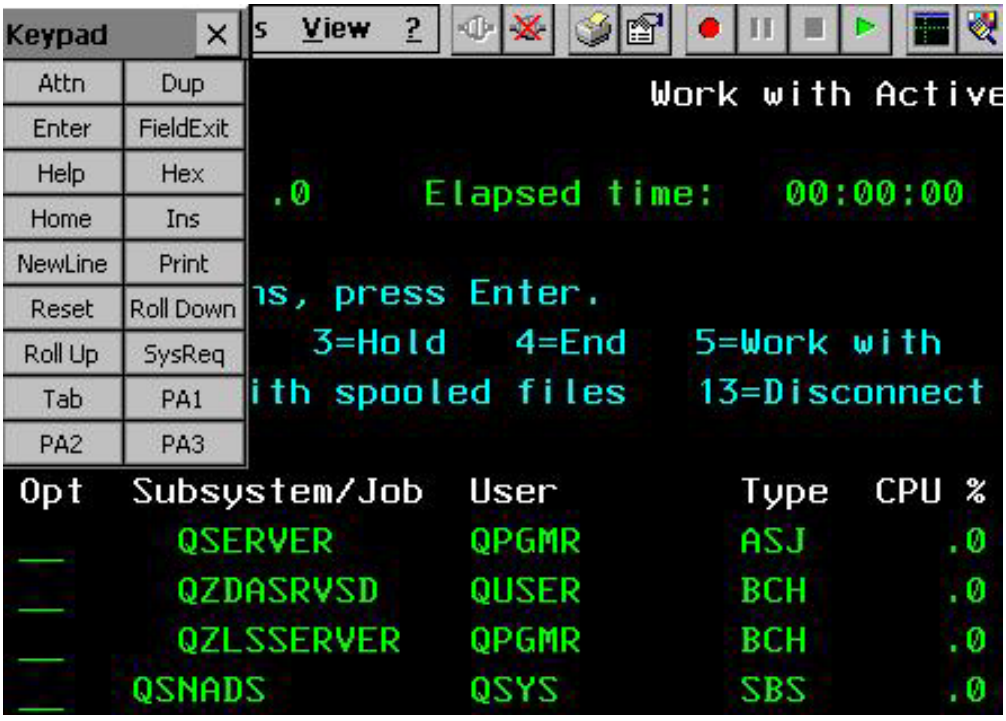
- Advanced View. This toggle command activates/deactivates the graphics Windows look, with Hot Spots displayed as raised buttons if they have been enabled.



Emulation Screen with Advanced View and Hot Spots

Hot Spots are only useful if you have a mouse. For more information on the Hot Spot feature, refer to Emulator Setup and Configuration|Display Emulation|Hot Spot.

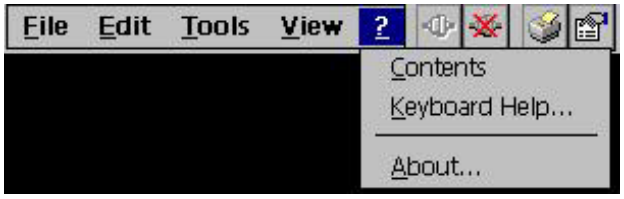
- Keypad (**k**). This toggle command hides or displays the Key Pad. The Key Pad can be repositioned as desired on the screen by dragging and dropping.



Partial Emulation Screen Showing Keypad

Key Pad is only useful if you have a mouse. For more information on the Key Pad feature, refer to Emulator Setup and Configuration|Display Emulation|Key Pad

?



? Drop-Down Menu

- Contents (**c**). This command is not used in the TBT.
- Keyboard Help… (**k**). This command displays the keyboard map in use. You can see the mapping, but you cannot edit it from this screen. This display can be used in two ways:
  1. If you click on a key to which a command has been mapped, you will see that command highlighted in the List Box.
  2. If you highlight a command in the List Box, the key or key combination that executes that command will be highlighted on the keyboard graphic. Some commands can be executed from several different key combinations. In that case, you will see the notation (x of y), which indicates that this is the xth sequence out of y possibilities. To cycle through the combinations for that command, click on **Next Sequence**.
- About… (**a**). This command displays detailed information on the YES*term*/IP program such as version, copyrights, and other useful information.

Display Session Buttons Toolbar

The Buttons bar is displayed across the top of the application window to the right of the Menu bar. The Buttons bar provides quick access to commands you use on a regular basis, if you have a mouse. If you do not need it, you can hide it and the Menu bar to increase the size of your display window. When the toolbar is displayed, a check mark appears next to the Toolbar option in the View menu.

Display Emulation Screen Buttons Bar

The system administrator may disable any or all of the Menu bar commands. See Emulator Setup and Configuration|Display Emulation|Advanced|Security Configuration

The command/button definitions are:

Connect. Duplicates the function of the menu File|Connect command.

Disconnect. Duplicates the function of the menu File|Disconnect command.

Print. Duplicates the function of the menu File|Print command.

Properties. Duplicates the function of the menu File|Properties command.

Start Recording. Duplicates the function of the menu Tools|Start Recording command. In fact, if you use the menu version, you will see that this button is also depressed.

Pause. Duplicates the function of the menu Tools|Pause command. If you use the menu version, you will see that this button is also depressed.

Stop Recording. Duplicates the function of the menu Tools|Stop Recording command.
Play. When this button is pressed, a list of recorded macros is shown. Click on the desired macro to execute the corresponding recorded key sequence.

Ruler. Duplicates the function of the menu View|Ruler command.

Attributes. Duplicates the function of the menu View|Attributes command.

Hot Spots. Duplicates the function of the menu View|Advanced View command.

Keypad. Duplicates the function of the menu View|Keypad command.

Keyboard Help. Duplicates the function of the menu ?|Keyboard Help command.

Contents. Duplicates the function of the menu ?|Contents command.

I, II, III, IV. These buttons correspond to the emulation sessions shown in order in the Terminal Connection Manager screen. Inactive sessions will have corresponding grayed-out buttons, while buttons for active sessions will not be grayed-out. To jump to another active session, just click on the button for that session.

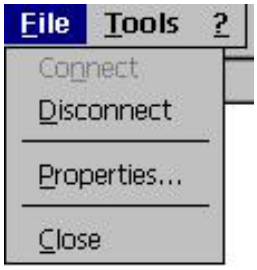
Printer Session Menu Bar

Menu-bar commands of the Printer Session window consist of commands and functions that are unique for each printer window (session).

If you have a mouse, open the desired menu by left-clicking on the menu name. Without using a mouse, you can view the File menu by pressing and releasing either **Alt** key. Then you can use the **Tab** or **RightArrow** keys to move to other menus. Or you can press **Alt+t/?** to open the Tools or ? menu.

Printer Session Menu Bar

File (Alt)



Printer File Menu

- Connect (**n**). A printer session typically comes up in the connected state. But if, for some reason, the session is not connected, this command will attempt to connect the Printer Session to the host.
- Disconnect (**d**). This command disconnects the Printer Session from the host.
- Properties… (**p**). This command allows you to view/edit/modify the Properties of the Printer Session in use. It will be grayed out and inactive unless it has been enabled in Emulator Setup and Configuration|Printer Emulation|Miscellaneous. For more information on Properties, please refer to Emulator Setup and Configuration|Printer Emulation. When you change properties here, most changes are effective immediately.
- Close (**c**). This command closes the Printer Session in use

Tools (Alt+t)

Printer Tools Menu

- Abort Print Job (**a**). This command aborts the print job in process.
- Clear Document List (**c**). This command clears the Document List. The Document List contains a history of all printed documents.

.

? (Alt+?)

Printer Help Menu

- Contents (**c**). This command is not used in the TBT.
- About… (**a**). This command displays detailed information on the YES*term*/IP program such as version, copyrights, and other useful information.

Printer Session Buttons Toolbar

The Buttons bar is displayed across the top of the application window to the right of the Menu bar. The Buttons bar provides quick access, if you have a mouse, to commands you use on a regular basis.

The command/button definitions are:

Connect. Duplicates the function of the menu File|Connect command.

Disconnect. Duplicates the function of the menu File|Disconnect command.

Properties. Duplicates the function of the menu File|Properties command.

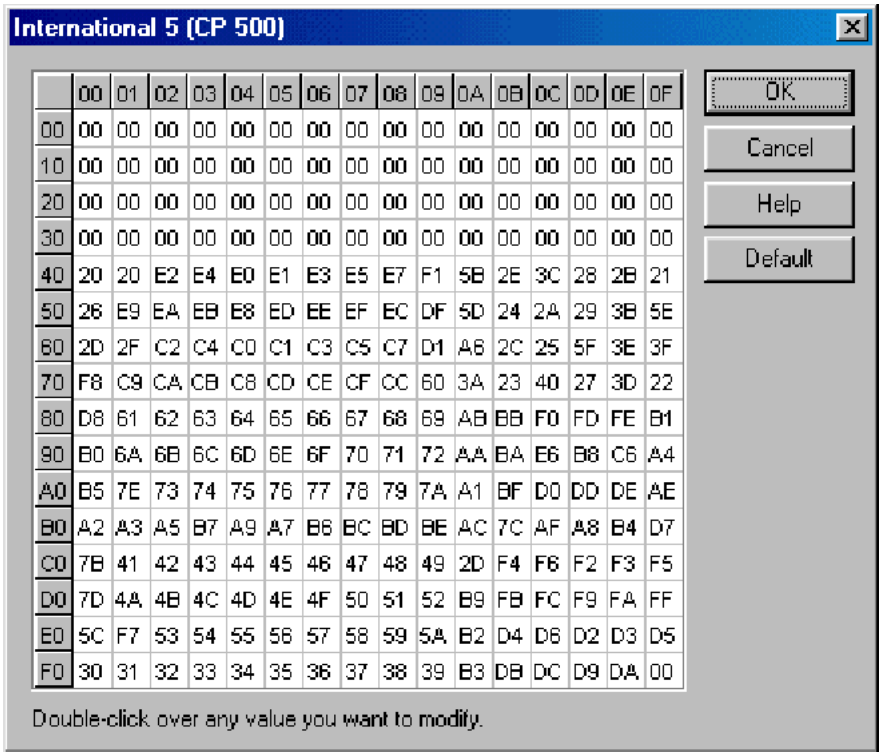
Contents. Duplicates the function of the menu ?|Contents command.

I, II, III, IV. These buttons correspond to the emulation sessions shown in order in the Terminal Connection Manager screen. Inactive sessions will have corresponding grayed-out buttons, while buttons for active sessions will not be grayed-out. To jump to another active session, just click on the button for that session.

How To ….

Create a Custom Language Code Page

This procedure is the same for either a display or a printer session. To do this, select one of the available Code Pages (the one that comes closest to the one you want to create) and click on **Edit**. Assuming that your base Code Page is International 5, the following screen will appear:



	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
10	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
20	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
30	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
40	20	20	E2	E4	E0	E1	E3	E5	E7	F1	5B	2E	3C	28	2B	21
50	26	E9	EA	EB	E8	ED	EE	EF	EC	DF	5D	24	2A	29	3B	5E
60	2D	2F	C2	C4	C0	C1	C3	C5	C7	D1	A6	2C	25	5F	3E	3F
70	F8	C9	CA	CB	C8	CD	CE	CF	CC	60	3A	23	40	27	3D	22
80	D8	61	62	63	64	65	66	67	68	69	AB	BB	F0	FD	FE	B1
90	B0	6A	6B	6C	6D	6E	6F	70	71	72	AA	BA	E6	B8	C6	A4
A0	B5	7E	73	74	75	76	77	78	79	7A	A1	BF	D0	DD	DE	AE
B0	A2	A3	A5	B7	A9	A7	B6	BC	BD	BE	AC	7C	AF	A8	B4	D7
C0	7B	41	42	43	44	45	46	47	48	49	2D	F4	F6	F2	F3	F5
D0	7D	4A	4B	4C	4D	4E	4F	50	51	52	B9	FB	FC	F9	FA	FF
E0	5C	F7	53	54	55	56	57	58	59	5A	B2	D4	D6	D2	D3	D5
F0	30	31	32	33	34	35	36	37	38	39	B3	DB	DC	D9	DA	00

International 5 Code Page Table

To read the table, use the left column for the first hex character of the EBCDIC code, and the top row for the second hex character of the EBCDIC code. For example, the standard EBCDIC code for A is C1; the standard ASCII code for A is 41. Look at the table above and you see that the cell corresponding to EBCDIC C1 has the value 41 in it.

Double-click the cells you want to change and enter the new values. To assist you in your customization, the standard code tables for EBCDIC and ASCII are shown here.

HEX DIGITS 1ST → 2ND ↓	4-	5-	6-	7-	8-	9-	A-	B-	C-	D-	E-	F-
-0	(SP) SP010000	& SM030000	- SP100000	ø LO610000	Ø LO620000	° SM190000	µ SM170000	^ SD150000	{ SM110000	} SM140000	\ SM070000	0 ND100000
-1	(RSP) SP300000	é LE110000	/ SP120000	É LE120000	a LA010000	j LJ010000	~ SD190000	£ SC020000	A LA020000	J LJ020000	÷ SA060000	1 ND010000
-2	â LA150000	ê LE150000	Â LA160000	Ê LE160000	b LB010000	k LK010000	s LS010000	¥ SC050000	B LB020000	K LK020000	S LS020000	2 ND020000
-3	ä LA170000	ë LE170000	Ä LA180000	Ë LE180000	c LC010000	l LL010000	t LT010000	· SD630000	C LC020000	L LL020000	T LT020000	3 ND030000
-4	à LA130000	è LE130000	À LA140000	È LE140000	d LD010000	m LM010000	u LU010000	© SM520000	D LD020000	M LM020000	U LU020000	4 ND040000
-5	á LA110000	í LI110000	Á LA120000	Í LI120000	e LE010000	n LN010000	v LV010000	§ SM240000	E LE020000	N LN020000	V LV020000	5 ND050000
-6	ã LA190000	î LI150000	Ã LA200000	Î LI160000	f LF010000	o LO010000	w LW010000	¶ SM250000	F LF020000	O LO020000	W LW020000	6 ND060000
-7	å LA270000	ï LI170000	Å LA280000	Ï LI180000	g LG010000	p LP010000	x LX010000	¼ NF040000	G LG020000	P LP020000	X LX020000	7 ND070000
-8	ç LC410000	ì LI130000	Ç LC420000	Ì LI140000	h LH010000	q LQ010000	y LY010000	½ NF010000	H LH020000	Q LQ020000	Y LY020000	8 ND080000
-9	ñ LN190000	ß LS610000	Ñ LN200000	` SD130000	i LI010000	r LR010000	z LZ010000	¾ NF050000	I LI020000	R LR020000	Z LZ020000	9 ND090000
-A	¢ SC040000	! SP020000	¦ SM650000	: SP130000	« SP170000	ª SM210000	¡ SP030000	[SM060000	(SHY) SP320000	1 ND011000	2 ND021000	3 ND031000
-B	. SP110000	$ SC030000	, SP080000	# SM010000	» SP180000	º SM200000	¿ SP160000	] SM080000	ô LO150000	û LU150000	Ô LO160000	Û LU160000
-C	< SA030000	* SM040000	% SM020000	@ SM050000	ð LD630000	æ LA510000	Ð LD620000	¯ SM150000	ö LO170000	ü LU170000	Ö LO180000	Ü LU180000
-D	(SP060000	) SP070000	_ SP090000	' SP050000	ý LY110000	¸ SD410000	Ý LY120000	¨ SD170000	ò LO130000	ù LU130000	Ò LO140000	Ù LU140000
-E	+ SA010000	; SP140000	> SA050000	= SA040000	þ LT630000	Æ LA520000	Þ LT640000	´ SD110000	ó LO110000	ú LU110000	Ó LO120000	Ú LU120000
-F	| SM130000	¬ SM660000	? SP150000	" SP040000	± SA020000	¤ SC010000	® SM530000	× SA070000	õ LO190000	ÿ LY170000	Õ LO200000	(EO)

Code Page 00037

EBCDIC Code Page

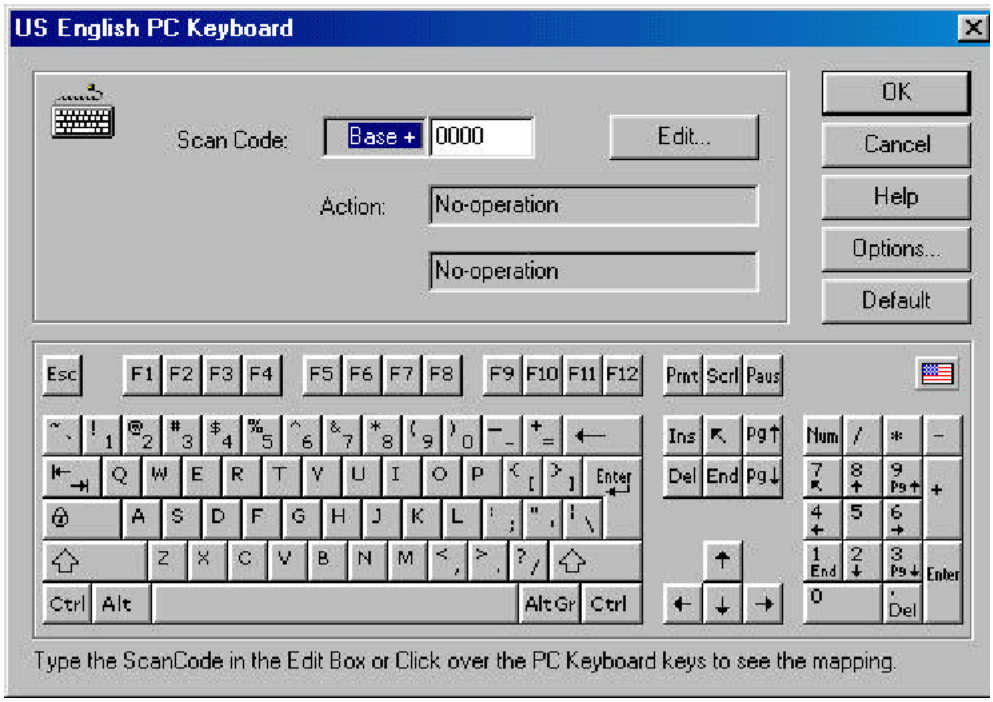
HEX DIGITS 1ST → 2ND ↓	0-	1-	2-	3-	4-	5-	6-	7-	8-	9-	A-	B-	C-	D-	E-	F-
-0		► SM590000	(SP) SP010000	0 ND100000	@ SM050000	P LP020000	` SD130000	p LP010000	Ç LC420000	É LE120000	á LA110000	▒ SF140000	└ SF020000	╨ SF460000	α GA010000	≡ SA480000
-1	☺ SS000000	◄ SM630000	! SP020000	1 ND010000	A LA020000	Q LQ020000	a LA010000	q LQ010000	ü LU170000	æ LA510000	í LI110000	▓ SF150000	┴ SF070000	╤ SF470000	ß LS610000	± SA020000
-2	☻ SS010000	↕ SM760000	" SP040000	2 ND020000	B LB020000	R LR020000	b LB010000	r LR010000	é LE110000	Æ LA520000	ó LO110000	▓ SF160000	┬ SF060000	╥ SF480000	Γ GG020000	≥ SA530000
-3	♥ SS020000	!! SP330000	# SM010000	3 ND030000	C LC020000	S LS020000	c LC010000	s LS010000	â LA150000	ô LO150000	ú LU110000	│ SF110000	├ SF080000	╙ SF490000	π GP010000	≤ SA520000
-4	♦ SS030000	¶ SM250000	$ SC030000	4 ND040000	D LD020000	T LT020000	d LD010000	t LT010000	ä LA170000	ö LO170000	ñ LN190000	┤ SF090000	─ SF100000	╘ SF500000	Σ GS020000	⌠ SS260000
-5	♣ SS040000	§ SM240000	% SM020000	5 ND050000	E LE020000	U LU020000	e LE010000	u LU010000	à LA130000	ò LO130000	Ñ LN200000	╡ SF190000	┼ SF050000	╒ SF510000	σ GS010000	⌡ SS270000
-6	♠ SS050000	▬ SM700000	& SM030000	6 ND060000	F LF020000	V LV020000	f LF010000	v LV010000	å LA270000	û LU150000	ª SM210000	╢ SF200000	╞ SF360000	╓ SF520000	µ GM010000	÷ SA060000
-7	• SM570000	↨ SM770000	' SP050000	7 ND070000	G LG020000	W LW020000	g LG010000	w LW010000	ç LC410000	ù LU130000	º SM200000	╖ SF210000	╟ SF370000	╫ SF530000	τ GT010000	≈ SA700000
-8	◘ SM570001	↑ SM320000	(SP060000	8 ND080000	H LH020000	X LX020000	h LH010000	x LX010000	ê LE150000	ÿ LY170000	¿ SP160000	╕ SF220000	╚ SF380000	╪ SF540000	Φ GF020000	° SM190000
-9	○ SM750000	↓ SM330000	) SP070000	9 ND090000	I LI020000	Y LY020000	i LI010000	y LY010000	ë LE170000	Ö LO180000	⌐ SM680000	╣ SF230000	╔ SF390000	┘ SF040000	Θ GT620000	• SA790000
-A	◙ SM750002	→ SM310000	* SM040000	: SP130000	J LJ020000	Z LZ020000	j LJ010000	z LZ010000	è LE130000	Ü LU180000	¬ SM660000	║ SF240000	╩ SF400000	┌ SF010000	Ω GO320000	· SD630000
-B	♂ SM280000	← SM300000	+ SA010000	; SP140000	K LK020000	[SM060000	k LK010000	{ SM110000	ï LI170000	¢ SC040000	½ NF010000	╗ SF250000	╦ SF410000	■ SF610000	δ GD010000	√ SA800000
-C	♀ SM290000	∟ SA420000	, SP080000	< SA030000	L LL020000	\ SM070000	l LL010000	| SM130000	î LI150000	£ SC020000	¼ NF040000	╝ SF260000	╠ SF420000	▬ SF570000	∞ SA450000	n LN011000
-D	♪ SM930000	↔ SM780000	- SP100000	= SA040000	M LM020000	] SM080000	m LM010000	} SM140000	ì LI130000	¥ SC050000	¡ SP030000	╜ SF270000	═ SF430000	▌ SF580000	ϕ GF010001	2 ND021000
-E	♫ SM910000	▲ SM600000	. SP110000	> SA050000	N LN020000	^ SD150000	n LN010000	~ SD190000	Ä LA180000	Pts SC060000	« SP170000	╛ SF280000	╬ SF440000	▐ SF590000	ε GE010000	■ SM470000
-F	☼ SM690000	▼ SV040000	/ SP120000	? SP150000	O LO020000	_ SP090000	o LO010000	⌂ SM790000	Å LA280000	ƒ SC070000	» SP180000	┐ SF030000	╧ SF450000	▬ SF600000	∩ SA380000	(RSP) SP300000

Code Page 00437

ASCII Code Page for Terminal Font

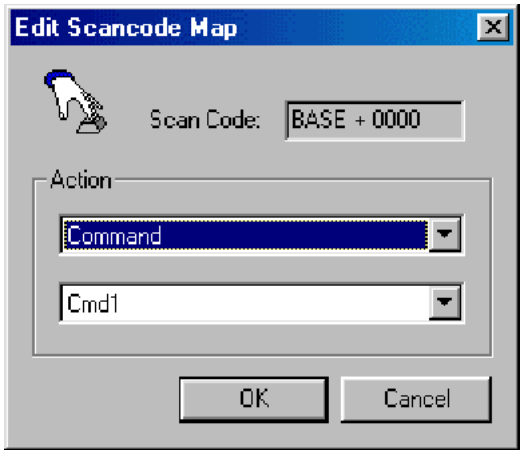
Create a Custom Keyboard Map

To do this, select, in **Display Session Properties|General**, one of the available Keyboard Layouts (the one that best matches the one you want to create) and click on **Edit**. Assuming that you chose the 101 PC keyboard for U.S. English, the following screen will appear



Keyboard Map Page

Select the key, or key plus modifier (**Ctrl, Alt, Shift**) to which you want to associate a specific action. On the upper half of the window, you can see the keyboard Scan-Code and the default associated action. To modify the action, click on **Edit**. The following dialog box will appear:



Edit Scancode Map Dialog Box

From the Action drop-down list, you can select the action that you want to associate with the selected key from among the following options:

- **No operation**. No action will be performed when you press the key.
- **Command**. Choose the desired 5250 command function from the lower drop-down list.
- **Recorded Sequence**. If you have previously recorded one or more key sequences, you will see their names in the lower drop-down list. Choose the desired Recorded Sequence from this list.
- **EBCDIC Characters Sequence**. Enter the Scan-Code sequence you want to associate to the key. Although you can use this to enter multiple characters, like a Recorded Sequence, this option is typically used to access some special character not normally seen on a keyboard. See Create a Custom Language Code Page for a standard code page for EBCDIC.

Record a Keystrokes Sequence (Macro)

If you regularly do the same things when you work with a host system, it is convenient to record the keystrokes you make and have YES*term*/IP play them back when you want to do the same job again. Record/Playback allows you to do this. All your keystrokes can be saved in a file; when you play the file back (Playback), everything that happened will be reproduced Any macro that you create is available in all display emulation sessions.

Graphics Display Session

When configuring a display emulation session, you have the choice of a graphics display mode or a 5250 text display mode. See Emulator Setup and Configuration|Display Emulation|Advanced|Appearance for details on making this choice.

In order to create a Keystroke sequence in a graphics display session, you have to:

1. Open a display session.
2. Place the cursor in the field where you wish to start the sequence.
3. Activate **Tools|Start Recording** or click on the corresponding button.
4. Type the data and cursor movements that you want to record.
5. Stop the Recording by activating **Tools|Stop Recording** or clicking on the corresponding button.
6. Name the recorded Keystroke sequence. There are no naming restrictions.

Example:
Assume you want to record the CL command to display the description of a specific device. The command is WRKDEVD PRTXXXX, where PRTXXXX identifies a specific Printer. So, the procedure is:

1. Place the cursor.
2. Activate S**tart the Recording**.
3. Type WRKDEVD
4. Activate **Pause**.
5. Type PRTXXXX (the name of the device) and press **Enter**.
6. Activate **Stop the Recording**. When you stop, you will be prompted to save the recorded keystrokes to a file.

Note: The Pause function will automatically end when you press the Enter key.

5250 Text Display Session

In a 5250 text display session, you can record a macro in exactly the same way as in a graphics display session (see above). But you also have another option if you are using a 122-key keyboard. This additional procedure for recording macros is as follows:

1. Place the cursor in the field where you want to record the macro.
2. Press **Recrd**. You will see, in the right-hand side of the Status bar, an R indicating record mode and 24 tiny squares representing the 24 F keys. A filled-in square designates an F key that already has an assigned macro. Note: You must use the keyboard **Recrd** key. Activating **Start Recording** from the Menu or Button bars will result in the graphical procedure explained in the previous section.
3. Press the **F** key that you wish to associate with the forthcoming macro. You will see the square for that key become a filled-in square.
4. Type the data and cursor movements that you want to record
5. Press **Recrd** again. This ends the recording process, and the squares will disappear. This keystroke sequence will also appear in the Macro list as Fx.

Play a Recorded Keystrokes Sequence (Macro)

Graphics Display Session

In order to play a recorded keystrokes sequence in a graphics display session, you have to:

1. Place the cursor on the screen where you want to play the sequence.
2. Activate **Play**.
3. Select the sequence from the prompted list of stored sequence. The sequence will be executed.

If you have assigned a sequence to a key as part of a custom keyboard map, you can also play the sequence as follows:

1. Place the cursor on the screen where you want to play the sequence.
2. Press the designated key. The sequence will be executed.

5250 Text Display Session

In a 5250 text display session, you can play back a macro in exactly the same way as in a graphics display session (see above). But you also have another option if you are using a 122-key keyboard and if you have used the alternate method of sequence recording. This additional procedure for playing macros is as follows:

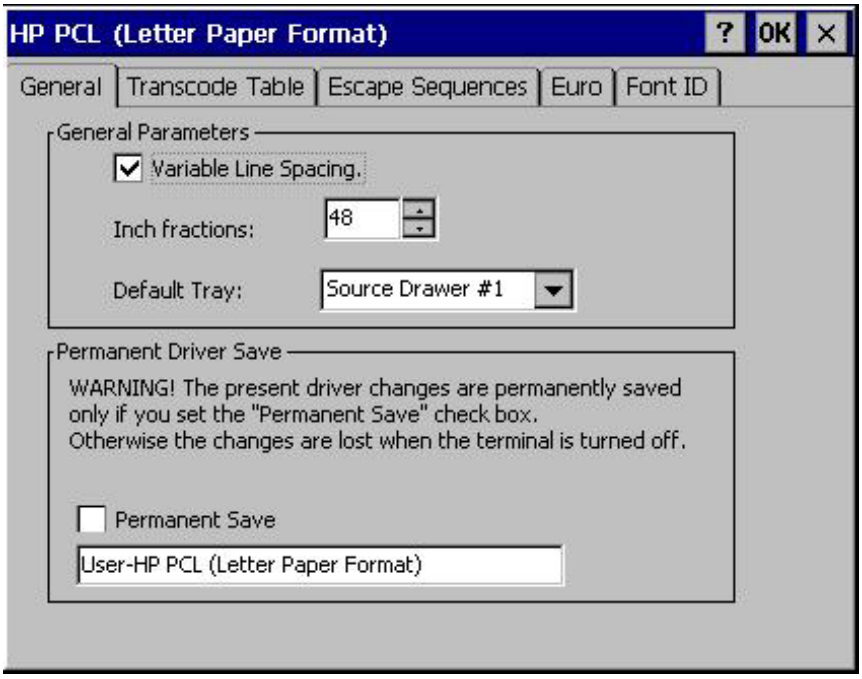
1. Place the cursor on the screen where you want to play the sequence.
2. Press the **Play** key. You will see, in the right-hand side of the Status bar, a P indicating playback mode and 24 tiny squares representing the 24 F keys. A filled-in square designates an F key that has an assigned macro. Note: This method of playback will only work if you initiate the process with the **Play** key.
3. Press the **F** key corresponding to the desired macro. The macro will be executed, and the squares will disappear.

Modify a Printer Passthrough Driver

Any Passthrough Driver in the Emulator Setup and Configuration|Printer Emulation|Output|Printer Driver drop-down list can be customized, and it is also possible to create a new Driver. To edit an existing Passthrough Driver, do the following:

1. Highlight the connection name in the Configure tab of Connection Manager and activate **Edit**.
2. Select the Driver from the drop-down list and activate **Driver Configuration** in the Output. You will see a screen with five tabs.

General

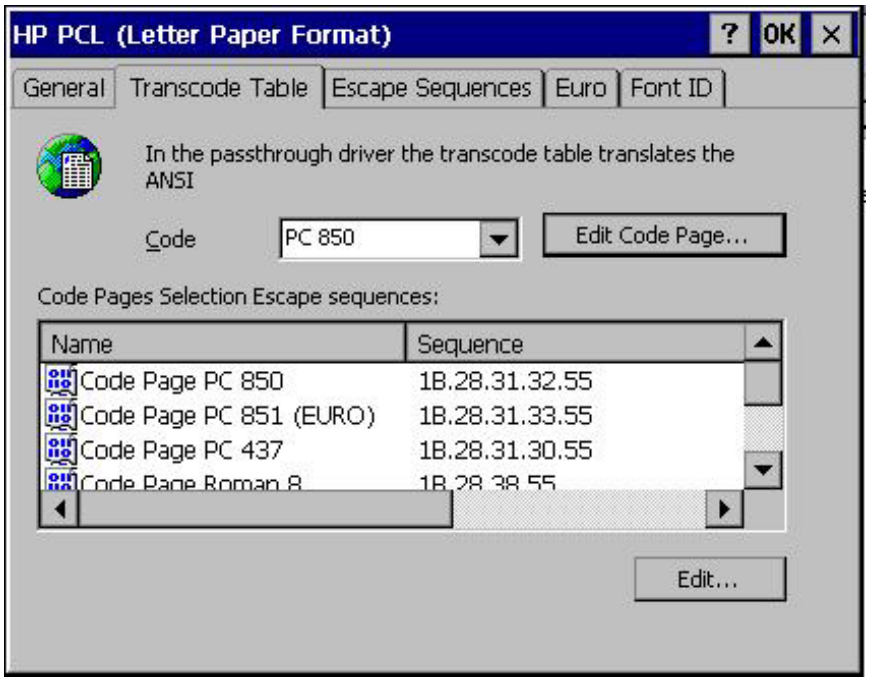


Driver General Properties Sheet

This sheet allows you to select:

- Variable Line Spacing. If you enable this function you must enter the Inch fractions.
- Default Tray.
- Permanent Save. You *must* check this box if you wish to save the driver changes.
- New Driver Name. This name will appear in the Passthrough Driver drop-down list *if* you check **Permanent Save**. The default new name is User- in front of the selected driver name. But you can enter a completely new name if you wish.

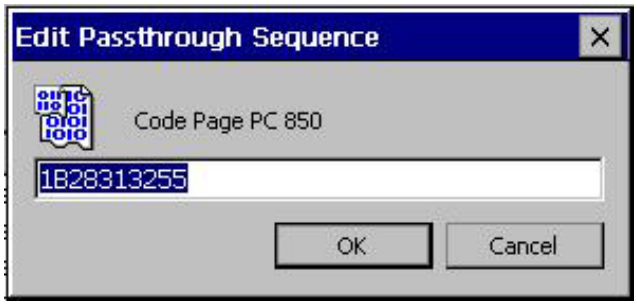
Transcode Table



Driver Transcode Properties Sheet

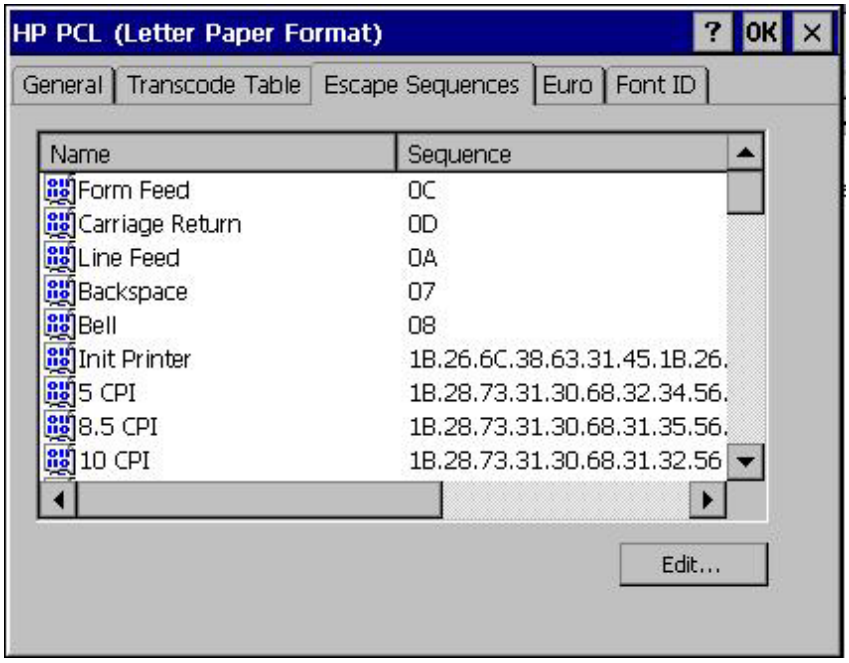
This sheet allows you to:

- Define the Default Code Page. If you want, you can also edit the Code Page by clicking on **Edit Code Page**. Select a value that you wish to modify, click on **Edit**, and a Code Page screen will appear where you can enter the new value. See Create a Custom Language Code Page for editing instructions.
- Customize the Escape sequence used to call the Code Page. Select the Code Page from the list, click on **Edit**, and an Edit Passthrough Sequence dialog box will appear where you can enter the new value.



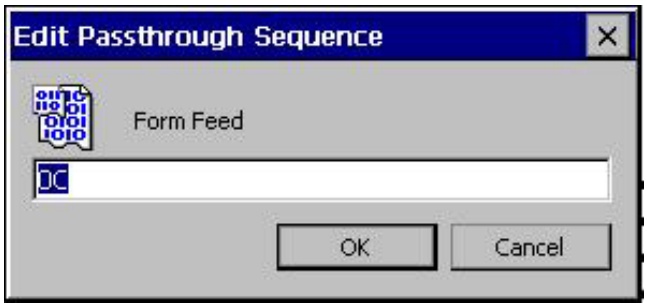
Transcode Edit Passthrough Sequence Dialog Box

Escape Sequences



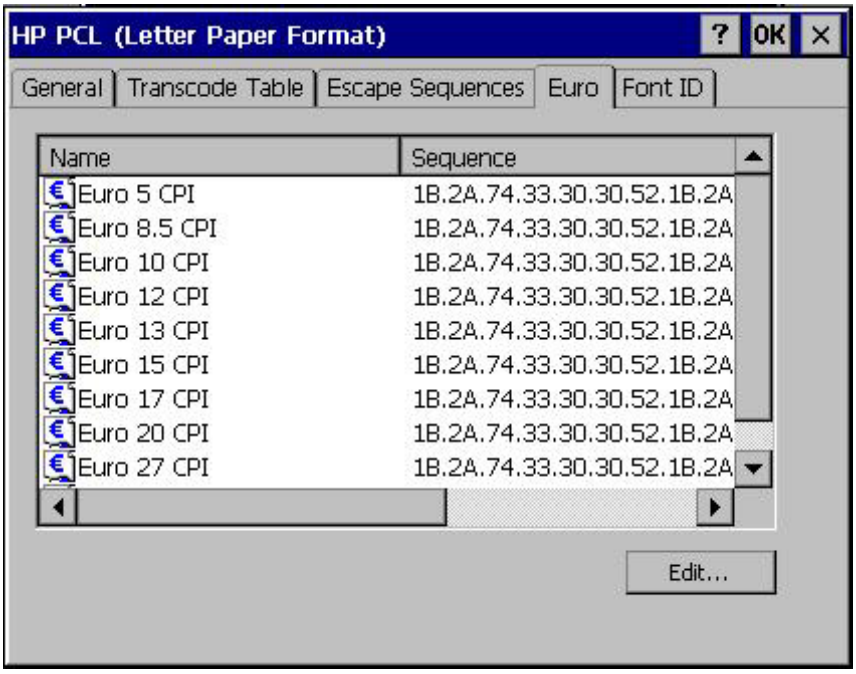
Driver Escape Sequences Properties Sheet

This sheet allows you to customize all the Escape commands used to perform specific functions. Select a function, activate **Edit**, and an Edit Passthrough Sequence dialog box will appear. Make your changes there.



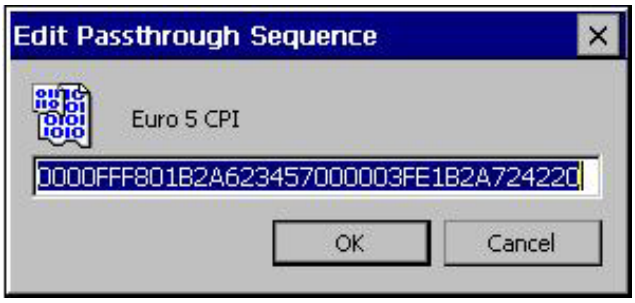
Edit Passthrough Sequence Dialog Box

Euro



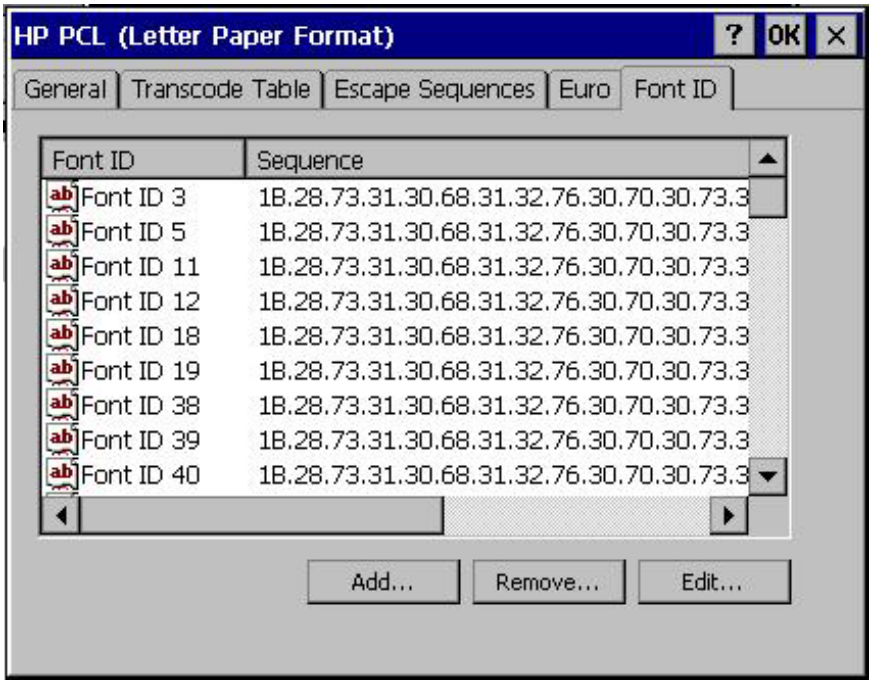
Driver Euro Properties Sheet

This sheet allows you to customize the Escape command used to print the EURO symbol. This special function allows you to print the EURO symbol even on those printers that are not EURO ready. Select the command you wish to customize, then activate **Edit**, and an Edit Passthrough Sequence dialog box will appear where you can enter the new value.



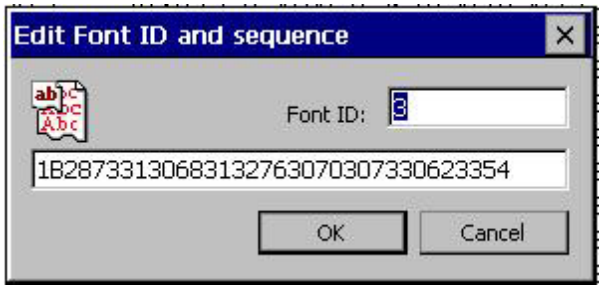
Edit Passthrough Sequence Dialog Box

Font ID



Driver Font ID Properties Sheet

This sheet allows you to customize the Escape commands used to call a Printer Font that has been associated with a Host System Font ID. To edit a Font ID, select the item, click on **Edit**, and an Edit Font ID and Sequence dialog box will appear where you can enter the new value.



Edit Font ID and Sequence Dialog Box

You can also remove a font or add a new font to the list. If you click on **Add**, an Edit Font ID and Sequence dialog box will appear where you can enter the new values.

Support

Affirmative Computer Products offers Technical Support services for all the Affirmative products. You can access Affirmative Technical Support in one of the following ways:

- via Phone
  - 480-946-1444
  - 888-353-5250
- via Fax
  - 480-946-9250
- via E-mail
  - support@affirmative.net