

Winterm Terminal

User's Guide Guide de l'utilisateur Bedienungsanleitung Guía de Usuario



Winterm Terminal User's Guide

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Overview

Introduction Windows NT applications servers use the ICA 3.X (Intelligent Console Architecture) protocol to communicate with each terminal in a network. This brings a full range of Microsoft Windows applications such as desktop publishing, word processing, database management, email, presentation, and financial applications to the terminal desktop. An operating system supporting the ICA 3.X protocol must be installed on a Windows NT server before a terminal can communicate with that server. Consult your Windows NT applications documentation for details. Your windows terminal is designed to communicate with Windows NT applications servers in either an intranet (within a company) environment, or with other open computing environments using legacy mainframe/large-scale host systems. * Note Legacy mainframe...systems are mainframe systems that have existed within a company a long time, and contain years of data accumulation and software development.

vi	Overview		
About This Guide	The Winterm Terminal User's Guide consists of the following sections:		
	 Chapter 1, "Communications Setup," explains how to configure the terminal for communication with a Windows NT applications server. The chapter includes instructions for setting up the terminal's communications ports for direct, modem, or printer connections. 		
	 Chapter 2, "Administrator and User Functions," explains system administration functions. The chapter includes instructions for enabling the terminal's security and auto-connect features. Instructions for setting up and modifying terminal user accounts are also available here. 		
	 Appendix A, "Serial and Parallel Port Pin Assignments," provides illustrations showing serial and parallel cable pin-outs between the terminal and a Windows NT applications server. 		
	 Appendix B, "Modem Initialization Strings," lists by modem type the terminal's default modem initialization strings. 		
	terminal's default modem in	itialization strings.	
		itialization strings. ing," provides a guide for troubleshooting the	
Guide Conventions	 Appendix C, "Troubleshoot terminal. Table 1 lists the conventions use 	-	
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	 Appendix C, "Troubleshoot terminal. Table 1 lists the conventions use Table 1 Conventions Convention Bold Italic Keycaps 	ing," provides a guide for troubleshooting the ed in this document for text formats. Description Indicates a factory default. Indicates a new term or book title. Indicates a key on the keyboard (for example, Ctrl, Enter, F2).	

WindowsStandard Microsoft Windows keystrokes are supported by the terminal for all
Windows applications. These keystrokes are useful if your mouse fails, or if
you are not installing a mouse when you set up the terminal. Table 2 lists the
alternative keystrokes.

Table 2 Windows Keystrokes		
Keystroke	stroke Description	
Alt	Use this key, with an underlined alphanumeric character, to invoke a property sheet or command (i.e. Alt P to invoke the Printer Options from the Options dialog box).	
Tab	This key moves the cursor from one field to the next, within a dialog box or property sheet.	
Shift Tab	This key sequence moves the cursor from one field to the previous, within a dialog box or property sheet.	
$\leftarrow \uparrow \rightarrow \downarrow$	These are the cursor arrow keys found on the editing keypad that let you scroll through lists, and click on command buttons and check boxes.	

1 Communications Setup

Chapter 1 explains how to configure this terminal to communicate with a Windows NT applications server via the terminal's serial port.

Note The server software should be running properly on your applications server. If it is not, stop here and refer to your applications server's documentation for help.

Connections Dialog Box

The Connections dialog box is the main dialog box for the user interface. It is the first screen to appear after the terminal is turned on. From Connections, you can log onto a server and configure communications settings and terminal options.

The Connections dialog box also contains the command buttons for the Connect and Logout functions, and the Options, Setup, About, and Network dialog boxes. Figure 1-1 shows the Connections dialog box.

Note During a connection, or while making a connection, press the Ctrl + Brk key to abort a server connection.

Figure 1-1 Connections Dialog Box

Connections	
Connec <u>t</u> ions: Default Manufacturing Selftest (Network)	ConnectLogoutOptionsSetupAboutNetwork

Chapter 1

Note When networking support is installed on your terminal, the Networks command button appears below the About command button in the Connections dialog box (Figure 1-1). Clicking on this command button invokes the terminal's network options. Refer to the terminal's connectivity guide for more network details.

Table 1-1 describes each function in the Connections dialog box.

Function	Description
Connections	This selection menu displays an index of current connection definitions.
	This index shows the Default and Manufacturing Selftest (Network), and any connection definitions you have created.
Connect	Click on this command button to make a connection between the terminal and the server.
Logout	Clicking on the Logout command button logs the current terminal user out of the terminal.
	The Welcome dialog box (Figure 1-2) displays with name and password data fields. Use these fields to log back onto the terminal.
	The Logout command button is functional only when the terminal's security feature is enabled.
Options	This command button invokes the Options dialog box (Figure 1-3).
	The Options dialog box contains the Terminal, Printer/Aux, Security, and Display properties sheets. These property sheets allow administrators to configure the terminal and the printer, and set security options.
	If security is enabled, terminal users can change only their password (if the <i>change password</i> feature is enabled when the account is set up).
Setup	The Setup command button invokes the Connection Setup dialog box (Figure 1-4).
	The Connection Setup dialog box contains the Close, New, Copy, Delete, and Properties command buttons. These command buttons allow the user to add, modify, or delete connection definitions.
	If a terminal user account does not have administrator privileges attached, the Setup command button will appear disabled. As a consequence, the user can only change the terminal account's password in the users Options dialog box (if the <i>change password</i> feature is enabled when the account is set up). This is part of the terminal's security feature, denying user access to connection definitions.

Table 1-1 Connections Dialog Box Functions

Table 1-1 Connections Dialog Box Functions, Continued		
Function	Description	
About	Click on this command button to open the About dialog box.	
	The About dialog box contains copyright, revision, and hardware configuration information.	
Network	Click on the Network command button to invoke the Networks dialog box.	
	The Networks dialog box contains the OK, Cancel, Hosts, and About command buttons. These command buttons allow the user to add and delete host connections from the Network Hosts Table. This box also contains the TCP/IP group box and the MAC Address field.	

Table 1-1 Connections Dialog Box Functions, Continued

1-3

Welcome DialogFigure 1-2 shows the Welcome dialog box. The Welcome dialog box prompts
the user for a name and a password. To log back onto the terminal, enter your
name and password in the Name and Password fields.

The Welcome dialog box is invoked by clicking on the Logout command button in the Connections dialog box (Figure 1-1).

Note The Welcome dialog box is only visible when security is enabled.

Figure 1-2 Welcome Dialog Box

	Welcome	
Name: Password:		OK

Table 1-2 describes each function in the Welcome dialog box.

	Table 1-2 Welcome Dialog Box Functions	
Function	Description	
Name	The Name data field is used to enter the <i>username</i> of the terminal user.	
Password	The Password data field is used to enter the <i>password</i> of the terminal user.	
ОК	Click on the OK command button to <i>accept</i> the user name and password, and exit the dialog box.	

Table 1-2 Welcome Dialog Box Functions

Options Dialog Box

Figure 1-3 shows the Options (user) dialog box. The Options dialog box is the only option available to a user account, through the Options command button in the Connections dialog box, or through the interruption of an Autoconnect session. This feature lets the user to change only the *local terminal password*, in the New Password data field, in the Local Password group box. In addition, if Autoconnect connection is associated with this account, the server password in that connection can also be changed.



		Options	
	Username:	aaa **********************	OK) Cancel
	_	**************************************	
Host Conn			
New	Username: <u>P</u> assword:	yyy	
Confirm	Password:		

Chapter 1

Table 1-3 describes the functions of the Options dialog box.

Table 1-3 **Options Dialog Box Functions** Function Description **Terminal Password** Use this group box to enter terminal logon information. Username Username displays the current terminal username. New Password Enter a new password in this data field. **Confirm Password** Enter the new password again to confirm it. Host Connection Use this group box to enter host connection Password information. Username Username displays the current host username. New Password Enter a new password in this data field. **Confirm Password** Enter the new password again to confirm it. OK Click on the OK command button to accept the user name and password, and exit the dialog box. Cancel Click on the Cancel command button to exit the dialog box.

Note New Password and Confirm Password do not change the host password.

Making a Default Connection	The following instructions describe how to make a connection to a server using the default settings:		
	1 Select Default from the Connections list.		
	2 Click on the Connect command button.		
	3 Enter your user name and password, in the Username and Password fields.		
	4 Click on OK to accept the connection.		
	The terminal will attempt a connection according to the factory default settings.	sh	
*	Note Press Ctrl + Break to cancel the default connection attempt.	English	
The Default Connection Definition	When you turn the terminal on, the Connections dialog box appears (Figure 1-1), displaying a list of connections. A default connection is provided in this list. The following are the factory-preset default settings for the default connection:		
	• Serial port communications set to Com1 direct		
	• Baud rate set at 115,200		
	• Handshaking set to Hardware		
	 Hardware flow controls set to DTR Always On (enabled) and RTS Always On (disabled) 		
	• Receive buffer set to RTS Off		
	• Transmit data set to CTS On		
	These factory-default settings can be modified.		
*	Note The terminal security feature is disabled at the factory. This feature is not active when the terminal is first turned on. This means that administrator and user accounts are not defined. Anyone using the terminal can log onto a server. If terminal security is required, it must be enabled from the Option/Security properties sheet found in the Options dialog box (Figure 2-1).		

Refer to Chapter 2, "Administrator and User Functions," for details.

Making a Terminal
ConnectionThe terminal uses connection definitions to log into a Windows NT
applications server. "Making a Terminal Connection" explains how to create
and modify connection definitions.Two types of serial connections are supported by the terminal—direct and
modem. Direct connections are made via a serial cable connecting the
terminal to a server. Modem connections are made modem-to-modem via
telephone lines, from the terminal to a server. These connectors are on the
back panel, and are easily accessible.

The Connection Setup dialog box (see Figure 1-4) is invoked by clicking on the Setup command button in the Connections dialog box (Figure 1-1).

Figure 1-4 Connection Setup Dialog Box

Connection Setup		
Connec <u>t</u> ions: D <mark>efault</mark> Manufacturing Selftest (Network)	Close <u>N</u> ew <u>C</u> opy <u>D</u> elete <u>P</u> roperties	
AutoLogin Enable:		

Note The Connection Setup dialog box allows you to create new connections, copy properties from one connection to another, and modify and delete connections, any time the terminal is active. Connections, however, cannot be changed once the terminal is logged on to a server.

Table 1-4 describes the functions in the Connection Setup dialog box.

Table 1-4 Connection Setup Functions		
Function	Description	
Connections	Connections provides an index of available server connections, including the factory default.	
	Connection definitions are added to this list, after defining their properties in the Connection Properties dialog box (Figure 1-5).	
Close	Click on this command button when you are finished changing connection properties, to exit the Connection Setup dialog box.	
New	This command button invokes the NEW dialog box.	
	In the New dialog box, information is entered to create new connection definitions.	
Сору	The Copy command button lets you create a new connection definition from a previously defined connection listed in Connections.	
	Enter the connection definition you want to use to create a new connection definition in the To: data field.	
Delete	Click on the Delete command button to delete a connection from the connections list.	
Properties	This command button invokes the Connection Properties dialog box (Figure 1-5), allowing the user to modify a connection.	
	Connection properties are closely associated with Windows NT user account information.	
Autologin Enable	Click on the Autologin Enable check box to enable automatic login.	
	This check box enables the terminal to automatically log into a connection either at terminal turn on, or log into another connection at connection logoff.	

Creating and Modifying Connections

The Connection Properties dialog box will allow the user to create or modify connection definitions. Figure 1-5 shows the Connection Properties dialog box. To create or modify a connection definition, use either the New, Copy or Properties command buttons.

This dialog box is invoked by:

- 1 Clicking on the Setup command button in the Connections dialog box.
- 2 Clicking on the New command button in the Connection Setup dialog box.

Figure 1-5 Connection Properties Dialog Box

Connection Properties			
<u>D</u> escription: <mark>Defau</mark>	lt		OK
Username: Domain: Password: Command Line: Working Directory: ⊠Sound Enable			Cancel Settings Scripts
© Serial Port O PPP O 10BaseT O Token Ring	Serial Port © Com1 direct O Com2 direct O Com1 w/modem O Com2 w/modem		Hardware e

Note Radio buttons that appear in the Communication group box in Figure 1-5 vary with communication selection and network options. Refer to the terminal connectivity guide for more details. Table 1-5 describes the functions in the Connection Setup dialog box.

Table 1-5 Connection Properties Dialog Box Functions		
Function	Description	
Description	Enter the name of the connection in this data field.	
	The name that you are creating is unique to, and descriptive of, the connection. For example, a connection that is configured to log directly into Microsoft Word for Windows could be named msword4windows.	
Username	Enter the Windows NT user account name that the terminal will log into. The terminal needs this user name to begin a session.	
	It must be a valid user name on the target Windows NT applications server.	
	If this field is left blank, the user will be prompted for a user name before logging into the account. Administrators may want to leave this field and the Domain and Password fields empty, so that the server will always prompt for a user name.	
Domain	Enter the Windows NT applications server's domain name.	
	If this field is left blank, the server will prompt the user for a domain name when logging into the account.	
Password	Enter the Windows NT user account password in this data field.	
	If this data field is left blank, the user will be prompted for the password before the terminal allows access to the server. Passwords are encrypted in the terminal.	
Command Line	The Command Line field is used to enter executable commands.	
	These commands place the user at log on in an application such as Microsoft Word or Excel. A command line entry could look like this:	
	C:\WINWORD\WINWORD.EXE	
Working Directory	Enter the directory path where you want your work to be saved.	
	The following path identifies the directory where MSWord files are located:	
	C:\WINWORD\DOC	
Sound Enable	Click on this box if you want the terminal to beep when a Windows NT event occurs.	
	The default is enabled.	

Function	Description	
Communication	Communication allows the user to select the terminal's communication transport protocol.	
	Selections in this group will vary according to the communication options installed on your terminal. The default is Serial Port .	
Serial Port	The Connection Properties' Serial Port group lets you select the type of serial connection used by the terminal and the server.	
Com1 direct	This function configures a direct serial connection (via cable) between the terminal's COM1 port and the applications server.	
	Click on the Com1 direct radio button. Next, click on the Settings command button to configure.	
	The default is COM1 direct .	
Com2 direct	Com2 direct allows the user to configure a direct serial connection (via cable) between the terminal's COM2 port and the server.	
	Click on the Com2 direct radio button. Next, click on the Settings command button to configure.	
Com1 w/modem	Select this function to configure a modem connection between the terminal's COM1 port and the applications server.	
Com2 w/modem	Select this function to configure a modem connection between the terminal's COM2 port and the applications server.	
ОК	Click on the OK command button to accept your selections and return to the Connections Setup dialog box.	
Cancel	Click on the Cancel command button to cancel your action and return to the Connections Setup dialog box.	

 Table 1-5
 Connection Properties Dialog Box Functions, Continued

Table 1-5 Connection Properties Dialog Dox Punctions, Continued	
Function	Description
Settings	Click on the Settings command button to invoke the Serial Settings dialog box (Figure 1-6).
	The current serial port selection is listed at the top of the dialog box. For example, if the user selects Com1 direct from the Connection Properties dialog box, Serial Port: Com1-Direct will appear at the top of the Serial Settings dialog box.
Scripts	Click on the Scripts command button to invoke the Security/Scripts dialog box.
	Scripting capability automates the login process. This capability allows the user to login to a server without having to enter user names and passwords.
	Note A terminal with multiple users accounts, such as in a point-of-sales environment, share the same serial port settings. For example, a terminal has user accounts for three users. All three have connections defined on COM1 at 115200 bps. If one user's connection is changed for a baud rate other than 115200 bps, the other two user's serial settings would change also.

 Table 1-5
 Connection Properties Dialog Box Functions, Continued

Chapter 1

Configuring Serial Settings

The Serial Settings dialog box allows the user to set the baud rate, handshake control, hardware flow control, and transmission data settings of the serial port, for both direct and modem connections. Figure 1-6 shows the Serial Settings dialog box.

This dialog box is invoked by:

- 1 Clicking on the Setup command button in the Connections dialog box.
- **2** Clicking on the Properties command button in the Connection Setup dialog box.
- **3** Clicking on the Settings command button in the Connection Properties dialog box.

Figure 1-6 Serial Settings Dialog Box

	Settings
Serial Port: Com1-Direct	
r <u>B</u> aud Rate	
○ 2400 ○ 9600 ○ 57600 ○ 4800 ○ 19200 ○ 76800 ○ 7200 ○ 38400 ● 115200	Cance1
- Handshake Control	
💿 Hardware	
⊖Software (XON/XOFF)	
○ None	
Hardware Flow Controls ∑DTR Always On □RTS Always On On Receive Buffer Full: ORTS Off ODTR Off Transmit Data on: OCTS On ODSR On	

Table 1-6 describes the fields in the Serial Settings dialog box.

Setting	Description
Baud Rate	The Baud Rate group displays the baud rates available to the user. Choose from:
	2400, 4800, 7200, 9600, 19200, 38400, 57600, 76800, or 115200
	The best performance is obtained by using 115200 bps, if your server supports that rate.
Handshake Control	This group lets you select the Handshake Control parameters for the serial port.
	Hardware handshaking ensures an orderly transmission of data between the terminal and server, through hardware flow control.
	Software handshaking ensures that transmissions remain constant, via specific software communications protocols. Choose from:
	Hardware (RTS/CTS) Software (XON/XOFF) None
Hardware Flow Controls	The Hardware Flow Controls group lets the user select the type of hardware flow control used during terminal-to-server communications.
DTR Always On	Defines the state of the DTR control signal.
	Click on the DTR Always On command button to select DTR Always On. Leave the box blank to turn DTR control off. The default is DTR Always On . This setting is used with modems.
RTS Always On	Defines the state of the RTS control signal.
	Click on the RTS Always On command button to select RTS Always On. Leave the box blank to turn RTS control off. The default is RTS Always Off . This setting is used with modems.
On Receive Buffer Full	Specifies when the Hardware Flow Control signal will turn off.
	The default is RTS Off . If RTS Off is selected, the RTS Always On option will have no effect on hardware flow control. If DTR Off is selected, the DTR Always On option will have no effect on hardware flow control.
	This setting is used only when handshaking is set to Hardware and Direc Serial.

Table 1-6 Serial Settings Dialog Box Functions, Continued	
Setting	Description
Transmit Data on	Specifies the type of modem signal that will be used by the applications server.
	CTS and DSR control when the terminal is allowed to transmit data. Choose from:
	CTS On DSR On
ОК	Click on the OK command button to accept your selections.
Cancel	Click on the Cancel command button to cancel your selections.

Configuring Serial Ports with Modems

The Modem group seen in the Serial Settings dialog box is used to enter the phone number of the server. Figure 1-7 shows the Serial Settings dialog box with the addition of the Modem group box.

The group also allows the user to select a modem type, enable the modem's hardware flow control, set the modem's speaker option, and define the modem's initialization string.

This dialog box is invoked by:

- 1 Clicking on the Setup command button in the Connections dialog box.
- **2** Clicking on the Properties command button in the Connection Setup dialog box.
- **3** Clicking on either the Com1 w/modem or Com2 w/modem command buttons in the Connection Properties dialog box.
- **4** Clicking on the Settings command button in the Connection Properties dialog box.

Figure 1-7	Serial Settings with Modems Dialog Box
------------	--

Serial	Settings
Serial Port: Com1 w∕modem ⊢Baud Rate—	OK
○ 2400 ○ 9600 ○ 57600 ○ 4800 ○ 19200 ○ 76800 ○ 7200 ● 38400 ○ 115200	Cancel
Handshake Control	' - Modem
 ● Hardware (RTS/CTS) ○ Software (XDN/XDFF) ○ None 	Modem Type: User Defined Cardinal MVP288XF Haves Accura 28800
Hardware Flow Controls ⊠DTR Always On ∩RTS Always On On Receive Buffer Full: ORTS Off ODTR Off Transmit Data on: OCTS On ODSR On	Practical Peripherals PM28 UDS Motorola PowerClass 28 US Robotics Sportster VFC MHW Flow Control Speaker On User-Defined Init String:

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Table 1-7 describes each setting for serial modem connections.

Table 1-7 Modem Parameters	
Parameter	Description
Phone Number	In this data field, enter the phone number of an applications server.
	If a phone number is not entered, the terminal will prompt you for one. You might have to enter a prefix if you are attempting to connect to an applications server outside your building or area code.
Modem Type	Select the type of <i>external</i> modem that you are using from the list in the Modem Type selection menu.
	If your modem is not listed, use the User Defined option to define your modem. If you select user defined, the HW Flow Control and Speaker On functions will be ignored. Each modem type in the Modem Type list box has a preconfigured initialization string (see Appendix B, "Modem Initilization Strings"), that initializes the modem before it dials out. New modem types can be added to this list box by entering the new modem's initialization string in the User-Defined Init String field.
HW Flow Control	Check this box to enable the modem's hardware flow control.
	Leave HW Flow Control unchecked to disable this feature. The HW Flow Control feature only works when using a modem to communicate with an applications server.
Speaker On	Check this box to enable the modem's speaker.
User-Defined Init String	User-Defined Init String allows the user to enter new modem initialization strings into the modem strings initialization list.
	The maximum character length for a modem initialization string is 80 characters.
	This is useful when sending new commands to the modem. Consult your modem's user's guide for information about modem command sets.

Scripting

Figure 1-8 show the Security/Scripts dialog box.

This dialog box is invoked by:

- 1 Clicking on the Setup command button in the Connections dialog box.
- 2 Clicking on the Properties command button in the Connection Setup dialog box.
- **3** Clicking on the Scripts command button in the Connection Properties dialog box.

Figure 1-8 Security/Scripts Dialog Box

Security ∕ Script	
Username :	OK Cancel
Confirm Password:	
Enable Terminal Login	
- Login Script	
⊙§end ⊖Expect	
String: <snd>:</snd>	
Add -> < <no defined="" script="">> Delete </no>	

Script capability has been included to automate the login process when connecting to terminal servers or internet access servers. The scripting process listens for specific strings coming from the host connection, and when found, sends a string back to the host. This two-way dialog can be created within the String field by entering the <exp> and <snd> text on a line-by-line basis. To facilitate script entry, special script controls can be entered into the string:

- ◆ <Cr> is replaced with a carriage return character
- ◆ <lf> is replaced with a line feed character
- <ddd> is replaced with an ASCII character that is equal to the decimal value of ddd

Chapter 1

- <un> is replaced with the content of the Security dialog box Username field
- <pw> is replaced with the content of the Security dialog box Password field

To create a script, first determine the login sequence used by your host or server. This can be done by asking your administrator for a description of the login sequence. Or you can use Terminal Login, going through the Terminal Login process once to learn the server's login sequence.

Note The maximum character length for each line of script is 78 characters. The maximum number of lines per script is 8.

To enter a special script control such as <Cr>, type <, c, r, >. Do not use spaces between characters. Lines are added to a script by:

- **1** Selecting <snd> or <exp>.
- **2** Clicking in the String field.
- **3** Entering the appropriate string.
- 4 Clicking on Add to add the string to the script.
- **5** Repeating steps 1 through 4 for each <snd> or <exp> string definition.
- **Note** Each script dialog is unique to one connection.

Click on the OK command button when the script is completed. The Security dialog box will close, and the script will be saved.

Table 1-8 describes a sample script.

String	Definition
<snd><cr></cr></snd>	Send a carriage return.
<exp>Login:</exp>	Expect Login:.
<snd><un><cr></cr></un></snd>	Send the contents of the Username field, followed by a carriage return character.
<exp>Password:</exp>	Expect Password:.
<snd><pw><cr></cr></pw></snd>	Send the contents of the Password field, followed by a carriage return character.

Table 1-8 Sample Script

Copying a
Connection DefinitionThe Copy command button from the Connection Setup dialog box
(see Figure 1-4) lets the user create new connection definitions from
preexisting ones listed in the Connections list. Figure 1-9 shows the Copy
Connections dialog box.To copy and create a new definition, follow these instructions:
1Select a connection definition.

- 2 Click on Copy.
- **3** Enter the name of the new definition in the To field.
- **4** Click OK to accept the new connection definition.

Figure 1-9 Copy Connection Dialog Box

Copy Connection	
From: Default	OK
<u>T</u> o:	Cancel

1-22 Chapter 1 Deleting a Connection Definition The Delete command button from the Connection Setup dialog box lets the user delete a connection definition from the Connections list. Figure 1-10 shows the Delete dialog box. To delete a definition, follow these instructions: Select a connection definition from the Connection Setup dialog box. Click on the Delete command button. Click OK to delete the definition.

Delete Connection:

Default

The Autologin function is located in the Connection Setup dialog box, shown in Figure 1-4. Click on the Autologin Enable check box to enable this function.
The Autoconnect function is located in the Add User Account dialog box, shown in Figure 2-2. Click on the Autoconnect Enable check box to enable this function.
Autologin
 Autologin allows the user to turn on the terminal and establish a predefined connection, without entering any names, passwords, or configuration settings. Autologin, once enabled, will occur: After the terminal is turned on.

• After the user logs off of a connection.

When the user logs off, the terminal will automatically attempt to reestablish that connection, without the user changing configurations or passwords.

Cancel

Communications Setup

The Alt + F4 key combination is used to *break out* of autologin. This feature allows the user to make modifications to pre-defined connections, if the user has such privileges. The Welcome dialog box appears after the break out (see Figure 1-2), allowing the user to log back into terminal.

Autoconnect

*

Autoconnect allows the user to establish a connection directly from the Welcome dialog box. The user enters a username and password in the Username and Password data fields. The terminal then establishes a connection using the connection information in the Autoconnect function.

In most cases, the Autoconnect feature works with the Security feature. If Autologin and Security are disabled, the Autoconnect feature will not function. The exception is when the administrator uses Autoconnect, and the Autologin and Security features are disabled. Then, a predefined connection will be made. When the administrator logs off, the terminal will return to the Connections dialog box.

When the administrator has the Autoconnect and the Enable User Password Change features enabled during a connection, the terminal will display a *timeout* dialog box (see Figure 2-5) while making a connection. If the user cancels the connection, the terminal will go to the Options dialog box. Once the user leaves the Options dialog box, the previous connection will resume. When the administrator has the Enable User Password feature disabled during a connection, the terminal will go directly to the server connection, and no timeout dialog box will appear.

Note Administrator user definitions should have the Autoconnect option disabled for security reasons, unless they are defined by the administrator.

1-24	Chapter 1
Options Dialog Box	The Options dialog box (see Figure 1-3) allows the user to select terminal, printer, security, and display settings. All selections are saved by clicking on the OK command button.
	If the terminal's security feature is enabled, access to all terminal, printer, and security options is denied to accounts of type <i>user</i> . The Options command button will be disabled. If Change Password Enabled is not selected when the account is set up, administrator accounts will have access to all options. The default for the Options dialog box is Terminal .
Terminal Properties Sheet	Terminal lets the user designate a terminal name that will be used by the server. Figure 1-11 shows the Options dialog box. This dialog box allows the user to set the power-saver and keyboard language features, and enable Verbose Connection.
	The Options dialog box is invoked by clicking on the Options command button in the Connections dialog box (Figure 1-1).

Figure 1-11 Options Dialog Box

Options		
Terminal Printer/Aux Se	ecurity <u>D</u> isplay	
Terminal Name: OK Power Saver OK ○ Off 10 min. 30 min. ○ 5 min. ● 15 min. ● 60 min.		
Keyboard Language: Wa		
GG French German Italian Spanish UK	□Verbose Connection	

Table 1-9 describes the fields on the Terminal Properties Sheet.

Table 1-9 Terminal Properties Sheet Functions	
Parameter	Description
Terminal Name	Use this data field to enter the name of the terminal.
	The server recognizes each connected terminal by the specific name designated in the Terminal Name field. The name is unique to each terminal on the network. The terminal name also provides a useful means for locating printer and administrator functions shared on the network.
Power Saver	The power-saver feature lets the user determine the duration (in minutes) that the display will be active while the terminal is left unattended.
	Choose from:
	Off, 5 min., 10 min., 15 min. , 30 min., or 60 min.
Keyboard Language	This option allows the user to select the keyboard language to use with the terminal.
	Use the up-down arrow keys to scroll through the Keyboard Language selection menu to find the desired language. US is the default.
Verbose Connection	Click on the Verbose Connection check box to enable this function.
	With Verbose Connection enabled, the terminal can report detailed error and connection messages. The Verbose Connection function is intended for users who have optional networking features installed in their terminal, and are troubleshooting a problem.
ОК	Click on the OK command button to accept your selections.
Cancel	Click on the Cancel command button to cancel your selections.

1-26	Chapter 1		
Printer/Aux Properties Sheet	This terminal supports local printing. To print, you will need to connect your terminal to a printer via the parallel port, or one of the serial ports. Consult your printer's user's guide for details.		
	Printer options are configured in the Printer Port group box on the Printer/Aux properties sheet (see Figure 1-12) in the Options dialog box. The Printer Port group box lets the user configure any of the terminal's communications ports for local client printing. Each port can be enabled and configured individually. Multiple ports can be configured as printer ports. Serial ports can be used for printing, and can also be used for peripheral devices such as scanners or bar code readers.		
	Invoke the Printer/Aux properties sheet by:		
	1 Clicking on the Options command button in the Connections dialog box.		

2 Clicking on the tab on the Printer/Aux properties sheet.

Figure 1-12 Printer/Aux Properties Sheet

	Options	
Terminal Printe		Display
Printer Port ⊠Paralle <u>l</u> Port ⊠Com <u>1</u> Serial Port ⊠Com2 Serial Port		OK Cancel Comi Settings Com2 Settings

Table 1-10 describes the Printer/Aux option parameters.

Option	Description		
Printer Port	This group box allows the user to enable any port (or multiple ports) listed as a printer port.		
Parallel Port	Click on this check box to enable the terminal's parallel port for local printing.		
	The default is enabled .		
Com1 Serial Port	Click on this check box to enable the terminal's COM1 port for local printing.		
	The default is enabled .		
Com2 Serial Port	Click on this check box to enable the terminal's COM2 port for local printing.		
	The default is enabled .		
ОК	Click on this command button to accept your settings and return to the Connections dialog box.		
Cancel	Click on this command button to cancel your settings and return to the Connections dialog box.		
Com1 Settings	Click on this command button to invoke the Com1 Serial Printer Settings dialog box (see Figure 1-13).		
Com2 Settings	This command button invokes the Com2 Serial Printer Settings dialog box (see Figure 1-13).		

Note The server must be configured to use the local serial or parallel ports, through the server *net use* commands. Consult your server's administrator guide for more details.

1-28	Chapter 1
Serial Printer Settings Dialog Box	The Com Settings command buttons on the Printer/Aux properties sheet lets you configure Com1 or Com2 for printing. Figure 1-13 shows the Com1 Serial Printer Settings dialog box.
*	Note The Com2 Serial Printer Settings dialog box is the same as Figure 1-13.
	Invoke the Com1 Serial Printer Settings dialog box by:
	1 Clicking on the Options command button in the Connections dialog box.
	2 Clicking on the Printer/Aux tab on the Printer properties sheet.
	3 Clicking on the Com1 Settings command button.
*	Note The Com2 Serial Printer Settings dialog box can be invoked by clicking on the Com2 Settings command button in Step 3 above.
	Figure 1-13 Com1 Serial Printer Settings Dialog Box
	Coml Serial Printer Settings

	Com	1 Serial Pri	nter S	ettings		
-Baud Rate ○ 300 ○ 600 ○ 1200 ○ 2400 ○ 3600	 ↓4800 ↑7200 ● 5600 ↓14400 ↓15200 	 ○ 28800 ○ 38400 ○ 57600 ○ 76800 ○ 115200 		-Stop Bits ⊙1-bit	OK Cancel	
 Hardwar 	e Control re (RTS∕CTS) re (XON∕XOFF			Parity None Mark Space	⊖Even ⊖0dd	
_Data Bits ⊙8-bits	s— ⊖7-bits					

Note When the terminal is logged into the server via COM1 or COM2, and the port is enabled as a printer port, the printer configuration will be ignored by the server. The server will not recognize it as a local printer port, but as a server connection. Local serial port settings do not affect a server-connected serial port's setting. Table 1-11 describes each setting.

Table 1-11 Serial Printer Settings Dialog Box Functions		
Setting	Description	
Baud Rate	Baud Rate sets the printer's baud rate.	
	Choose one of the following:	
	300, 600, 1200, 2400, 3600, 4800, 7200, 9600 , 14400, 19200, 28800, 38400, 57600, 76800, or 115200	
Handshake Control	The Handshake Control group box allows the user to select the handshake control setting for a serial port.	
	Handshaking ensures an orderly transmission of data through hardware flow control, between the terminal and the applications server.	
	Software handshaking ensures that transmissions remain constant via specific software communications protocol.	
	Choose from:	
	Hardware (RTS/CTS) Software (XON/XOFF) None	
Data Bits	Sets the port's data bit to match the printer's requirements.	
	Choose from:	
	8-bits or 7-bits	
Stop Bits	Set the port's stop bit to match the printer's requirements.	
	Choose from:	
	1-bit or 2-bits	
Parity	Set the port's parity to match the printer's requirements.	
	Choose from:	
	None, Mark, Space, Even, or Odd	
ОК	Click on the OK command button to accept the settings, and exit the dialog box.	
Cancel	Click on the Cancel command button to disregard your settings, and return to the Options dialog box.	

-30 Chapter 1		
Aux Handshake Modes	Either of the two basic handshaking modes (hardware or software) can be used to control the flow of data through the Aux (Auxiliary) port. Which mode is selected depends upon how the connected host uses the port, and how the active host application addresses the port.	
	When the Aux port is used as a serial printer port, the hardware handshaking mode uses the DTR/DSR (Data Terminal Ready/Data Set Ready) signals to control the flow of data through the port.	
	When the Aux port is used as a bidirectional communication port, the hardware handshaking mode uses the RTS/CTS (Request To Send/Clear To Send) signals to control the flow of data through the port.	
	If the software handshaking mode is selected, the Aux port uses the XON/ XOFF handshake signals to control data flow.	
	The settings in the Aux Handshake Modes table are configured in the COM1 and COM2 Settings dialog boxes.	
	✤ Note When the terminal is logged into the server via COM1 or COM2, and the port is enabled as a printer port, the printer configuration will be ignored by the server. The server will not recognize it as a local printer port, but as a server connection. Local serial port settings do not affect a server-connected serial port's setting.	
	Table 1-12, Aux Handshake Modes, describes the available modes for both the printer and the Aux functions.	

Table 1-12 Aux Handshake Modes			
Handshake Type	Handshake Modes	Printer Port	Aux Port
Hardware	DTR/DSR	✓	
Hardware	RTS/CTS		\checkmark
Software	XON/XOFF	✓	

Display PropertiesThe terminal's screen display options are adjusted in the Display propertiesSheetFigure 1-14 shows the Display properties sheet.

This properties sheet is invoked by:

- **1** Clicking on the Options command button in the Connections dialog box.
- **2** Clicking on the Display tab in the Options dialog box.

Figure 1-14 Display Properties Sheet

	Optior	าร	
Terminal	Printer/Aux	Security	Display
Color ● 15 ○ Connection Res ● 640X480 ○ 800X600	256 solution		OK Cancel

Note Other command buttons not shown in Figure 1-14 might appear, depending on which options you have installed on your terminal.

Chapter 1

The Display properties sheet is described in Table 1-13.

Table 1-13	Display Properties Sheet Functions
Fields	Description
Color	This group box allows you to select the maximum number of colors supported on the terminal screen.
Connection Resolution	This group box allows you to select the maximum resolution of the display.
ОК	Click on OK to accept your modifications
Cancel	Click on Cancel to cancel the function.

Note The connection resolution and color selection will vary by products.

2 Administrator and User Functions

The terminal security features gives administrators the means to restrict access
to sensitive terminal functions. These features allow the user to automatically
log onto (Autologin), and/or automatically connect (Autoconnect) to a server,
based on user account information.

• **Note** These functions relate to the terminal only. They should not be confused with network or server functions.

The AutoConnect feature is disabled at the factory, leaving the terminal accessible to modification of the terminal settings and illegal log on. Enabling the security feature, and setting up administrator and user-privileged accounts protects the terminal and the network against unwanted access. This chapter explains how to enable these features.

Note Terminal security configurations have no effect on Windows NT applications servers.

Administrator and Terminal User Accounts	 Terminal security allows two types of accounts— administrator and user: Administrator accounts provide full access to all user accounts, connection definitions, passwords, and terminal settings and features. User accounts only provide access to user account passwords. User accounts are restricted from administrator privileges. 	
	The terminal is equipped with a predefined administrator account called <i>Administrator</i> . You can change this account's properties, such as its password, domain, and auto-connection function. However, the Administrator account cannot be deleted from the terminal.	
	Terminal user accounts can be defined in any combination of administrator and user accounts. For example, you can define two administrator accounts with full access, eight user accounts with limited access, or four each per terminal.	

Security Properties Sheet	Security is enabled in the Security properties sheet. Figure 2-1 shows the Security properties sheet.	
	This feature is enabled by:	
	1 Clicking on the Options command button in the Connections dialog box (see Figure 1-1).	

- **2** Clicking on the Security tab in the Options dialog box.
- 3 Clicking on the Security Enable check box to enable security.

Figure 2-1 Security Properties Sheet

Optio	ns	
Terminal Printer/Aux	Security	Display
□Security Enable Terminal Username Privileg Administrator Admin	e AutoConnect No	OK Cancel Add user Modify user Delete user

Once the security feature is enabled and the terminal is reset, a terminal logon name and password is required to regain access to the terminal. Logon is done in the Welcome dialog box, which displays once the terminal is turned back on (see Figure 1-2, Chapter 1).

If you entered a user name that does not have administrator privileges, the Setup button in the Connection dialog box will be disabled, denying the user access to the terminal's connection setup. When security is enabled, users privileges are restricted only to password changes, when Enable User Password Change is selected in the Add User Account dialog box.

Adding Terminal User	The Add User Account dialog box adds user accounts to the terminal.
Accounts	This dialog box is invoked by:
	 Clicking on the Options command button in the Connections dialog box (see Figure 1-1).

- **2** Clicking on the Security tab in the Options dialog box.
- **3** Clicking on the Add User command button.

Figure 2-2 shows the Add User Account dialog box.

Figure 2-2 Add User Account Dialog Box

Add User Account	
Username: Password: Confirm Password: _Administrator Privilege Enable	OK Cancel
∑Enable User Password Change Auto Connection ☐ AutoConnect Enable AutoConnect to: Default Manufacturing Selftest (Network)	

When you are finished adding a user account, click OK to accept the new account. Click on Cancel at any time to quit the dialog box.



Note Terminal user accounts are created for terminal access only, and must not be confused with server accounts.

Chapter 2

Table 2-1 describes each field in the Add User Account dialog box.

Table 2-1 Add User Account Field Descriptions		
Field	Description	
UserName	Enter the terminal user account name in this field.	
Password	Enter the terminal user account password in this field.	
Confirm Password	Enter the password again in this field.	
	This confirms and validates the password you entered in the Password field. If a confirmation is not made, an error message box will appear. The error message box prompts you to reenter the password.	
Administrator Privilege Enable	Check this box if you want to assign administrator privileges to a terminal user account.	
	You must select this function or Enable User Password Change if you want the Options dialog box available.	
	Accounts with administrator privileges are identified as Admin in the Privilege column of the Terminal Username list. Selecting this function disables Enable User Password Change.	
	The default is disabled .	
Enable User Password Change	Check this box to allow the user to make changes to the password.	
Change	You must select this function or Administrator Privilege Enable if you want the Options dialog box available.	
	If the Enable User Password Change feature is enabled, then the Administrator Privilege Enable is disabled. The two functions are mutually exclusive. If both functions are disabled, then the Option command button in the Connections dialog box will not be available, and there will be no connect <i>time-out</i> during auto-connect.	
	The default is enabled .	
AutoConnect Enabled	When enabled, this feature automatically connects the terminal user account to a defined connection during login.	
	AutoConnect can be independently enabled and associated with any connection definition. See "Auto-Connections" in this chapter, for more details.	
	The default is disabled .	
AutoConnect to	Select the connection definition that will be associated with the current terminal user account, if the AutoConnect feature is enabled. See "Auto-Connections" in this chapter, for more details.	

Modifying Terminal User Accounts

Terminal user account modifications are made by selecting an account from the Terminal Username list in the Security properties sheet of the Options dialog box (See Figure 2-1). Next, click on the Modify User command button to invoke the Modify User Account dialog box (Figure 2-3). The account you selected appears in the Username field. This dialog box is similar to the Add User Account dialog box, with exceptions listed in Table 2-2.

Figure 2-3 Modify User Account Dialog Box

Modify User Account	~
Username: Administrator OK New Password: Cancel Confirm Password: Cancel Administrator Privilege Enable Enable User Password Change Auto Connection AutoConnect Enable AutoConnect Enable Default Manufacturing Selftest (Network) Manufacturing Selftest (Network)	English

Chapter 2

Table 2-2 describes each field in the Modify User Account dialog box.

Table 2-2 Modify User Account Fields		
Field	Description	
Username	The Username field displays the terminal user name, and cannot be changed.	
New Password	Enter a new password in this field.	
	Enter it again in the Confirm Password field, to confirm and encrypt the new password.	
Administrator Privilege Enable	Click on this box if you want to assign administrator privileges to a terminal user account.	
	Accounts with administrator privileges are identified as Admin in the Privilege column of the Terminal Username list. This list is in the Security properties sheet of the Options dialog box.	
Enable User Password	Check this box to allow the user to make changes to the password.	
Change	If the Enable User Password Changes feature is enabled, then the Administrator Privilege Enable is disabled. The two functions are mutually exclusive. If both functions are disabled, then the Option command button in the Connections dialog box will not be available, and there will be no connect <i>time-out</i> during auto-connect.	
AutoConnect Enabled	When enabled, this feature automatically connects the terminal user account to a defined connection.	
	Autoconnect can be independently enabled, and associated with any connection definition. See "Auto-Connections" in this chapter, for more details.	
AutoConnect to	Select a connection definition that will be associated with the current terminal user account.	
	The auto connect feature must be enabled. See "Auto-Connections" in this chapter, for more details.	
ОК	Click on OK to accept your modifications	
Cancel	Click on Cancel to cancel the function.	

neet allows the user ure 2-4 shows the
ecurity properties
deleted. If this is
lelet

Figure 2-4 Delete Dialog Box

Auto-Connections

The Auto-Connect feature automatically connects the terminal to a Windows NT applications server, if that terminal account has the Auto-Connect feature enabled. Figure 2-5 shows the Auto-Connect (*time-out* message) Message dialog box. This feature is enabled from the Add User and Modify User Account dialog boxes.

When an account has Auto-Connect enabled, and a connection is attempted, the Connection dialog box will not display. Instead, a *time-out* message, the Autoconnect message dialog box will appear.



Type a Key or Select OK For Options	
-*[02]*	

If Enable User Password Change is *not enabled*, the password dialog box will not show and the time-out message will not appear.

When a connection is made, you will see the Windows NT login screen, Program Manager, or your application (if you entered a command line and working directory in the Connection Properties dialog box).

If security is enabled and a password is in a user account, and you abort a connection, a terminal user Options dialog box (Figure 2-6) will appear. This dialog box allows the user to change passwords.

If security is disabled, and you want to abort the connection process, press any key on the keyboard. Pressing any key will bring you back to the Connections dialog box.

Figure 2-6 Options Dialog Box

Terminal Password Username: aaa New <u>P</u> assword: ******************* <u>C</u> onfirm Password: ***************	OK Cancel
Host Connection Password Username: yyy	
New Password:	

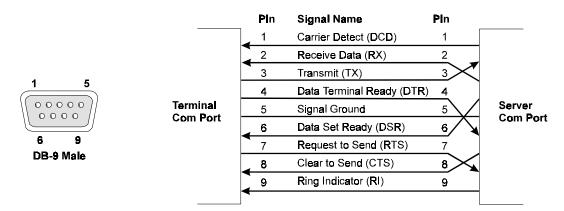
The Options dialog box's fields are described in Table 2-3.

Table 2-3 Options Dialog Box Fields		
Fields	Description	
Terminal Password	This group box allows the user to recreate and confirm the terminal password.	
UserName	Identifies the current terminal user name. This name cannot be changed.	
New Password	Enter a new user password in this field.	
Confirm Password	Enter the user password again to confirm the password.	
Host Connection Password	This group box allows the host logon user to change and confirm the Windows NT applications server password.	
UserName	Identifies the current Windows NT application server user's name. This name cannot be changed.	
New Password	Enter the application server user's new password in this field.	
Confirm Password	Enter the application server user's password again to confirm the password.	

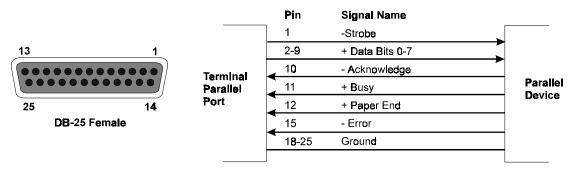
Table 2-3 Options Dialog Box Fields

A Serial and Parallel Port Pin Assignments

Figure A-1 Serial Pin Assignments







Note Parallel pin assignments are Centronics-compatible.

B Modem Initialization Strings

Initialization strings sent from the modem depend on the type of modem selected from the Serial Settings dialog box (see Chapter 2, "Administrator and User Functions"). Initialization strings for the terminals predefined modem types are shown in Table B-1.

Modem	Initialization String	H/W Flow Control	Speaker
Cardinal MVP288XF	AT&F&C1&D2 V1 X4 S0=0 S7=55 W0 S95=44 AT&Q5 S46=138 <hardwareflowcontrol><speaker></speaker></hardwareflowcontrol>	Off: &K0 On: &K3	Off: M0 On: M1
Hayes Accura 28800	AT&F&C1&D2 V1 X4 S0=0 S7=55 W0 S95=44 AT&Q5 <hardwareflowcontrol><speaker></speaker></hardwareflowcontrol>	Off: &K0 On: &K3	Off: M0 On: M1
Practical Peripherals PM288MT	AT&F&C1&D2 V1 W1 S0=0 S7=55 S95=44 AT&Q5 S46=2 <hardwareflowcontrol><speaker></speaker></hardwareflowcontrol>	Off: &K0 On: &K3	Off: M0 On: M1
UDS Motorola PowerClass 28.8	AT&F AT &C1&D2 \V1 S0=0 S7=30 AT\N7%C1 <hardwareflowcontrol><speaker></speaker></hardwareflowcontrol>	Off:\Q0 On:\Q3	Off: M0 On: M1
US Robotics Sportster VFC 28.8	AT&F&A1 X4 E1 Q0 V1 S0=0 S7=55 AT&B1&C1&D2 B0X4&K1&M4 <hardwareflowcontrol><speaker></speaker></hardwareflowcontrol>	Off: &h0&r1 On: &h1&r2	Off: m0 On::m1
User Defined		Not Supported	Not Supported

Table B-1 Modem Initialization Strings Defaults

Appendix B

A <Cr> (carriage return) character is automatically sent at the end of each AT command string.

Control characters can be embedded into the modem initialization strings. The syntax is <control character>. For example, <0a> (<zero a>) can be inserted in a string to force a line feed.

OK is normally displayed following an AT command string, in response to commands sent from the modem.

C Troubleshooting

This troubleshooting guide provides solutions to problems that may occur when making a terminal network connection to a Windows NT applications server. If you cannot resolve an issue, call an authorized service center for assistance.

Problem	Solution	
When the terminal is turned on, nothing happens.	Check the power cord. It should be plugged into an AC outlet, and pushed all the way into the AC power connector on the terminal's back panel.	
When the terminal is turned on, the screen remains black. The power-on indicator light is orange.	Set the terminal to factory defaults. Factory defaults can be obtained by turning the terminal off then on, while holding down the G key. When you see the Connection dialog box, release the G key. The terminal's factory defaults are now restored.	
When the terminal is turned on, the Connection or Welcome dialog box appears, but the mouse does not function.	Ensure that the mouse is plugged into the PS/2 mouse port on the terminal's back panel. See the installation guide for the location of the PS/2 connector.	
During the terminal's <i>Power-On Self-Test</i> , a message is displayed: The terminal cannot detect a keyboard. The keyboard is bad, missing, or not connected properly.	Ensure that a PS/2 keyboard with a PS/2 or RJ-9 cable is connected to the keyboard connector on the terminal's back panel.	
When you are entering a login name and password, a message window displays: Invalid Terminal User Account information.	The terminal has built-in security that is independent of the applications server login name and password. That security function is telling the user that the name and password entered has either expired, or is wrong. Enter the name and password again. If the same message appears, ask the administrator for a new terminal login name and password.	
When logging in, you forget the password.	Ask the system administrator for a terminal login name and password.	

Problem		Solution	
When you are attempting to connect to an applications server, the screen goes blank. The terminal screen either freezes, or an error message is displayed:	1	Check the host port connection. It should be configured for a WinStation connection. If it is not, configure the host port for a WinStation connection using the WinStation Configuration utility in the Administrative Tools group box.	
Error 1034 (0x40a) - I/O Error.	2	Check the WinStation port to see if it is enabled. If it is not, enable the WinStation port from the WinStation Configuration utility in the Administrative Tools group. Start the WinStation Configuration utility, highlight the port you want to enable, pull-down the WinStation pull-down menu, and select Enable	
	3	Check the terminal's and the server's communication ports. Both ports should be configured identically. To compare port settings, start the WinStation Configuration utility, highlight the port you want to look at, and double click on it. Next, click on the Advanced button. See Chapter 1 for information about the terminal's communications settings.	
	4	Check all cabling between the terminal and the server. The cables should be secure, and connected to the correct ports on both the terminal and the applications server. See Appendix A for serial communication pin assignments. Pin assignments must be compatible with those on the applications server's serial port.	
	5	If the user is using XON/XOFF handshaking, check your WinStation port to see if it is using the appropriate XON/XOFF characters. To check these settings, start the WinStation Configuration utility. Highlight the port you want to examine, and double click on it. Next, click on the Advanced button. The characters should be Xon, character 0x11 (Hex) and Xoff, character 0x13 (Hex).	
	6	A connection was attempted while the server was either in shutdown, or crashing. See your ICA 3.x-compatible server documentation for instruction about restarting the applications server.	
	7	Refer to your ICA 3-compatible server documentation for details.	

Troubleshooting

Problem	Solution
With a serial connection already established, the mouse cursor moves, but the keyboard input and mouse clicks do not work, and all the applications are frozen.	1 The serial connection to the server is broke Turn off, then turn on the terminal. Log bac into the applications server. If the computer sustained a <i>disconnect time-out</i> , the origina desktop prior to the disconnect will be re- established (if the connection was defined to so). See your ICA 3.x server documentation find out how to change the disconnect time
	2 If the terminal cannot log back in, verify th all cables between the terminal and the applications server are connected. Check an modem connections between the terminal a server are not open. Ensure that the applications server's port that your WinStat session is connected to is not down. See yo ICA 3.x server documentation for more information.
	3 Make sure you are using a shielded cable th meets RS-232 standards, and that you are operating within RS-232 standards.
The parallel printer connected to my terminal does not respond when I try to print to it.	1 Make sure that printer is plugged in to the proper outlet, and that the printer is turned
	2 Check the cable connection to the printer an the terminal.
	3 Make sure that the printer is online.
	4 Make sure that Parallel Port box in the terminal's Options/Printer/Aux dialog box is enabled.
	5 Make sure that the printer is properly configured in the application server's Print Manager, and that the printer has not been paused. See your ICA 3-compatible server documentation for instruction about using the Print Manager.
	6 See Appendix A for parallel communication

Problem	Solution	
The serial printer connected to the terminal will not print.	1 Ensure that the power to the printer is turned on.	
	2 Check the cable from the terminal to the printe for proper connection.	
	3 Ensure that the printer is online.	
	4 Check the Com port selection in the Printer/Au Printer Port group box in the Options dialog box. Ensure that the printer cable is connected to the corresponding serial port on the terminal's back panel.	
	5 Ensure that both the terminal's and the printer' serial ports are identically configured. Both must use the same handshaking protocol. To compare these settings, see Chapter 2. See the printer's user's guide for information about printing from a serial connection.	
	6 Ensure that the printer is configured properly in the applications server's Print Manager, and that the printer has not been paused. See your ICA 3.x server documentation for instructions about using the Print Manager.	
	7 Refer to Appendix A for serial communication pin assignments. Pin assignments must be compatible with those on your printer's serial port.	

Note If any other error messages are displayed, or you have any other problems, you should default the terminal and reconfigure it. Factory defaults can be restored by turning the terminal off then on, while holding down the G key. Release the G key when the Connections dialog box appears. The terminal's defaults will be restored, and you can then reconfigure the terminal.

883502-01 Rev. A December 1996 Printed in U.S.A.



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