AFFIRMATIVE®
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YES*tation* User's Guide for Linux-Based Terminals Models 22x1 and 2xx6

22x1 and 22x6

23x6 and 27x6

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Installing Your Terminal

- Your terminal has no internal fan, and relies on natural airflow for cooling. When you mount it, *make sure to keep as many ventilation holes, as possible, unobstructed.*
- **DO NOT USE** any AC-DC adapter other than the one provided with the terminal or acquired from Affirmative Computer Products or its distributors.
- References to "eProManager" in this document refer to the remote central management software available at no cost from Affirmative Computer Products.

NOTE: The information in this document is derived from terminal firmware at build level 0422. However, most of the information is applicable to earlier build levels. With earlier levels, you may not see all of the features described in this document.
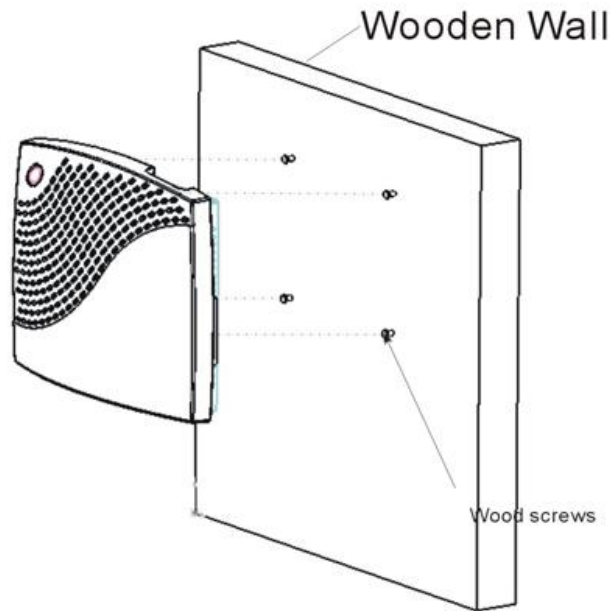
Mounting

22xx

Typically, a 22xx terminal placed horizontally on a flat surface, with the terminal resting upon four attached soft plastic feet. However, there are also several vertical mounting options using the four mounting holes on the bottom of the terminal. These holes are shown in the following figure.

22xx Mounting Holes

A self-adhesive template and four #3, ½-inch wood screws are included with every terminal. The following figure shows one mounting possibility on a wooden wall.

22xx Wall Mounting

Another possibility is shown here.

22xx Monitor Mounting

We have done some testing with the provided screws, and have the following suggestions:
- In soft wood, such as pine, no pilot holes are needed.
- In hard wood or plastic, such as the side of a monitor, drill pilot holes with a 3/64" drill bit.
- In dry wall, these screws do not hold well; if you must install on dry wall, we suggest:
  - Drill 3/64" pilot holes and put super glue in the holes before inserting the screws.

  Or
  - Use longer screws with coarser threads.

The four terminal mounting holes are spaced to match the mounting pins of a standard VESA mounting plate available from Affirmative Computer Products distributors. Such a plate can be attached to most of the current crop of LCD monitors, as shown in the following figure.

VESA Mounting Plate on a 17" LCD Monitor

The final result is shown below.

22xx Mounted on a 17" LCD Terminal

23x6 and 27x6

These terminals can *only* be mounted vertically on a flat surface, using the provided stand, as shown in the picture on the front cover of this manual. Horizontal mounting will obstruct the airflow required to cool the terminal.

Cabling and Indicators

22xx

Please make all cable connections before turning on the power. The following figures show the 22xx rear and front connectors.

2201 and 2216 Rear Connectors

Note: On 222x models, the parallel printer connector is replaced by one serial and one USB connector.

22xx Front Connectors

There are three LED indicator lights:
- **Power**. The translucent **Power** button serves as the Power indicator. This indicator is faint amber when DC power is connected at the rear connector, and turns green when the terminal is powered up.
- **Network Connection**. This amber indicator at the upper right corner of the RJ-45 Ethernet connector is on when there is a good physical connection to the Local Area Network.

- **Network Activity**. This green indicator at the upper left corner of the RJ-45 Ethernet connector flashes to indicate LAN activity.

23x6 and 27x6

Please make all cable connections before turning on the power. The following figure shows the rear and front connectors and the card slots on the rear panel of a 23x6 terminal.

1. Audio Connector - Line Out	8. Serial Connector – Com1
2. Audio Connector – Mic In	9. Video Connector
3. USB Connectors – 2.0 (Front)	10. Audio Connector- Line out
4. RJ-45	11. PCI Slot
5. PCMCIA Slot – Wireless	12. Parallel Connector
6. PS/2 –Keyboard	13. Power Cord Connector
7. PS/2 -Mouse	14. Power Switch and Indicator
	15. Flash Memory Activity Indicator

Note: The 27x6 has two additional USB connectors on the rear panel.
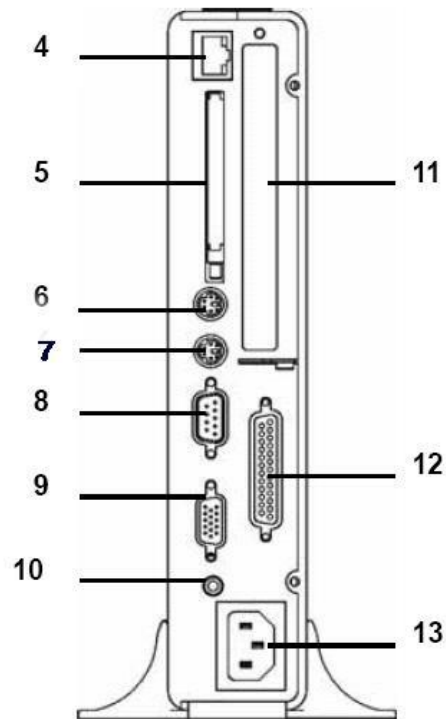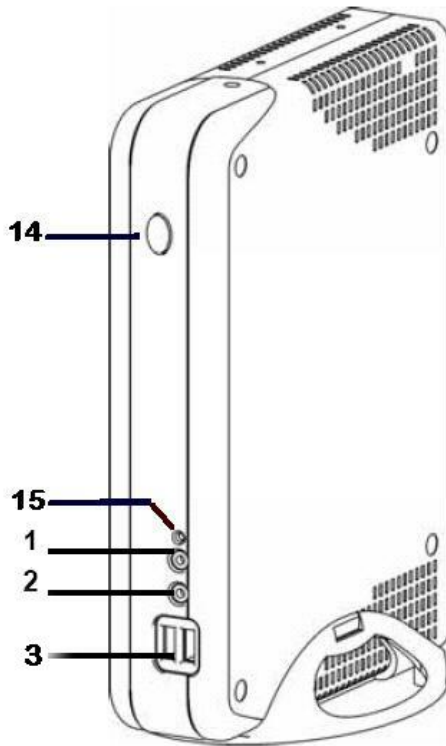
There are four LED indicator lights:

- **Power**. The translucent **Power** button serves as the Power indicator. This indicator is faint amber when AC power is connected at the rear connector, and turns green when the terminal is powered up.
- **Network Connection**. This amber indicator at the upper right corner of the RJ-45 Ethernet connector is on when there is a good physical connection to the Local Area Network.
- **Network Activity**. This green indicator at the upper left corner of the RJ-45 Ethernet connector flashes to indicate LAN activity.
- **Flash Memory Activity**. This green indicator flashes when there is read or write activity to the flash memory.

Power On and Boot Up

1. Turn on the terminal by pushing on the **Power** switch after all rear panel connections have been made.
2. The translucent **Power** button will change from faint orange to light green.
3. You will see the message **Starting System. Please Wait …** on a black screen.
4. After several seconds, you will see some cryptic Linux text.
5. After several seconds, you will see the Affirmative Computer Products logo screen.
6. After several seconds, you will see a blank black screen.
7. After several seconds, you will see the Linux desktop or an Autostart connection.

Shutdown/Reboot

These terminals should be shut down or rebooted gracefully by:

- Going to **Start>Shutdown** or **Start>Reboot**. You will be asked to confirm your action.
- Executing **Shutdown** or **Reboot** remotely from eProManager. In this case, the terminal will be shut down or rebooted almost immediately with no warning for the local user.

In both of these cases, the terminal will save appropriate settings and make graceful connection disconnects before powering down by itself.

Desktop Styles

NOTE: In the remainder of this document, a reference to the **Ctrl** key actually means the **LeftCtrl** key, a reference to the **Alt** key actually means the **LeftAlt** key, and a reference to a click actually means a mouse left click.

Three Desktop Styles are available: Desktop, WBT (Windows Based Terminal), and Kiosk. See Configuring Your Terminal|Configuration|Desktop Style for information on style selection.

Desktop Style

Desktop Style is the terminal default. The Desktop display presents the Desktop screen with a Taskbar, Start button, and a clock display, similar to a standard Windows desktop. Sessions are launched from the Start menu or from Desktop icons, unless they are configured to Autostart at bootup.
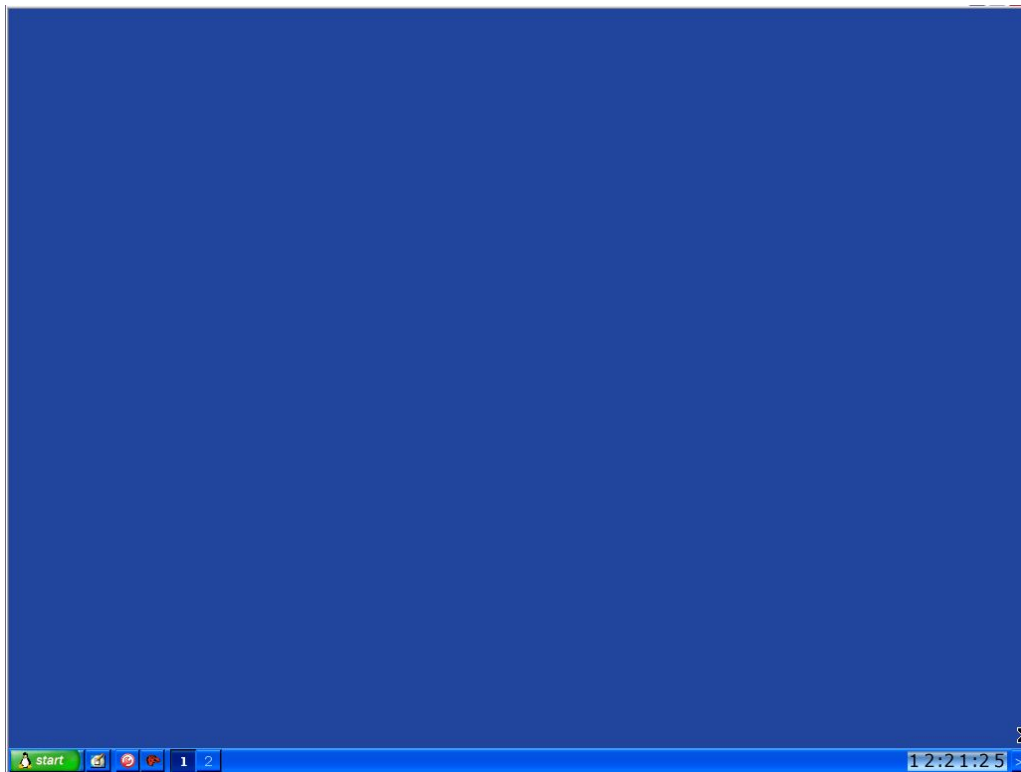
Startup Desktop Screen

The above screen shows a blank Desktop with no connection icons. When most connections are configured (see Creating a New Connection), an available option is to create a Desktop icon. In such cases, the startup screen would show those icons. Also, the default setting in **Control Center>Window Manager** is to hide the Taskbar (see Configure Terminal Properties|Configuration|Window Manager), in which case the above screen would be completely blank upon startup.

Taskbar

If the terminal has been configured to hide the Taskbar (see Configure Terminal Properties|Configuration|Window Manager), you can display it be moving the mouse cursor to the bottom edge of the screen.

Now let's go through the individual items available on the Taskbar.

Hide/Reveal Taskbar

Hide Taskbar Icon


Reveal Taskbar Icon

If your Desktop is configured to show the Taskbar (xxx), you can still hide it by clicking on the **Hide Taskbar** icon. After it is hidden, you can reveal it again by clicking on the **Reveal Taskbar** icon in the lower right-hand corner of the screen.

Clock
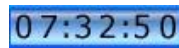
Clock Display

The time is displayed in military time (24-hour clock). Position the cursor over the clock to see calendar information.
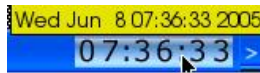
Date and Time Display

Left-click on the clock to see a 12-hour analog time display.

Analog Clock Display

The date and time can only be set in the Control Center (xxx)

Workspace Selection

Workspace Selection Icons

Two separate workspaces are provided. By default, the terminal boots up into Workspace 1, but you can switch to Workspace 2 by clicking on the **2** icon. See Workspaces for more information.

Mozilla (Not Available in Model 22x1)

Mozilla Icon

Click on this icon to open a Mozilla browser session.

Control Center

Control Center Icon

Click on this icon to open the Control Center. All terminal configuration parameters are set in the Control Center (see Configure Terminal Properties). Control Center can also be opened from **Start>Control Center** or from the Desktop right-click menu.

Show Desktop

Show Desktop Econ

Click on this icon to minimize all the open windows in that workspace and display the Desktop.

Start

Start Button

Click on this button to open the Start menu.

Start Menu

This menu can also be opened by right-clicking on any blank area of the Desktop. All configuration and connection activation can be initiated from the Start menu, although there are also other ways to access some of these functions, such as Taskbar or Desktop icons.

Workspaces

The working environment of a Linux-Based Terminal can be separated into two workspaces. Actions taken, and connections opened, in one workspace will not affect the appearance or actions in the other workspace. **Note:** Parameter configuration in the Control Center and connection creation anywhere will affect both workspaces.

By default, the terminal boots up into Workspace 1, and everything will happen in that workspace unless the user selects Workspace 2. Selection is done by clicking on one of the selection icons in the Taskbar (see Taskbar|Workspace Selection).

You can see a list of the open windows in each workspace by clicking on **Windows** in the Start menu or in the Taskbar right-click menu. This will open the Windows List box.
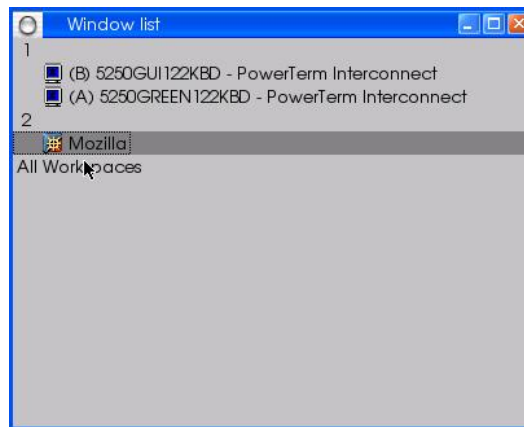
Windows List Box

Multiple Windows

Most of the windows that you open on the Desktop can be scaled, allowing you to display multiple windows simultaneously. To control the display of multiple windows, right-click on a blank area of the Taskbar and choose your preference from the resulting menu.

Taskbar Right-Click Menu

Navigation

- To open the Start menu;
  - o Click on the **Start** button in the Taskbar.
  - o Right-click on any open space on the Desktop
- To open Control Center:
  - o Select it from the Start menu.
  - o Click on the icon in the Taskbar.
- To activate non-Autostart, non-PowerTerm connections:
  - o In the Start menu, click on the connection type and then on the connection name.
  - o Click on the Desktop icon, if there is one.
  - o For Mozilla connections, click on the icon in the Taskbar.
- To activate a PowerTerm connection:
  1. From the Start menu, click on **Programs>PowerTerm.**
  2. In the resulting blank PowerTerm connection screen, click, in the Menu bar, **Communication>Connect**.
  3. In the resulting Connect dialog box, highlight the desired connection from the Session List and click on the **Connect** button.
     Or
  1. Click on the Desktop icon, if there is one.
- To close a PowerTerm connection:
  - o Go to the Sign On screen, open the **File** menu, and activate **Exit**.
  - o Go to the Sign On screen and click on **X** in the upper right corner.
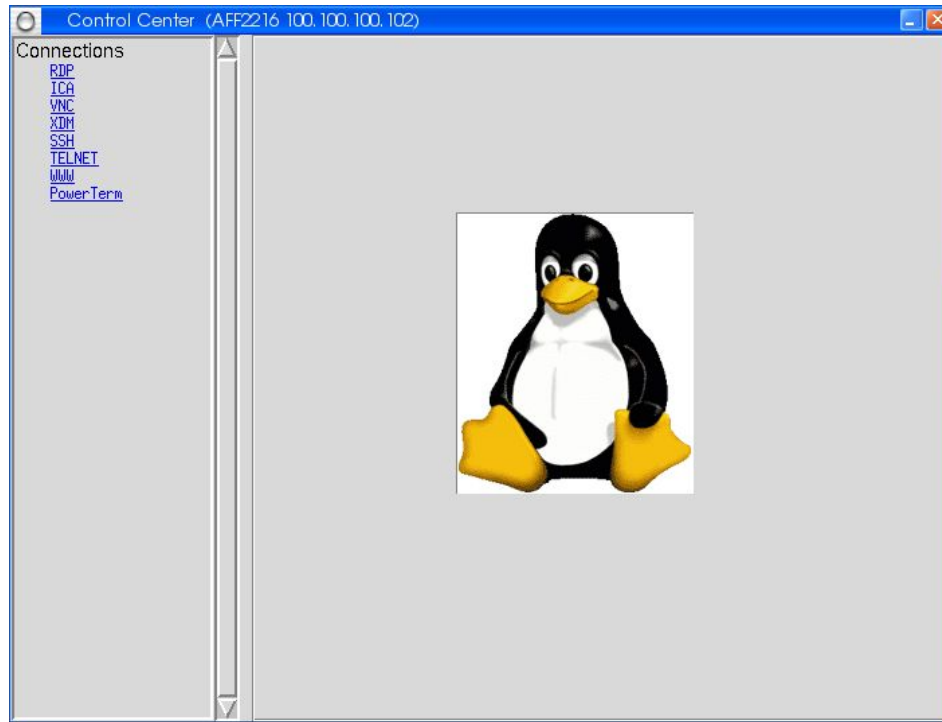- To power down or reboot, select **Shutdown** or **Reboot** from the Start menu.

WBT Style
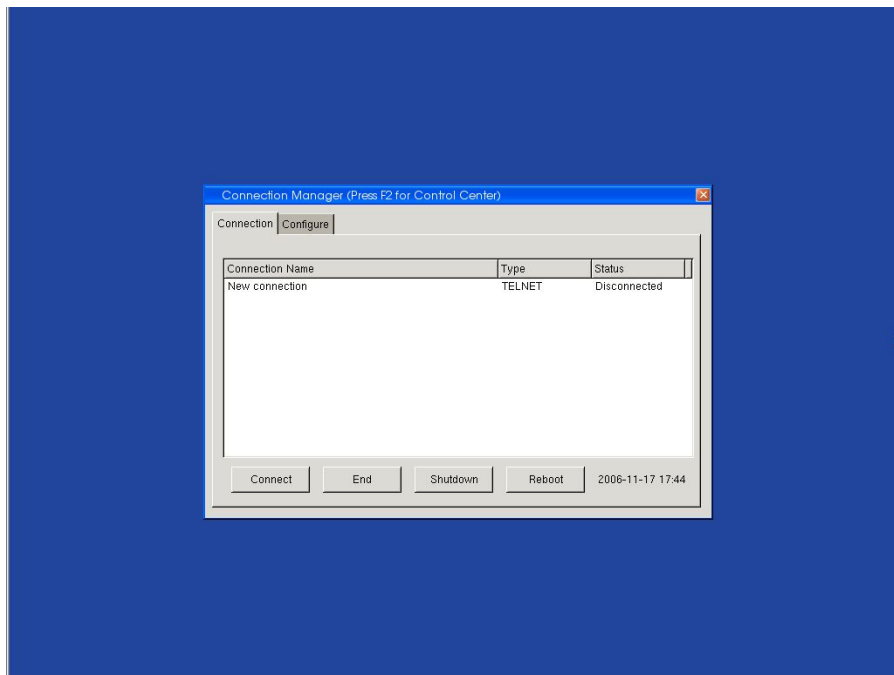
Startup WBT Style Screen

The WBT style presents you with a Connection Manager very similar to those seen in Windows Based Terminals using the Windows CE operating system.

The Control Center in WBT style only provides the Connections group, as seen here.


Control Center in WBT Style

Kiosk Style

In Kiosk style, the terminal boots up into a Mozilla browser page aimed at the url specified as shown in Configuring Terminal Properties|Configuration|Desktop Style.

In order to change any terminal properties or to change your Display Style, you must open the Control Center. In Kiosk mode, you can only do that by temporarily returning to Desktop Style; this is done by pressing the key combination **Ctrl+Alt+Insert**.

Configuring Terminal Properties

All of the terminal properties and connection properties are accessible from the Control Center.
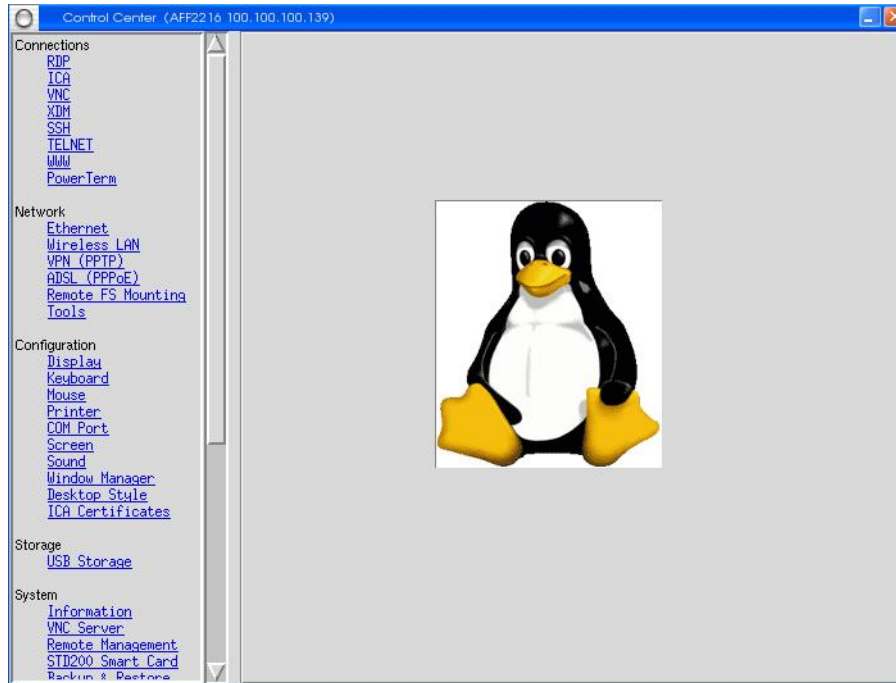
Control Center

The connection properties, under the Connections group, are covered in Creating a New Connection. The other groups in Control Center are discussed here.

Note: When a dialog box contains an **Apply** button, you must click on it to save any parameter changes that you make in that box.

Note: References to "eProManager" in this document refer to the remote central management software available at no cost from Affirmative Computer Products.

Note: We recommend that you change terminal properties only when all sessions are inactive. Many changes will invoke a restart or reboot of the terminal.

Network

In this group, you define the network properties of the terminal and the protocol used to reach the network.

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Ethernet

Click on **Ethernet** to see the Ethernet dialog box. These settings are crucial for network operation. If a network connection cannot be made, it is usually because of an error in these settings.
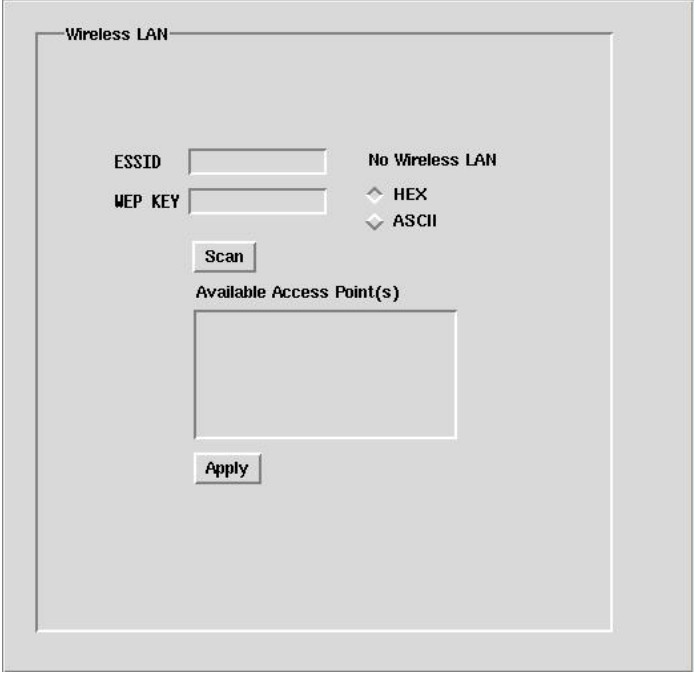

Ethernet Dialog Box

- **Hostname**. In this field, enter a unique "friendly" name which can be used to quickly identify this terminal in remote management software. Click on **Apply** to lock in this name, or else it will disappear when you close this box.
- **DNS Suffix**. If you are using DHCP address assignment, you must manually enter the DNS suffix here.
- **Connection**. Choose from a wired (default) connection or a wireless connection. Of course, for a wireless connection to be valid, you must have a supported wireless LAN adapter in the PCMCIA slot.
- **Obtain IP settings…**. Click on this radio button to get the terminal IP parameters automatically (default) from a network DHCP server. If you make this selection, the IP parameter headings will be grayed out and, when the terminal obtains an IP address lease from a DHCP server, that address and other network settings will show in the static address boxes; you will be unable to manually enter anything in these fields. If this radio button is not enabled, you must manually enter IP information into the parameter fields.

Wireless LAN (Models 23xx and 27xx Only)
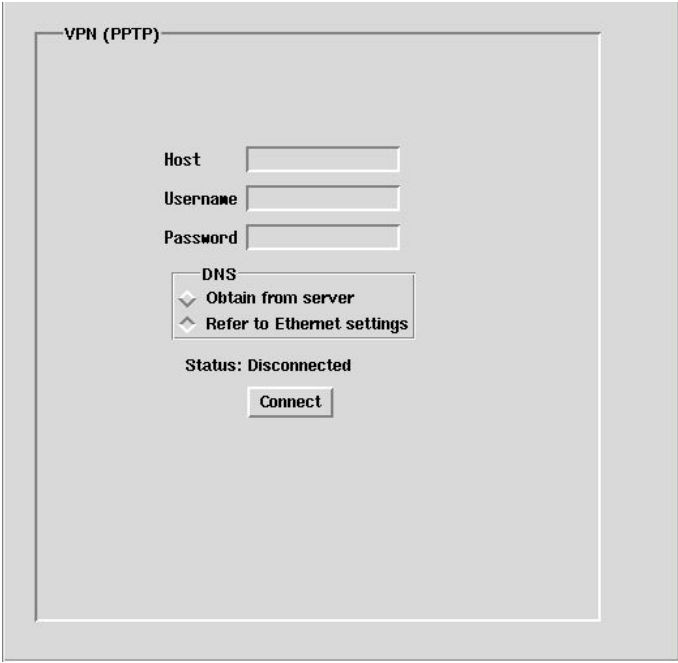
Wireless LAN Dialog Box

Wireless support is not currently available, but when it does become available, it will be only for Models 23xx and 27xx.

VPN (PPTP)

These terminals support Virtual Private Networks. Click on **VPN (PPTP)** to see the VPN dialog box
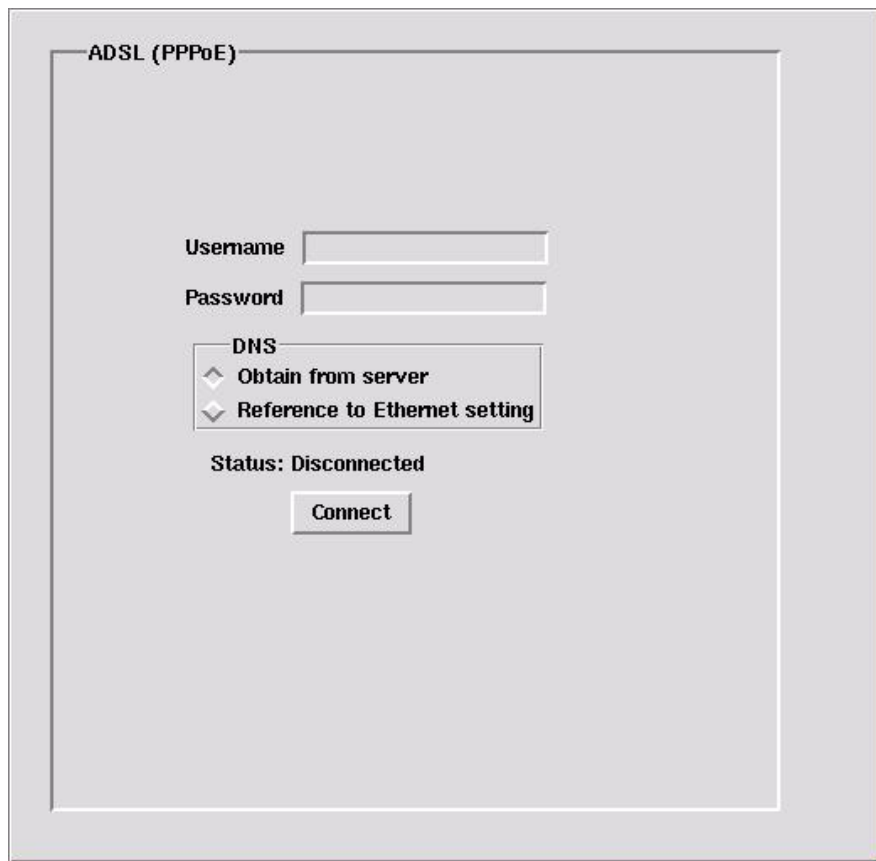

VPN Dialog Box

- **Host**. Enter the VPN host name or IP address.
- **Username/Password**. Enter the logon information if you want an automatic logon after communication is established with the host.
- **DNS**. Click on the **Obtain from server** radio button to obtain all the IP information from the ISP server. Click on the **Reference to…** button (default) to use the information entered in the Ethernet dialog box discussed earlier.
- **Connect**. Click here to make the connection. Since Autostart is not available for this protocol, you will have to access this dialog box and initiate the connection whenever you need to connect. However, the information entered in the information fields will remain until you change it.

ADSL (PPoE)

Point to Point Protocol over Ethernet (PPPoE) allows users to connect to a broadband Internet Service Provider (ISP) on an as-needed basis rather than being always connected as is typical in a broadband connection. In this mode of operation, it uses a Point-to-Point protocol much like a dial-up connection to an ISP. Your system or network administrator will tell you if you need such a connection. If you do need a PPPoE connection, click on **ADSL (PPoE)** to open the ADSL dialog box.

ADSL Dialog Box

- **Username/Password**. Enter the information required for authentication at the ISP.
- **DNS**. Click on the **Obtain from server** radio button to obtain all the IP information from the ISP server. Click on the **Reference to…** button (default) to use the information entered in the Ethernet dialog box discussed earlier.
- **Connect**. Click here to make the connection. Since Autostart is not available for this protocol, you will have to access this dialog box and initiate the connection whenever you need to connect. However, the information entered in the information fields will remain until you change it.

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Remote FS Mounting

You can mount a network drive for use as external storage in the terminal. Click on **Remote FS Mounting** to open the Remote FS Mounting dialog box.

Remote FS Mounting Dialog Box

- **Type**. You can select from two types of network drives in the drop-down list.
  - o **SMBFS**. Mount Windows drives (default). Enter the appropriate settings in the entry boxes.
  - o **NFS**. Mount UNIX/Linux drives. Enter the appropriate settings in the entry boxes.
- **Mount**. After you have entered all the settings, click on this button. You will get a message regarding the success or failure of the mount operation. If you do not succeed, confirm your settings with your network administrator.

Tools

Three useful tools are available. Select a tool from the **Tool** drop-down list.

Ping
This tool is extremely useful in network troubleshooting, since it allows you to verify a successful network connection. Ping sends a query to a designated IP device, and expects a response from that device. You can ping

a host or any other device connected on the local network. You can also ping a remote host, device, or web site through a gateway if the gateway is configured to allow outbound pinging. Ping is the default tool, so you will see the Ping dialog box as soon as you open Tools.
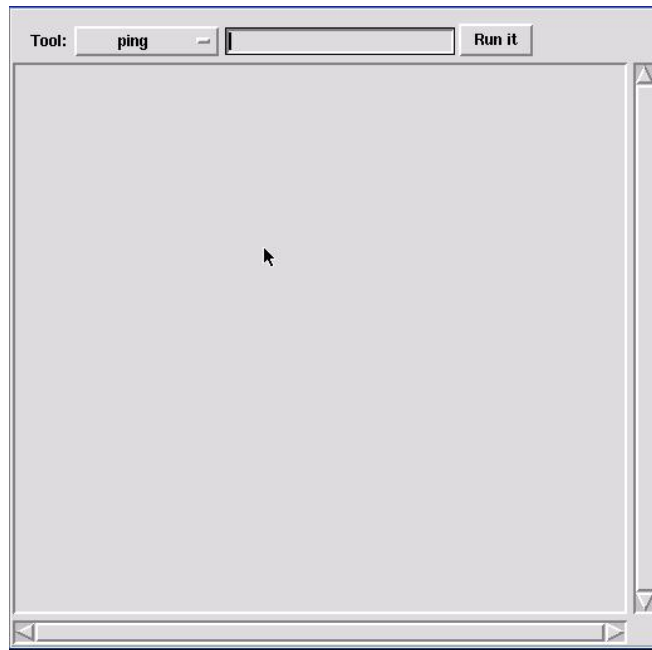
Default Tool (Ping) Dialog Box

Enter the network name or the IP address of the device to be pinged, and click on **Run it**. Examples of a successful and an unsuccessful ping are shown here.
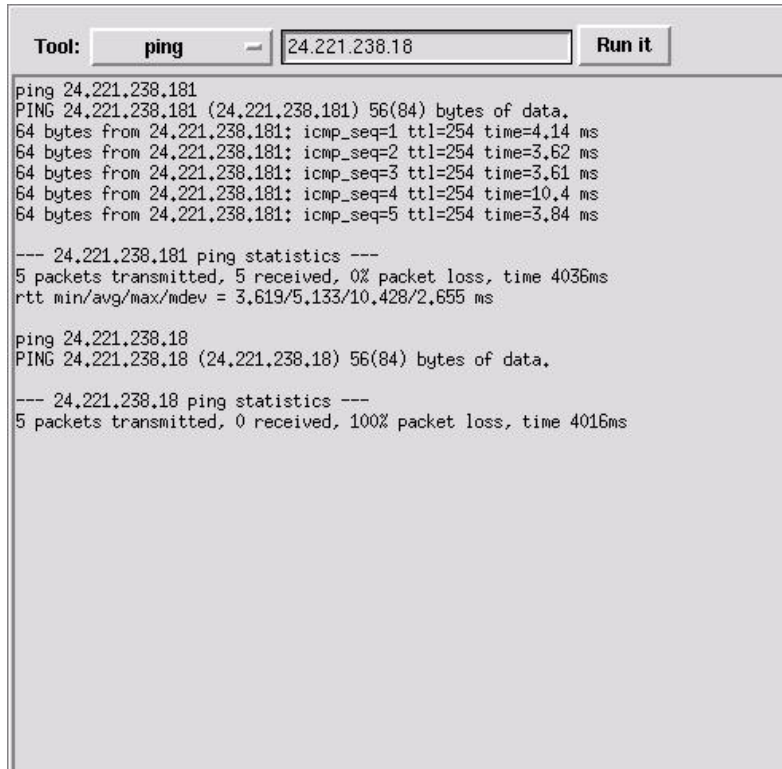
Ping Examples

The ping to IP address 24.221.238.181 was successful, while the ping to 24.221.238.18 is not.

Traceroute

Traceroute operates in a similar fashion to ping, but it details the Internet nodes encountered in the Internet cloud between the terminal and the target IP address. Enter the network name or the IP address of the device to be pinged, and click on **Run it**.

Note: Your Internet Service Provider may not allow trace routing through its gateway. In that case, your results will look something like the following window.
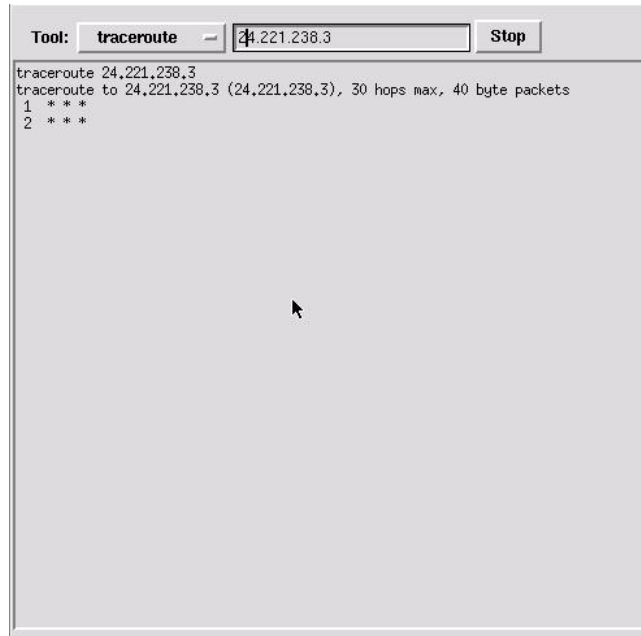
Blocked Traceroute Example

Ifconfig

This tool provides information about the terminal IP parameters and about the health of the local IP network. Click on **Run it** to collect and display the information per the following example.

Ipconfig Example

Configuration

In this group, you define the GUI and I/O port parameters.

Display

The Display parameters control the appearance of your monitor screen.

Display Dialog Box

- **Resolution** . Select a monitor resolution from the drop-down list. This list shows all possible resolutions, regardless of monitor type.
- **Refresh Rate**. Select a monitor refresh rate from the drop-down list. This list shows all possible refresh rates, regardless of monitor type.
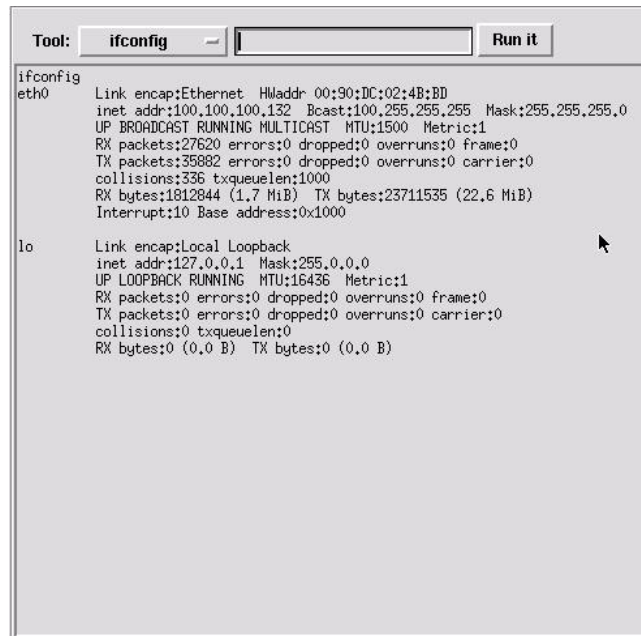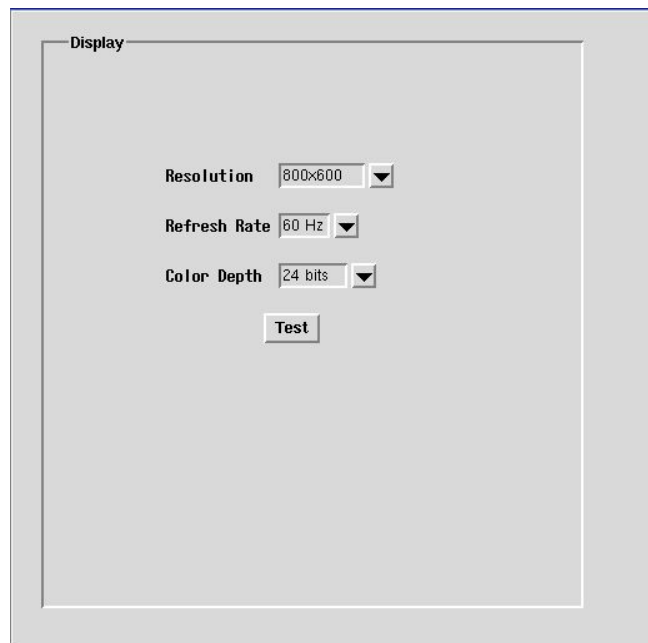- **Color Depth**. This is the terminal hardware video color setting. By default, **24 bits…** is activated, but this high color resolution is only useful if you are using ICA connections and if your Citrix server supports them. If you encounter any display problem in your RDP or ICA connection applications, try a lower setting.
- **Test**. You must test your new settings, or else the terminal will not retain them. When you click on **Test** after changing settings, the terminal will test your new settings. You will see a blank, black screen for several seconds. Then, if these settings are compatible with your monitor, you will see an analog clock face with the new settings, and a box allowing you to accept or cancel the settings. If you fail to do either, the terminal will automatically revert to the old settings. If the settings are not compatible, you will eventually return to a blue, blank screen resembling a standard desktop. But you will not be able to do anything from this screen. Do not despair, though; when you reboot, the previous settings will return and you can use the terminal.

Keyboard
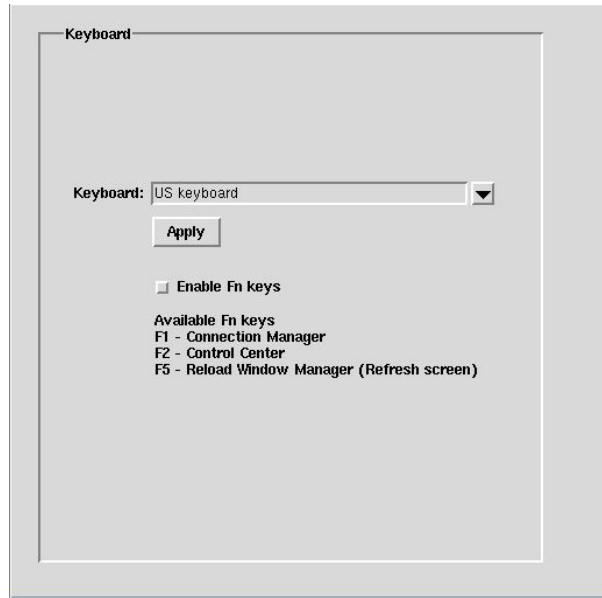
Keyboard Dialog Box

- **Keyboard**. If you want to use a language other than the default **US keyboard**, select one from the extensive drop-down list.
- **Enable Fn keys**. You can enable three Fn hot keys as described in the dialog box.

Mouse
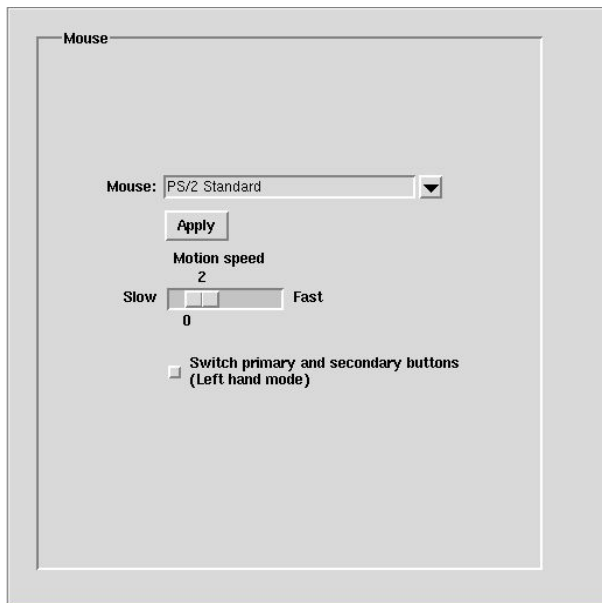
Mouse Dialog Box

- **Mouse**. Change from **PS/2 Standard** to **…PS/2 Wheel Mouse**, using the droop-down list, if you want to want to use wheel scrolling from a wheel mouse.
- **Motion speed**. Adjust the screen speed of your mouse cursor.
- **Switch primary**…. Click on this radio button to switch the functions of the left and right mouse buttons.

Printer

These terminals support LPD, ThinPrint, and RDP Autocreate printing.

Printer Dialog Box

LPD

The Berkeley versions of the UNIX™ operating system provide printer spooling with a collection of programs: lpr (assign to queue), lpq (display the queue), lprm (remove from queue), and lpc (control the queue). These programs interact with an autonomous process on network print servers called the line printer daemon (LPD). Although LPD printing is generally associated with UNIX/Linux networks, Microsoft networks now also support this printing method.

Each YES*tation* terminal includes an LPD module that allows an LPR device on the network to assign print jobs to a local printer attached to the terminal. Click on the LPD **Start** button to enable this service. The LPR requestor should use the printer name **lp** or **printer** when sending a print job to this terminal.
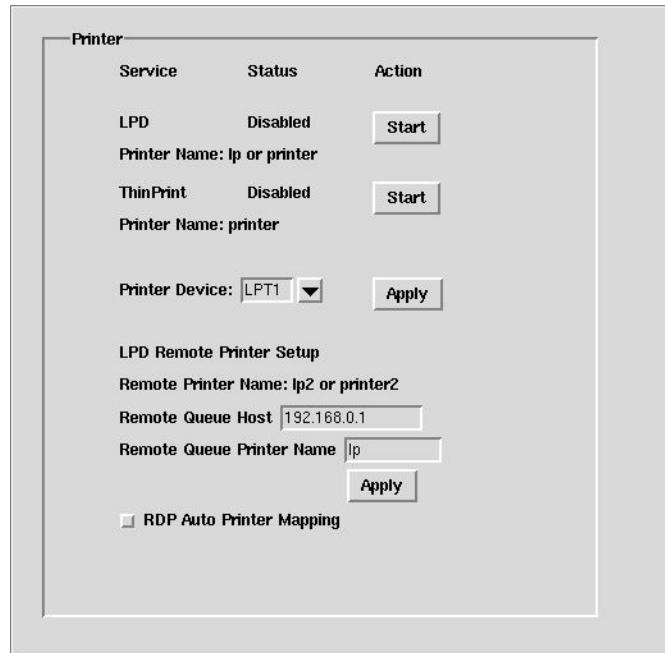
It is also possible to redirect LPD requests to another LPD printer on the network. In that case, the LPR requestor should use the printer name **lp2** or **printer2** when sending a print job to this terminal. Additional configuration is necessary as follows:
- **Remote-Queue Host**. Enter the IP address of the network LPD printer to which the print jobs are redirected.
- **Remote-Queue Printer Name**. Enter the printer name used by the network LPD printer to which the print jobs are redirected.

ThinPrint

ThinPrint enables direct printing from the terminal to a local printer. With the ThinPrint Client, a print job can be delivered over the Citrix ICA protocol to the terminal and from there directly to the local printer. Click on the ThinPrint **Start** button to enable this service. The print requestor should use the printer name **printer** when sending a print job to this terminal.

To learn more about ThinPrint advantages, go to http://www.thinprint.com/ on the Web.

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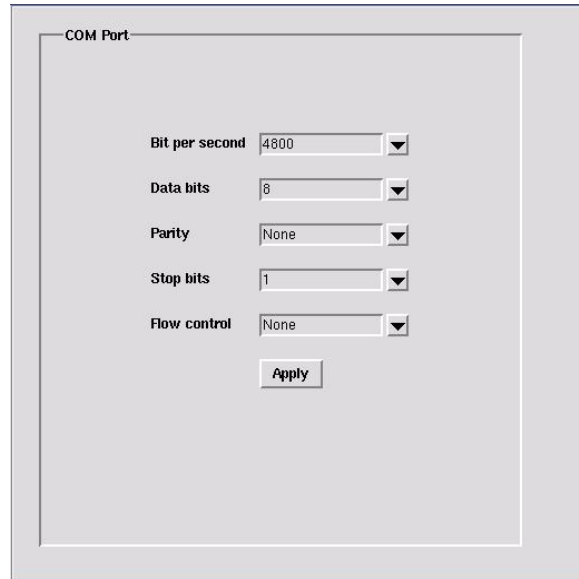
RDP Autocreate

If you are using an RDP session to a Windows Terminal Server, and you have a printer connected to your terminal, the server can automatically create a printer for your use in the Printer and Faxes section of its Control Panel. Click on this radio button if you want this autocreation.

COM Port

The COM Port dialog box provides the usual serial port configuration options.
Note: ThePowerTerm emulator provides its own COM configuration options, so the settings here will have no effect in PowerTerm.
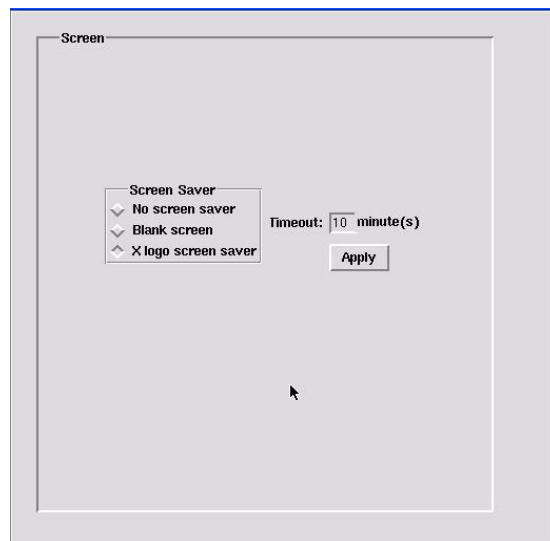
COM Port Dialog Box

Screen

Some screen saver options are provided in this dialog box

Screen Dialog Box

Sound

If you are using sound through external speakers, you can adjust the volume here.
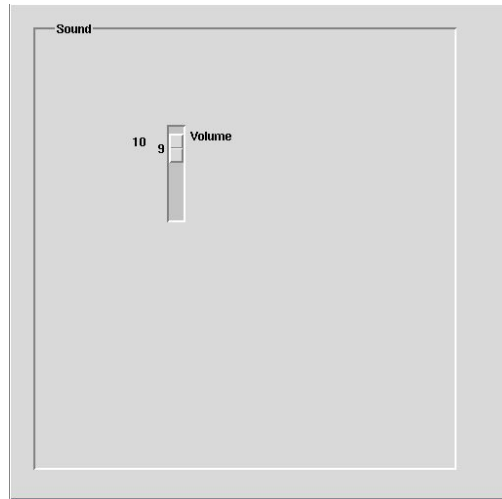
Sound Dialog Box

Window Manager
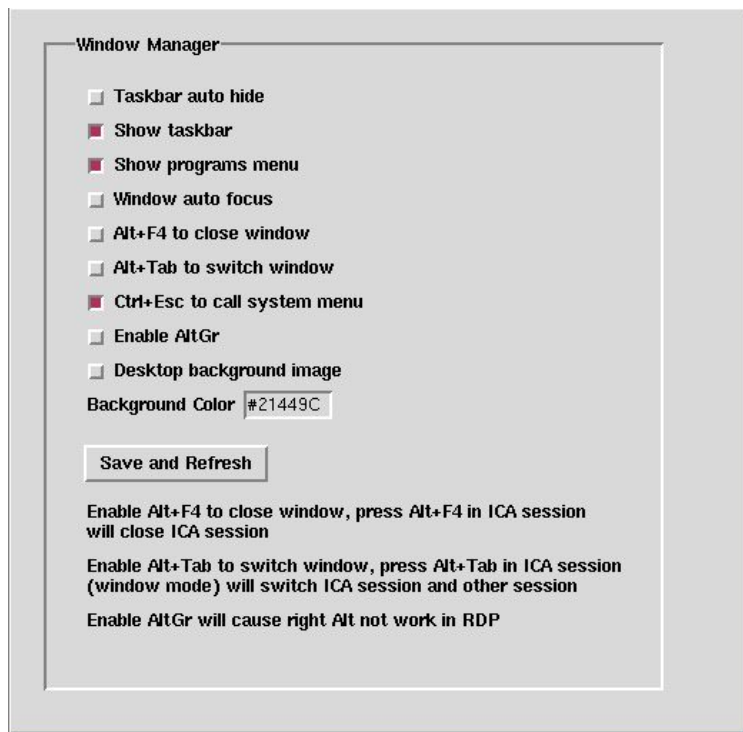
Window Manager Dialog Box

Desktop appearance and navigation options available here. These options are self-explanatory, except perhaps for **Window auto focus**. If this radio button is selected, the window focus will automatically follow the mouse cursor, even without clicking the left mouse button. When it is not selected, the focus functions in the usual Windows fashion, requiring a left-click to change focus.
Note: A reboot may be necessary before your selections take effect.

Desktop Style
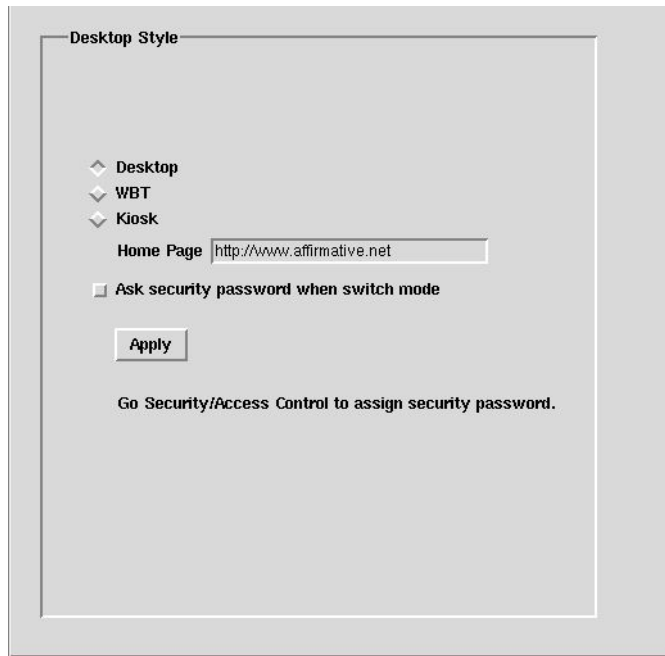
Desktop Style Dialog Box

Storage

Two types of external storage are available:
- Network storage (see Network|Remote FS Mounting).
- USB storage.

USB Storage

Various types of USB storage devices can be connected, but only one can be connected at a time. Connect a device and then open the USB Storage dialog box.
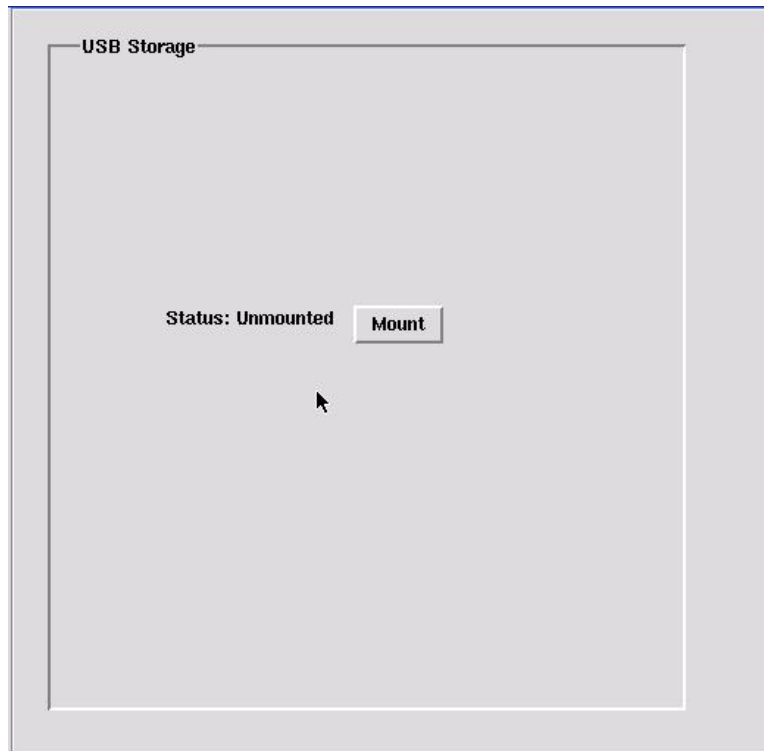
USB Storage Dialog Box

Click on **Mount** and a USB-connected storage device will be mounted for use as external storage. If the terminal does not detect a USB storage device, an error message will be displayed.
Note: If the storage device is connected at boot-up, it will automatically be mounted.

System

This group provides terminal management and control.

Information

The Information box is, as the name implies, for system information only. There are no input opportunities here.

Information Box

- **Software**. This is probably the most useful information in the box. The **Version** information gives you the installed firmware version and is necessary when obtaining technical support from Affirmative Computer Products.
- **Hardware**. You see a variety of hardware information, but the only one you can do anything about is RAM. If you want more free RAM, you can order a RAM upgrade for your terminal. The example shown above is with the optional 256 MB RAM installation.
- **Ethernet Adapter**. The IP information shown here is also available in **Network>Ethernet**.
- **Storage**. The local flash memory is shown in **Flash**. Mounted USB storage is shown in **USB**. Mounted network storage is shown in **Remote F/S**.

VNC Server

VNC (Virtual Network Computing) is a remote display system which allows a device with an installed VNC client to view a computing 'desktop' environment from anywhere on the Internet. It is platform-independent; a desktop running on a Linux machine may be displayed on a PC, or on your YES*tation*. VNC requires a server software module in the machine that is being viewed. If you enable the VNC Server here, the terminal can be viewed and controlled by any machine that is running the VNC client software. Of course, you need a TCP/IP connection to allow this to happen. You can learn much more about VNC from the Web site http://www.realvnc.com.

NOTE: You *must enable* VNC Server here if you want to control the terminal remotely using Remote Control in eProManager.
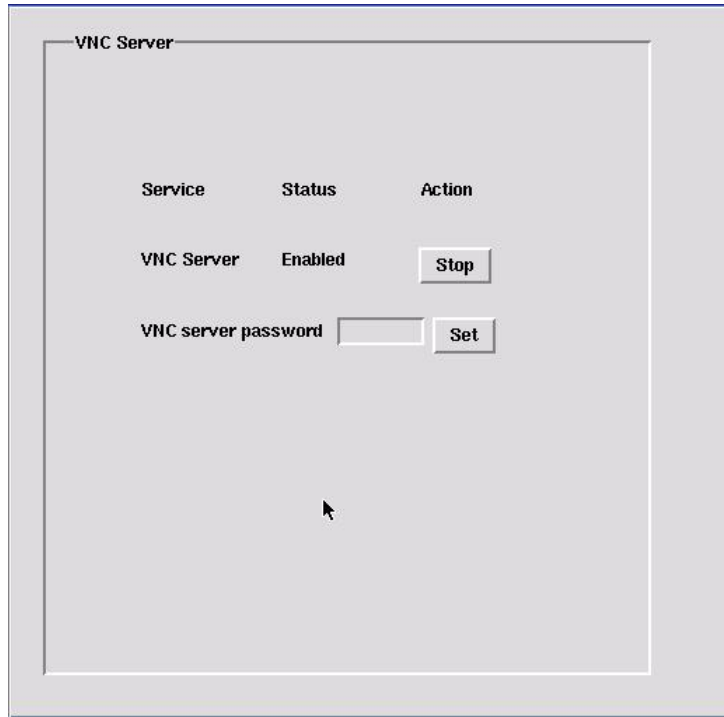
VNC Server Dialog Box

The password is used to provide some security from VNC clients on your network. If you enable VNC Server, the password must be given a non-blank value.

Remote Management
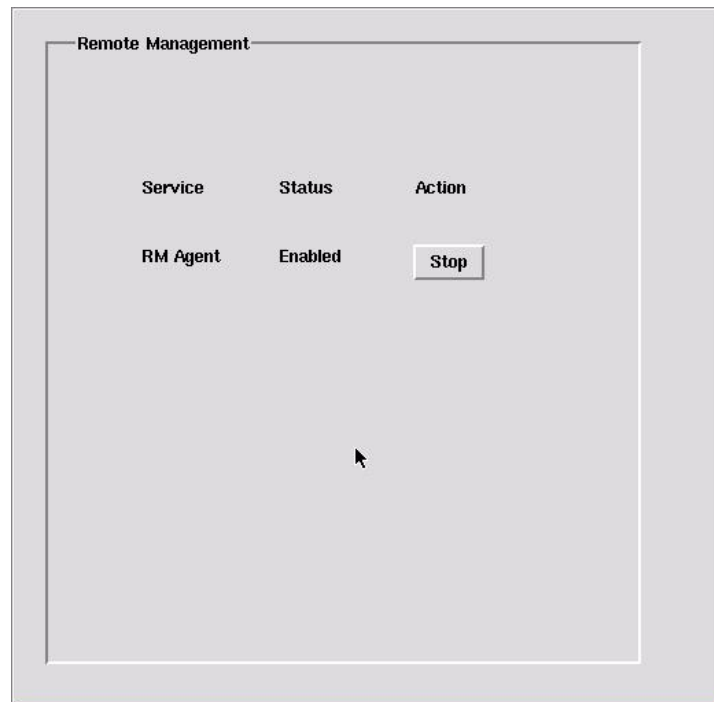
Remote Management Dialog Box

Remote Management must be enabled if the terminal is to be visible to eProManager for configuration and firmware updates.

STD200 Smart Card

STD200 Smart Card readers are optional for Models 2326 and 2726.
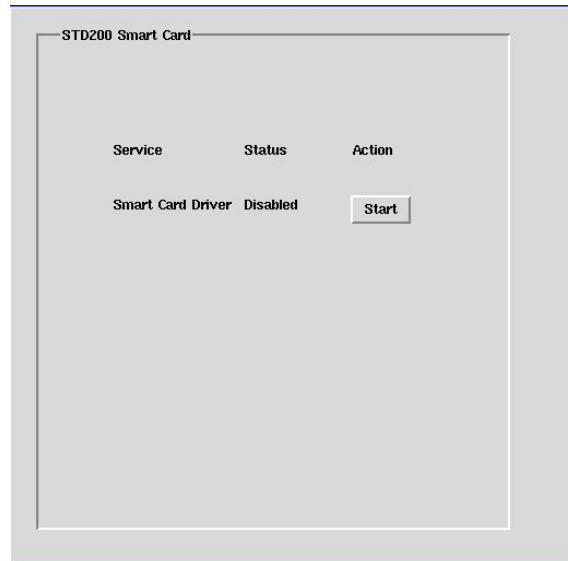
Smart Card Dialog Box

Backup & Restore

A backup file containing all your connection and configuration information can be created if you have mounted external USB or network storage. This information can then be restored back to this terminal or another terminal. This is especially useful when:
- You do a firmware upgrade, since the terminal is automatically set to factory defaults after an upgrade.
- You want to "clone" a terminal's configuration and connections to another terminal.
- You do a reset to factory defaults for troubleshooting purposes.
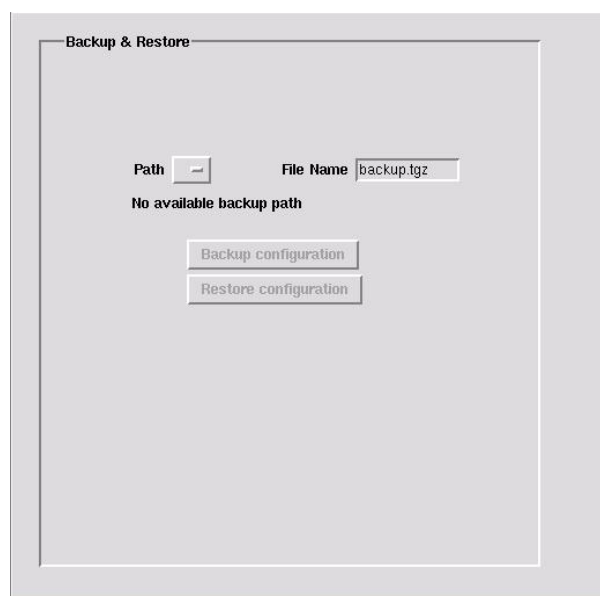
Backup & Restore Dialog Box

- **Path**. Click here to see a drop-down list of the available external storage. Then select one as the backup (or restore) medium.
- **File Name**. Name the backup file that you want to create or use for restoration.
- **Backup configuration**. Click on this button to create a backup file and store it in the selected mounted external drive.
- **Restore configuration**. Click on this button to restore a configuration previously stored in the file specified in **File Name**. **NOTE:** This button will be grayed out unless the path contains a file named **backup.tgz**. You do not have to restore from this file; you can enter another **File Name**, but you will not be able to restore at all unless this file exists. So make one in a backup operation, even if you want to use some other scheme for backup file naming.

Factory Defaults

It may be necessary, primarily for trouble shooting, to restore the terminal configuration to the factory default state. If so, invoke the Factory Default dialog box and click on the button. You will be asked to confirm your decision.
Note: You will also lose any connections that you have created. If you want to recover the pre-default state, you should do a backup before resetting to defaults and a restore after completing your troubleshooting (see above).
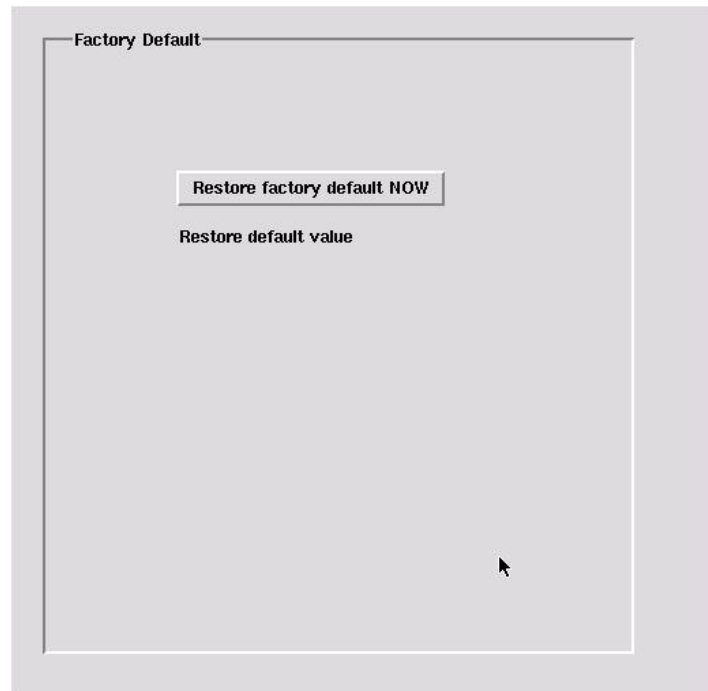
Factory Default Dialog Box

Update Software

Use the Upgrade Software dialog box if you wish to update your terminal's firmware from an FTP server. You can also import a background image if you enabled one (see Configuration|Window Manager).
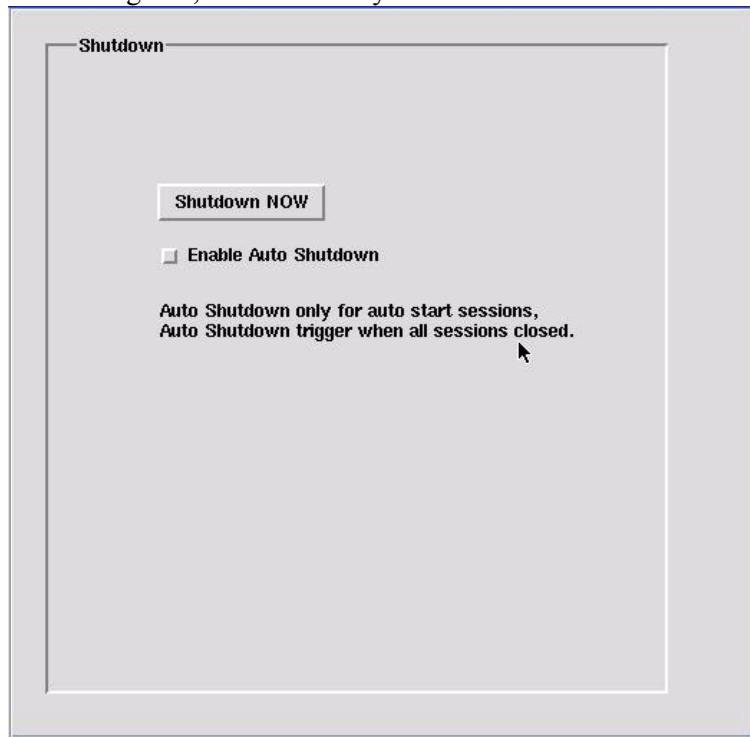
Update Software Dialog Box

Shutdown

You can shut down from this dialog box, but it is usually more convenient to shut down from **Start>Shutdown**.

Shutdown Dialog Box

Click on the **Enable…** radio button if you want the terminal to shut down automatically when all Autostart sessions are closed.

Reboot

This dialog box serves the same function as **Start>Reboot**.
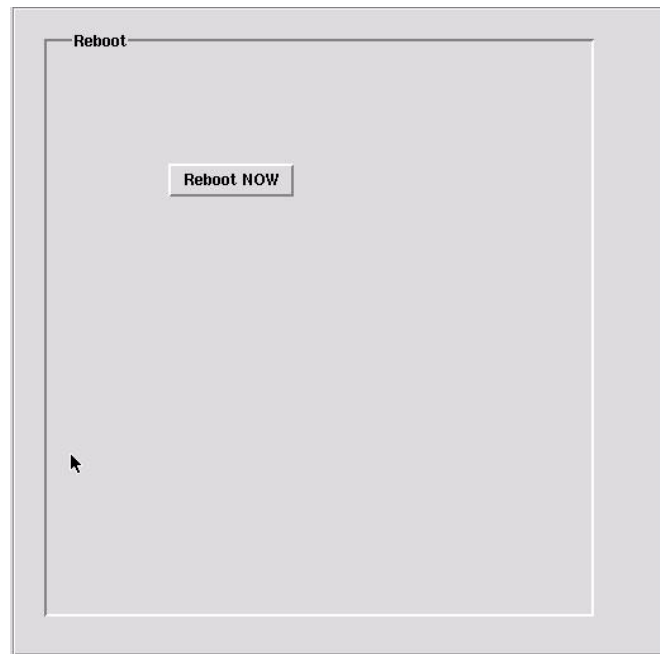
Reboot Dialog Box

Security

This group of one is used to restrict access to the Control Center.

Access Control

Configure Terminal Properties

Access Control Dialog Box

Click on the radio button to require a password in order to access the Control Center. Then enter and confirm a password and click on **Set**.

After enabling, you will be asked for a password when trying to open Control Center.

Login Dialog Box

Note: After a Control Center login, the Control Center can be subsequently opened without a password *until* the next boot up.
Note: If you enable Access Control and subsequently forget your password, the only recovery is to use eProManager to reset to factory defaults or re-flash the firmware.

Time

If you want an accurate display of date and time, configure from this group.
Note: You may have to reboot to apply changes, even if you click on one of the **Apply** buttons.

Time Zone

Time Zone has two uses:
*   It allows the user, when logging on to a MetaFrame XP server in a different time zone, to have the ICA sessions reflect the time zone of the local terminal. For example, a user in London (Greenwich Mean Time)

logs onto a MetaFrame XP server in New York City (Eastern time zone), and launches Microsoft Outlook as a published application; Microsoft Outlook stamps emails sent during this ICA session with the user's GMT time zone information.

- When SNTP synchronization is used (see below), Time Zone provides the correct offset from the timeserver base time.

Note: We recommend that you select your time zone before setting date and time. Otherwise, you may find that your time/date settings have changed after you change the time zone from the default **Asia/Taipei**.
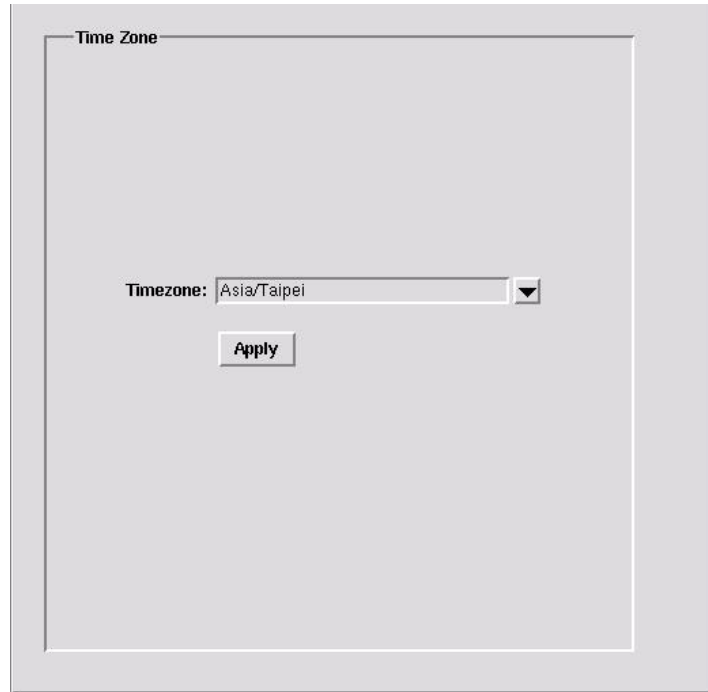
Time Zone Dialog Box

Choose your time zone from the comprehensive drop-down list.

Set Time and Date

After you select a time zone, open this dialog box to complete the time configuration. These settings can be useful in browser sessions when date stamping a site printout. The time is displayed at the right end of the Taskbar, and the date is displayed by passing the cursor over the time display.

Configure Terminal Properties
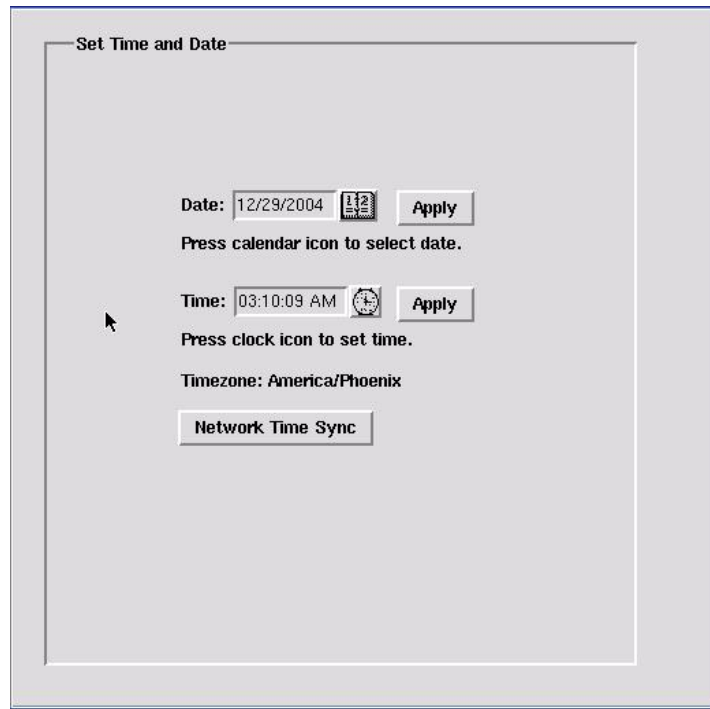
Set Time and Date Dialog Box

- **Date**. Click on the calendar icon to see a calendar page.

Calendar Page

Use the arrows to find the correct month, and then highlight the correct date.

- **Time**. Click on the clock icon to see an analog clock face.
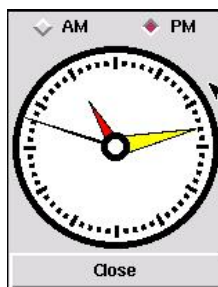
Clock Face for Time Adjustment

Drag the hands to the desired time and select **AM** or **PM**. Each hand must be dragged separately. An alternative to this manual adjustment is to use the Network Time Sync.

Note: After adjusting the clock, the time display in the Taskbar may sometimes display as a 12-hour clock for pm time (i.e. 3:57 pm). But after a reboot it will revert to a 24-hour clock (i.e. 15:57).

- **Network Time Sync**. Click on this button to sync the local time with a timeserver on the Web. Obviously, it only works if you have a Web connection (but you do not need a browser session).

ICA Settings

- **Enable PNAgent**. Check this box if you wish to connect to an Nfuse-enabled Citrix server and obtain a list of available published applications. In this mode, you do not have to manually configure each ICA connection, but a list of published applications will be 'pushed' (made available) to your session. If you select this option, you must then click on the **PNAgent Settings** button to specify the URL or IP address of your Nfuse server.
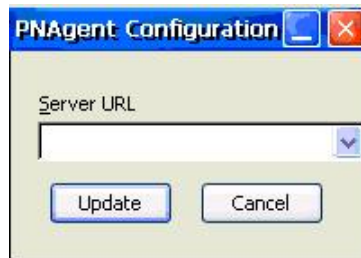
Nfuse Server Address Box

RDP Settings

This utility is used to configure local resources and display properties for all RDP connections. Many of these settings are only valid when connected to a Windows 2003 server.

Local Resources

RDP Local Resources Properties Sheet

- **Remote computer sound**. **Note:** This feature works only with a Windows 2003 server.
    - o **Bring to this computer.** Map the audio (sound) from the server to the terminal.
    - o **Do not play.** Do not play computer sound on terminal or server.
    - o **Leave at remote computer.** Does not map the audio (sound) from the server to the terminal.
- **Local devices**
    - o **Disk drivers.** Enable local USB port mapping for USB disk drives such as USB FDD, HDD, Flash Disk, and CDROM. **Note:** This feature works only with a Windows 2003 server.

- o **Printers.** Enable local parallel port mapping. It supports both parallel printers from LPT1 and USB printers from USB port.
- o **Serials ports.** Enable local serial ports mapping. **Note:** This feature works only with a Windows 2003 server.

Display the connection bar. If this box is checked, a Connection bar will be shown at the top of every RDP session screen.

RDP Connection Bar Example

This bar is useful in several ways:
- o **Server IP Address**. The bar shows the IP address of the Terminal Server for this session.
- o **Minimize**. Clicking on the Minimize icon will conveniently take you back to the Desktop (Desktop shell) or Connection Manager (WBT shell).
- o **Disconnect**. Clicking on the **X** will evoke the Disconnect dialog, allowing you to disconnect without closing your programs.

Experience
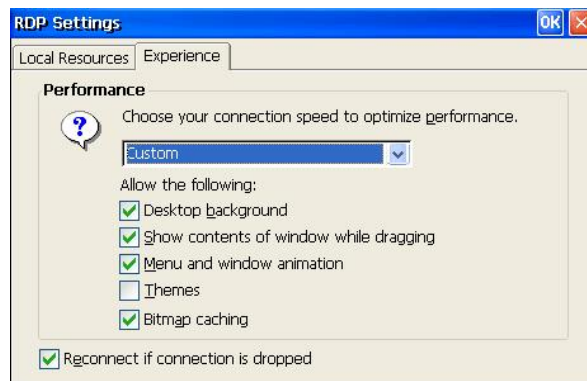
RDP Experience Properties Sheet

This properties sheet is only useful if you are connecting to a Windows 2003 server. If so, you can optimize performance and desktop appearance by selecting connection speed and enabling/disabling desktop parameters. Default parameters vary depending upon the chosen connection speed.

- Enable/Disable button, because of an Autostart session. This check box only takes effect on boot up.

File Management

There is a limited amount of file management available in your terminal, with several methods to transfer and store files:
- USB-attached storage.
- Shared network storage.
- Web download
- Email attachment.

Regardless of the transfer/storage method, there is no way to save new files internally in the terminal flash memory in the event of a Shutdown. To save files, you must move them, before Shutdown, to external USB or network storage.

USB-Attached Storage

If USB storage is enabled in the USB Storage Management dialog box, any type of attached USB storage will appear in **My Computer** as the **Hard Disk** folder. Whenever you are given a storage browse option, this folder will be available. You can, of course, create subfolders if you wish.

Shared Network Storage

From the **My Computer** screen, you are able to view shared content on Windows PC (Windows 95 and above) storage partitions connected to the same network subnet as your terminal. Please make sure that the appropriate partitions and folders on the PCs have Sharing enabled. To access this shared storage:

1. In the address field of **My Computer**, enter the name of the target PC: \\<target_PC_name>.
2. You may be prompted for username and password if the sharing is password-protected.
3. After any authentication is processed successfully, the shared folders should be displayed.
4. You can now transfer files to and from the shared folders.

Note: This procedure does not work in the reverse direction. You cannot see or manipulate the terminal file structure from a network-attached PC.

Note: This shared storage is not visible from a storage browse option of an application, since this shared storage is not mapped in the terminal.

Web Download

File downloads from the Web are done in the familiar Web download manner:

1. You are asked if you want to save or open.
2. Choose **Save**.
3. The **My Computer** file structure will appear. Browse to the folder where the new file should be stored. If you have external USB storage, you can save directly to that external storage.
4. Tap **Go** or the PC **Enter** key.
5. The file will be downloaded to the designated folder.

VNC Viewer Settings
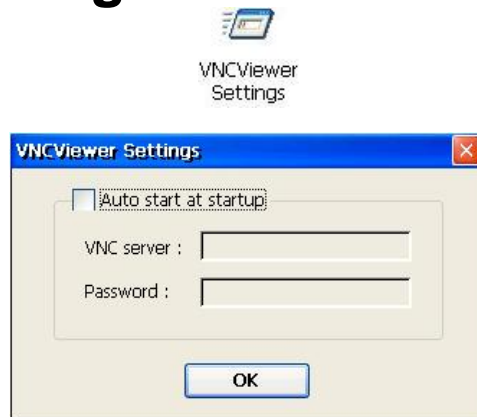
VNC Viewer Settings Dialog Box

The VNC Viewer is used to view and control a remote desktop on a computer that has an installed and enabled VNC Server. Use this utility here only if you want a viewer connection to Autostart at every bootup. For one-time viewing, use **Start>Programs>VNC Viewer** or **Add** a VNC Viewer connection from **Connection Manager>Configure.**

If you check **Auto start…**, the two entry fields will be opened.

- **VNC server**. Enter the network name or the IP address of the device that you wish to view, along with the display number on the device (display 0 always works for me). For example, if the device name is snoopy, the entry will be **snoopy:0**. An IP address entry might be **100.100.10.10:0**.
- **Password**. VNC servers typically are password protected. Enter the correct password here.

When you boot up, the viewer will attempt to make a connection to the server identified in **VNC server**. If the server software is enabled at that device, and the password is correct, you will see a rendition of the server desktop. In the viewer session, you have some additional options from the session menus.

VNC Viewer Session Menu Bar

Connection

VNC Viewer Connection Menu

New

You can launch a new session here, but it will not be a repetitive Autostart session. Click on **New** to open the Connection Details dialog box.
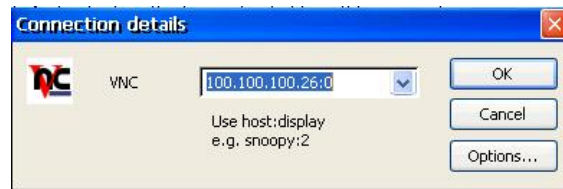
Connection Details Dialog Box

Enter the network name or the IP address of the device that you wish to view, along with the display number on the device (display 0 always works for me). For example, if the device name is snoopy, the entry will be **snoopy:0**. An IP address entry might be **100.100.10.10:0**. When you click on **OK**, the session will be initiated with the server. See Creating a New Connection|VNC Viewer for more information on one-time VNC sessions.

Options

Click on **Option** in the Connection menu to set some options for this session.
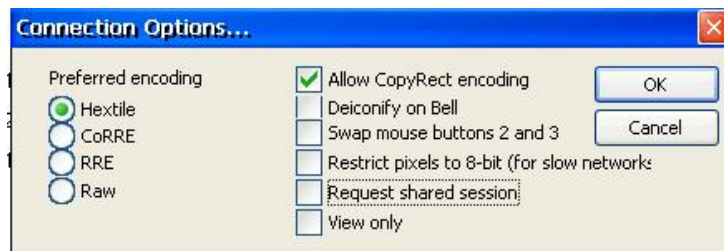
Connection Options Dialog Box

Any option changes that you make here are only good for the life of this session. When you reboot the terminal, the options will revert to the defaults shown here.

Info

VNC Connection Information Box

This information-only box provides some details about your session.

Keys

VNC Viewer Keys Menu

Computer hot key combinations are typically trapped locally in the terminal, rather than being passed on to the VNC server. This menu allows you to select and transmit one of several hot key combinations to the server.

Creating a New Connection

It is tempting to use the terms "connection" and "session" interchangeably, but we do try to maintain a distinction in this document.

- **Connection**. A connection defines the parameters used to establish and control communication between a server and a YES*tation* client.
- **Session**. When a connection is activated and successful communication is established between the server and the client, the server/client communication becomes a session.

Despite these precise definitions, it is necessary to confess that the **Start>Programs** list includes one item, **X PDF**, that does not meet the above definition for Connection since it does not invoke or configure a connection to a server.

All connections can be created from the Start menu, and all except Tarantella and X PDF can also be created from Control Center.
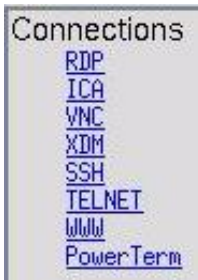
Control Center

Start Menu

Each network client connection can be to a unique server, if desired. The total number of concurrent active connections is limited by the amount of RAM. With the standard 128MB RAM, there is seldom any practical limitation unless you are running multiple browser sessions or multiple X PDF viewers. A 256MB RAM option is available to overcome any limitation that you might encounter.

The connection types will be covered here in alphabetical order. Highlight the desired connection type and then click **OK** to open the associated dialog box.

In every connection dialog box accessed from the Control Center, except WWW, you are given the radio button options to **Auto Start** the connection and to display a connection **Desktop Icon**.

After your setup and configuration are complete, you can secure connection parameters, except for those connections accessed from **Start>Programs**, from any user changes as follows:

1. Open **Control Center>Access Control**.
2. Click on the radio button for **Enable Access Control**.
3. Choose and confirm a password.
4. Click on **Set**.

ICA

An ICA connection is used to access a Citrix server or Citrix published application. *Citrix server connections* allow you to connect to the Windows desktop of a specific Citrix server; you can run any applications that have been made available on the desktop by your system administrator, in any order. *Published applications* are specific applications set up by an administrator for remote users. When connected, you are presented with the application itself. Published applications can be run in seamless mode, where the applications appear to the client as if they are running locally, each application running in its own resizable window.

Connection Defaults

When a new ICA connection is created, it is initially given a set of default parameters. These default parameters can be customized by the administrator, so that all new connections can easily be given the look and feel that you desire. The default parameters are accessible from the Tools menu of the Citrix ICA Client for Linux dialog box. Only the most common default parameters will be discussed here. For a full discussion, the reader is referred to the Citrix Clients for Users Administrator's Guide at xxx

To customize the defaults, begin with the ICA dialog box.
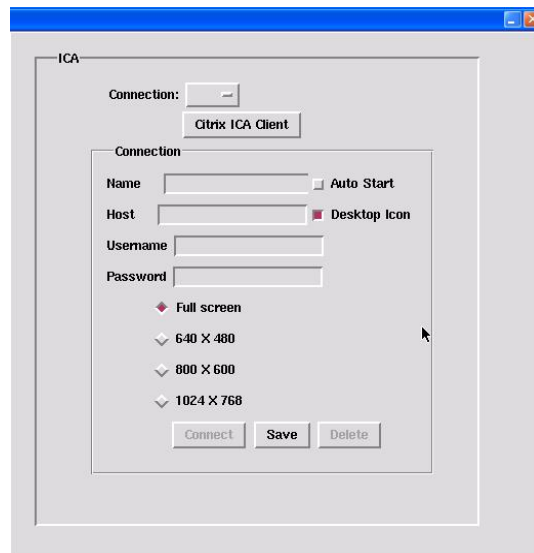
ICA Dialog Box

Click on the **Citrix ICA Client** button to see the Citrix ICA Client for Linux dialog box.
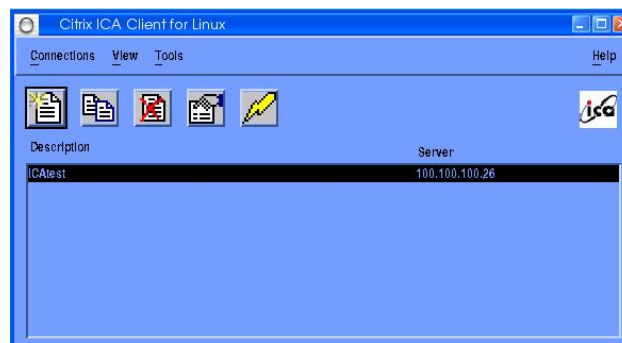
Citrix ICA Client Connections Dialog Box

Click on **Tools>Settings** to see the first settings dialog box, Preferences.

Settings>Preferences
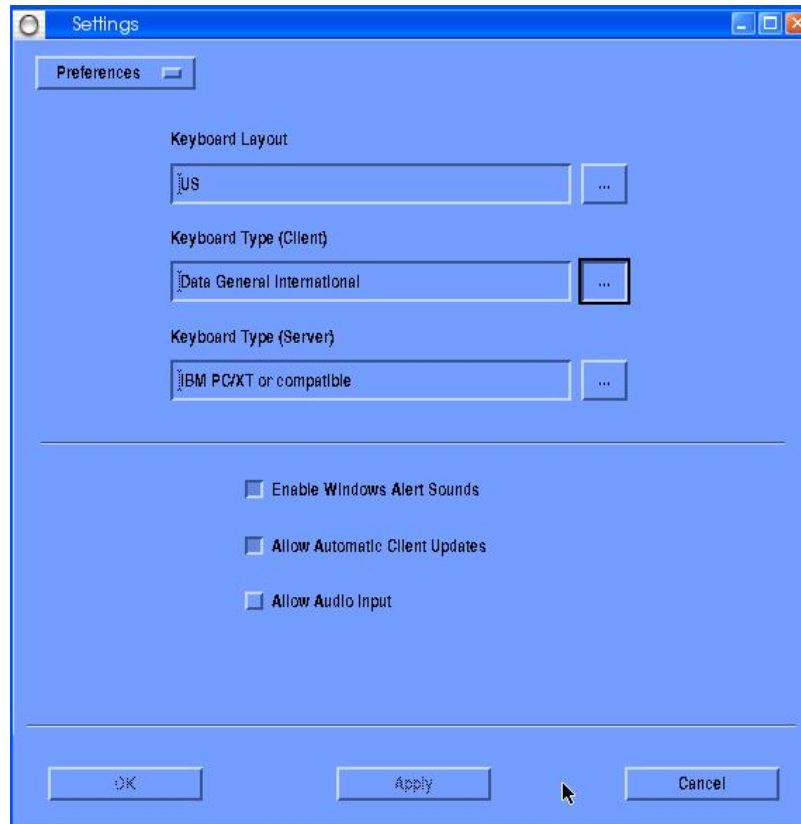
Preferences Settings Dialog Box

- In the **Keyboard Layout** field, click the **Browse** button to select your input locale from the list. Input locale is the language you want to type in.
- In the **Keyboard Type (Client)** field, click the **Browse** button to select your correct keyboard type from the list. The default **LINUX** works well with Affirmative Computer Products keyboards.
- In the **Keyboard Type (Server)** field, click the **Browse** button to select the specific physical keyboard type you are using from the list. You will likely stick with the default, since all the other choices are Japanese keyboards.
- Select **Enable Windows Alert Sounds** if you want Windows alert sounds to be played using the YES*tation* sound system.
- Select **Allow Automatic Client Updates** to allow the client software at this workstation to be automatically updated when a newer version is available. This feature also requires configuration on the Citrix server.
- Select **Allow Audio Input** to enable support for client-side microphone input.

Settings>Window
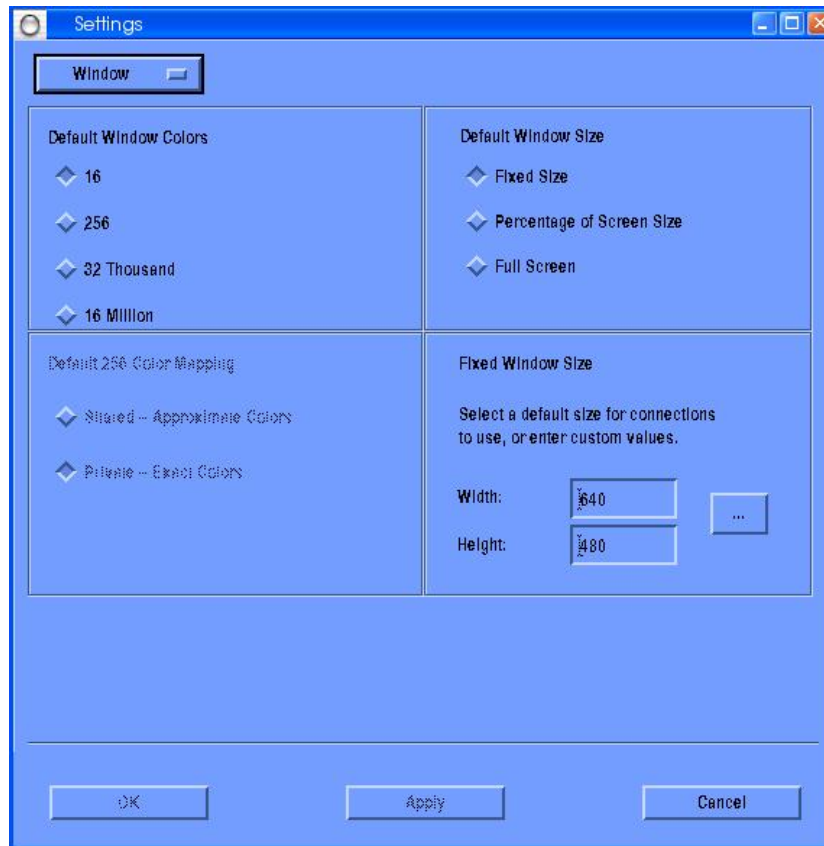
Windows Settings Dialog Box

- **Window Size**.
  - o **Fixed Size**. Choose the desired size in the **Fixed Window Size** fields. You can select a size from the drop-down list, or you can enter a special size in one or both of the fields.
  - o **Percentage of Screen Size**. If you select this radio button, the **Fixed Window Size** quadrant will change to a **Percentage of Screen Size** quadrant. You can select a percentage from the drop-won list or enter a special percentage in the field.
  - o **Full Screen**. This selection will cause the session to occupy the full terminal screen. It will overlay the Taskbar area also, so you will have to use **Alt**+**Tab** to change windows.
- **Window Colors**. If you choose one of the higher color ranges, be sure that it is supported in **Control Center>Display** and on your Citrix server.
- **256 Color Mapping** allows you to set up 256-color sessions to use approximate or exact colors. If you select **Private - Exact Colors**, the client will use a private color map to display the exact colors sent by the server. This may, however, cause color flashing when moving between windows. To avoid this, use **Shared - Approximate Colors** to eliminate color flashing when switching context. Note that if other applications allocate all 256 colors, the client uses a private color map

Settings>Server Location
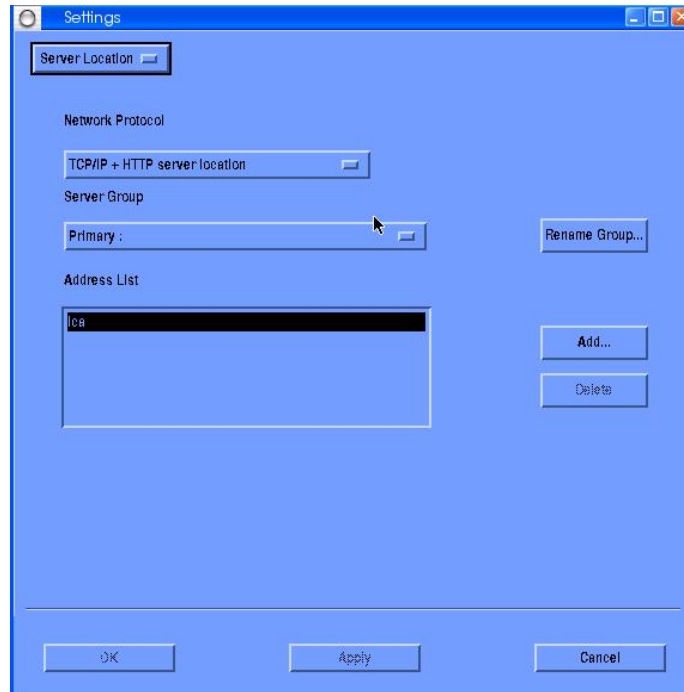
Server Location Settings Dialog Box

See Citrix Clients for Users Administrator's Guide at xxx for the details of server location. If your servers are on the local sub-net, select **TCP/IP** for the Server Protocol.

Connection Creation

You can create a connection in the ICA Dialog Box by entering the basic parameters here, or you can click on **Citrix ICA Client** to create a connection in the resulting dialog boxes. However, if you want to create a Desktop icon for your connection, if you want to Autostart your connection, or if you want the connection to appear in the Connection drop-down list, you must create it in the ICA dialog box.

ICA Dialog Box

45
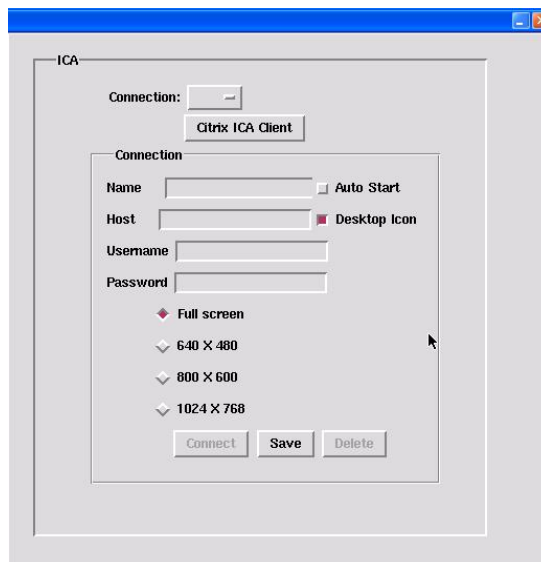
If you choose to use the ICA dialog box, enter the following information:

- **Connection**: This drop-down list will initially be blank. As you add ICA connections, their names will appear in this list, allowing you to select one for editing or connection to its server.
- **Name**. Enter a friendly name for this connection. This is the name that will be shown in the Connection list and under the Desktop icon.
- **Host**. Enter the host IP address here.
- **Username/Password**. If you want to log on to the server automatically, enter the **Username** and **Password** recognized by the server. Otherwise, leave them blank and you will be asked for them every time you establish the server connection. If you wish, you can enter only the **Username** here,
- **Connection Window Size**. Select a radio button for the local window size that you desire for this connection. If you select a size that is larger than the Resolution Mode selected in **Connections>Display**, you will have to use scroll bars to select viewable portions of the session window.

At this point, you have entered enough information to create a basic ICA connection to a Citrix server. But if you want to access a published application, if you want to go beyond a basic server configuration, or if you want to bypass the ICA Dialog Box, you will have to click on **Citrix ICA Client** to see the Citrix ICA Client for Linux dialog box.

Citrix ICA Client

Citrix ICA Client Connections Dialog Box

By default, the main client window displays the Connection view, a list of all the connection entries that have been created, including connections to published applications and remote desktop sessions. If this is your first foray into defining ICA clients, the list will be empty. If users want to view the connections that are automatically set up to applications and content published on a server running the Web Interface, they can do so using the PNAgent view from **View>Go To…**.

Note: You can copy an existing connection by highlighting the desired connection and then clicking on **Copy** from the Connections menu, or clicking on the **Copy** icon. You can then edit the copied connection as required. This is useful if many of the configuration details are the same for both connections.

To create a connection from this box, click on the **New** icon, or click on **New** in the **Connections** menu. The Network Properties dialog box appears.

Properties>Network
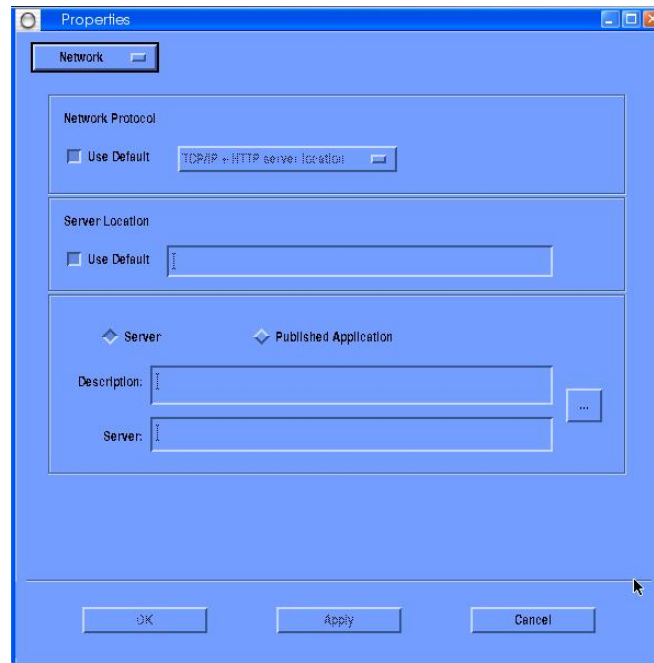
Network Properties Dialog Box

Server Protocol. *Select the TCP/IP protocol* if your servers are on the local sub-net – a common situation. The default setting for server location or published application is auto-locate, although you can type in a specific network name or IP address in the **Server** field. To auto-locate:

1. Select the **Server** or **Published Application** radio button.
2. Click on the **...** button; the ICA Client attempts to contact all of the servers on the subnet by broadcasting on the UDP protocol. Alternatively, you can set specific addresses for MetaFrame servers.
3. The ICA Client will list all of the servers or published applications that it finds in a Connection Select sub-window
4. Select the desired connection in the sub-window and click on **OK**.
5. The selected connection will appear in the **Description** and **Server** fields.
6. You may want to change the **Description**, which is the entry that will appear in the Connections dialog box to identify this connection.
7. If your server or application is not found for some reason, you can type in the IP address or application name in the **Server** field.
8. Click on **Apply** if you want to save the settings and move on to another selection from the Properties drop-down list, or **OK** if you want to return to the Connections dialog box.

After you have entered your network settings, you may want to configure other parameters of your connection. A host of parameters can be configured for each individual connection from **Connections>Properties**. Default properties for all connections are set in **Tools>Settings**, as discussed in Connection Defaults, but they can be overridden for individual connections from **Connections>Properties**. In this manual, we will cover only the most commonly adjusted parameters. For the finer points of ICA configuration, see the Citrix Administrators Guide for Unix Clients, available from the Affirmative Computer Products' web site at xxx

Properties>Window
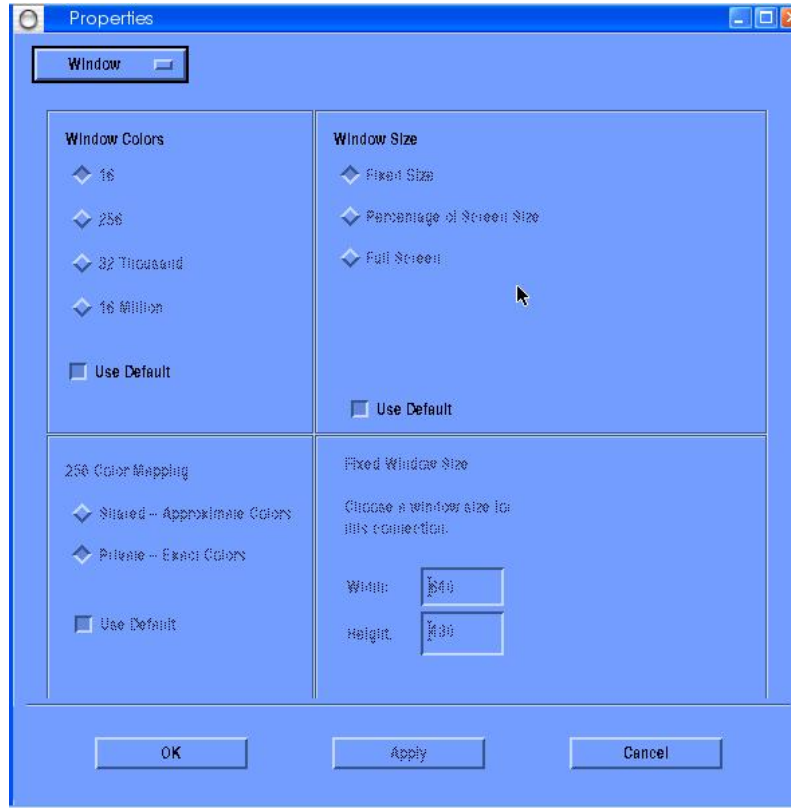
Windows Properties Dialog Box

The **Window** dialog box controls the window size and number of colors used for the connection highlighted in the Connections dialog box.

- **Window Size** allows you to select from **Fixed Size**, **Percentage of Screen Size**, or **Full Screen**. Select **Fixed Size** or **Percentage** and type the size (in pixels) or percentage in the **Window Size** boxes. If you are connecting to a published application, you can also select **Seamless Window**, which integrates local and remote windows on the desktop.
- **Window Colors** allows you to set the number of window colors to **16**, **256**, **32 Thousand**, or **16 Million**. Your display must be capable of displaying the resolution and color depth you select. Your Citrix server must also be configured to support at least the number of colors that you select. Remember that more colors consume more network bandwidth for your connections.
- **256 Color Mapping** allows you to set up 256 color sessions to use approximate or exact colors. If you select **Private - Exact Colors**, the client uses a private color map on PseudoColor displays to display the exact colors sent by the server. This may, however, cause color flashing when moving between windows. To avoid this, use **Shared - Approximate Colors**. Note that if other applications allocate all 256 colors, the client uses a private color map.
- In each case, select **Use Default** to use the default setting defined in **Tools>Settings>Window**.

Properties>Application

If you selected **Server** in Properties>Network, you have the option of specifying an application to run when you connect to a server. If you specify an application, you do not see the desktop of the server when you connect; you go directly to the application. The connection is closed when you exit the application. Use the Application dialog box to specify the application
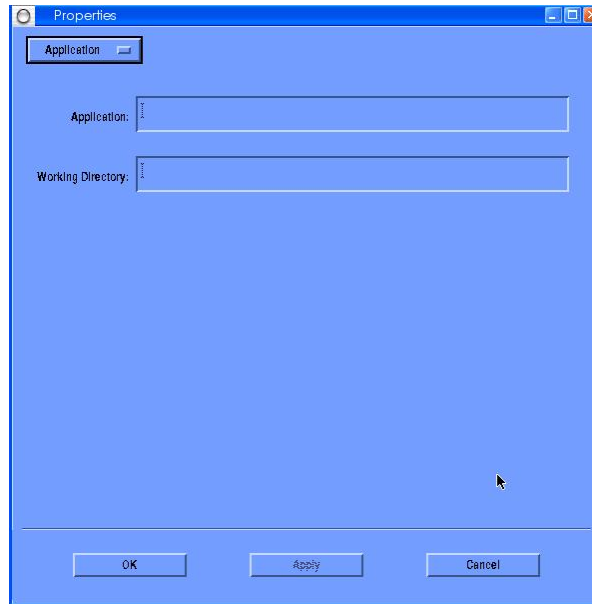
Application Properties Dialog Box

To specify an application to run at connection:
- In the **Application** field, specify the pathname of an application to be run after connecting to a server.
- In the **Working Directory** field, specify the pathname of a directory to be used with the application.

For example, if the application **Notepad.exe** is in the **C:\WTSRV** directory on the Citrix server, type **C:\WTSRV\Notepad.exe** in the **Application** field. If you use Notepad to work on documents in the **C:\My Documents** directory, type **C:\My Documents** in the **Working Directory** field. When you log on to the Citrix server, Notepad begins. In Notepad, if you click the File menu, the directory **C:\My Documents** is displayed

Note: If the entry you are configuring is a connection to a published application rather than a server, the Application dialog box is not available.

Properties>Login
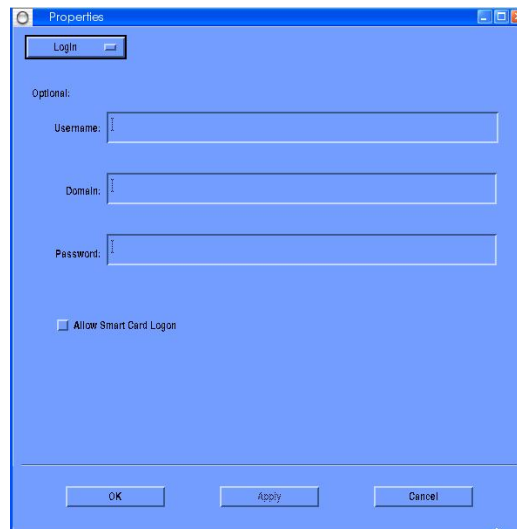
Login Properties Dialog Box

The **Login** dialog box allows you to enter logon details of your server connection so that you do not need to type them each time you connect. To configure login properties, type your **Username, Domain** (optional) and **Password** for the connection.

Although you can also provide your password automatically, as shown here, for security reasons it is not good practice to configure the connection in this way. Instead, it is better to leave the **Password** field blank in this dialog box and type your password each time when establishing the connection.

Mail & Newsgroups

No, you won't see a **Mail & Newsgroups** entry in Control Center or the Start menu. But email and newsgroup accounts can be created from a Mozilla browser connection.

1. Open a browser connection and click on **Window>Mail & Newsgroups** or on the **Mail & Newsgroups** icon in the Window toolbar at the bottom of the browser screen
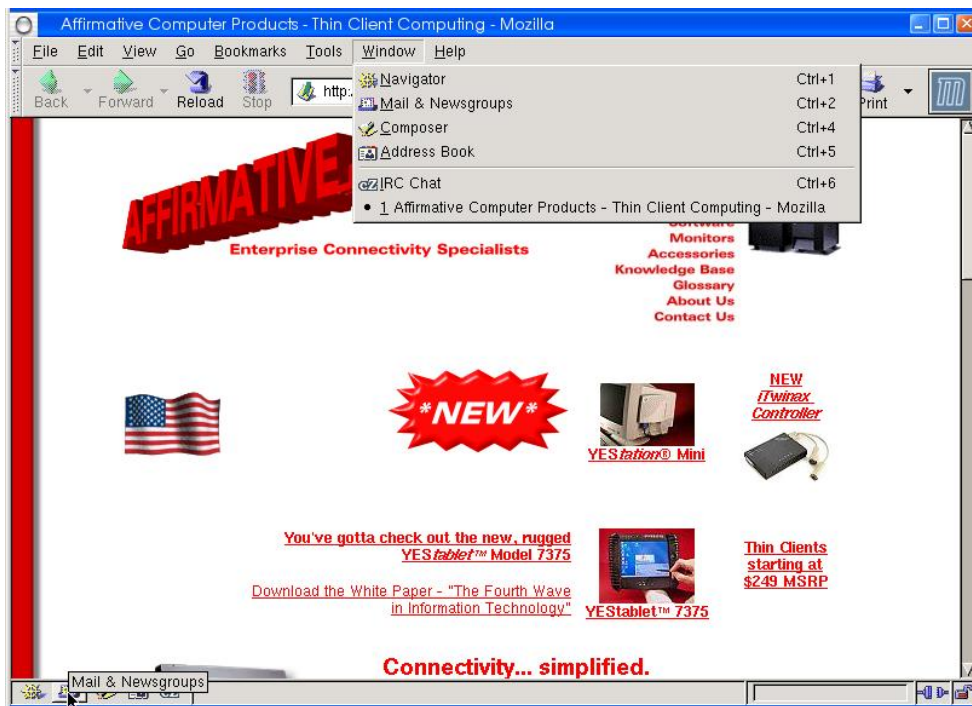
Mozilla Screen Showing Access to Mail & Newsgroups

2. If this is the first account to be created in this Mozilla connection, you will see the Mail & Newsgroups screen overlaid with the first dialog box of the Account Wizard. If you already have an account here, but want to add another one, click on **File>New>Account** to open the Account Wizard. You can have multiple accounts in each Mozilla connection if you wish.
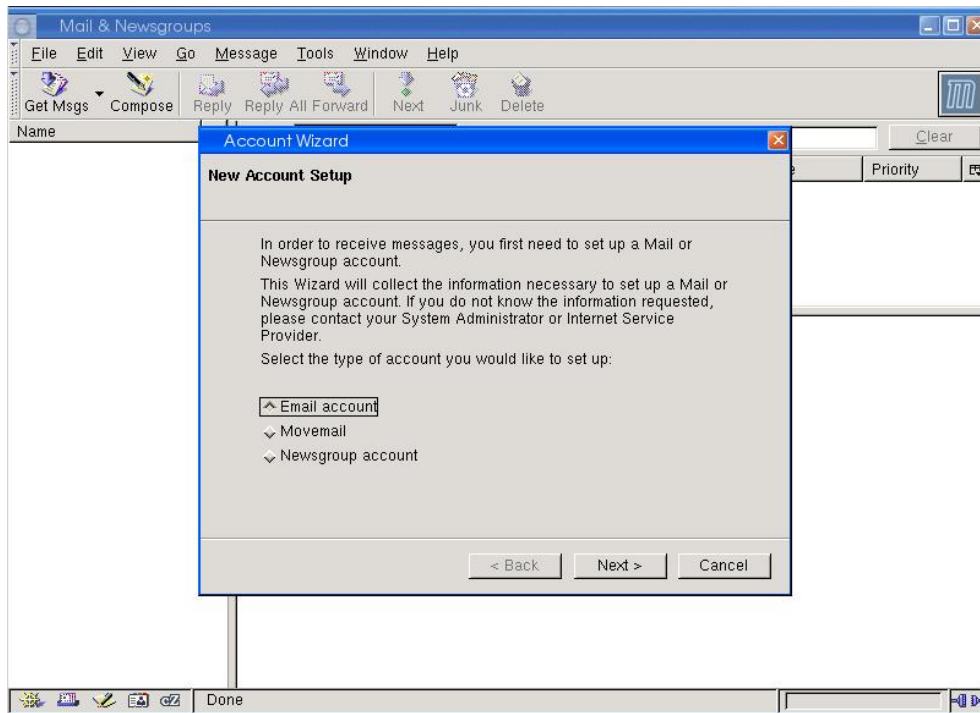
Account Wizard Dialog Box #1

3. Select the type of account you need and click on **Next**.

4. Follow the explicit instructions in each of the subsequent Account Wizard dialog boxes. You will also find detailed information in **Help** in the Menu bar.

After your accounts are created, you can edit many parameters as discussed in xxx

Mozilla

A default Mozilla session is already available in your terminal, accessible from the Taskbar and from **Start>Programs>Mozilla**.

Mozilla Default Connection

The parameters of this default Mozilla connection can be edited, as will be discussed in xxx. You can also add more connections, called profiles in Mozilla, but only one can be opened at a time. Mozilla connections can also be added from **Control Center>WWW** or **Start>WWW**, with the advantage that these connections can be set to Autostart at bootup. See xxx for information on creating such connections. To differentiate between these two types of connections, and hopefully reduce some confusion, we will refer to Mozilla connections as separate entities from WWW connections, even though both use the Mozilla browser.

To add a Mozilla connection:

1. Open the default connection and click on **Tools>Switch Profile**. You will see the Manage User Profiles dialog box.

Manage User Profiles Dialog Box

2. Click on **Crate Profile** to open the Create Profile Wizard.

Create Profile Wizard Welcome Screen

3. Click on **Next** to see the only dialog box in the wizard.
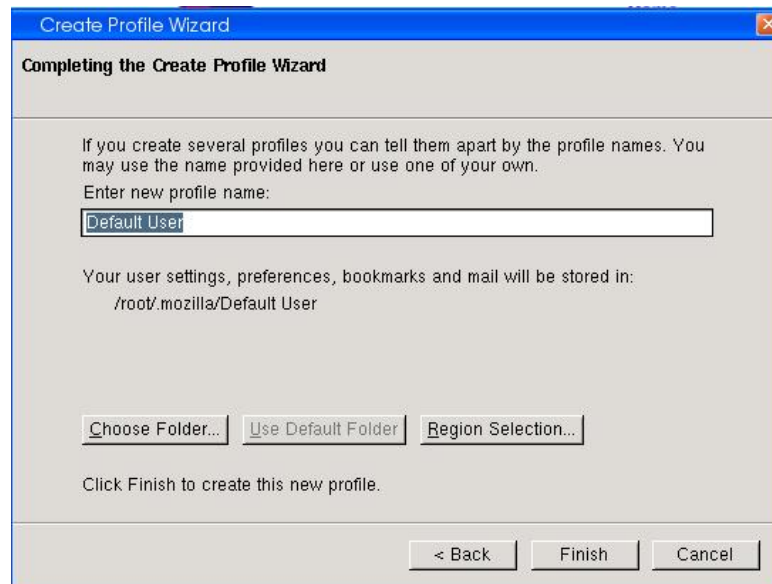
Create Profile Wizard Dialog Box

4. Enter a name for the new profile. Ignore the three buttons and click on **Finish**. You will then see the Manage User Profiles dialog box with the new profile added in the **Available Profiles** list.

Manage User Profiles Dialog Box

5. Unless you click on the **Don't ask at startup** radio button, you will be asked to choose a profile whenever you open a Mozilla connection. If you do click on this button, Mozilla will open with the last-used profile.

As you can see, the only parameter that is configured in this creation is the connection name. There are many other parameters that can be edited after the creation; see xxx for editing information.

PowerTerm

Like the Mozilla browser, PowerTerm connections can be created from two paths, with slightly different results. If created from **Control Center>PowerTerm**, the options exist to Autostart at bootup and/or to place a connection icon on the Desktop. If created from **Start>Programs>PowerTerm**, these two options are not directly available.

Control Center>PowerTerm Dialog Box

Your terminal will normally come with several pre-configured PowerTerm IBM 5250 connections. You have two types of configuration options: modify an existing default 5250 display connection, or initiate a new connection. We recommend that you modify one of the default connections, since they have been configured to take advantage of the most useful options and keyboard mapping.

Modify a Default 5250 Display Connection

Four 5250 default connections are provided: 101GREEN, 101GUI, 122GREEN, and 122GUI. As the names indicate, each connection is designed to optimize the use of an Affirmative 101-key or 122-key keyboard along with a classic "green screen" (text based) or contemporary graphical (GUI) display style. Proceed as follows:

1. Each default connection is configured to connect over the Internet to the Affirmative Computer Products demonstration AS/400 server. Before you make any modifications, we recommend, if your terminal has an Internet connection, that you connect to our server to verify your network configuration and to experience the display alternatives. Use **DEMO1** or **DEMO2** for the user name and password.
2. After you have decided which default connection most closely fits your needs, go to **Start>Programs>PowerTerm**. A blank connection window labeled **Telnet** will open.
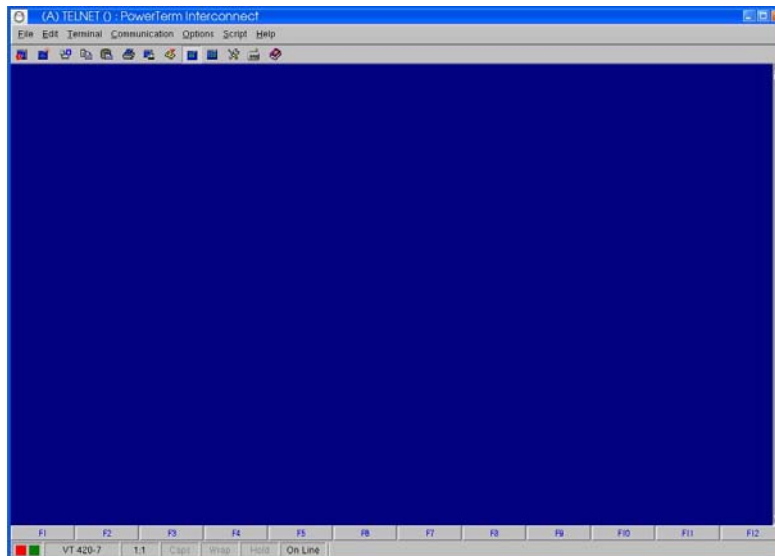
PowerTerm Telnet Window

3. Click on the **Connect** icon in the Tool Bar or **Communication>Connect** in the Menu Bar. The Connect dialog box will open.

Creating a New Connection
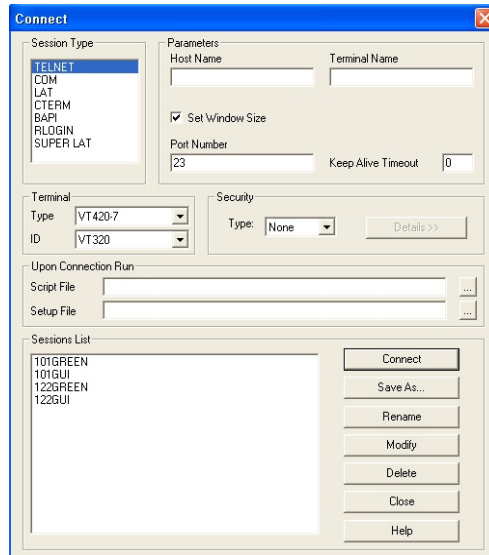
PowerTerm Connect Dialog Box

4. In the **Session List** box, highlight the name of the default connection that serves as your model.
5. Change the **Host Name** to the IP address or DNS-defined name of your host server. Each emulator connection can have a different host if desired.
6. If you are using named sessions, enter the session name recognized by the host in **Terminal Name**.
7. The **Port Number** is a commonly used default, so you generally do not need to enter anything here.
8. Select the type of **Security** you wish to use. You will also have to enter additional details after you select the security type.
9. If you want a previously-constructed script to run automatically when this connection is opened, select a **Script File** from the drop-down list.
10. If you want to retain the same name as your default connection model, click on **Modify**. If you want to use a new connection name, click on **Save As…** and enter the new name in the Save Session dialog box. This new name will immediately appear in the **Session List**.
11. With the connection name still highlighted, click on **Connect**. You can complete the following steps even if the connection fails, but you must have an open window for the connection of interest.
12. In the open connection window, open the **Terminal** menu and select **Setup**. You will see the Terminal Setup dialog box. Ignore the **Emulation** tab since you have already decided to use 5250 display emulation for this connection. Open the other tabs and make your selections.
   Note: Any references to a History Buffer are only applicable for non-IBM emulations.
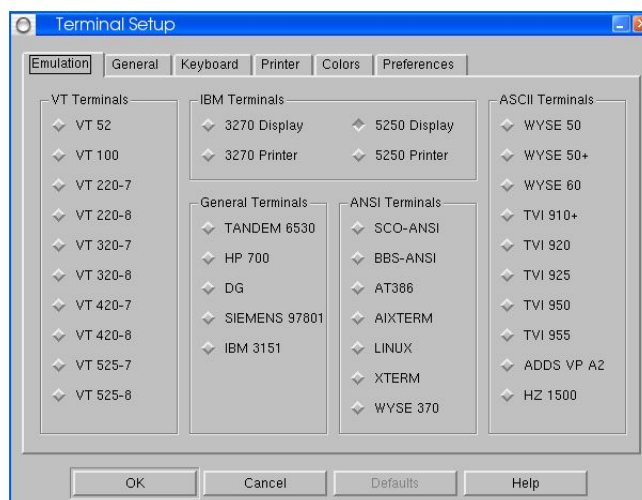
PowerTerm Terminal Setup Dialog Box.

13. Keyboard mapping, Power Pad options, and other miscellany are available under the **Options** menu. If you change the keyboard mapping, be sure to execute a **Save Keyboard File** from the **File** menu, and we recommend that you save it under a new file name.
14. If you change any connection properties in this step, you must save the changes. If you exercise **File>Save Terminal Setup**, the changes will be applied to the current setup fil*e*. We strongly recommend that you save the setup in a setup file with the same name as the connection name by exercising **File>Save Terminal Setup As…** before exiting the session. After you do this, these selections can be transferred to any new or existing connection by selecting that setup file when configuring the connection. If you do not do a **Save**, you will lose all these changes.
15. Even if you did not change any connection properties in Steps 12-14, we strongly recommend that you save the setup in a setup file with the same name as the connection name by exercising **File>Save Terminal Setup As…** before exiting the session. The reason for this is given in the following steps.
16. If you want to configure the connection to Autostart at bootup and/or have a shortcut with a Desktop icon, go to **Control Center>PowerTerm** and then continue with Step 17. If you don't want to exercise these options, you are done with this connection.
17. This Control Center utility works with setup files rather than connection names. Click on **Configuration** to see a drop-down list of the available setup files. You might think that if multiple connections use the same setup file, they would all have the same Autostart/Desktop properties that have been configured for that setup file. *Not so*. Only the first connection in the PowerTerm session list using that setup file will exhibit these properties. That is why every PowerTerm connection should have its own setup file.
18. Highlight the desired setup file in the drop-down list, and the name will appear in the **Name** field
19. Make your **Autostart/Desktop Icon** choices here and then click on **Save**.

Configure a New Connection

If you want to configure a new connection from scratch, or need something other than a 5250 display connection, you should follow this procedure:

1. Go to **Start>Programs>PowerTerm**. A blank connection window labeled **Telnet** will open.

PowerTerm Telnet Window

2. Click on the **Connect** icon in the Tool Bar or **Communication>Connect** in the Menu Bar. The Connect dialog box will open.
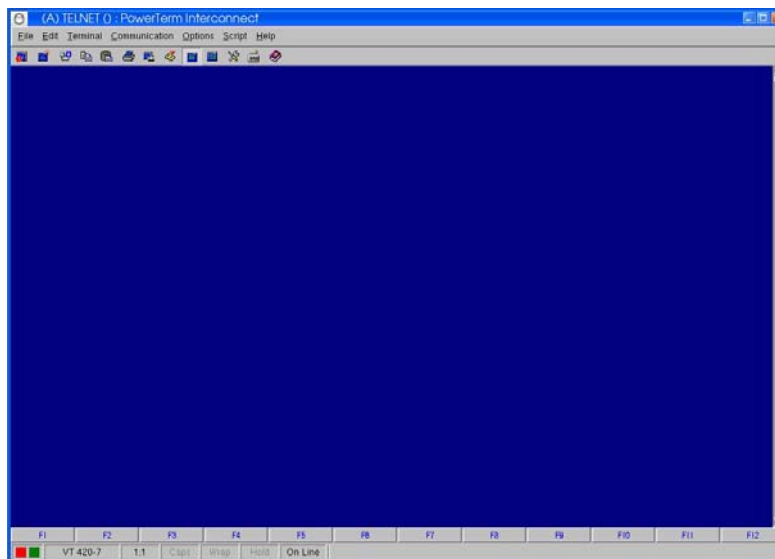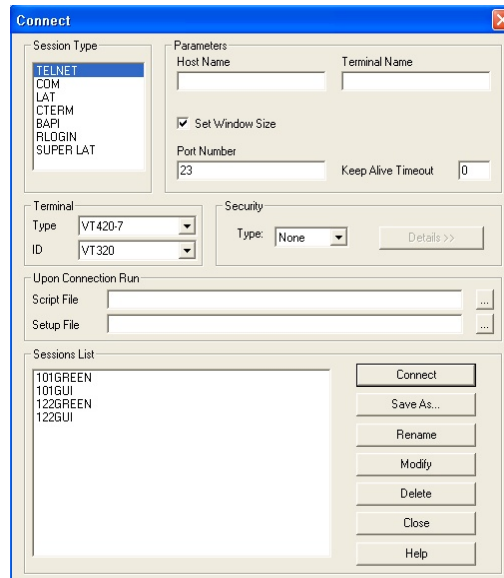
Creating a New Connection

PowerTerm Connect Dialog Box

3. In **Terminal Type**, select the type of terminal that you wish to emulate.
4. The configuration parameters in this window will vary slightly, depending upon the selected terminal type. The instructions here assumes IBM 3270 or 5250 emulation
5. In **Terminal ID**, select the terminal model that you wish to emulate.
6. In **Host Name**, enter an IP address, unless the system name is defined in a DNS server. Each emulator connection can have a different host if desired.
7. In **Terminal Name**, enter the session name recognized by the host if you are using named sessions. For a printer session, it will probably be a named session as defined by your server administrator.
8. The **Port Number** will default, so you generally do not need to enter anything here.
9. If you want to keep the connection alive during periods of inactivity, put a number of minutes in the **Keep Alive Timeout** field. This is especially useful if you are using a slow WAN link to a remote server.
10. If you want a secure connection, and your host supports it, select the type of security from the drop-down list of **Security**.
11. If you want to clone the configuration parameters of a previously-defined configuration, click on the button to the right of the **Setup File** field and select a setup file. For 5250 display connections using an Affirmative Computer Products keyboard, we strongly recommend that you choose an existing file. If you don't choose a setup file, the default file, **ptdef.pts**, will be assigned to this connection.
12. If you want to automatically invoke a previously-constructed logon script, click on the button to the right of the **Script File** field and select a script file.
13. Click on **Save As…** and enter a connection name in the Save Session window. This new name will immediately appear in the **Session List**.
14. If you want to connect immediately, click on **Connect**. Otherwise, you can click on **Close** or **X** and the connection will be saved for future use.
15. If you want to select other configuration options, you will need to open (connect) the connection to complete the configuration. See xxxDisplay Connection or xxxPrinter Connection, as appropriate, to complete the configuration.

Display Connection
You can complete the following steps even if the connection fails, but you must have an open window for the connection of interest.
1. In the open connection window, open the **Terminal** menu and select **Setup**. You will see the Terminal Setup dialog box. Ignore the **Emulation** tab since you already made that selection earlier in this process. Open the other tabs and make your selections.

Note: Any references to a History Buffer are only applicable for non-IBM emulations.
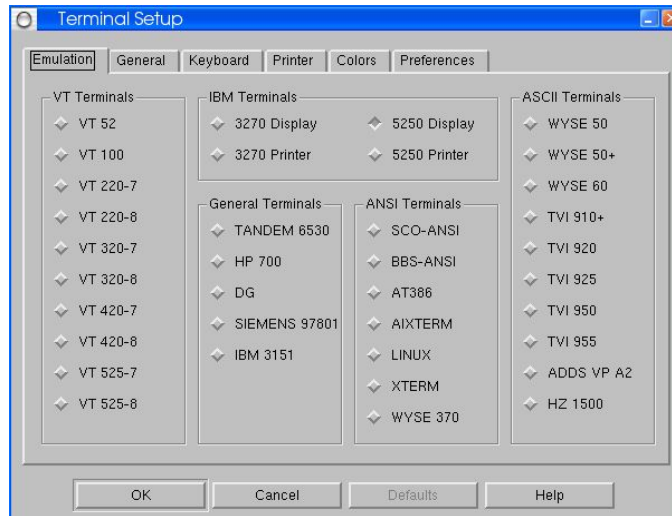
PowerTerm Terminal Setup Dialog Box for Display Connection

2. If you chose a pre-defined setup profile earlier, a keyboard map has already been selected. If not, open the **File** menu with the mouse or by pressing the **LeftAlt** button.
3. One 5250 122-key keyboard map, one 5250 101-key map, one 3270 122-key map, and one 3270 101-key map have been predefined in the firmware for use with Affirmative Computer Products keyboards. Choose one of these by selecting **Open Keyboard File**, highlighting your selection, and clicking on **OK**. **DO NOT CLICK ON DELETE FOR ANY OF THESE PRE-DEFINED SETUPS**. If you do not make a selection, your keyboard setup will default to a 101-key 5250 or 3270 map intended for use with a standard PC keyboard.
4. If you do some custom keyboard mapping and want to save it for later use, be sure to use **Save Keyboard File** before exiting the connection. If you do not, you will lose this custom map. When you save, choose an existing keyboard map file or type a new name in the **File Name** field of the Save Keyboard File window.
5. Follow Steps 13-19 under <u>Modify a Default 5250 Display Connection</u>.

Printer Connection

You can complete the following steps even if the connection fails, but you must have an open window for the connection of interest.

1. In the open Printer Status window, open the **Terminal** menu and select **Setup**. You will see the Terminal Setup dialog box. Ignore the **Emulation** tab since you already made that selection earlier in this process. Open the other tabs and make your selections.
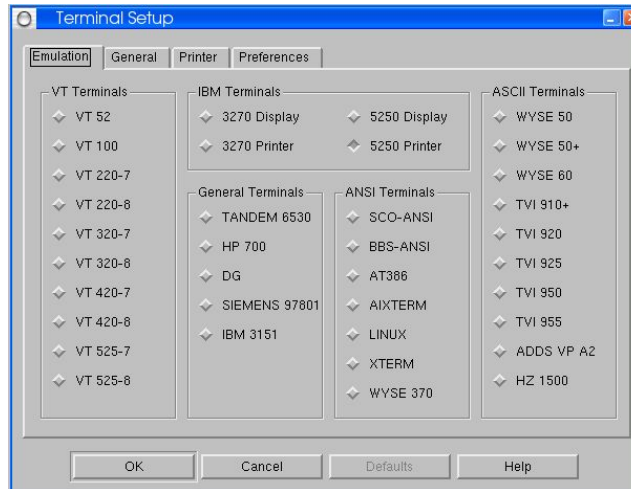
PowerTerm Terminal Setup Dialog Box for Printer Connection

2. In the **General** tab offers several options. leave the code pages at their default settings f you are in the US.
3. In the **Printer** tab:
   - Click on **Advanced Printing** to set printer parameters or to select Host Print Transform.
     - o For local LPT1 printing, select **Device** and leave the Device Name field at **LPT1**.
     - o For local serial printing, go to the Device Name field and overwrite the default **LPT1** with **COM1:**. The default serial parameters are 9600 8 N 1.
     - o For network printing:
       - a. Set up the LPD network printer address and queue name in **Control Center>Printer**,
       - b. Select **Print Manager** in Print Device.
       - c. From the File menu, select **Print Setup**.
       - d. In Print Destination, select your network printer.
4. In the **Preferences** tab, **History Buffer** is only applicable for non-IBM emulations.
5. Save the setup in a setup file with the same name as the connection name by exercising **File>Save Terminal Setup As…** before exiting the session.
6. If you want to configure the connection to Autostart at bootup and/or have a shortcut with a Desktop icon, go to **Control Center>PowerTerm** and then continue with Step 7. If you don't want to exercise these options, you are done with this connection.
7. This Control Center utility works with setup files rather than connection names. Click on **Configuration** to see a drop-down list of the available setup files. You might think that if multiple connections use the same setup file, they would all have the same Autostart/Desktop properties that have been configured for that setup file. *Not so*. Only the first connection in the PowerTerm session list using that setup file will exhibit these properties. That is why every PowerTerm connection should have its own setup file.
8. Highlight the desired setup file in the drop-down list, and the name will appear in the **Name** field.
9. Make your **Autostart/Desktop Icon** choices here and then click on **Save**.

Modify a Connection

Depending upon the modifications that you want to make, there are three different paths to follow:
1. Go to **Control Center>PowerTerm** or **Start>PowerTerm>Set Configuration**
   - a. Select the configuration of interest from the drop-down list.
   - b. Modify **Auto Start** or **Desktop Icon**.
   - c. Click on **Save**.

2. Go to **Start>Programs>PowerTerm**
   a. Select the connection of interest from the **Session List**.
   b. Modify the parameters of interest in the Connect dialog box.
   c. Click on **Modify**.
3. Launch the connection of interest.
   a. Go to **Terminal>Setup.**
   b. Modify the parameters of interest in the Terminal Setup dialog box.
   c. Click on **OK**.
   d. Execute a **File>Save Terminal Setup** to save these changes to your configuration/setup file.

If you wish to delete a setup file, you can only do this from **Control Center>PowerTerm**. or **Start>PowerTerm>Set Configuration.**

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Troubleshooting Your YES*tation*

The following table provides some solutions to common problems that can occur during setting up or using your YES*tation* terminal.

	Problems	Solution
1	The monitor screen is blank	• Make sure the terminal 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 terminal.
2	Your monitor cannot 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 terminal 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 terminal 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 terminal using a known good PS/2 keyboard.
5	The network connection does not work.	• Check the network connection. • Verify the terminal IP address is correct in the Network properties sheet of Control Center. • Check the server's IP address. • If you are using the terminal 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 terminal.	• Ask your MIS or network administrator to reload your firmware through the eProManager remote management software, if it is installed at your server site.
7	You cannot ping your terminal from another device on the network.	See #5 above.

Problems	Solution
8	eProManager cannot communicate with your terminal.	• See #5 above. • Make sure that eProManager has the current IP address for your terminal.

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

Appendix 1. Specifications

2201 and 2216 Models

ITEM	SPECIFICATIONS
Processor	SIS 550 200 MHz
Communication and Ports	• Microsoft RDP and Citrix ICA protocol compliant. • 10/100 dual-speed Ethernet, Twisted Pair (RJ45). • One parallel port (DB-25 Female connector). • Enhanced ps/2 keyboard interface. • Enhanced ps/2 mouse interface. • Two USB ports. • Audio out.
Embedded O.S.	Linux
Video	• SVGA • 640x480, 800x600, 1024x768, and 1280x1024 with high color. • Refresh frequency up to 85 Hz
Memory	• SDRAM -- 64 MB SDRAM standard. (Max. 256MB) • Flash – 32MB CompactFlash for 2201, 128 MB CF for 2216
Server Operating System Support	• Microsoft Windows 2003 Server • Microsoft Windows 2000 (Server Edition) • Microsoft Windows NT 4.0 (TSE) • Citrix MetaFrame XP • Citrix MetaFrame • Citrix WinFrame • Tarantella

Appendix 1. Specifications

ITEM		SPECIFICATIONS
Optional Devices		• USB storage • USB wireless LAN adapter
Software Features		• Remote Management client • Wake on LAN (WOL) • SNMP support • Time zone and SNTP support • Terminal access password for security • Multi-session Autostart with Fail-over • LPD & ThinPrint support • VNC viewer • PDF viewer • Virtual Private Network, SSH, and PPoE support • Mozilla email (2216 only) • PowerTerm terminal emulation (2216 only) • Firmware upgrade over the network
Environment	Temperature	• Operating: 5 ºC to 40 ºC (41 ºF to 104 ºF) • Storage: -40 ºC to 60 ºC (-4 ºF to 140 ºF)
	Relative Humidity	90% maximum, non-condensing
	Operating Altitude Range	0 to 10,000 feet (0 to 3050 meters)
	Power	Full range auto-sensing 100 ~ 240 VAC at 50 Hz ~ 60 Hz • 10 Watts
Regulatory Compliance		• UL • C-UL • TUV • FCC Class B • CE mark
Physical Characteristics	Dimension (WxDxH)	194.5 x 151.5 x 40 (mm)
	Weight	0.65 Kg

2326 and 2726 Models

ITEM	SPECIFICATIONS
Processor	• **2326**. AMD 466 • **2726**. Via 1 GHz
Communication and Ports	• Microsoft RDP and Citrix ICA protocol compliant • 10/100 auto sensing Ethernet, Twisted Pair (RJ45) • One parallel port (DB-25 Female connector) • One serial port with RS-232C (DB-9 male connectors) • Enhanced ps/2 keyboard interface • Enhanced ps/2 mouse interface • PCI slot • PCMCIA slot supporting wireless LAN adapter • USB ports (4) • Audio out and Microphone in
Embedded O.S.	Linux with Mozilla 1.7.7 browser
Video	• SVGA • 640x480, 800x600, 1024x768, and 1280x1024 with high colors • Refresh frequency up to 85 Hz
Memory	• RAM -- 128 MB DDR standard. (Max. 512MB) • Flash -- 128 MB CompactFlash
Server Operating System Support	• Microsoft Windows 2003 Server • Microsoft Windows 2000 (Server Edition) • Microsoft Windows NT 4.0 (TSE) • Citrix MetaFrame XP • Citrix MetaFrame • Citrix WinFrame • Tarantella
Optional Devices	• USB storage • Wireless LAN adapter, 802.11b (PCMCIA)

Appendix 1. Specifications

ITEM		SPECIFICATIONS
Software Features		• Remote Management client • SNMP support • Time zone and SNTP support • Terminal access password for security • Multi-session Autostart with Fail-over • LPD & ThinPrint support • VNC viewer • PDF viewer • Virtual Private Network, SSH, and PPoE support • Mozilla email • PowerTerm terminal emulation • Wake on LAN (WOL) • Firmware upgrade over the network
Environment	Temperature	• Operating: 5 ºC to 35 ºC (41 ºF to 95 ºF) • Storage: -10 ºC to 60 ºC (14 ºF to 140 ºF)
	Relative Humidity	90% maximum, non-condensing
	Operating Altitude Range	0 to 10,000 feet (0 to 3050 meters)
	Power	• Full range auto-sensing 100 ~ 240 VAC at 50 Hz ~ 60 Hz
Regulatory Compliance		• UL • FCC Class B • CE mark
Physical Characteristics	Dimension (WxDxH)	9.25 x 6.5 x 1.5 (inches)
	Weight	3 pounds

Appendix 2. TCP/IP Error Codes

Here is a comprehensive list of standard TCP/IP error codes that can occur during network operation. Some of them are quite esoteric and may not be applicable to YES*tation* operation, but this list should include any networking error code that you encounter. They should be useful in troubleshooting network errors, many of which are caused by incorrect configuration.

10004
Interrupted function call.

10013
Permission denied.

10014
Bad address.

10022
Invalid argument. This usually means that the host server IP address or name has been incorrectly specified when configuring the connection.

10024
Too many open sockets.

10035
Resource temporarily unavailable.

10036
Operation now in progress. A blocking operation is in progress.

10037
Operation already in progress.

10038
Socket operation on non-socket.

10039
Destination address required.

10040
Message too long.

10041
Protocol wrong type for socket.

10042
Bad protocol option.

10043

Protocol not supported.

10044

Socket type not supported.

10045

Operation not supported.

10046

Protocol family not supported.

10047

Address family not supported by protocol family.

10048

Address is already in use. If you attempt to set up a server on a port that is already is in use, you will get this error.

10049

Cannot assign requested address.

10050

Network is down.

10051

Network is unreachable.

10052

Network dropped the connection on reset.

10053

Software caused the connection to abort, usually due to connection or protocol error.

10054

Connection reset by peer. This occurs when an established connection is shut down for some reason by the remote computer.

10055

No buffer space available.

10056

Socket is already connected.

10057

Socket is not connected.

10058

Cannot send after socket shutdown.

10060

Connection timed out. This is usually caused by specifying an incorrect host server IP address or port number when configuring the connection.

10061
Connection refused. The server has refused a connection from the terminal, usually because the server is not listening on that port or the server is unable to accept additional connections.

10064
Host is down.

10065
No route to host.

10067
Too many processes.

10091
Network subsystem is unavailable.

10092
Unsupported version of WINSOCK.DLL.

10093
TCP networking has not been initialized on your computer.

10094
Graceful shutdown in progress.

11001
Host not found. (DNS error.)

11002
Non-authoritative host not found. Temporary DNS error.

11003
Non-recoverable error. (DNS error.)

11004
Valid name, no data record of requested type. (DNS error.)