

YES*tation* LE Windows Based Terminal Model 2505 User's Guide

Version 1.00.b



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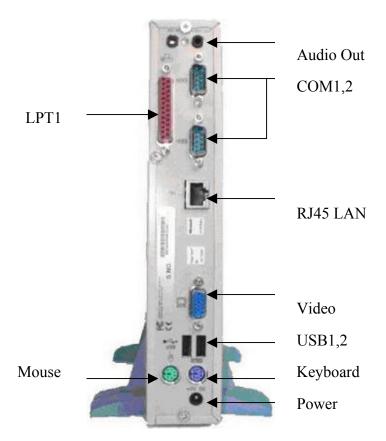
Installing Your Windows Based Terminal (WBT)

Mounting the WBT

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

Connecting the WBT

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



Please follow the procedure below:

- 1. Connect the monitor to the Video connector.
- 2. Connect the PS/2 keyboard to the Keyboard connector.
- 3. Connect the PS/2 mouse to the Mouse connector.
- 4. Connect a CAT5 UTP cable to the LAN connector.
- 5. Connect speakers to the Audio Out port (if you are using external speakers).
- 6. Connect the power adapter cable to the Power connector.
- 7. Plug the power adapter AC cord into an AC outlet.
- 8. You are ready to use the WBT now.

System Requirements

The 2505 is a BootOnLAN device that acts as a client terminal to Windows Terminal Servers. This means that the client software is loaded over the LAN, into local RAM, from a boot server whenever the 2505 is powered up. The 2505 user can only use the sessions provided from the server; no configuration is possible from the terminal. There is also a management server on the network, used to set up client session configurations. The Windows Terminal Server acts as an application server, servicing requests from the client. The Terminal Server can also act as the boot server and/or the management server if desired.

The system requirements are:

- All elements must be on the same TCP/IP network.
- Boot server and WBT must be on the same sub-net.
- Boot server must use a Windows NT 4.0, 2000, or XP operating system.
- Boot server must have the proprietary Affirmative Computer Products BootOnLAN software installed.
- Management server must have a W2000 or XP operating system.
- Management server must have the proprietary Affirmative Computer Products YES*manager* installed.
- A DHCP server must be on the same sub-net as the WBT, since terminal configuration does not allow static IP addresses.



Troubleshooting Your WBT

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

	Problems	Solution	
1	The monitor screen is blank	 Make sure the WBT 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 WBT. 	
2	Your monitor can not display after advancing past the logo screen or after changing the display setting	The display setting may be at a higher resolution or refresh frequency than the monitor will support. Execute one of the following recovery options: • Use a better monitor for display. • Ask your MIS or network administrator to change your display configuration at the boot server.	
3	The mouse does not work	 Make sure the mouse is plugged into the mouse port, not the keyboard port. Test the WBT 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 WBT using a known good PS/2 keyboard. 	
5	The network connection does not work	 Check the network connection. Check the application server IP address that is being used by the boot server. Make sure there is a workable DHCP server on your network. 	

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System Setup

All WBT setup is done from the management server, which in turn requires access to at least one boot server. The management server stores WBT configuration parameters in the boot server, and the boot server sends the appropriate client software and parameters to the WBT when the WBT boots up. This is called a BootOnLAN process. The WBT only contains enough non-volatile storage to initiate BootOnLAN. The client software and parameters are stored in volatile RAM that is erased when the WBT power is turned off. The WBT and boot server must be on the same subnet. The management server can control multiple boot servers on multiple sub-nets. Also there must be a DHCP server on each sub-net to provide an IP address for each WBT. Affirmative Computer Products provides the BootOnLAN and management software, but DHCP software and configuration is the customer's responsibility.

Boot Server

The boot server must use a Windows NT 4.0, Windows 2000, or Windows XP desktop or server operating system. Each sub-net that has 2505 terminals must have its own boot server. There can be multiple boot servers on a sub-net, if desired, but there are some operational restrictions if you do this

Operational Restrictions

- Multiple Boot Servers on Same Sub-Net. There are several reasons why you might want
 multiple boot servers on the same sub-net. You might want one for backup, in case the main
 server goes down. You might want a separate server for each default terminal configuration
 (see YESmanager Boot Servers Individual Boot Servers Terminals Deault Terminal
 for more
 information on default configurations and their use).
 - o If you have a backup server on the same sub-net, make sure that only one server is activated at a time. You can inactivate a boot server by stopping the BootOnLAN service from the Control Panel on that server. You should also change the startup type for that service from the default Automatic to Manual, so that the service is not automatically started whenever the server is booted up.
 - o If you have multiple default configuration servers, terminals must be added manually to each boot server (see <u>YESmanager|Boot Servers|Individual Boot Servers|Add</u> for details on adding terminals). Also, you must disable automatic terminal configuration for each server (see <u>YESmanager|Boot Servers|Individual Boot Servers|Properties|General</u>).
- Terminal Servers. The 2505 can only connect to Terminal Servers that are on the same sub-net. It cannot connect across routers or by dial-up.
- Licensing. Installation of BootOnLAN leaves the software in evaluation mode by default. Evaluation mode allows only one terminal and is time-limited to twenty days. See <u>Licensing</u> for details on removing these restrictions.

Installation

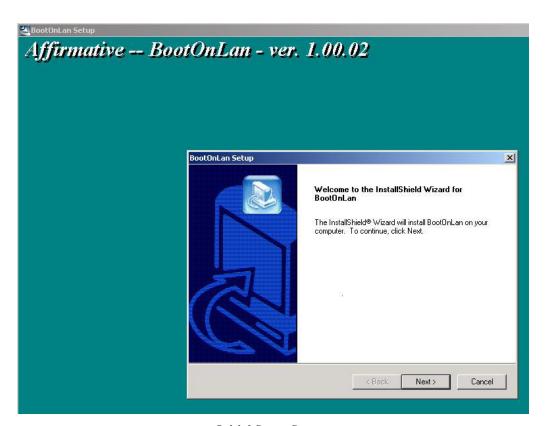
Installation of the Affirmative Computer Products BootOnLAN software is very simple; you can do it even while other applications are open on the server.

.

Install as follows:

- 1. If the Boot-on LAN software came as a compressed .zip file, extract the installation files to a convenient folder.
- 2. If the BootOnLAN software came on a CD-ROM, the installation files will already be extracted in an installation folder on the CD-ROM.
- 3. In the installation folder, run the file **setup.exe** from Start|Run on the desktop or by double-clicking on the file name.
- 4. You will see a series of InstallShield setup screens. The required entries are generally intuitive.

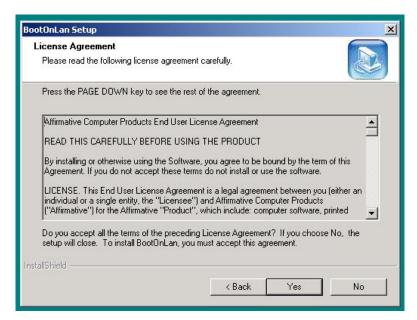
5.



Initial Setup Screen

Click on **Next** to proceed, or **Cancel** to abort the setup.

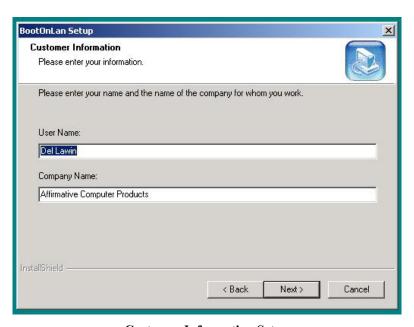
6.



License Agreement

You must accept the license agreement by clicking on Yes to continue the installation.

7.



Customer Information Setup

Enter your customer information here.

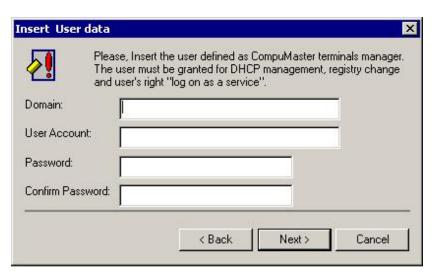


Setup Type

If your network DHCP server is running on the Microsoft NT4.0, or later, operating system, and you want to reserve a specific range of addresses for your 2505 terminals, choose the **Full DHCP Mode**. If your network DHCP server is running on an earlier Microsoft operating system, or on a non-Microsoft operating system, or you don't care about the range of assigned IP addresses, choose the **Easy Boot Mode**. In either case, there must be a DHCP server on the network.

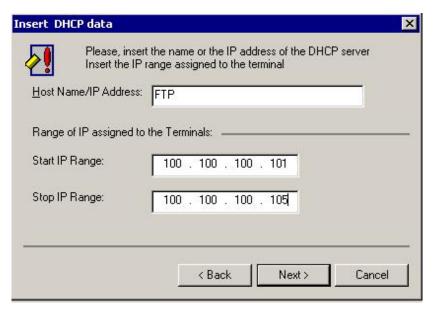
If you chose **Easy Boot Mode**, skip to step 11.

9.



DHCP User Data

If you chose **Full DHCP Mode**, you must enter the information here for the DHCP user. This user must have rights on the DHCP server to set DHCP parameters and make Registry changes.



DHCP Server Data

Enter the network name or the IP address of the DHCP server. Then enter the range of IP addresses that you wish to reserve for your 2505 terminals.

11.



Destination Folder

Choose the folder where the software files will be installed. Typically, there is no reason to deviate from the default. Since this folder probably does not yet exist on the computer, the installation software will create it after you click on **Next**.

12. You will see several installation progress screens in rapid succession.



Final Setup Screen

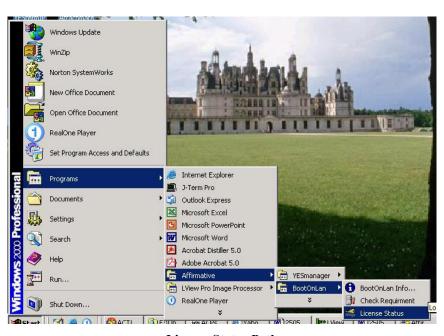
Click on **Finish**, and the installation of the boot server software is complete. You do not need to reboot; the BootOnLAN software will be effective immediately.

Licensing

Initial installation of the BootOnLAN software leaves it in the evaluation mode. To remove the twenty-day, one-terminal restrictions, the software must be licensed. Licenses are granted free of charge for purchased units. If you don't have a license key or license file, contact Affirmative Computer Products.

Install the license as follows:

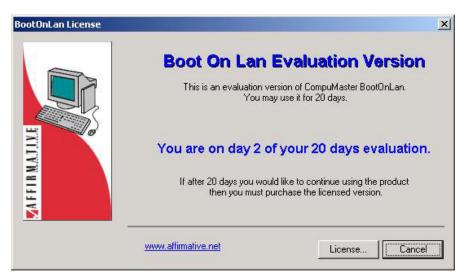
1.



License Status Path

Open the licensing utility from Start|Programs|Affirmative|BootOnLan|License Status.

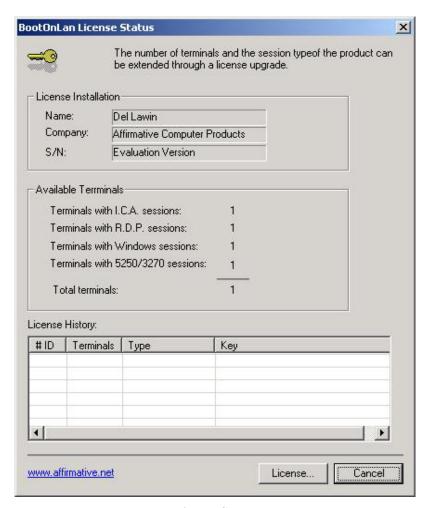
2.



License Time Status

Click on License.

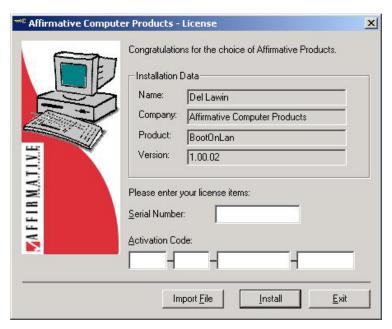
3.



License Status

You now see the current license status. Ignore the entry for 5250/3270 sessions. Click on **License** to continue.

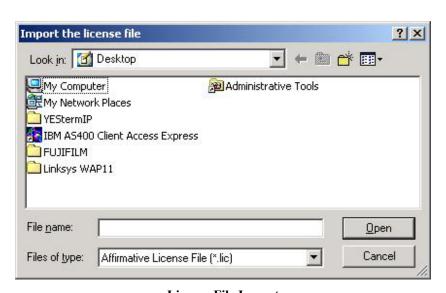
4.



License Key Entry

If you are licensing via a key, enter the information here, then click on **Install**, and you are done. If you are using a license file, click on **Import File** and go to step 5.

5.



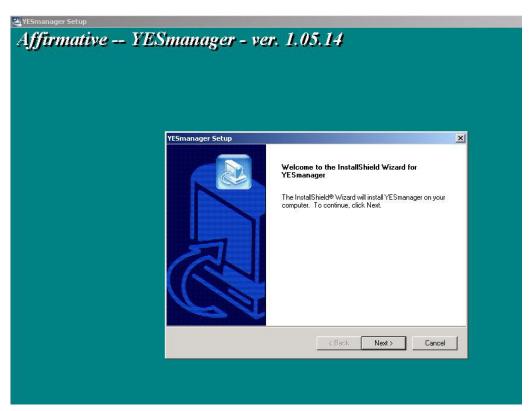
License File Import

Select the license file from the appropriate folder and click on **Open**.

Management Server

The management server requires the installation of Affirmative Computer Products YES*manager* software. The operating system must be Windows 2000 or Windows XP, desktop or server. One management server can manage multiple boot servers on the same network, and there can be multiple management servers on the same network, if desired. Installation of the Affirmative Computer Products YES*manager* software is very simple; you can do it even while other applications are open on the server. Install as follows:

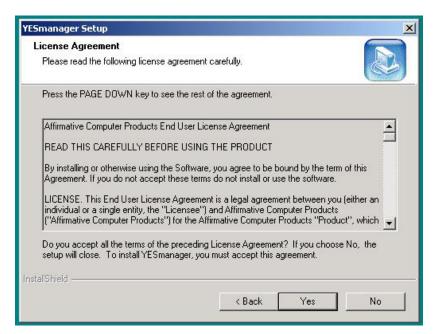
- 1. If the YES*manager* software came as a compressed .zip file, extract the installation files to a convenient folder.
- 2. If the YES*manager* software came on a CD-ROM, the installation files will already be extracted in an installation folder on the CD-ROM.
- 3. In the installation folder, run the file **setup.exe** from Start|Run on the desktop or by left double-clicking on the file name.
- 4. You will see a series of InstallShield setup screens. The required entries are generally intuitive. 5.



Initial Setup Screen

Click on **Next** to proceed, or **Cancel** to abort the setup.

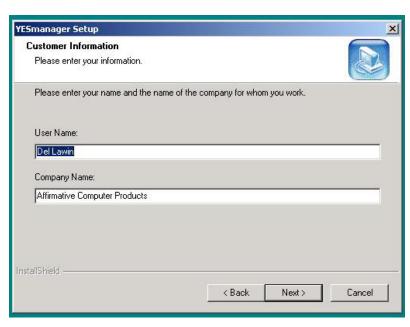
6.



License Agreement

You must accept the license agreement by clicking on Yes to continue the installation.

7.



Customer Information

Enter your customer information here.

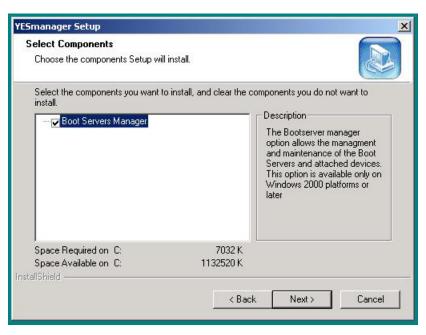
.



Destination Folder

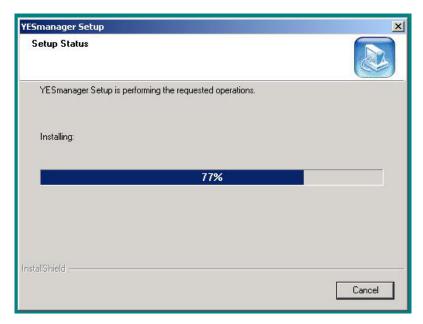
Choose the folder where the software files will be installed. Typically, there is no reason to deviate from the default. Since this folder probably does not yet exist on the computer, the installation software will create it after you click on **Next**.

9.



Select Components

There is only one component selection to be made: BootOnLAN Manager. Since boot server management is exactly why we need the YES*manager*, you must choose this component.



Setup Status

You will see a status screen showing the install progress.

11.



Final Setup Screen

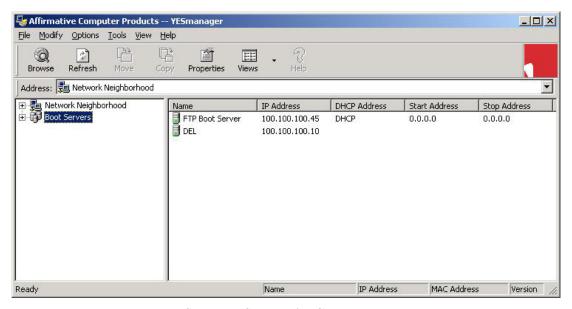
Click on **Finish**, and the installation of the YES*manager* software is complete. You do not need to reboot; the YES*manager* software will be effective immediately.



YESmanager

Boot server management is executed through the management server using the YES*manager* software. BootOnLAN and YES*manager* are separated because YES*manager* can also be used to manage other YES*tation* terminals that do not require a boot server.

Open the YES*manager* program. You will see a rapid succession of sub-windows that occur as YES*manager* scans the network for boot servers and YES*tation* terminals. Then you will see something resembling the following screen.



YESmanager Screen with Collapsed Trees

There are always two panes in the YES*manager* screen. The left pane shows the devices found on the network, and the right pane shows information about the device highlighted in the left pane. The screen shown above shows "collapsed" trees in the left pane; clicking on the + sign for a tree will open it to show the next lower level of the tree.

Network Neighborhood

This tree contains all of the YES*station* terminals that <u>do not</u> require a boot server. These terminals contain enough non-volatile storage to hold the session software locally. Management of these terminals is not covered here; see the YES*manager* User Guide if you desire more information on this subject.

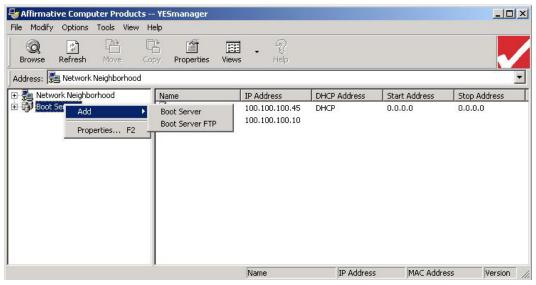
Boot Servers

This tree contains all of the boot servers on the network. Each boot server also has a tree of the 2505 terminals assigned to it or discovered by it, since they must get client session software and configuration information from a boot server. In the previous screen, YES*manager* has discovered two boot servers, FTP and DEL, on the sub-net. The right pane shows the network name and IP address for each boot server.

Note: You may want to have two boot servers on the same subnet, using one as a backup in case the main server fails. If you do this, make sure that only one server is activated at a time. You can inactivate a boot server by stopping the BootOnLAN service from the Control Panel on that server. You should also change the startup type for that service from the default Automatic to Manual, so that the service is not automatically started whenever the server is booted up.

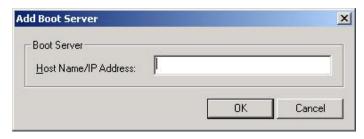
Add

If a boot server is on a different sub-net than the management server, it will not be automatically discovered when YES*manager* is first opened. In this case, you must manually add the boot server. To add:



Boot Server Add Path

- 1. Right-click on **Boot Servers**.
- 2. Place the cursor on **Add**.
- 3. Left-click on **Boot Server** or **Boot Server FTP**, depending on which type of server you are adding.



Boot Server Identification

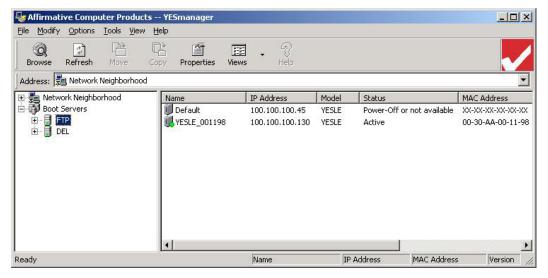
- 4. Identify the new server by network name or IP address. Then click on **OK**.
- 5. YES*manager* will search for this new server. If it is found, and responds as a boot server, it will be added to the Boot Server list. If it is not found, or doesn't properly respond, you will see an error message.

Properties

The **Properties** option, when right-clicking on **Boot Servers**, is not applicable.

Individual Boot Servers

When you left-click on the + to the left of **Boot Servers**, you open the tree to see the individual boot servers. You also see those boot servers listed in the right pane when you highlight **Boot Servers**.



Boot Servers Tree

In this screen, you see two boot servers, **DEL** and **FTP**. Right-click on a boot server name to get a menu of options.



Boot Server Options

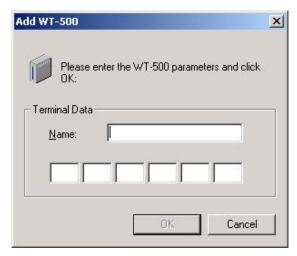
Add



Add Terminal Option

If you want to assign a terminal to a specific boot server, you have to add it manually.

- 1. Right-click on Add.
- 2. Left-click on **WT-500**. What's a WT-500? It's the nomenclature predecessor to 2505, but it didn't get changed in this firmware.



Terminal Parameters

- 3. Enter the "friendly" name for this terminal; this name will appear in the tree under the boot server
- 4. Enter the terminal MAC address in the six two-character fields.
- 5. Click on OK

The new terminal will automatically assume the configuration parameters of the default terminal on that boot server. You can change them if you wish. See <u>Terminal Configuration Properties</u> for details.

Delete

This option removes this boot server from the **Boot Servers** tree. You will be asked to confirm your decision.

Reload Configurations

This option scans the assigned terminals to get their current client configurations.

.

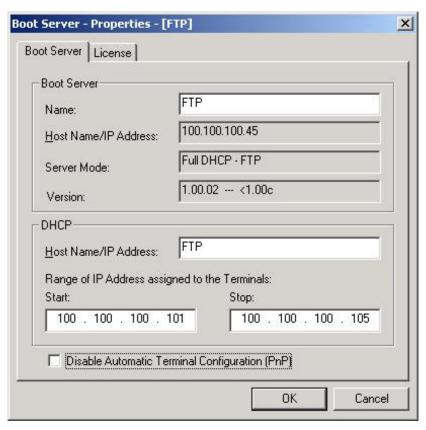
Send BIOS Upgrade

This option is not applicable

Properties

This option provides a properties screen for the selected boot server.

General

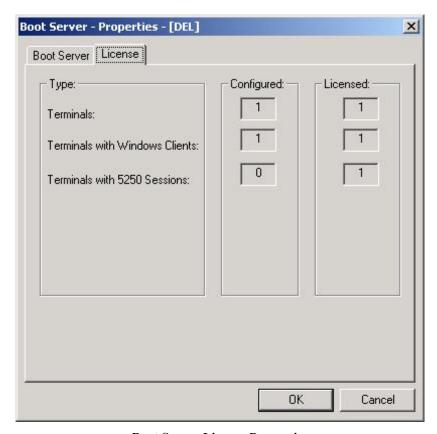


Boot Server General Properties

- Boot Server.
 - Name. The default name of the boot server is the network name of the cpu that is hosting the BootOnLAN software. However, you can change that name here if you wish.
 - HostName/IP Address. This is the IP address or the network name of the BootOnLAN host machine.
 - Server Mode. When installing the BootOnLAN software, one of the install options is the choice of two server modes. See <u>System Setup|Boot Server</u>. The mode chosen at installation time is shown here, but it cannot be changed here. Reinstallation is necessary if you want to change the mode.
 - o Version. This is the version number of the BootOnLAN software in the boot server.
- DHCP. This is valid only if the Server Mode is Full DHCP Mode.
 - o Host Name/IP Address. This is the network name or IP address of the DHCP server. In the above screen, the **FTP** boot server also happens to be the network DHCP server.
 - Range of IP.... These two fields show the range of IP addresses reserved for 2505 terminals at the DHCP server.

• Disable Automatic Terminal Configuration. Note: This must be left unchecked if the 2505 terminals on the sub-net are to be discovered and booted up when they are powered on.

License



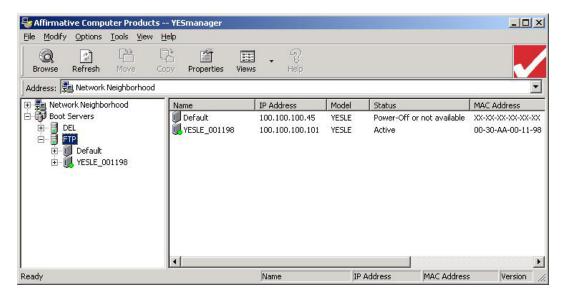
Boot Server License Properties

This tab shows the state of the licenses on the **DEL** boot server.

- Terminals. This shows that **DEL** is licensed for only one terminal, and that one terminal has been configured.
- Terminals with Windows Clients. This shows that the one terminal has been configured with at least one Windows RDP or ICA Client.
- Terminals with 5250 Sessions. This is not applicable at this time.

Terminals

When you left-click on the + to the left of an individual boot server, you open the tree to see the terminals discovered by that boot server. You also see those terminals listed in the right pane when the boot server is highlighted.



Terminals Tree

In this screen, you see that the boot server **FTP** has the default terminal and one discovered terminal, **YESLE_001198**. If the terminal is currently active, you will see a small green dot at the bottom of the terminal icon. If it is not active, you will see a small red dot.

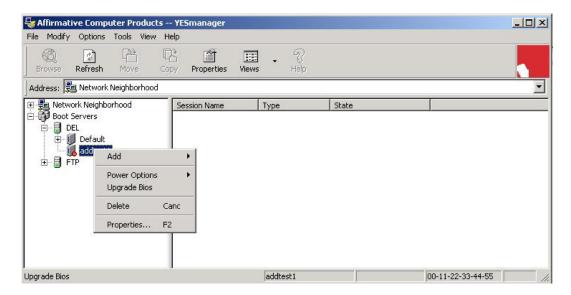
Default Terminal

Every boot server has one **Default** terminal. Whenever a new terminal is discovered on the sub-net, or when a new terminal is manually added, it is automatically given the same configuration parameters as **Default**. These parameters can be changed later on the new terminal, of course. If you want all of your new terminals, or most of them, to have the same configuration, you should configure **Default** with this configuration (see <u>WBT Configuration</u> for configuration instructions). This will minimize or eliminate management time spent on new terminals.

If you have several terminal groups on a sub-net, with each terminal in a group having common configuration parameters, you may want to have a different boot server for each group. But there are significant operational restrictions if you do this; see System Setup|Boot Servers|Operational Restrictions for more information.

Terminal Options

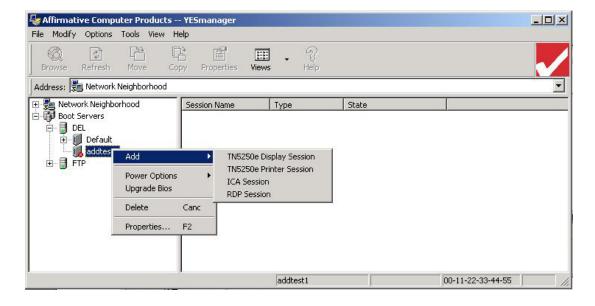
Right click on a terminal name to get a menu of options.



Terminal Options

Add

Place the cursor on **Add** to see a list of the sessions that can be added.

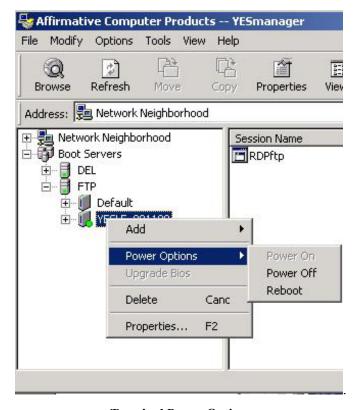


Session Add List

TN5250e emulator sessions are not available at this time. You may add ICA and RDP sessions, but you can only have one of each type per terminal. See <u>Client Session Configuration</u> for details on configuring new sessions and reconfiguring existing sessions.

Power Options

Place the cursor on **Power Options** to see a list of options



Terminal Power Options

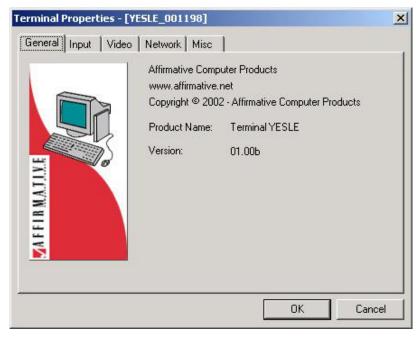
- Power On. This option is not available at this time.
- Power Off. Click on this option to turn off the power on the terminal. You will get a subwindow asking you to confirm; if you click on **Yes**, the terminal power will be turned off after a delay of several seconds.
- Reboot. Click on this option to reboot the terminal. You will get a sub-window asking you to confirm; if you click on **Yes**, the terminal will be rebooted after a delay of several seconds.

Delete

This option lets you delete the terminal from the list of the boot server. You will be asked to confirm your decision. If the terminal is powered on, it will be powered off and the terminal will disappear from that list. But it will appear again if you turn the terminal power on again, or if you exit YES*manager* and then reopen it while the terminal is on.

Properties

Click on **Properties** to open a Terminal Properties window with five tabs. From this window, you can view the current configuration of the terminal, and change some of the parameters if you wish.

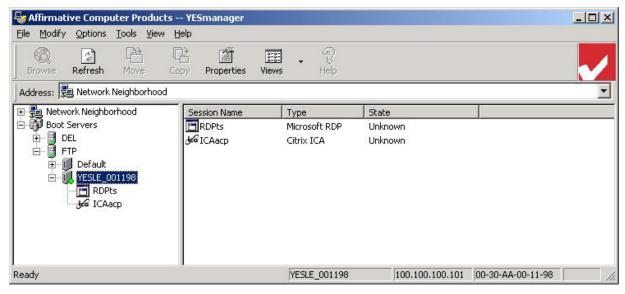


Terminal Properties

Please see WBT Configuration for details on interpreting and configuring Terminal Properties.

Sessions

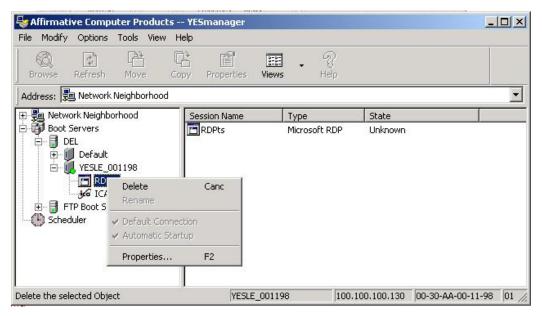
When you left-click on the + to the left of an individual terminal, you open the tree to see the sessions configured for that terminal. You also see those sessions listed in the right pane when the terminal is highlighted.



Sessions Tree

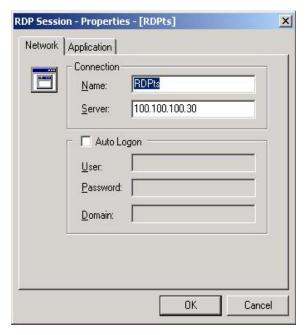
In this screen you see that the terminal YESLE_001198 has two configured sessions, RDPts and ICAacp.

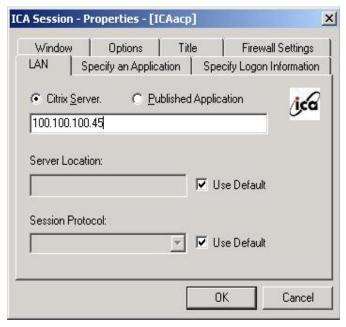
Right click on a session name to get an options menu.



Session Options

- Delete. Click on this option to delete this session on this terminal. You will be asked to confirm your decision.
- Properties. Click on this option to display a Properties sub-window for this session. The type of window that you will see depends upon the type of session: RDP or ICA.





RDP Properties

ICA Properties

Please see <u>Client Session Configuration</u> for details on interpreting and configuring session property parameters.

Menu Bar

The Menu Bar at the upper left corner of the YES*manager* window provides another way to access many of the *YESmanager* options. Some options can only be accessed through the Menu Bar.



Menu Bar

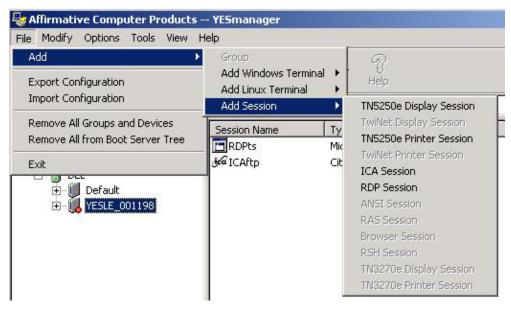
File



File Menu

Some of the File options are only applicable to the Network Neighborhood portion of YES*manager*. Here, we will discuss only the options that are applicable to the Boot Servers portion.

Add. This option is only applicable to add sessions to a terminal. Highlight the terminal of
interest, and then navigate the Add menus as shown here.



Add Option

- TN5250e emulator sessions are not available at this time. You may add ICA and RDP sessions, but you can only have one of each type per terminal. See <u>Client Session Configuration</u> for details on configuring new sessions and reconfiguring existing sessions.
- Remove All from Boot Server Tree. If you select this option, you will be asked to confirm your decision. Then this option will delete everything under Boot Servers. But all active boot servers and terminals will reappear if YES*manager* is closed and then re-opened or if you choose any of the browse or refresh options from the Tools menu.
- Exit. This option closes YES*manager*.

Modify

The Modify options apply to boot servers, terminals, or sessions, depending upon which of those you have highlighted. Highlight the object of interest, and then open the Modify menu.



Modify Menu

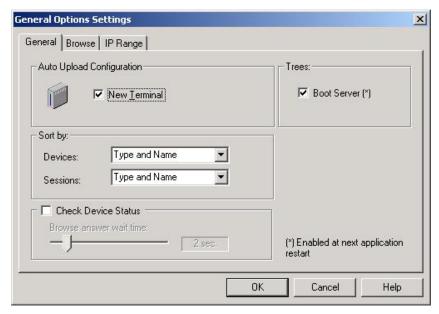
- Delete. This option will delete, after confirmation, the object that you have highlighted. But all active boot servers and terminals will reappear if YES*manager* is closed and then re-opened or if you choose any of the browse or refresh options from the Tools menu.
- Properties. This option will display the properties of the object that you have highlighted. You can also change some of the properties from the displayed properties screens. See <u>Boot Servers Individual Boot Servers Properties</u> for information on Boot Server Properties. See <u>WBT Configuration</u> for information on Terminal Properties. See <u>Client Session Configuration</u> for information on Session Properties.

Options



Options Menu

• Options. Only the **Options** option is valid for boot servers. Click on **Options** to see this screen.



Options Settings

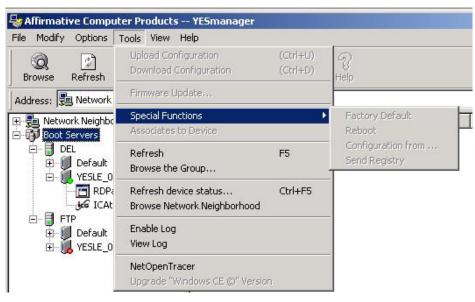
Although there are three tabs, only the **General** tab has any meaning for boot servers. In this tab, only the **Boot Server** box is of interest. Make sure this box is checked, or else you will not see any boot servers in YES*manager*.

Tools

You will see a long list of tools that can be activated from the Tools menu, but some of them will be grayed out. Which tools are grayed out will depend upon which entity in the left pane is highlighted; the grayed-out tools are not applicable for that particular entity.

Boot Servers

The menu options for Boot Servers and individual boot servers, such as **DEL** and **FTP**, are identical.



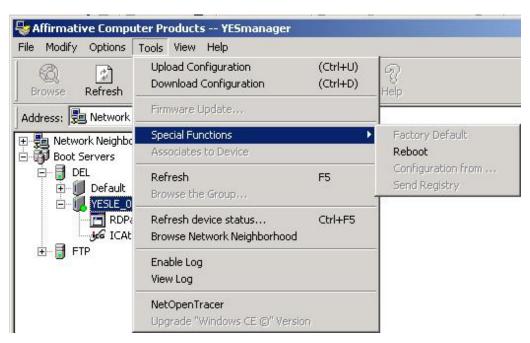
Tools Menu for Boot Servers

- Special Features. This is not applicable, even though it is not grayed out.
- Refresh. When **Boot Servers** is highlighted, this tool will refresh the status of all known boot servers and all known 2505 terminals under those boot servers. This is accomplished by sending a direct request to every boot server and 2505 terminal IP address that it knows about. When an individual boot server is highlighted, this tool refreshes the status of only that boot server and the terminals under it.
- Browse the Group. This provides exactly the same results as **Refresh**. They can be used interchangeably.
- Refresh Device Status. This tool works exactly the same regardless of which entity is highlighted. It refreshes the status of all local boot servers, all local 2505 terminals, and all terminals under Network Neighborhood. This is accomplished by first sending a direct request to every known terminal under Network Neighborhood; then it sends a broadcast request that finds all the local active boot servers, local active 2505 terminals, and any active terminal that may have somehow crept into the local Network Neighborhood without announcing itself.
- Browse Network Neighborhood. This tool works exactly the same regardless of which entity is highlighted. It sends a broadcast request to find every active boot server and terminal in the local network.

Enable Log. This tool works exactly the same regardless of which entity is highlighted. Click on **Enable Log** to activate a text log that records the network activity in terms of refreshes, browses, and new terminals coming active on the local network. When a log is enabled, there will be a checkmark beside **Enable Log** and **View Log** will be grayed out.

- View Log. This tool works exactly the same regardless of which entity is highlighted. Before using this tool, you must un-enable **Enable Log**. Then click on **View Log**, and a Notepad window will open with the text contents of the log.
- NetOpenTracer. This tool is not available at this time.

Terminals



Tools Menu for Terminals

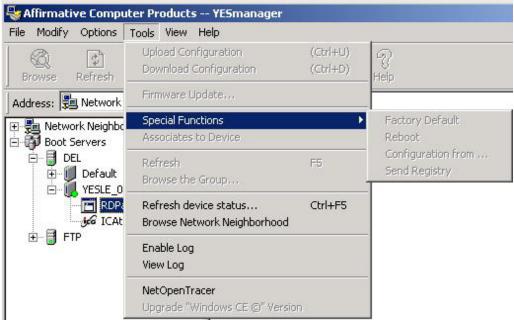
- Upload/Download Configuration. These tools are not applicable, even though they are not grayed out.
- Special Functions. One special function, **Reboot**, is applicable. If you choose this function and answer yes to the confirming question, the terminal will be rebooted

- Refresh. This tool refreshes the status of the highlighted terminal.
- Refresh Device Status. This tool works exactly the same regardless of which entity is
 highlighted. It refreshes the status of all local boot servers, all local 2505 terminals, and all
 terminals under Network Neighborhood. This is accomplished by first sending a direct request
 to every known terminal under Network Neighborhood; then it sends a broadcast request that
 finds all the local active boot servers, local active 2505 terminals, and any active terminal that
 may have somehow crept into the local Network Neighborhood without announcing itself.
- Browse Network Neighborhood. This tool works exactly the same regardless of which entity is highlighted. It sends a broadcast request to find every active boot server and terminal in the local network

Enable Log. This tool works exactly the same regardless of which entity is highlighted. Click on **Enable Log** to activate a text log that records the network activity in terms of refreshes, browses, and new terminals coming active on the local network. When a log is enabled, there will be a checkmark beside **Enable Log**, **View Log** will be grayed out. Note: The previous log will be deleted.

- View Log. This tool works exactly the same regardless of which entity is highlighted. Before using this tool, you must un-enable **Enable Log**. Then click on **View Log**, and a Notepad window will open with the text contents of the log.
- NetOpenTracer. This tool is not available at this time.

Sessions



Tools Menu for Sessions

- Special Features. This is not applicable, even though it is not grayed out.
- Refresh Device Status. This tool works exactly the same regardless of which entity is
 highlighted. It refreshes the status of all local boot servers, all local 2505 terminals, and all
 terminals under Network Neighborhood. This is accomplished by first sending a direct request
 to every known terminal under Network Neighborhood; then it sends a broadcast request that
 finds all the local active boot servers, local active 2505 terminals, and any active terminal that
 may have somehow crept into the local Network Neighborhood without announcing itself.

 Browse Network Neighborhood. This tool works exactly the same regardless of which entity is highlighted. It sends a broadcast request to find every active boot server and terminal in the local network

Enable Log. This tool works exactly the same regardless of which entity is highlighted. Click on **Enable Log** to activate a text log that records the network activity in terms of refreshes, browses, and new terminals coming active on the local network. When a log is enabled, there will be a checkmark beside **Enable Log**, **View Log** will be grayed out. Note: The previous log will be deleted.

View Log. This tool works exactly the same regardless of which entity is highlighted. Before using this tool, you must un-enable **Enable Log**. Then click on **View Log**, and a Notepad window will open with the text contents of the log.

• NetOpenTracer. This tool is not available at this time.

View

This menu allows you to control the appearance of the YES*manager* window.



Toolbars.

- Standard Buttons. These are the buttons just below the Menu Bar. When there is a check mark by Standard Buttons, the buttons are visible. Left-click on Standard Buttons to toggle visibility.
- Address Bar. This bar is just to the right of the buttons. You can drag the left end of this bar to change its size. When there is a check mark by Address Bar, the bar is visible.
 Left-click on Address Bar to toggle visibility.

Status Bar. This bar is at the bottom of the screen. When there is a check mark by **Status Bar**, the bar is visible. Left-click on **Status Bar** to toggle visibility.

Large Icons/Small Icons/List/Details. These options control the appearance of items in the right pane. Only one of these four view options can be active, as marked by a dot to the left of the name, at a time. Click on the option of choice to invoke it. **List** and **Details** automatically invoke small icons.

Help



Help Menu

There is no on-line help at this time. Click on **About** to get information about YES*manager* software.

Button Bar

The Button Bar provides one-click access to several common options.



Button Bar

- Browse. This button provides exactly the same function as **Browse the Group** in the Tools menu. It polls the status of the highlighted entity and all entities that are below it on the tree. Note that **Browse** is grayed out if you have a terminal highlighted.
- Refresh. This button works exactly the same as **Browse**, except that it is also valid for a highlighted terminal.
- Move/Copy/Help. These buttons are not activated at this time.
- Properties. This button brings up the properties window for the highlighted entity, just like selecting **Properties** from the right-click menu. You can view and change the properties from these windows.
- Views. This button brings up the Large Icons/Small Icons/List/Details portion of the Views menu. These options control the appearance of items in the right pane. Only one of these four view options can be active, as marked by a dot to the left of the name, at a time. Click on the option of choice to invoke it. **List** and **Details** automatically invoke small icons.

Status Bar

The Status bar is located at the bottom of the YES*manager* window. It's visibility is controlled from the Views menu. This bar only offers usable information if a terminal is highlighted in the left pane.



Status Bar

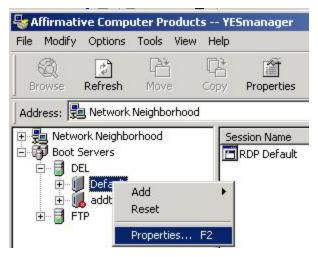
This bar offers four items of terminal information: name, IP address, MAC address, and firmware revision level

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WBT Configuration

2505 terminals are configured from YES*manager*. Every boot server contains a default terminal whose parameters will be cloned onto every new terminal that is discovered by that boot server. Then you can customize those parameters for each terminal if you wish. In this example, we examine the configuration of the default terminal.



Default Terminal Options

Add

This option is used to add client sessions to the terminal. See <u>Client Session Configuration</u> for details on adding and configuring individual client sessions. The default session for the default terminal is an RDP session named **RDP Default**.

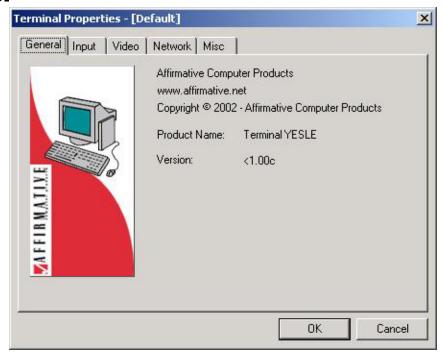
Reset

Click on this option to reset the default terminal to the default parameters.

Properties

Click on this option to see and change the current terminal properties.

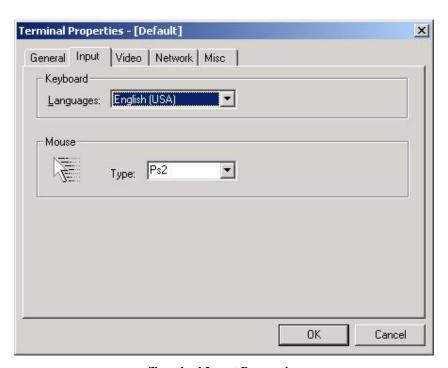
General



Terminal General Properties

This tab shows some non-changeable properties. The main item of useful information here is Version, which shows the version of the firmware that is installed onto the terminal at boot up.

Input

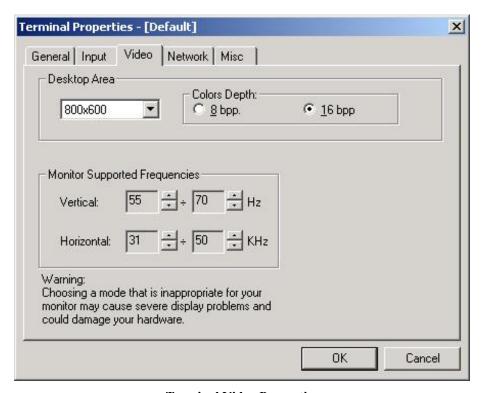


Terminal Input Properties

- Keyboard Languages. Select from English, German, or Italian.
- Mouse Type. Select from PS2 or PS2-wheel.

Video

Please be sure of the capabilities of your terminal monitors before you change the area and frequency properties.

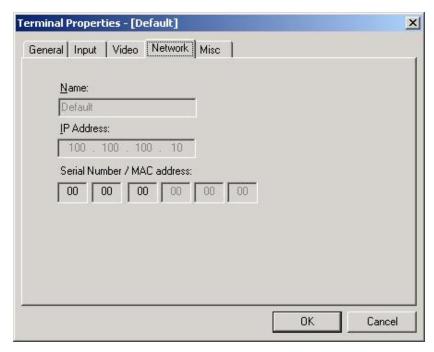


Terminal Video Properties

- Desktop Area. Select from 640x480, 800x600, or 1024x768.
- Colors Depth. Select from 8 bpp (256 colors) or 16 bpp (64,000 colors). This setting is used only for the RDP client session. The ICA client session has its own color depth parameters.
- Monitor Supported Frequencies. The default ranges are usually adequate, but you can change them by clicking on the Up and Down arrow buttons.

Network

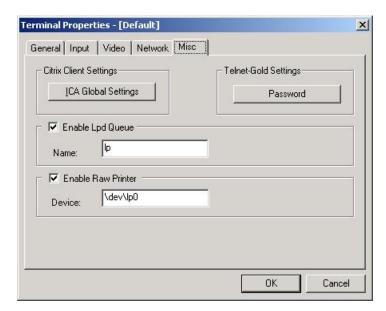
These properties are for information only, except for Name.



Terminal Network Properties

- Name. The default name for a discovered terminal is **YESLE_xxxxxx**, where **xxxxxx** are the last six digits of the terminal MAC address. The terminal name can be changed here if desired.
- IP Address. This field shows the IP address assigned by the DHCP server. There is no way to manually assign an IP address.
- Serial Number/MAC Address. These fields show the MAC address of the terminal. It is entered automatically when a terminal is discovered, or it is entered manually if a terminal is manually added to a boot server. The MAC address is determined by terminal hardware and cannot be changed. If an error was made when manually adding a terminal, this terminal will have to be deleted from the boot server and then added again with the correct MAC address.

Miscellaneous



Terminal Miscellaneous Properties

Telnet Gold Settings

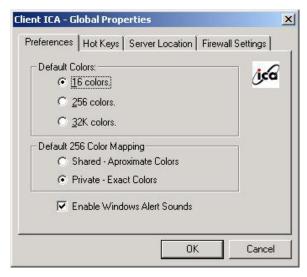
These are not applicable for the 2505 terminal.

Printing

The 2505 can support a local printer, attached to LPT1, as a network LPD printer, a network raw printer, or both. Enable the desired printing mode here and enter the appropriate information.

Citrix Client Settings

These settings will be used for any Citrix client session that is added to the terminal. Click on ICA Global Settings to see the following window.

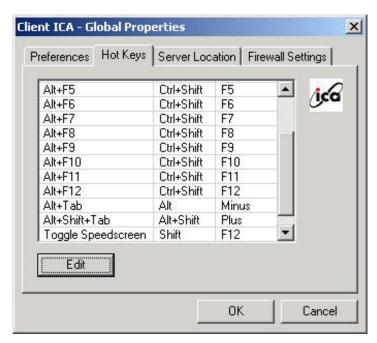


ICA Preferences

Preferences

- Default Colors. . We recommend that you select 16 or 256 colors. There is a Citrix bug that sometimes produces strange video results at 32K colors.
- Default 256 Color Mapping. Select a shared or a private color map. **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 in order to display the exact colors sent by your MetaFrame server. This may however cause color flashing when moving between windows. To avoid this, use **Shared Approximate Colors**. Note that if other applications have allocated all 256 colors, the client will use a private color map.
- Enable Windows Alert Sounds. Check this box to enable the sounds on the terminal speaker.

Hot Keys



ICA Hot Keys

Many hot-key combinations used in Windows applications cannot be used directly in client sessions because they are intercepted by the local operating system. Therefore, Citrix provides a way to substitute, or map, more obscure key combinations for some of the standard Windows hot-key combinations. For example, in the above screen, the combination **Alt+Minus** is substituted in the ICA client session for the standard hot key combination **Alt+Tab**. If you are in an ICA session, pressing **Alt+Minus** will have the same result in the active Windows application as pressing **Alt+Tab** on a PC.

Note: If you want to use the PC key combination **Ctrl+Alt+Delete** during the connection session, use the key combination **Ctrl+Alt+Enter**.

Edit

But you may want to change this mapping. If so, execute the following procedure:

- 1. Highlight the hot-key combination that you want to change
- 2. Click on **Edit** to open this window, where, for example, we want to select a new hot-key combination for the Windows hot key **Alt+F1**.

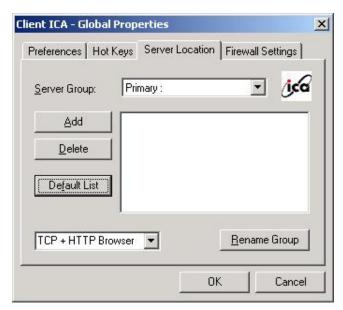


Hot Key Edit

- 3. Open the left drop-down list and select a combination of modifier keys.
- 4. Open the right drop-down list and select an action key.
- 5. Click on **OK** to save this new hot-key combination.
- 6. Repeat for other hot keys as desired.

Server Location and Business Recovery

The information entered in this dialog box is used to help locate available Citrix servers and published applications.



ICA Server Location

Server location (also called server browsing) provides a method for a user at a network-connected Citrix ICA Client to view a list of all MetaFrame servers on the network that have ICA connections configured for that network protocol, or a list of all published applications. You can specify a separate server location for each network protocol.

The way in which server location works depends on which network protocol has been configured:

- TCP+HTTP Browser and SSL+HTTPS Browser The default server address is ica. domainname, where domainname is a TCP/IP domain name. The ICA Client uses the HTTP or HTTPS protocol respectively to contact the MetaFrame servers.
- TCP Browser The default setting for server location is auto-locate. 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.

Business recovery provides consistent connections to published applications in the event of a master ICA browser server disruption. You can define up to three groups of MetaFrame servers to which

you want to connect: a primary and two backups. Each group can contain from one to five servers. When you specify a server group for your client, the client attempts to contact all the servers within that group and the first server to respond passes its master browser address to the client.

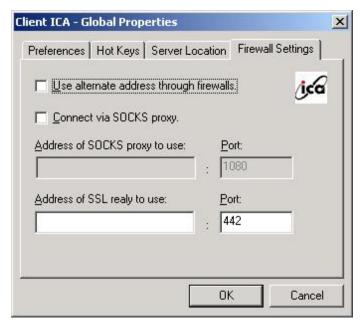
To configure server location and business recovery:

- 1. Select the required network protocol from the drop-down list.
- 2. Click **Add** to display the **Add Server Address** dialog box.



- 3. Enter the name or IP address of a MetaFrame server. **Note:** For the TCP/IP+HTTP and SSL+HTTPS protocols, if you do not enter an IP address, you must have a MetaFrame server on your network mapped to the default name of ica. *domainname*, where *domainname* is a TCP/IP domain name. TCP/IP+HTTP and SSL+HTTPS server locations do not support the **(Auto-Locate)** function.
- 4. To define other server groups, select the required group from the **Server Group** and repeat steps 2 and 3.
- 5. Click **OK**.

Firewall Settings



ICA Firewall Settings

Firewall settings are not applicable for the 2505 terminal.



Client Session Configuration

A 2505 terminal can support one client RDP session and one client ICA session. The session parameters for each terminal can be unique, or they can be identical for some or all terminals; the choice is up to the system administrator. Sessions start automatically when a terminal is booted up.

Choosing a Session Type

Microsoft Remote Desktop Client

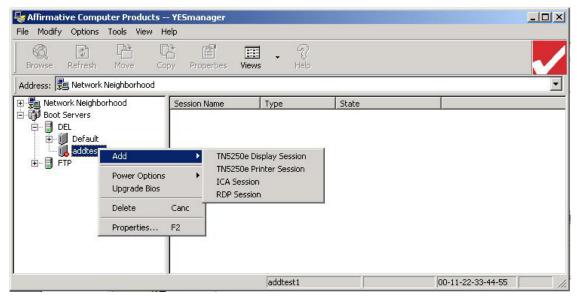
Uses RDP (Remote Desktop Protocol) to connect to a Windows NT Terminal Server Edition or Windows 2000 Terminal Services server.

Citrix ICA Client

Uses ICA (Independent Computing Architecture) to connect to a Citrix ICA MetaFrame or MetaFrame XP server.

Adding a Session

To add a session to a terminal, right-click on the terminal name, then place the cursor on **Add**. You will see a list of choices as shown here.



Add Session Choices

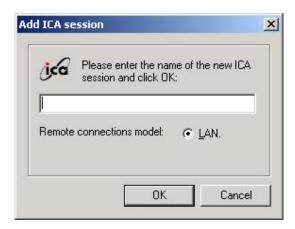
TN5250e emulator sessions are not available on the 2505, although they are shown in the list. So choose from **ICA Session** or **RDP Session** and click on your choice. If this terminal already has a session of the type that you chose, you will get the following error message:



Error Message

ICA Session

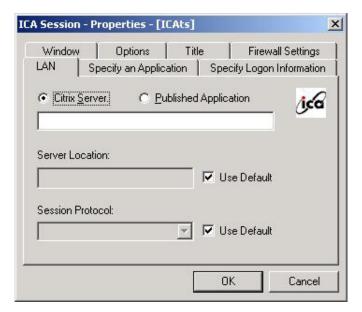
When you click on **ICA Session**, as shown above, you will see the following window.



Add ICA Session Window

- 1. Enter a name for this session. This name will be shown in the session tree under the terminal.
- 2. The connection model is **LAN** by default. Dial-up or Internet connections are not available for the 2505.
- 3. Click on **OK**. You will see an ICA Session Properties window with seven tabs. Enter session information as desired.

LAN



ICA Session LAN Properties

You can create two types of connections to MetaFrame servers: Citrix Server and Published Application.

- Click on Citrix Server or Published Application.
 - A Citrix Server connection lets a user access the desktop of a MetaFrame server. The
 user can run any applications available on the desktop, in any order
 - For a server connection, type the IP address of the MetaFrame server.
 - A Published Application is a predefined application and its associated environment.
 These applications are defined on Citrix servers and are available by application name rather than server IP address
 - For a published application, type the name of the published application.
- Leave Server Location at **Default**.
- If you do not want to use the default Session Protocol selected in <u>Terminal</u> <u>Configuration|Properties|Miscellaneous|Citrix Client Settings|Server Location and Business Recovery</u>, select a different protocol from the drop-down list.

Specify an Application

Even if you chose **Citrix Server** in the LAN window, you can still open the session in a specific application on that server. To do that, click on the Specify an Application tab to see the following screen.



ICA Session Application Properties

Use this page in the **Properties** dialog box to specify an application to run when you connect to the Citrix server. If you specify an application, you do not see the MetaFrame server desktop when you connect; the connection is closed when you quit the application.

- In the **Application** field, specify the pathname of the application executable file to be run after connecting to a MetaFrame server.
- In the **Working Directory** field, you can specify the pathname of a directory to be used with the application.

Specify Logon Information

When a session connection is made, the user must log on to the server with an authorized user name and password. This can be done automatically by entering information in the following window.

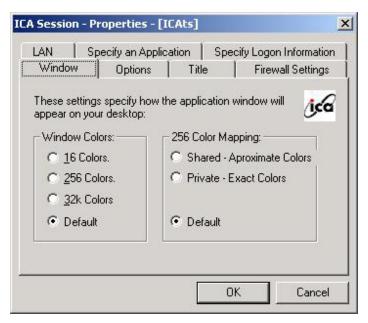
AN	Caraite an Applicati		Firewall Settings
	Specify an Applicat	ion Specify I	.ogon Informatio
lf desired u	ou can specify logo	n information to h	e used
	ecting to remote app		Occ.
<u>U</u> sername:	1		
Password:			
Domain:			

ICA Session Logon Properties

This page allows you to enter login details of your ICA connection so that you do not need to type them in each time you connect. You do not have to complete every field; just complete those fields that you want to bypass when logging on to the session.

Window

Default window properties are set in <u>Terminal Configuration|Properties|Miscellaneous|Citrix Client Settings|Preferences</u>. If you want to change them for this session, open the following window.

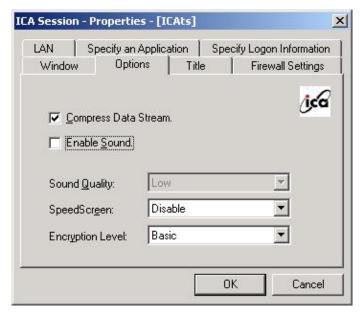


ICA Session Window Properties

- Window Colors allows you to set the number of window colors to 16, 256, 32K, or the default. Your display must be capable of displaying the resolution and color depth you select.
- **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 in order to display the exact colors sent by your MetaFrame server. This may however cause color flashing when moving between windows. To avoid this, use **Shared Approximate Colors**. Note that if other applications have allocated all 256 colors, the client will use a private color map.
- In each case, select **Use Default** to use the default settings.

Options

Several miscellaneous options are available in the Options window.



ICA Session Options Properties

Compress Data Stream

Data compression reduces the amount of data transferred across the ICA session. This requires additional processor resources, both on the Citrix server and on the terminal to compress and decompress the data, but it can increase performance over bandwidth-limited connections.

Enable Sound

Client audio mapping enables applications running on the MetaFrame server to play sounds through external speakers attached to the 2505. An administrator can set the audio quality or enable/disable client audio mapping on the MetaFrame server. A user can set the audio quality or enable/disable client audio mapping for an entry from the terminal. If the client and server audio quality settings are different, the lower of the two qualities is used. If you check the **Enable Sound** box to enable sound, three quality options are presented in the **Sound Quality** drop-down list.

- O High. This setting is recommended only for connections where bandwidth is plentiful and sound quality is important. This setting allows clients to play a sound file at its native data rate. Sounds at the highest quality level require about 1.3Mbps of bandwidth to play clearly. Transmitting this amount of data can result in increased CPU utilization and network congestion.
- Medium. This setting is recommended for most LAN-based connections. This setting causes any sounds sent to the client to be compressed to a maximum of 64Kbps. This compression results in a moderate decrease in the quality of the sound played on the terminal. The server utilization will decrease compared with the uncompressed version due to the reduction in the amount of data being sent across the wire.
- Low. This setting is recommended for low-bandwidth connections. This setting causes any sounds sent to the client to be compressed to a maximum of 16Kbps. This compression results in a significant decrease in the quality of the sound. The CPU requirements and benefits of this setting are similar to those of the Medium setting; however, the lower data rate allows reasonable performance for a low-bandwidth connection.

SpeedScreen

SpeedScreen latency reduction improves performance over high-latency connections by providing instant feedback (local echo) to the user in response to typed data or mouse clicks. **Note:** SpeedScreen will work only when it is available on the Citrix server and has been enabled.

- For slower connections, select **Enable** from the drop-down list to decrease the delay between user input and screen display.
- o For faster connections, select **Disable** from the drop-down list.
- If you are not certain of the connection speed, set the mode to Auto to turn SpeedScreen
 on or off depending on the latency of the connection. You can override Auto mode using
 the Toggle SpeedScreen hot key (typically Shift+F12).

Encryption Level

The ICA Client supports encryption using Citrix ICA Encryption Services. ICA Encryption (SecureICA) is a server extension that adds advanced RSA RC5 encryption to the MetaFrame server and clients. Encryption increases the security of your ICA connection. By default, basic encryption is enabled on all connections. The MetaFrame server must be configured to allow the selected encryption level or greater. To enable encryption levels higher than **Basic**, the MetaFrame server must support ICA encryption. This support is included with ICA Encryption Services and MetaFrame XP Feature Release 1 or later. **Note:** Selecting an encryption level higher than **Basic** disables automatic logon.

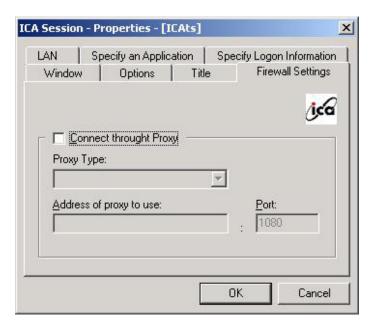
Title



ICA Session Title Properties

In this window, you will see the name that you entered in the first window of the Add <u>ICA Session</u> process. You can change that name here if you wish.

Firewall Settings



ICA Session Firewall Properties

Firewall settings are not applicable for the 2505.

RDP Session

When you click on **RDP Session**, you will see the following window.



Add RDP Session Window

- 1. Enter a name for this session. This name will be shown in the session tree under the terminal.
- 2. Click on **OK**. You will see an RDP Session Properties window with two tabs. Enter session information as desired.

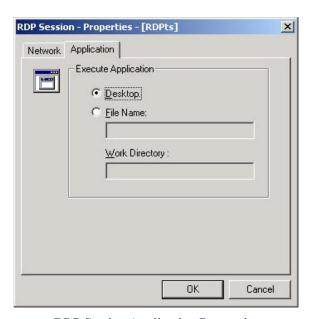
Network



RDP Session Network Properties

- Name. You will see the name that you entered in Add RDP Session, as shown on the previous page. You can change it here if you wish.
- Server. Enter the IP address of the Terminal Server that you wish to connect to.
- Auto Logon. When a session connection is made, the user must log on to the server with an
 authorized user name and password. This can be done automatically by entering information in
 the Auto Logon fields. These fields allow you to enter login details of your RDP connection so
 that you do not need to type them in each time you connect. You do not have to complete every
 field; just complete those fields that you want to bypass when logging on to the session.

Application



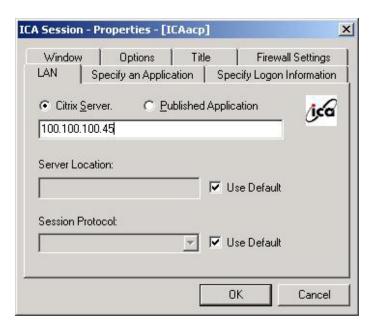
RDP Session Application Properties

- Desktop. A **Desktop** application lets a user access the desktop of the Terminal Server whose IP
 address was specified in the Network tab. The user can run any applications available on the
 desktop, in any order
- File Name. A **File Name** application is a specific application identified by the path name, on the Terminal Server, of the application executable file. These applications are defined on Citrix servers and are available by application name rather than server IP address.
 - o In the **Work Directory** field, you can specify the pathname of a directory to be used with the application

Editing A Session

To edit the properties of a session on a terminal, right-click on the session name, and then click on **Properties**. You will see a Session Properties window with several tabs.

ICA Session



ICA Session LAN Properties

You can click on any tab and edit the properties on that tab. For details on the properties, see Adding A Session ICA Session.

RDP Session



RDP Session Network Properties

You can click on either tab and edit the properties on that tab. For details on the properties, see <u>Adding A Session|RDP Session</u>.

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WBT Operation

Once you have configured the terminal and its sessions, using YES*manager*, actual operation is very simple. During boot up, every thing happens automatically until you get to an ICA or RDP log-on screen.

The 2505 is a BootOnLAN device that acts as a client terminal to Windows Terminal Servers. This means that the client software is loaded over the LAN, into local RAM, from a boot server whenever the 2505 is powered up. The 2505 user can only use the sessions provided from the server; no configuration is possible from the terminal.

Boot Up

The boot up process is:

- 1. Turn power on.
- 2. You will see a "Starting System. Please wait..." screen. While this screen is present, the terminal is trying to locate and establish communication with a boot server. If the boot up process does not advance beyond this screen, there is likely to be on of the following problems:
 - There is a LAN connection problem.
 - A boot server cannot be located.
 - A boot server was located, but Automatic Terminal Configuration is disabled on that server and this terminal has not yet been manually added to the terminal list.
- 3. You will see a YES*tation* LE screen with a progress window in the lower right corner. This progress window should go through the steps:
 - a. Booting
 - b. Downloading Configuration
 - c. Starting LPD
- 4. You will see a blue Workspace: 1 screen.
- 5. You will see a log-on screen unless you have automatic log-on, in which case you will go directly to the session application or desktop.

Multiple Sessions

You can configure the terminal with one ICA session and/or one RDP session, for a maximum of two sessions. Both will start automatically at boot up, but the ICA session will take precedence on the terminal screen. You cannot see both sessions at the same time; each session takes up the full screen. To toggle between sessions, press **Ctrl+Alt+UpArrow** or **Ctrl+Alt+DownArrow**.

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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
 - 0 480-946-1444
 - 0 888-353-5250
- via Fax
 - 0 480-946-9250
- via E-mail
 - o support@affirmative.net