



NCD ThinPATH Manager
Centralized Startup Guide

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Centralized Startup Guide

This guide is for system administrators who use NCD ThinPATH Manager to configure NCD ThinSTAR terminals from a central location.

The instructions in this guide assume that you have completed the following tasks:

- Installed NCD ThinSTAR Operating Software and NCD ThinPATH Manager as described in *NCD ThinSTAR Operating Software and NCD ThinPATH Manager Installation Guide*.
- Set upgrade policies as described in *NCD ThinSTAR Operating Software and NCD ThinPATH Manager Installation Guide*.
- Installed the necessary SNMP components as described in the *NCD ThinPATH Manager Release Notes*.

Introduction to Centralized Startup

NCD ThinPATH Manager brings terminal configuration to a central location, a Management Server. With its functionality, you can configure terminal properties and create connections on the server, make the configuration available to terminals, and restart terminals to upgrade their configurations—all from one location.

Features of NCD ThinPATH Manager

NCD ThinPATH Manager centralizes NCD ThinSTAR terminal management, giving you the following capabilities:

■ **Configuring groups of terminals from a central location**

Using the Configuration Tool, you can:

- Define groups of terminals.
- Configure terminal properties and connections for groups and save values in a `.tcf` configuration file.
- Register the configuration file with the Management Server for automatic terminal updates.

■ **Restarting groups of terminals from a central location**

When a terminal restarts, it is updated with values from the registered configuration file.

■ **Configuring SNMP updates, if desired**

If you use SNMP to manage terminals, you can configure some terminal properties through SNMP. You can use both SNMP and NCD ThinSTAR Terminal Properties to configure terminals.

■ **Configuring individual terminals from a web browser**

This provides a way of managing individual terminals remotely.

Overview of the Central Configuration Process

To configure NCD ThinSTAR terminals through NCD ThinPATH Manager, you will complete the following tasks:

- Getting started
 - Build a list of terminals
 - Start the Configuration Tool
 - Create a **.tcf** configuration file
- Organizing and configuring terminals
 - Create terminal subclasses
 - Define terminal properties—global properties for all terminals and specialized properties for terminal subclasses
 - Create connections for terminal subclasses
 - Configure SNMP updates, if using SNMP to manage terminals (optional)
- Distributing the new configuration
 - Save and register the configuration file with the Management Server for automatic terminal updates
 - Restart terminals to update them with the new configuration
- Completing ongoing processes
 - Distribute new software to terminals, including configuration settings, Operating Software, or client software
 - Close all connections running on terminals
 - Configure terminals via a web browser
 - Reset passwords

This guide has instructions for configuring and starting terminals from the Management Server. A companion to this guide, the *NCD ThinPATH Manager Reference*, has details about the Configuration Tool, the Remote Restart Tool, and the Web Configuration Tool. It also has information about SNMP, troubleshooting, and error messages.

Getting Started

When getting started with NCD ThinPATH Manager, the first steps include:

- Deciding how to configure terminals
- Starting the Configuration Tool
- Creating a configuration file
- Configuring global settings, including assigning terminals to a Management Server
- Registering the configuration file with the Management Server
- Starting the NCD ThinSTAR terminals to associate them with the Management Server and to generate a Managed Terminals List

These first steps lay the groundwork for configuring groups of terminals.

Deciding How to Configure Terminals

When you set up a centralized configuration for an NCD ThinSTAR network, you define groups of terminals, set properties for them, and save and register the configuration file on the Management Server. When the terminals associated with that Management Server are restarted, they receive the configuration file.

In planning the configuration, keep in mind the following basic parameters:

- You can configure terminals with the Management Server on their subnet (the default), or configure terminals with a specified Management Server on another subnet.
- You can create more than one configuration file, but you can only register one with the Management Server. If you register a new file, the previous one is no longer registered.
- You can define global settings that apply to all terminals associated with a Management Server, then create more specialized settings for groups or individuals.

The global settings form one general class; groups and individuals form subclasses under the global class and their settings override the global settings. You may want groups for departments or locations, and these groups may require different levels of configuration support. You may want individual subclasses for special cases.

- You can choose how many configuration options to make available to users.
 - You can do a basic configuration that makes standard properties and some connections available to users, but lets them make changes on their own terminals.
 - You can remove specific configuration options from users.
 - You can remove all configuration options from users.

The following sections show how to implement these decisions through NCD ThinPATH Manager.

Starting the Configuration Tool

You define groups of terminals and configure terminal properties for them on the Management Server, using the NCD ThinPATH Configuration Tool.

To start the Configuration Tool, select **Start > Programs > Administrative Tools (Common) > NCD ThinPATH Manager > ThinPATH Configuration Tool**.

Creating a Configuration File

The Configuration Tool presents options for working on a configuration file.

To create a configuration file:

1. Select **New Configuration Settings**.

Note After you have created and registered a configuration file, you can select **Open Registered Configuration**. Only one file can be registered at a time, but you can have more than one configuration file. If you create multiple files, you can select **Open Configuration Settings** and browse for the file you want.

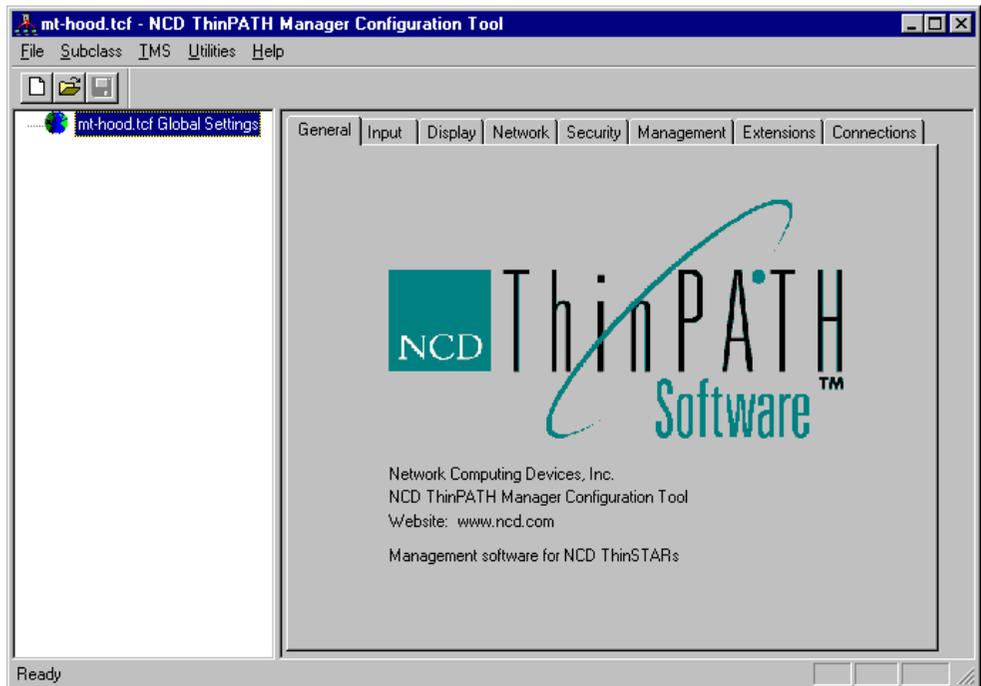
2. Select **File > Save As**, name it, and save it. The file extension is **.tcf**.

Don't register the new file yet; as soon as a file is registered, it is available to terminals.

Configuring Global Settings

The configuration principle of NCD ThinPATH Manager is that you can use the Configuration Tool to override values on terminals. You can use the tool to set values at the global level, then refine them for groups of terminals.

The global class applies to all the terminals the Management Server supports. It is named after the configuration file, here **mt-hood.tcf**.



As you prepare the configuration file, only include terminal property settings for the parameters you want to change. Do not define settings for parameters with acceptable default values.

Configure the global settings that apply to all of the terminals, then change settings as needed for specific groups of terminals, called subclasses. The group changes override global settings.

As you change settings, you will notice an asterisk on the tab label (for example, **Display***). This shows that you have set or changed settings, but have not yet saved them.

Specifying a Management Server

Assign each terminal to a single Management Server.

One Management Server per Subnet

By default, terminals broadcast for the Management Server on their local subnet. If you have one Management Server for each subnet, you do not need to assign a Management Server.

One Management Server for Multiple Subnets

If one Management Server is to support multiple subnets, the recommended practice is to bring the terminals onto the local subnet and define the Management Server when making global settings.

To assign a Management Server:

1. Select **Management > Server** and check that you want to include the information.
2. Select **NCD ThinSTAR Management Service** and enter the IP address of the Management Server.

Later, after you restart the terminals, they will receive the configuration file that assigns the specified Management Server to them. At that point, you can move them to their own subnets.

Note See *Using a Management Server Outside the Local Subnet* on page 12 for another way to specify the Management Server.

Multiple Management Servers on One Subnet

NCD does not recommend multiple installations of NCD ThinSTAR Operating Software on the same subnet. If the Operating Software is installed multiple times on the same subnet, any of those Management Servers may send new software or a configuration file to any terminal. Similarly, terminals may be managed by a different server each time they restart. The only reasons to install Management Servers on one subnet are:

- You have many (more than 100) NCD ThinSTAR terminals on your subnet.
- Your Management Server has inadequate system resources to support multiple simultaneous software upgrades.

If you feel that multiple Management Servers are needed on the same subnet, please contact NCD Technical Support. They can assist you with planning and implementing the installation.

Setting Terminal Startup Options

When a terminal starts, it goes through a series of wizards to establish basic terminal property options and create a connection. Since you are configuring terminals centrally, terminals can skip the setup wizard.

To skip the setup wizard:

1. Select **Extensions > TSWizard Display** and check that you want to include the information.
2. Click **Configure**, choose whether to omit all or part of the wizards, and click **OK**.

Setting Up Security

The **Security** tab allows you to protect terminal configuration. You can:

- Set and change passwords on the **Change Password** tab.
- Enable or disable user changes to Terminal Properties on the terminal on the **Security > Terminal Properties Access** tab.
Read-only tabs appear grayed out in Terminal Properties.
- Disable the **F2** key to prevent access to Terminal Properties on the **Terminal Properties Enable** tab.

You can use the **Management > Clients > Options** tab to hide the **Configure** tab in the Connection Manager so it is not possible to add, change, or delete connections at terminals.

Defining One Connection

If you define at least one connection globally, you do not need to define a connection when a terminal starts.

To define a connection:

1. Select **Connections > Configure** and check that you want to include the information.
2. Click **Add**, complete the information to add the connection, and click **OK**.

Configuring Other Global Settings

If there are values that you want to set for all terminals, you can configure those settings now as well.

Saving and Registering the Configuration File

Now that you have your basic global settings, save and register the configuration file with the Management Server. The Management Server downloads the registered file to the NCD ThinSTAR terminals when they restart.

To save and register the configuration file:

1. Select **File > Save** and save the file.
2. Select **TMS > Register Current Configuration** to register the current configuration file.

Note The option is on the TMS menu because TMS is the utility that downloads the file to the NCD ThinSTAR terminal.

Another way to register the current file is to select **File > Save As**, check **Register this Configuration with TMS**, and give a filename.

You can register only one configuration file with the Management Server at a time. Later, if you have multiple configuration files, you can select **TMS > Register Configuration** and select any saved configuration file.

After you have configured terminals, you may want to select **Remove Registration** so that terminals no longer receive a new configuration file when they restart. You may also want to do this if you are experimenting with configuration settings.

Assigning Terminals to a Management Server

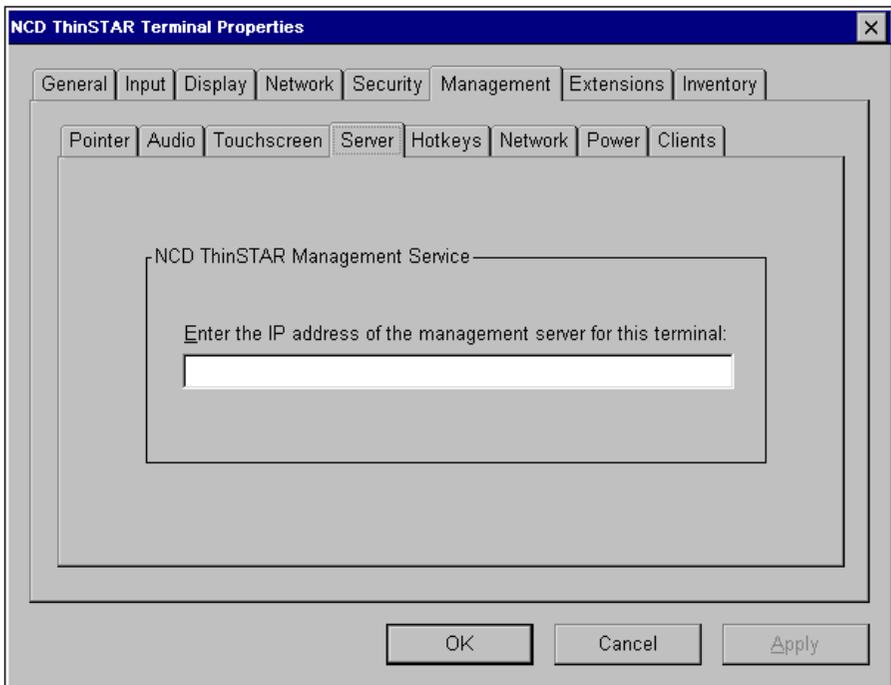
You have registered a configuration file with global settings, so you can start the NCD ThinSTAR terminals to associate them with the Management Server.

Using the Management Server on the Local Subnet

By default, when a terminal starts, it contacts the Management Server on its subnet. At that time, the Management Server adds it to the Managed Terminals List, which lists the terminals it supports.

Using a Management Server Outside the Local Subnet

If you want a terminal to use a Management Server on another subnet, define it in Terminal Properties.



To choose a Management Server for software updates:

1. Go to the terminal and press **F2** to start Terminal Properties.
2. In Terminal Properties, select **Management > Server**.
3. Enter the IP address of the Management Server that is to update the Operating Software on this terminal, then click **Apply**, then **OK**.

If name resolution service is available, you can use the host name. If you have specified a gateway, you can specify the Management Server on a different subnet.

4. Restart the terminal.

Removing a Terminal from the Managed Terminals List

The list is generated automatically and you should not need to edit it when you first get started. You may need to edit at some point during the process.

You do not need to edit the list if a terminal's IP address changes; the Management Server detects the change and updates the list.

You must edit the list if you remove a terminal. You can also add terminals to the list or change information.

To delete a terminal:

1. Select **Utilities > Remote Restart Tool**.
2. Select **Edit > Delete**.
3. To delete one or more terminals from the list, select them and click **Delete**.

Note Only delete a terminal from the list after it is removed from the network. If the terminal is still on the network, it is added to the list when the terminal starts.

4. When finished, click **Close**.

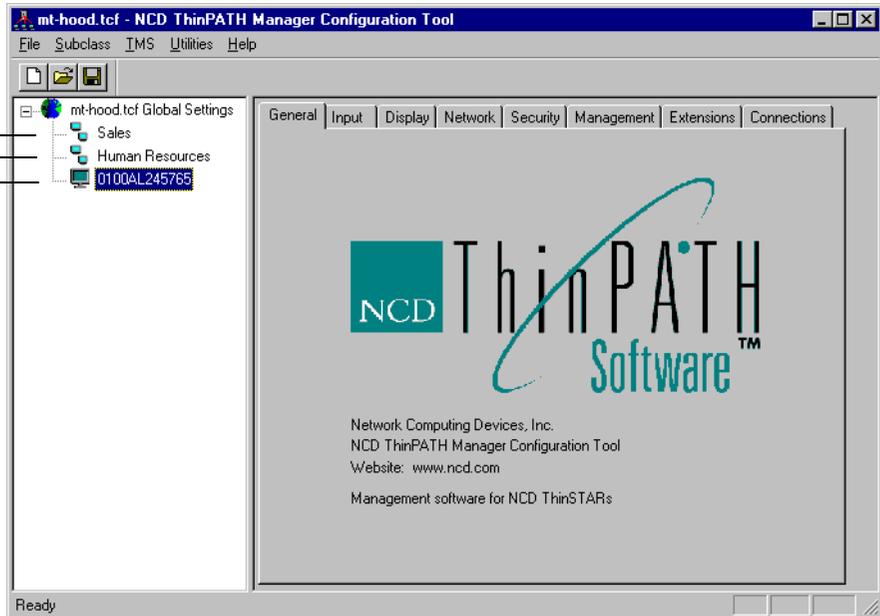
Organizing and Configuring Terminals

A configuration begins with a global class that applies to all terminals. After defining global settings, you can refine properties and create connections for groups of terminals. These groupings are called subclasses, and they contain one or more terminals.

Creating Subclasses

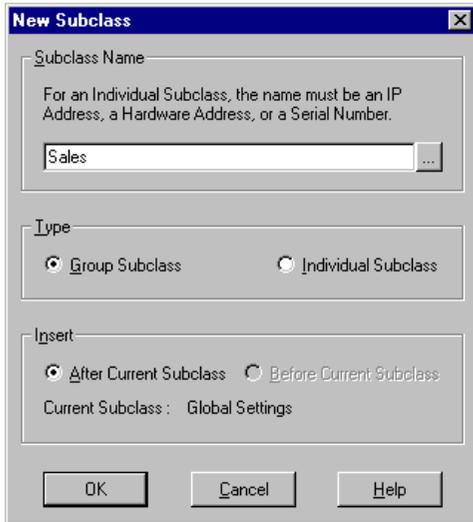
You may want to create subclasses for departments, locations, or special requirements. In the following example, the **mt-hood.tcf** configuration file has subclasses for two departments—Sales and Human Resources, and one individual terminal, identified here by its serial number.

The **mt-hood.tcf** configuration file has three subclasses.

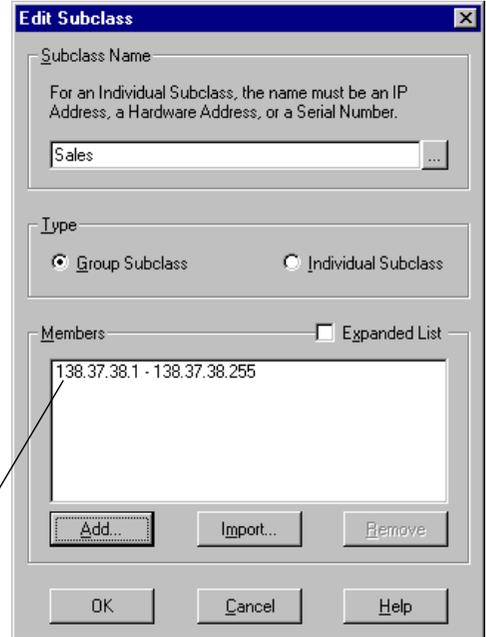


You can place a terminal in more than one subclass, then use the order of the subclasses to establish final properties for it. Moving down the list overrides any properties set before. The global settings always remain at the top of the list, but you can move subclasses up or down. To change the order, click a subclass and drag it or right click a subclass and select **Move Up** or **Move Down**.

The subclass information you enter is as follows.



Basic information is required for group and individual subclasses.



This group has a range of IP addresses.

To create a new subclass:

1. Select **Subclass > New**.
2. Enter information for the subclass and click **OK**.

— **Subclass Name**

For a subclass of one (an individual subclass), enter the terminal's IP address, hardware address, or serial number. With DHCP dynamic IP addresses, it is better to identify the terminal by its hardware address or serial number.

— **Group Subclass/Individual Subclass**

Select group for a subclass with multiple terminals or individual for a subclass with one terminal.

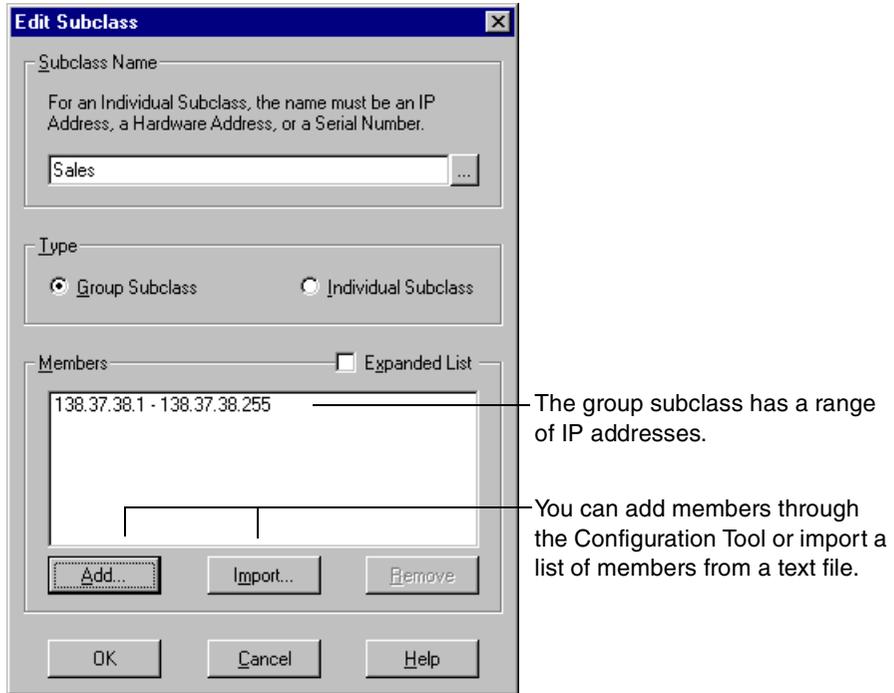
— **After Current Subclass/Before Current Subclass**

Choose where to position the new subclass in the list.

A group requires at least one member, as described next.

Adding Members to a Subclass

Assign at least one member to the subclass. You can add members manually or import a text file.



Adding Members through the Configuration Tool

You can add members through the Configuration Tool, identifying them by IP address, hardware address, or serial number.

With NCD ThinSTAR Operating Software version 2.0 and later, the Management Server collects and updates IP address, hardware address, and serial numbers when it downloads software to a terminal. It adds the terminal to a Managed Terminals List and you can use the list to select terminals for remote restarts or subclasses.

To add information:

1. Click **Add**.

2. Enter information to identify terminals and click **OK**. If you have restarted terminals, they belong to the **Managed Terminal List**, so you can add from that.

You can identify terminals by IP address, hardware address, or serial number.

— IP addresses

The standard IP address has a dotted decimal format (four decimal values separated by dots). In an IP address range, you can vary only the value in the last octet (the fourth field) and you cannot include leading zeroes. For example, 192.45.85.6 is a member of the range indicated by 192.45.85.1 through 192.45.85.10. This is called a Class C subnet.

If you are using dynamic IP addresses assigned by DHCP, group terminals by their hardware address or serial number. With IP addresses you wouldn't know which terminal received a given configuration file.

— Hardware (MAC) address

The standard MAC or hardware address, sometimes called a network address, has the following format:

xx:xx:xx:xx:xx:xx

where x represents a hex digit 0–9, A–F. For example:
00:00:A3:08:12:7C.

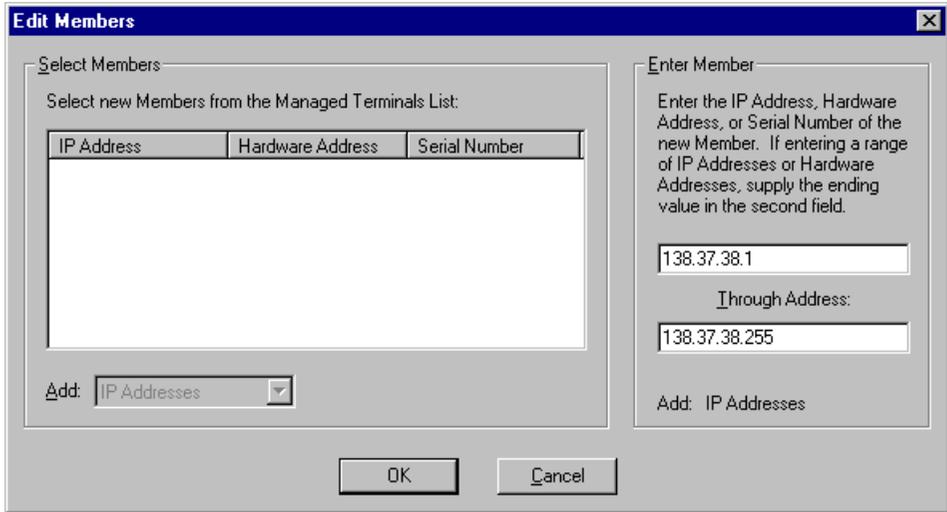
This address is on the terminal; to see it, go to NCD ThinSTAR Terminal Properties and select **Inventory > Network Settings > Address**.

You can specify a hardware address range, varying only the values in the last three fields (the last six values).

— Serial number

The serial number is assigned to a terminal at the factory and is on the terminal; to see it, go to NCD ThinSTAR Terminal Properties and select **Inventory > Hardware**.

The following example shows that terminals are to be identified by their IP address; the range of IP addresses for terminals on one subnet is entered.



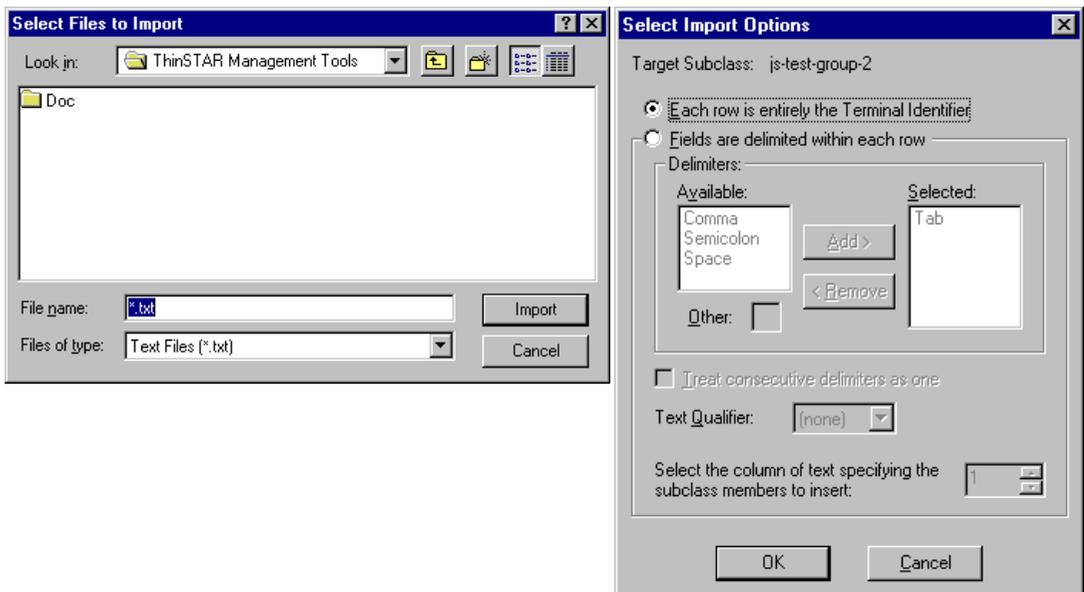
If terminals had been started, they would appear on the Managed Terminals List and you would be able to select from the list. To select multiple members, click one address and press **Shift** + click to select a continuous block, or press **Ctrl** + click to select members one by one.

Importing a List of Terminals

You can add subclass members by importing a list of terminals exported from a source such as a database or a UNIX `/etc/hosts` file.

To import members:

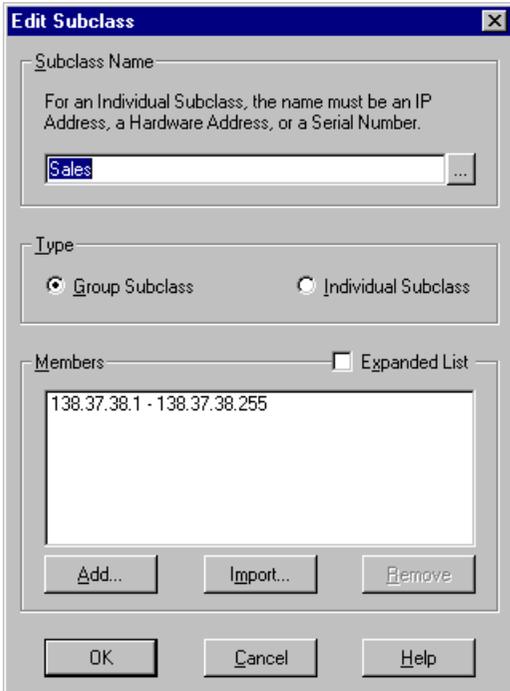
1. In the NCD ThinPATH Manager Configuration Tool, select the group subclass, then select **Subclass > Import Members**.
2. Enter the name of the text file, then click **Import**, then select options for delimiters and click **OK**.



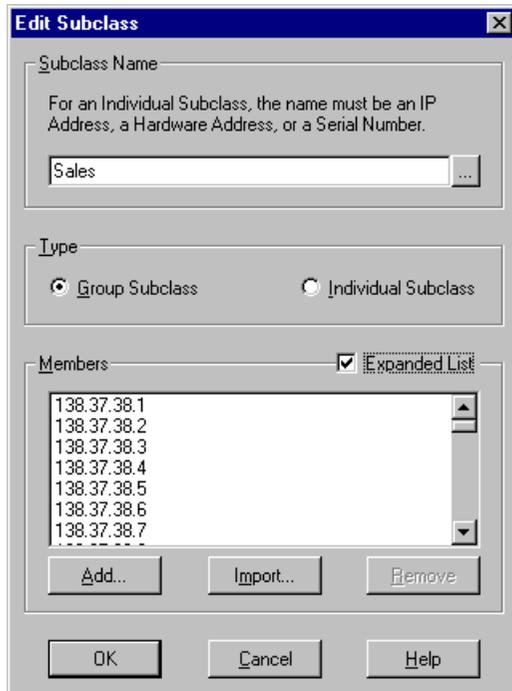
3. Select **File > Save** to save the file.

Viewing a Member List

If your members have consecutive ranges of IP addresses, hardware addresses, or serial numbers, you can view the ranges or **expand the list** to show all members.



Collapsed list



Expanded list

Removing Information

You can remove members or entire subclasses.

Removing Members

Removing terminals from a subclass deletes them from the subclass when you save the configuration file.

To remove members from a subclass:

1. Select the subclass then select **Subclass > Edit** (or double click on the subclass name).
2. Select the member(s) and click **Remove**.

Selection options include:

— Only one member

Click on a member in an expanded list.

— Multiple members

Use the **Ctrl** or **Shift** key or drag the mouse.

— All the members of a range

Click on a range in a collapsed list.

3. Save the configuration file.

Removing a Subclass

Removing a subclass deletes it and its configuration values from the configuration file when you save the file.

To remove a subclass:

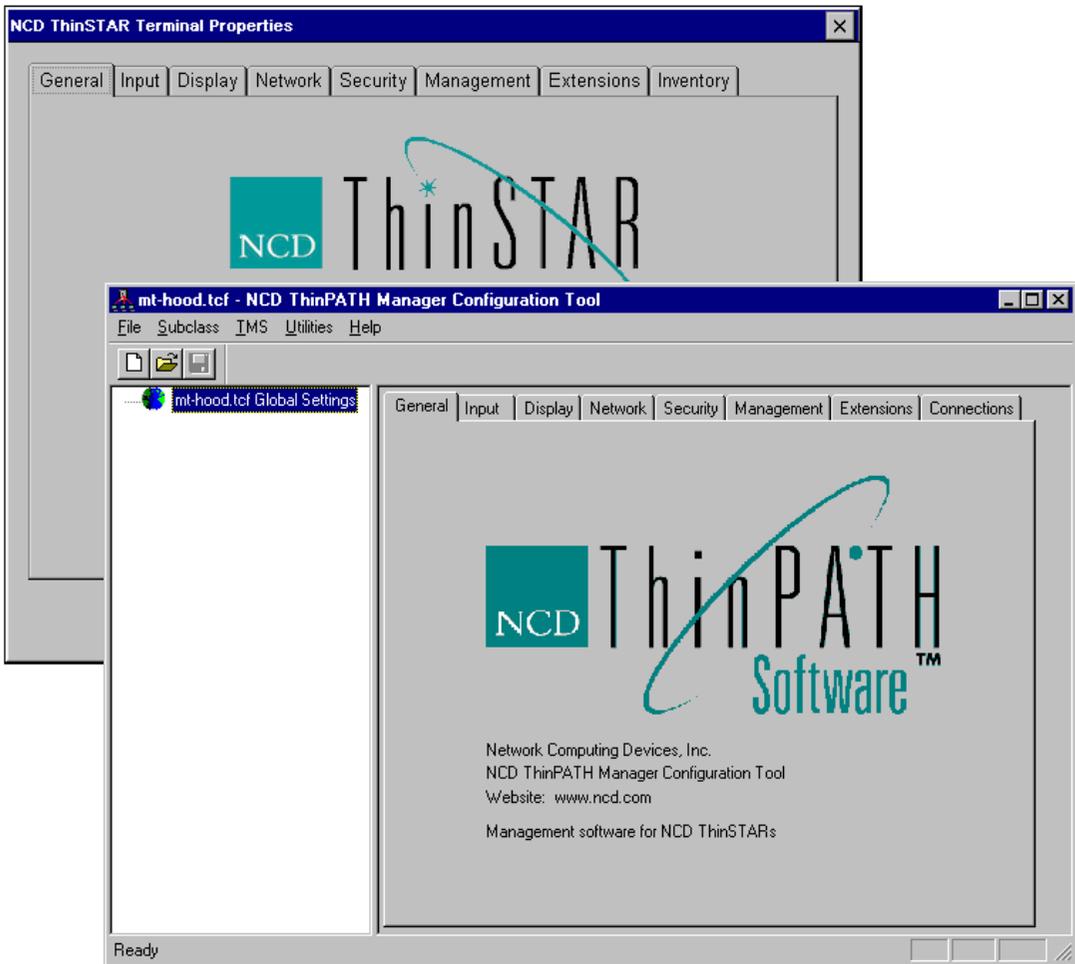
1. Select the subclass name, then select **Subclass > Delete** or press **Delete** and confirm that you want to delete it.
2. Save the configuration file.

Configuring Terminal Properties

Terminal properties are configuration values for NCD ThinSTAR terminals. You can set most of the properties through NCD ThinPATH Manager.

Terminal Properties and NCD ThinPATH Manager

On an NCD ThinSTAR terminal, terminal properties are available on a set of tabs. NCD ThinPATH Manager presents a similar series of tabs, plus a tab for connections.



Using the NCD ThinPATH Configuration Tool, you can define settings on property tabs as follows:

- **General** — identifies the product. (On the terminal, this tab provides an option for resetting all configured values to factory defaults.)
- **Input** — has settings for the keyboard and the mouse.
- **Display** — has settings for the monitor, including resolution, refresh rate, and a screen saver.
- **Network** — has basic settings for network addresses. Parameters that cannot be set globally, such as a static IP address, are on terminals but are not in NCD ThinPATH Manager.
- **Security**—has password protection and access options.
- **Management** — has additional tabs with settings for pointer speed, audio, server, hotkeys, network, power, and clients.

Pointer lets you set pointer speed for the mouse.

Audio has sound options.

Server lets you assign a Management Server.

Hotkeys allows **Up** and **Down** hotkey combinations to bring forward the next active or previous active session.

Network provides additional networking options and includes diagnostics.

Power has a timeout setting that governs the terminal (not the monitor) power saving mode on terminals that support it. NCD ThinSTAR 200 terminals do not support it.

SNMP has options for SNMP configuration. Terminal Properties on a terminal does not include this.

Clients has the global client settings, if supported; they are not supported for the Microsoft Terminal Server Client. You can also enable or disable access to the NCD ThinSTAR Connection Manager **Configure** tab.

System has startup options for Num Lock, Caps Lock, and Scroll Lock.

Precedence

Global configuration settings are applied first, then subclass changes are applied, starting at the top of the list and ending with the bottom of the list. The settings at the bottom of the list have the greatest precedence. If a terminal belongs to more than one subclass, the settings in its lowest subclass take precedence.

When the terminal restarts, settings in the NCD ThinPATH Manager configuration file override terminal properties that were changed at the terminal. You can specify whether connections in the registered configuration file overwrite connections defined at the terminal.

Defining Properties for a Subclass

When defining properties for a subclass, include only the settings you want to change. There is no need to define and save settings for parameters that have acceptable default values.

Default Terminal Properties

The default property settings on an NCD ThinSTAR terminal are as follows.

Factory Default Property Settings		
Tab	Attribute	Default Setting
Input	Keyboard	English (United States).
	Mouse	Right-handed.
	Character Repeat	The shortest delay; midway between the fastest and slowest rate.
Display	Desktop Area and Refresh Frequency	Best Available Using DDC.
	Screen Saver	Enabled, with a timeout of 20 minutes.
Network	IP Address	Get an address from a DHCP server. Existing IP address entries are removed.

Factory Default Property Settings <i>(continued)</i>		
Tab	Attribute	Default Setting
Advanced Network	Enable DNS	Filled with data from DHCP.
	Enable WINS	Filled with data from DHCP.
Security	Password	No password.
Management	Pointer Speed	Four units above slow.
	Audio	High volume. Microphone disabled (microphone not available on NCD ThinSTAR 200 or 250).
	Touchscreen	Disabled.
	Server	Blank.
	Hotkeys	Enabled.
	Network	LAN connection; network speed is sensed automatically. DHCP timeout of 60 seconds; Management Server timeout of 5 seconds. Host resolution timeout of 5 seconds. Send count of 5.
	Power	No settings.
	Clients	Microsoft Terminal Server Client. English (United States) locale. Configure tab of Connection Manager enabled.
Extensions	Terminal identification	<i>none</i>
	Wireless	DHCP (available only on the NCD ThinSTAR 400 series)
Inventory	Network information	Reports IP address changes caused by reset to defaults on Network tab and Display tab.

Creating Properties for a Subclass

To include properties for a subclass:

1. Select the subclass.
2. On the appropriate tab, check the box to include properties.
3. Change the settings.

Descriptions for the settings are in online help. If you decide to restore included parameters to default settings, click the **Default** button.

4. Select **File > Save** to save the configuration file.

Configuring Connections

Terminals can connect to a Windows Terminal Server through LAN and modem connections. Two default clients provide connections over the LAN or modem:

- Microsoft Terminal Server Client connections

The Microsoft Terminal Server Client uses the RDP protocol to connect to a Windows Terminal Server.

- Citrix ICA connections

The Citrix ICA client uses the ICA protocol to connect to a server running Citrix WinFrame or to a Windows Terminal Server running Citrix MetaFrame.

A third client, the NCD dial-up client, provides network transport for a Microsoft Terminal Server Client or ICA session over a modem.

On the **Connections** tab, you can set up connections, limit the number of connections running on the terminal, and remove connections. The **Connections > Configure** tab has wizards for adding connections for installed clients, such as Microsoft Terminal Server Client and ICA. They are similar to the wizards on the terminal.

Additional client libraries are available from NCD to support other types of connections, including those for terminal emulators, X Windows, and load balancing.

Configuring Terminals with an SNMP Agent

If you configure terminals with SNMP alone or along with the Configuration Tool, you can distribute part of the settings through NCD ThinPATH Manager.

An SNMP agent is installed on an NCD ThinSTAR terminal as part of the Operating Software. By default, it is read-only and the values it can read are in the **NCD-THINSTAR.MIB.txt** file, which is installed in the **...\NCD\ThinSTAR Management** directory.

If an SNMP manager is installed on the Management Server, it receives data about property settings from the SNMP agent on the terminal.

You can include settings for SNMP updates in the NCD ThinPATH Manager configuration file. After a terminal restarts and receives the new configuration file, you configure the SNMP agent on the terminal to allow SNMP updates from the specified SNMP manager.

You also configure the SNMP agent on the terminal to send a trap message to the SNMP manager on the Management Server when the terminal restarts or when changing terminal property settings on the terminal fails.

Traps for these occurrences are available on the **Management > SNMP > Send Traps** tab:

■ Cold Restart

This notifies the system administrator that someone has restarted the terminal. The SNMP agent on the terminal sends a message to the SNMP manager on the Management Server when a terminal restarts.

■ Authentication Failure

This notifies the administrator that someone lacking administrative privileges may be trying to change terminal properties. The SNMP agent on the terminal notifies the SNMP manager on the Management Server when authentication fails.

Distributing a Configuration File

At this point in the process outlined in this startup guide, the configuration file is ready for distribution to the terminals.

You can use the Remote Restart Tool to distribute the configuration file automatically. The following steps explain how to select terminals and choose a restart method. The Management Server restarts the selected terminals automatically.

To select and restart terminals:

1. Start the Remote Restart Tool.

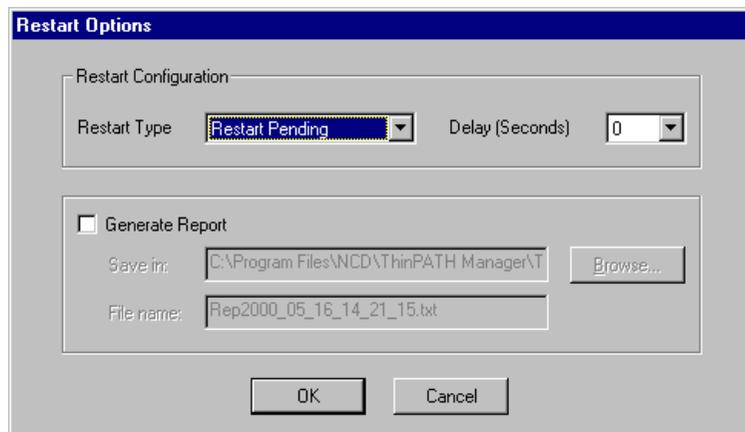
Select **Start > Programs > Administrative Tools (Common) > NCD ThinPATH Manager > NCD ThinPATH Remote Restart Tool** or start the Configuration Tool and select **Utilities > Remote Restart Tool**.

2. Select a restart method and options.

Choose a restart option with **Tools > Restart Terminals** or schedule a restart with **Tools > Schedule Restart**.

— Restart Terminals

Select terminals and click **OK**, then choose a restart option and click **OK**.



The restart options are as follows.

Restart Option	Description
Restart Immediately	<p>Each terminal restarts immediately, even if there are open connections.</p> <p>If the Windows Terminal Server is configured to disconnect when a connection breaks or times out, terminals can reconnect to sessions that were interrupted. All applications that were running when the session disconnected resume the next time the user logs on.</p> <p>If the Windows Terminal Server is configured to reset when a connection breaks or times out, any unsaved work is lost when the session ends.</p> <p>For more information, see the Administrator's Guide for Microsoft Windows 2000 or Microsoft Windows NT Server, Terminal Server Edition.</p>
Restart Pending	Each terminal restarts automatically after the last connection on that terminal is closed.
Wake on LAN	A network message powers up NCD ThinSTAR 300, 300TR, or 400 series terminals. NCD ThinSTAR 300 and 300TR terminals must have their rear power switch on (set at 1) to respond to this message and restart.
Detect	The Management Server pings the terminal.
Delay	If you are restarting multiple terminals, set the delay to define the interval between consecutive terminal restart attempts.

— Schedule Restart

Select terminals and click **OK**, then schedule the restart and click **OK**.

Schedule Restart Options

Scheduling Pattern:

Run Once At: 03:12 AM

Recurrence

Daily

Weekly on:

Sunday Monday Tuesday

Wednesday Thursday Friday

Saturday

Restart Options:

Restart Type: Restart Immediate Delay (Seconds): 0

Generate Report

Save in: C:\Program Files\NCD\ThinPATH Manager\Thin Browse...

File name: Rep2000_05_16_14_12.txt

OK Cancel

If you are restarting multiple terminals, set the delay to define the interval between consecutive terminal restart attempts.

If you want to create a log of terminals that restart, click **Generate Report** and enter a name for the log file.

3. Check the restart status displayed.
Statuses are as follows.

Status	Explanation
Trying Restart	A restart command was sent to the terminal. The software is trying to restart the terminal. This value appears momentarily.
Restarting	The terminal is restarting. This status only appears when the terminal receives a restart command from the Remote Restart Tool; it does not appear when a terminal is physically restarted.
Restart Pending	The terminal is waiting for all terminal connections to close before restarting.
Not Responding	<p>The terminal did not respond before the restart command timed out.</p> <p>ThinSTAR 200 terminals that do not restart receive the “Not Responding” status in the terminal list after the command times out, so the terminal is probably not powered on.</p> <p>ThinSTAR 300, 300TR, and 400 series terminals that do not restart are sent a Wake-on-LAN command. If they were turned off using the front power switch, the ThinSTAR 300 terminals wake or power up and restart. If the ThinSTAR 300 terminals do not respond to the Wake-on-LAN command, the power switch on the back of the terminal is probably in the Off position, so a remote restart is not possible and the terminal’s status remains Wake-on-LAN.</p>
Wake-on-LAN	The terminal received a Wake-on-LAN command and the Remote Restart Tool is waiting for the terminal to restart.
Detected Terminal	The terminal responded to a ping packet.

If some terminals cannot restart, save time by cancelling the restart for them. To do this, select the terminals and click **Cancel**. As soon as the command succeeds or times out on the current terminal, the restart is cancelled for the remaining terminals.

Ongoing Processes

After your terminals are set up initially, there are ongoing processes, such as:

- Distributing new software to terminals, including configuration settings, Operating Software, or client software
- Closing all connections running on terminals
- Configuring terminals via a web browser
- Resetting passwords

Distributing New Software or Configurations to Terminals

Any time you need to update software or terminal configurations, the process is the same:

- Install new software, if any, on the Management Server.
- Open the configuration file or create a new one.
- Set properties or create connections.
- Save the configuration file.
- Register the configuration file, if it is a different one.
- Restart terminals.

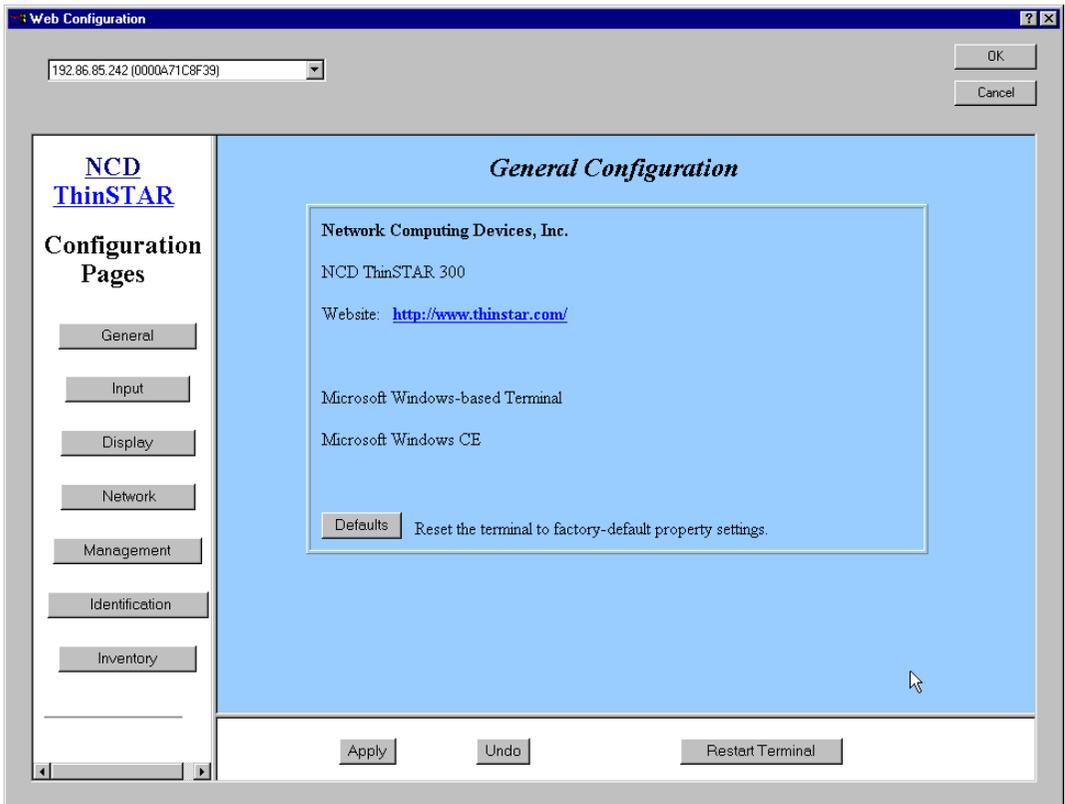
Closing All Connections Running on Terminals

If you need to close all connections running on the terminals, you can do it with the Remote Restart Tool.

Configuring Terminals with the Web Configuration Tool

With a compatible web browser, you can use the NCD ThinPATH Web Configuration Tool to view and set most, but not all, of the terminal properties of an NCD ThinSTAR terminal from any location. Netscape 4.0 and Microsoft Internet Explorer 4.0 are compatible browsers.

The path to this tool in NCD ThinPATH Manager is **Utilities > Tools > Web Configure**.



Prerequisites

The ThinPATH Web Configuration Tool must be installed on the terminal before you can configure the terminal with a web browser.

After the tool is installed on the terminal, you need the terminal's IP address and password. If password protection has not been set up on the terminal, the terminal property settings are displayed in read-only mode so you cannot change any terminal property settings.

Reconfiguring the Terminal

If the password protection is set up and you enter the correct password, you can use the Web Configuration Tool to reconfigure the terminal.

To configure terminal properties using a web browser:

1. Start your web browser.

Note Use Netscape 4.0 or later or Internet Explorer 4.0 or later.

2. Enter the URL of the NCD ThinSTAR terminal in the Location or Address entry area of the web browser and press **Enter**.

For example, if the IP address of a terminal is 172.31.0.12, its URL would be `http://172.31.0.12`. (On most browsers, if you enter the IP address, the browser automatically changes it to the correct URL.)

3. If the terminal has password protection, enter the password.

If the terminal lacks password protection, you can see properties, but you cannot modify them.

4. Set properties.

Note If you click **Defaults** on the **General** tab, you are asked to confirm that you want to restart the terminal. If you confirm the restart, open connections are terminated and you may lose unsaved work in open applications.

5. Modify the settings and click **Apply**. The new settings are sent to the terminal. Changes to most terminal properties take effect immediately, but changes to network settings take effect after the terminal restarts.
6. Click **Restart Terminal** if you want to restart the terminal immediately.

Restarting a Terminal Over the Web

For most terminal properties, you do not need to restart terminals after changing a setting because the change occurs immediately. However, the following changes, which are related to network settings, take effect after the terminal restarts:

- IP address
- Subnet mask
- Gateway
- Advanced network settings

To restart the terminal to put new properties into effect:

1. Start your web browser.
2. Enter the URL for the NCD ThinSTAR terminal, for example, `http://172.31.0.12`.
3. Click **Restart Terminal**.
4. Close the web browser.

Resetting Passwords

If you know a terminal's password, you have two options for changing it:

- You can use the Web Configuration Tool to change a password over the web.
- You can go to Terminal Properties on the terminal and set the password on the **Security** tab.

If a terminal does not have password protection, you can use the Configuration Tool to create a subclass of one terminal and reset the password for it.

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