

Administrator's Guide: Windows CE 5.0 - HP Compaq Thin Client t5520

Build 5.0.3.588 or higher



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Administrator's Guide

Business PCs

First Edition (January 2007)

Document Part Number: 441897-001

About This Book



WARNING! Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.



CAUTION: Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.



NOTE: Text set off in this manner provides important supplemental information.

Table of contents

1 Introduction

Image updates	2
Setup Wizard	2
HP Session Allocation Manager (HP SAM)	2

2 The Desktop

Display	4
Taskbar	4
Start Menu	5
Icons	5

3 HP Thin Connect

Advanced Window	8
Creating user accounts	9
Connections	13
Adding connections	14
Editing connections	14
Deleting connections	15
Assigning connections to users	15
Assign Connections tab	15
Assigning connections	17
Designating connections as primary or secondary	17
Enabling automatic connection and reconnection	18
Configuring the user interface	19
Auto starting HP Thin Connect	19
Setting the terminal to Kiosk mode	20
Enabling automatic log on and keyboard functions	21
Switching to a different user	22

4 Control Panel

Accessibility	24
Certificates	25
Date/Time	25
DHCP Options	26
Dialing	27
Display	28
Global ICA Client Settings	30
Keyboard Shortcuts	30

Preferences	31
Server Location	32
Firewall Settings	32
HP Thin State Capture	33
Thin State Capture	33
Thin State Deploy	34
Internet Options	35
JETCET PRINT 4.0	36
Keyboard	37
LPD Control	37
Modems	38
Mouse	39
Network and Dial-up Connections	39
Dial-up connection	40
Direct connection	40
Virtual Private Network (PPTP) connection	40
Virtual Private Network (L2TP) connection	40
PPP Over Ethernet (PPPoE) connection	40
Port Lock	40
RDP/ICA Printers	41
Adding a printer	41
Modifying an existing printer configuration	43
Regional Settings	43
Security	44
Enabling security	45
Creating a user account	45
SNMP	46
SNTP Client	51
System	52
Resetting settings to factory defaults	53
Copying registry settings	53
System Update	54
Direct from HP	55
Custom	55
Terminal Server Client Licenses	56
View or Remove Programs	57
VNC Server	57
Settings for VNC Server	58
Volume & Sounds	58

5 Programs and Add-ons

Programs	60
ThinPrint	60
ThinPrint over ICA and RDP	60
ThinPrint over TCP	64
HP Connections for Citrix Software	66
Creating a New ICA connection	66
Deleting a connection	67
Editing a connection	67
Creating a desktop shortcut to a connection	67

RDP 5.5	67
Terminal Emulation Connection	68
TxtPad	69
Add-ons	69
ELO Touch Screen	70
Messenger 5.0	70
USB Wireless	70

6 Registry Import/Export

Clearing the destination registry	73
Exporting and importing a registry	74
Importing a registry to multiple units	74
Exporting registries from multiple units	74

Index	75
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1 Introduction

HP Compaq thin clients with Microsoft Windows CE are easy to deploy, manage, and secure, and include powerful features for mainstream business use.

- Easy to deploy
 - Setup Wizard for easy configuration
 - Familiar explorer shell that resembles Windows desktop
 - Altiris Deployment Server
- Easy to manage
 - Registry import tool
 - Can update to the latest image directly from HP
 - Can return to factory settings by pressing **F9**
- Easy to secure
 - Can disable USB mass storage
 - Can lock down user interface with HP Thin Connect
 - Secure default Guest account
 - More secure operating system

HP provides this client “ready to go” out of the box to meet most common customer requirements. You may want to add/remove features, lock down the user interface, etc. This guide will introduce you to the many features of this client and show you how to customize the client to your needs.

This guide provides the network administrator with instructions for local and remote configuration of the CE-based terminal. Typically, a terminal is configured locally then used as a template for other terminals, which are then configured using remote administration tools.

Image updates

HP provides periodic updates to the image for thin clients. Check the HP support site for important documentation that provides specific information for your image version. You can find support documentation at:

<http://welcome.hp.com/country/us/en/support.html>

For the latest version of the HP thin client Microsoft Windows CE image, visit:

<http://h18004.www1.hp.com/support/files/thinclients/us/index.html>

Setup Wizard

HP's Microsoft Windows CE images include a Setup Wizard, which provides a simplified, easy-to-follow method to configure a thin client. The Setup Wizard launches after you unbundle the image.



NOTE: There is a 20 second delay after the Setup Wizard launches. If you do not click **Next** before the timer expires, the thin clients loads the default settings.

HP Session Allocation Manager (HP SAM)

HP's PC Session Allocation Manager (HP SAM) software provides dynamic allocation for assignment of virtual desktop sessions. In a Consolidated Client Infrastructure (CCI) desktop virtualization environment, HP SAM enables a higher level of virtualization in your company by managing all the remote desktop connections from users' access devices to their computing resources thus helping you get the most out of IT deployments.

For more information about HP SAM, go to the following Web site and perform a search on "HP SAM".

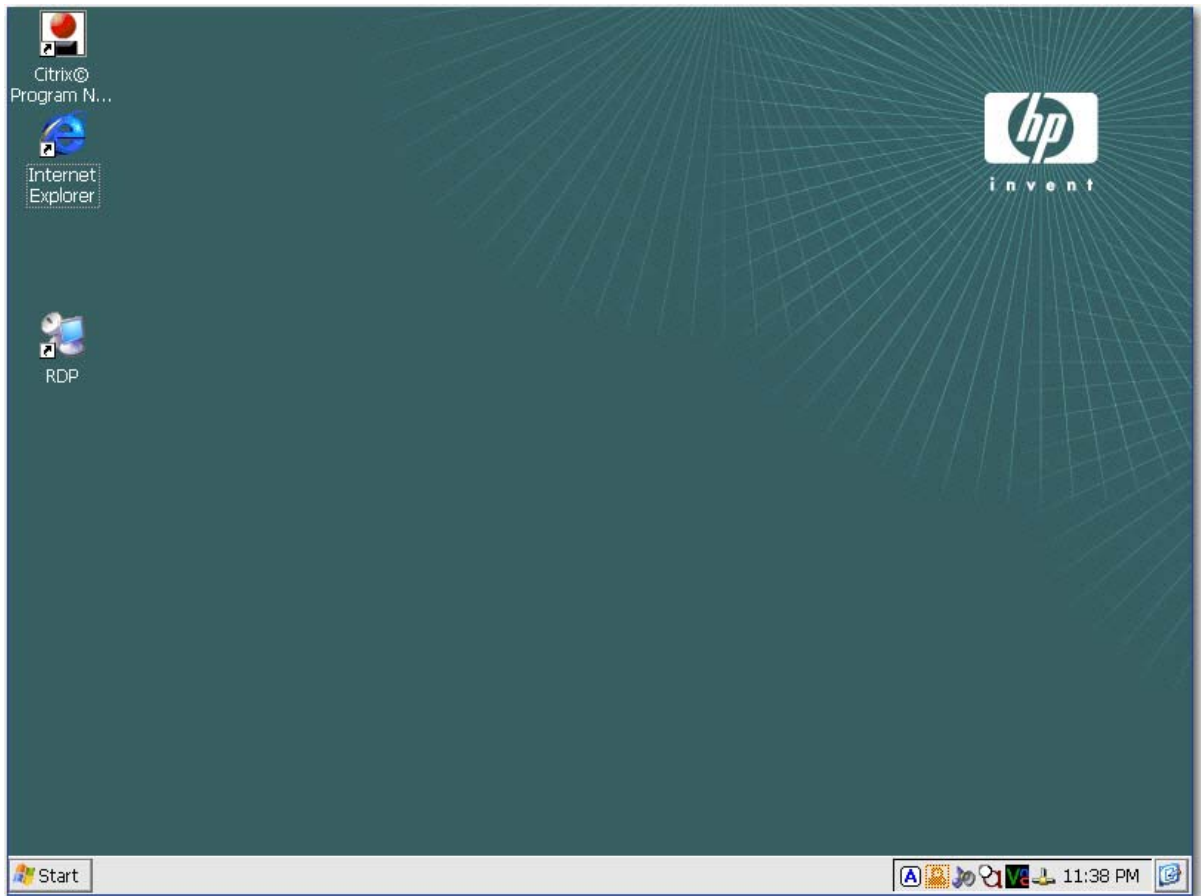
<http://welcome.hp.com/country/us/en/solutions/leb.html>

2 The Desktop

The t5000 series thin client with Microsoft Windows CE uses an explorer shell (desktop) that resembles the typical Windows desktop to make it look familiar and easy to use. The desktop includes a taskbar, Start menu, shortcut icons, and a background image.



NOTE: The taskbar and the Start menu are hidden by default.



Display

To change the display settings, right-click on the desktop and select Properties. You can change the following:

- background image
- appearance
- resolution and color quality settings
- screen saver



NOTE: You must reboot for changes to the display settings to take effect. If you do not know if your monitor supports a setting, click the Test button on the Display Properties Settings tab.

For more information about display settings, see [Display on page 28](#) in the Control Panel chapter.

Taskbar

Move the pointer to the bottom of the screen to display the taskbar. The taskbar is hidden by default to provide a clean ICA connection experience.

The taskbar provides access to system software. The taskbar includes:

- **Start** button
- active task buttons - currently running programs
- notification area - the system tray



To configure the thin client to show the taskbar:

1. Right-click on the taskbar.
2. Select **Properties**.
3. Clear the **Auto hide** check box.

Start Menu

To open the Start menu, click the Start button on the taskbar. The Start menu provides access to software and settings, allows you to run commands, and allows you to shut down the system.



Icons

The icons on the desktop provide shortcuts to software and connections. To launch a program from the desktop, double-click the respective icon.

You can add icons for connections by right-clicking on the connection icon in the HP Connection for Citrix software and selecting **Send to Desktop**. For more information, see [HP Connections for Citrix Software on page 66](#) in Chapter 5.



NOTE: Windows CE architecture does not allow you to change the properties of programs from desktop shortcuts. You can only change property values for the shortcut itself from the desktop.

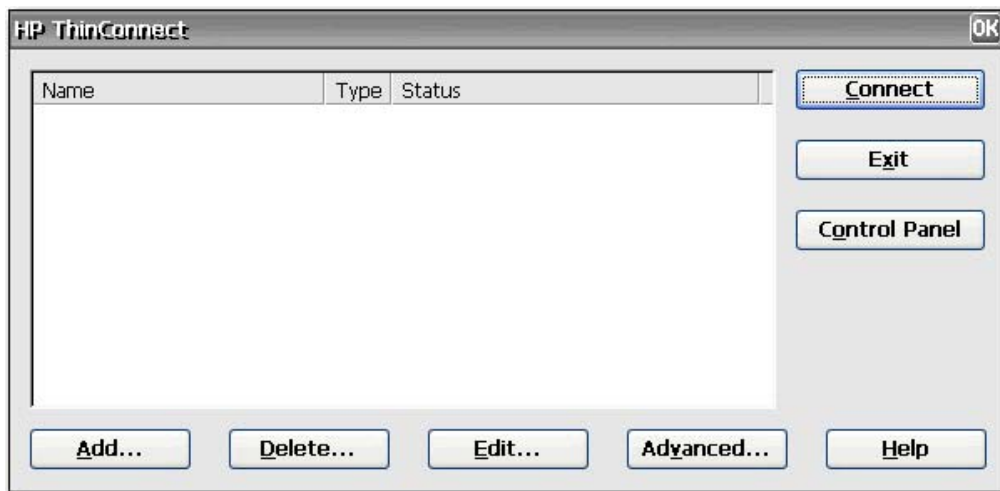
3 HP Thin Connect

HP Thin Connect allows you to:

- Manage user accounts.
- Add, edit, and delete connections.
 - Terminal emulation
 - Microsoft Remote Desktop Client (RDP) connections
 - HP PC Session Allocation Client (PC SAM)
 - Internet Explorer
 - Citrix ICA connections
- Assign connections to users.

The main HP Thin Connect window allows you to perform actions for only the current user. To assign connections to other users, use the HP Thin Connect Advanced window. For more information about the Advanced window, see [Advanced Window on page 8](#).

You can access HP Thin Connect by clicking **Start > Programs > HP Thin Connect**.



NOTE: You must close all active connections to use the following buttons: **Add, Delete, Edit, Advanced, Exit.**

The HP Thin Connect window includes the following features:

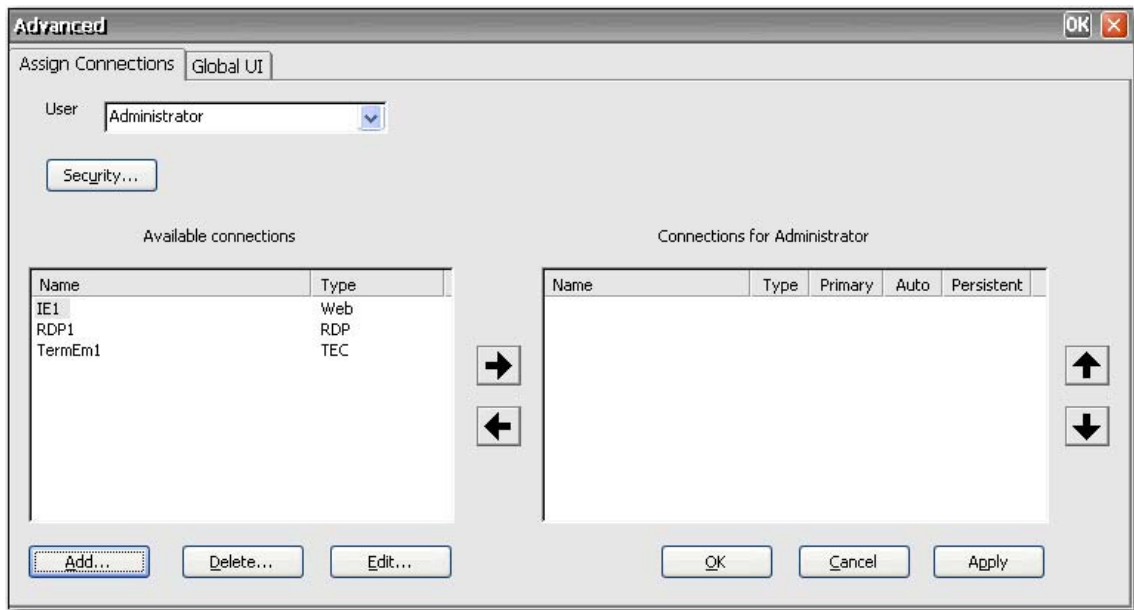
- **Connection display area:** Lists all connections assigned to the user currently logged on to the terminal. For each connection, the display shows the name, type, and status of the connection.
- **Connect:** Click to activate a selected connection.
- **Exit:** Click to exit HP Thin Connect. The **OK** button performs the same function.
- **Control Panel:** Click to access the Control Panel. This feature requires appropriate permissions.
- **Add:** Click to create a new connection and add it to the list of connections assigned to the user currently logged on to the terminal. You can assign the new connection to other users in the Advanced window. For more information, see [Adding connections on page 14](#).
- **Delete:** Click to delete a selected connection. The connection is deleted from the list of connections available to all users, not just the user currently logged on to the terminal. For more information, see [Deleting connections on page 15](#).
- **Edit:** Click to edit the selected connection. For more information, see [Editing connections on page 14](#).
- **Advanced:** Click to access the Advanced window, where you can configure and assign connections and configure the terminal user interface. For more information, see [Advanced Window on page 8](#).
- **Help:** Click to access help.

Advanced Window

You can access the Advanced window by clicking the **Advanced** button in HP Thin Connect. You must log in with Administrator permissions or with the “User may add, edit, or delete connections” permission to access the Advanced window. The Advanced window allows you to configure and assign connections, set up user security accounts, and configure the user interface for the terminal.



CAUTION: Click either **OK** button to save changes and close the Advanced window. Click the **X** button or **Cancel** to exit without saving changes.



Creating user accounts

You can set up terminal operator user accounts in the Security window, which you can access either from the Thin Connect Advanced window or from Control Panel.

The system comes with three default accounts:

- Administrator
- Guest
- User

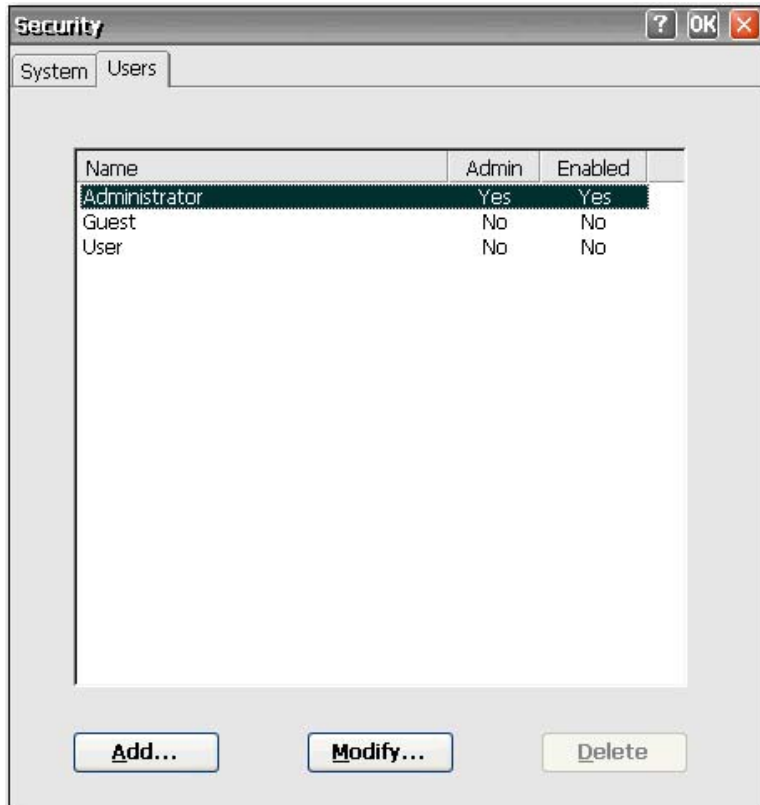
You can use the default accounts as templates for new accounts. You can modify the default Guest and User accounts.

The Users tab lists all operator accounts and shows which accounts are set up with Administrator security permissions and which accounts are enabled.

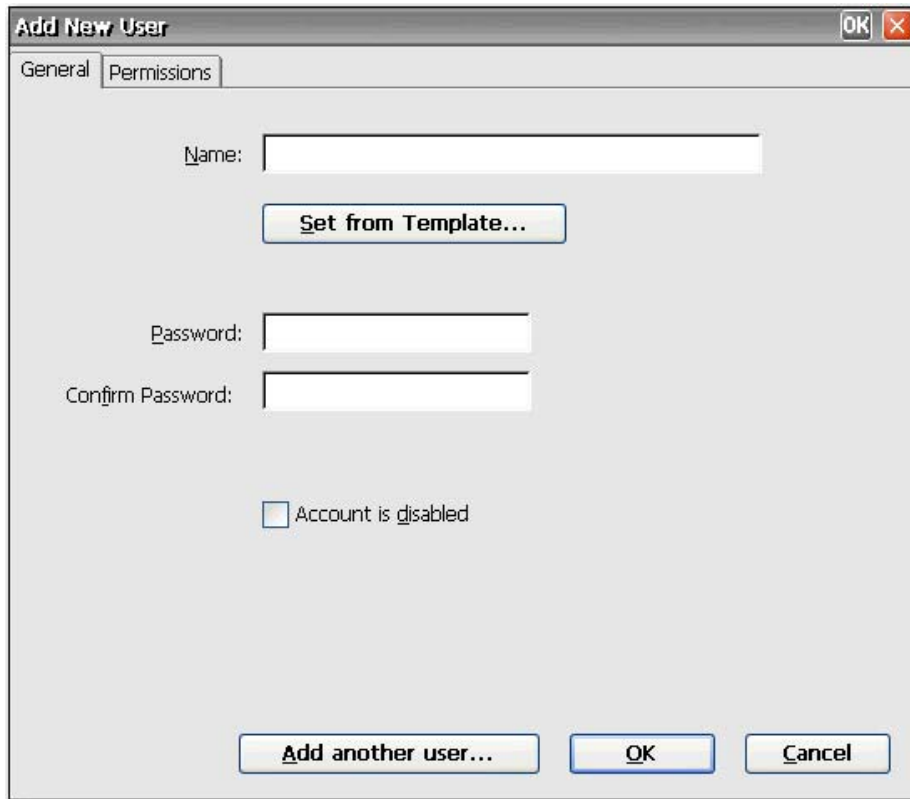
To create a new user account:

1. In HP Thin Connect, click **Advanced**.
2. On the **Assign Connections** tab, click **Security**. This takes you to the Control Panel Security window.

3. Select the **Users** tab, and then click **Add** to create a new user account.



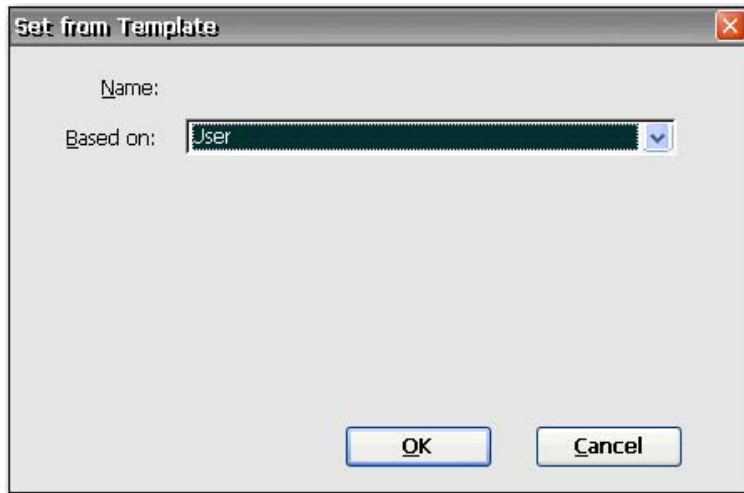
4. On the **General** tab, type a name for the new user account in the **Name** box. Valid characters for the **Name** box include: A - Z, a - z, 0 - 9. (.)&^%\$#!~"{}_-. Maximum length is 20 characters.



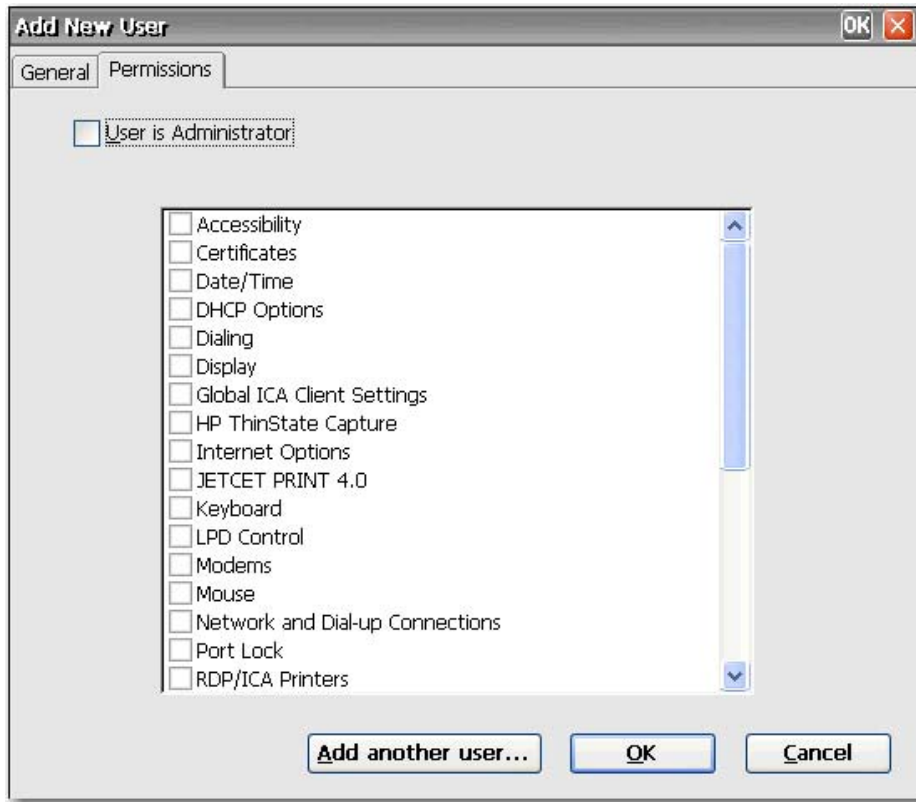
The screenshot shows a dialog box titled "Add New User" with two tabs: "General" and "Permissions". The "General" tab is active. It contains the following fields and controls:

- Name:** A text input field.
- Set from Template...:** A button located below the Name field.
- Password:** A text input field.
- Confirm Password:** A text input field.
- Account is disabled**: A checkbox located below the password fields.
- Add another user...:** A button at the bottom left.
- OK:** A button at the bottom center.
- Cancel:** A button at the bottom right.

5. Type a password for the new user in the **Password** box.
6. Retype the password in the **Confirm Password** box.
7. To enable the user account, clear the **Account is disabled** check box.
8. To assign the same permissions to the new account that are assigned to an existing account, click **Set from Template**.



- a. In the **Based on** list, select the account to use as a template.
 - b. Click **OK** to save your settings and return to the Add New User window.
 - c. To add another user, click **Add another user**. This option allows you to quickly add new users.
9. To select permissions for the new account, select the **Permissions** tab on the Add New User window.



- a. Select the items in the permissions list that you want to allow the user to access. If the user is an Administrator, select **User is Administrator** to provide full access. If you select **User is Administrator**, you cannot select or clear items in the list.
 - b. To save your settings and add another user, click **Add another user**.
or
Click **OK** to save your settings.
10. Click **OK** when you are finished adding users.
 11. If you want to modify or delete user accounts, select the account, and then click **Modify** or **Delete**.
 12. Click **OK** at the top of the window when you are done adding or modify user accounts.

Connections

You can add, edit, or delete connections in HP Thin Connect and in the Advanced window. Add connections as follows:

- Use HP Thin Connect to create and assign connections to the user currently logged on to the terminal.
- Use the Advanced window to assign the connection to other users.

Adding connections

To add a connection in HP Thin Connect:

1. In HP Thin Connect, click **Add**.



2. In the **Choose type** dialog box, select the type of connection you want to create, and then click **OK**. A Wizard or setup dialog for the connection type displays.
3. Follow the on-screen instructions in the Wizard or setup dialog to add the connection to the user's connections list and to the list of available connections that you can assign to other users in the Advanced window.



NOTE: If you create a connection in HP Connections for Citrix Software, the connection also displays in HP Thin Connect. Similarly, connections created in HP Thin Connect also display in HP Connections for Citrix Software.

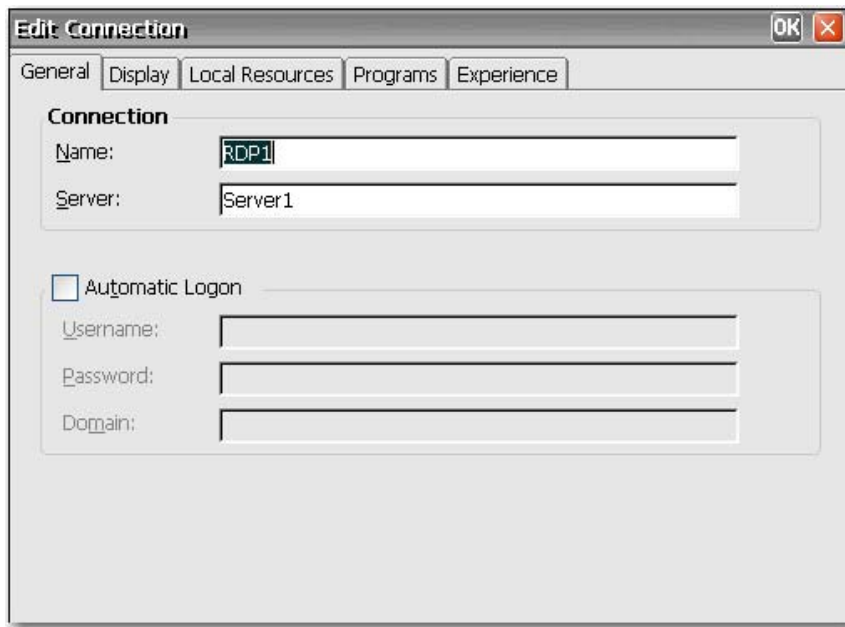
Editing connections

To edit a connection in HP Thin Connect:

- Select the connection, and then click **Edit**. Make the appropriate changes in the Wizard or setup dialog.



NOTE: The following image illustrates the Edit Connection window for an RDP connection. The screen varies based upon the type of connection you edit.



NOTE: Renaming a connection effectively deletes it from *all* user accounts.

Deleting connections

To delete a connection in HP Thin Connect:

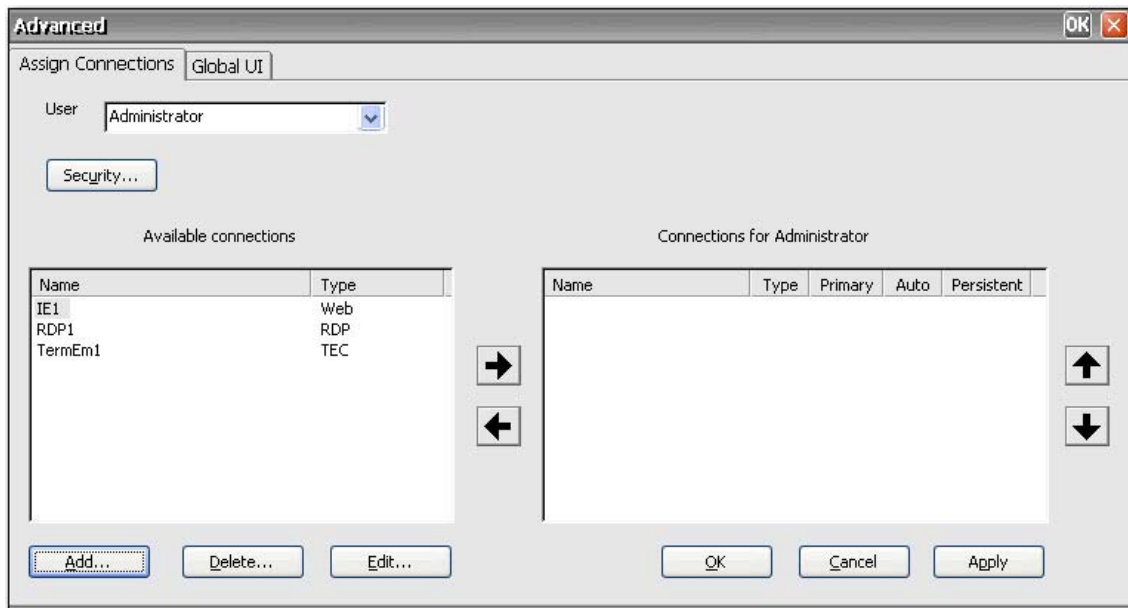
- Select the connection, and then click **Delete**. The connection is deleted from all user connection lists.

Assigning connections to users

Assign and configure connections for users in the Advanced window of HP Thin Connect.

Assign Connections tab

The **Assign Connections** tab allows you to assign connections to users. This tab contains the following features:



- **User:** This list includes all users accounts associated with the system. To configure connections for a user, select the user from the list.
- **Security:** Allows you to access the Security window, where you can create and configure user accounts. This button opens the same window as selecting Security from Control Panel.
- **Available connections:** On the left side of the window, this panel displays all available connections that you can assign to users. The columns in this panel include:
 - **Name:** Displays the name of the connection assigned when the connection was created.
 - **Type:** Displays the type of connection.
- **Add:** Click to create a new connection and add it to the **Available connections** list. Clicking this button displays a connection type list. When you select a connection type to add and click **OK**, a wizard opens that allows you to configure connections.
- **Delete:** Select a connection in the **Available connections** list, and then click this button to delete the connection. Deleting a connection here also deletes the connection from the list of connections assigned to all users.
- **Edit:** Select a connection in the **Available connections** list, and then click this button to edit the connection.
- **Connections for [user]:** On the right side of the window, this panel displays the connections assigned to the user displayed in the **User** box.
 - **Name:** Displays the name of the connection assigned to the user.
 - **Type:** Displays the type of connection.
 - **Primary:** Designates a connection as either primary or secondary. **Yes** indicates a primary connection. Click on the column value to change the setting. You cannot change the first connection in the list to secondary.
 - **Auto:** Determines whether the system automatically connects when HP Thin Connect starts up. **Yes** indicates the system will automatically connect. Click on the column value to change

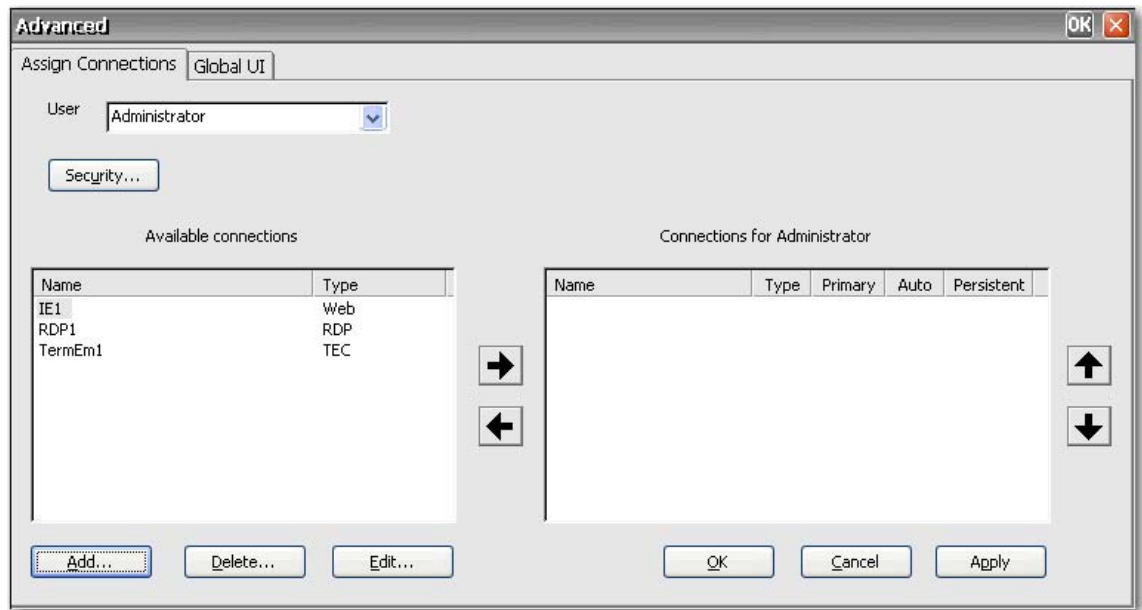
the setting. NOTE: You must configure HP Thin Connect to auto start for this setting to function properly. To configure Thin Connect to automatically start up, see [Auto starting HP Thin Connect on page 19](#).

- **Persistent:** Determines whether the system will attempt to reconnect when a connection fails. **Yes** indicates the system will automatically attempt to reconnect. Click on the column value to change the setting.
- **OK:** Click to save changes and exit the Advanced window.
- **Cancel:** Click to cancel unsaved changes and exit the Advanced window.
- **Apply:** Click to save changes.

Assigning connections

Once you have created a connection, you can assign it to users in the Advanced window.

1. In HP Thin Connect, click **Advanced**.
2. On the **Assign Connections** tab, select the appropriate user from the **User** list.



3. Double-click the connection in the **Available connections** list, or select the connection and click the right arrow. The connection is copied to the **Connections for [user]** list.
4. Click **Apply** to save the updated list of connections for the user.

Designating connections as primary or secondary

You can designate connections as primary or secondary in the Advanced window. A primary connection is the first attempted in a group of connections. If a primary connection fails, the system attempts failover secondary connections in the order they are listed. You can configure more than one primary connection, each of which can have several secondary connections associated with it. Secondary connections are optional.

To designate a connection as primary or secondary:

1. In the HP Thin Connect window, click **Advanced**.
2. On the **Assign Connections** tab, select the appropriate user from the **User** list.
3. Select the connection from the user's connection list that you want to make primary.
4. In the **Primary** column, click on the column value to change it. **Yes** means the connection is a primary connection. The first entry in the list must be primary.
5. If you want to assign a secondary connection, select the connection and change the value in the **Primary** column to **No**. The connection becomes secondary to the first primary connection directly above it in the list.
6. To arrange the order of connections, select a connection and click the up and down arrows.
7. Click **Apply**.



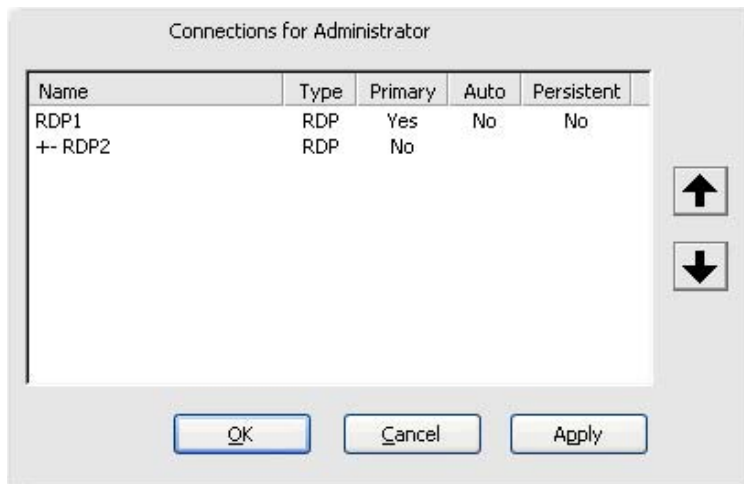
NOTE: Every secondary connection must have a primary connection listed above it.

Enabling automatic connection and reconnection

In the Advanced window, you can set up primary connections assigned to users to automatically connect at boot up and to reconnect if disconnected. Automatic connection requires that you configure HP Thin Connect to start automatically. For more information, see [Auto starting HP Thin Connect on page 19](#).

To enable automatic connection and reconnection:

1. In the HP Thin Connect window, click **Advanced**.
2. On the **Assign Connections** tab, select the appropriate user from the **User** list.
3. Select the primary connection in the user's connection list that you want to automatically connect.



4. In the **Auto** column, if the entry for the selected connection is **No**, click on **No** to change it to **Yes**.
5. Select the connection in the user's connection list that you want to make automatically reconnect.



NOTE: You can set only primary connections to automatically reconnect.

6. In the **Persistent** column, if the entry for the selected connection is **No**, click on **No** to change it to **Yes**.
7. To arrange the order of connections, select a connection and click the up and down arrows. Secondary connections are associated with the first primary connection above them in the list.
8. Click **Apply** to save your changes.



NOTE: You can set only primary connections to automatically connect when HP Thin Connect is launched.

Configuring the user interface

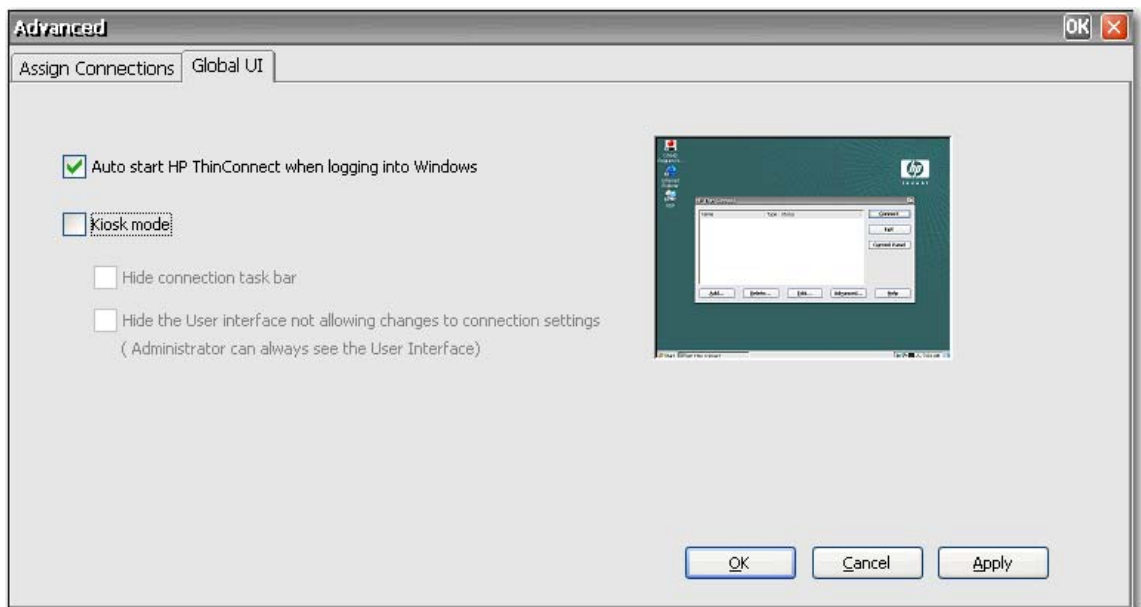
The **Global UI** tab on the Advanced window allows you to configure HP Thin Connect to start automatically and allows you to set up Kiosk mode.

Auto starting HP Thin Connect

You can enable automatic log on, which causes HP Thin Connect to start automatically when the user logs in to Windows.

To auto start HP Thin Connect:

1. In the HP Thin Connect window, click **Advanced**.
2. Click the **Global UI** tab.



3. Select **Auto start HP Thin Connect** when logging into Windows.
4. Click **Apply** to save changes.

Setting the terminal to Kiosk mode

Kiosk mode limits the terminal's functionality by hiding the desktop icons and limiting the Start menu to **Shut Down** only. There are also Kiosk mode options for hiding the task bar and hiding HP Thin Connect.

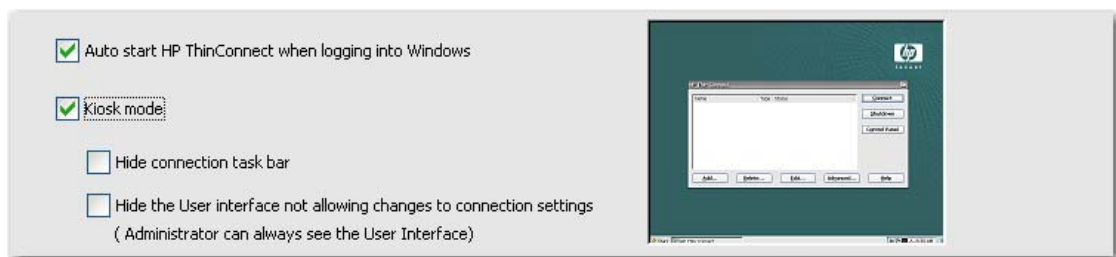


NOTE: Before setting a terminal to run in Kiosk mode, you must define a user and create a connection. For more information, refer to "Creating user accounts" and "Connections".

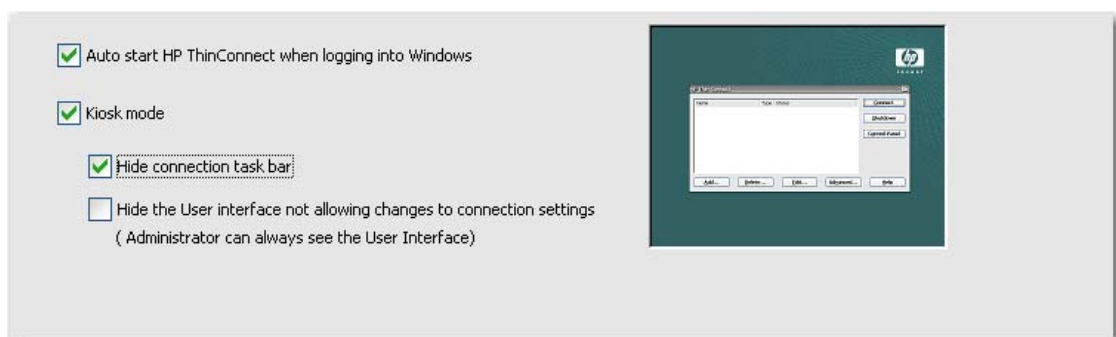
The preview display on the right side of the screen shows you how the user interface will appear when you select the various check boxes on the left side of the tab.

To set the terminal to run in Kiosk mode:

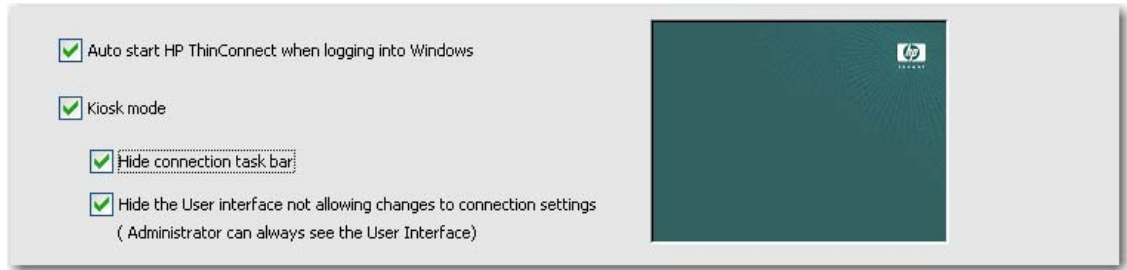
1. Create the necessary connection.
2. On the HP Thin Connect window, click **Advanced**.
3. Click the **Global UI** tab.
4. Select **Auto start HP Thin Connect check box when logging into Windows** check box. This makes the Kiosk mode option available.
5. Select **Kiosk mode**. Two more check boxes become available as options.



6. To further lock down the terminal in Kiosk mode by hiding the task bar at the bottom of the desktop, select the **Hide connection task bar** check box. You must select the automatic logon feature to gain access to this feature.



- To further lock down the terminal in Kiosk mode by hiding the user interface to connection settings, select **Hide the User interface not allowing changes to connection settings**. You must select the automatic logon feature to gain access to this feature.



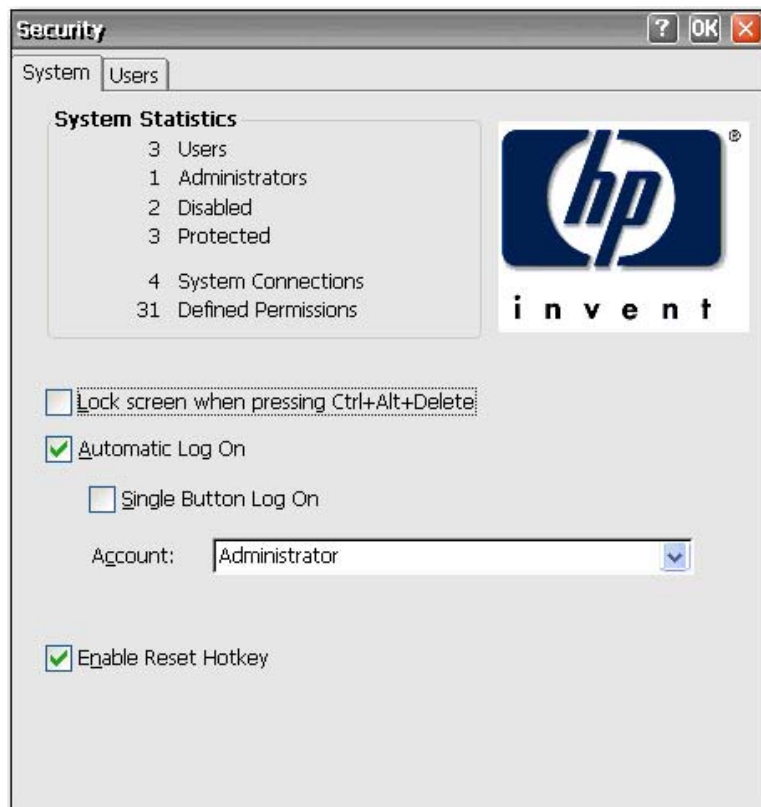
- Click **Apply** to save your changes, or click **OK** to save your changes and exit the Advanced window.
- Log off the user for all changes to take effect.

Enabling automatic log on and keyboard functions

The Security window in Control Panel allows you to enable automatic log on which bypasses a user's password requirement when logging on to the system.

To enable automatic log on:

- On the HP Thin Connect window, click **Advanced**.
- Click **Security**. The **System Statistics** area displays information about system users and connections.



3. On the **System** tab, select **Automatic Log On** so the user does not have to enter a password to log in to the local machine. You can set up automatic log on for one user per terminal. The default is no password. You must select **Automatic Log On** to gain access to the **Single Button Log On** check box and the **Account** list.
4. If you want to lock the terminal when pressing **Ctrl+Alt+Delete**, select **Lock screen when pressing Ctrl+Alt+Delete**. This feature allows users to quickly lock their terminal and prevent unauthorized access. When the terminal is locked, press **Ctrl+Alt+Delete** again to type your password to regain access to the terminal.
5. If you want to activate the single button connect feature, select **Single Button Log On**. This feature invokes a dialog box that requires the terminal operator to press **Enter** or click the **Logon** button on the dialog box to log in. If someone other than the auto logon user wants to log onto the terminal, press **Esc** or **Alt+F4**.
6. From the **Account** list, select the account that the system will use to log on the terminal operator.
7. Select **Enable Reset Hotkey** to allow the terminal to be reset to factory defaults (registry and shortcuts) by pressing and holding **F9** key during boot.



CAUTION: If you disable the F9 reset function and then change monitors or change display settings resulting in your monitor becoming unable to display, the only way to recover the client will be to reflash it.

8. Click **OK** at the top of the window to save your changes.

Switching to a different user

To switch to a different user when booting:

1. Press the power button to start the system.
2. Press **Esc** or **Alt+F4** before the automatic logon countdown completes.
3. Log on as the user of your choice.

4 Control Panel

This chapter provides an overview of the programs in the Control Panel and provides step-by-step instructions to perform certain tasks. You can use many of the programs for local administration, while you use others, such as DHCP Options and SNMP, for remote administration.

To open the Control Panel:

- From the desktop, select **Start > Settings > Control Panel**.
- or
- From the HP Thin Connect window, click the **Control Panel** button.



NOTE: The LPD Control program is available only on terminals equipped with a serial port.

Accessibility

The Accessibility dialog box allows you to configure the terminal with 508 Accessibility features. Accessibility options are available for the keyboard, sound, display, and mouse.



- **Keyboard:** Allows you to enable StickyKeys, which lets you use the [Shift](#), [Ctrl](#), and [Alt](#) keys pressing one key at a time rather than holding them all down simultaneously. You can also enable ToggleKeys to hear tones when pressing the [Caps Lock](#), [Num Lock](#), and [Scroll Lock](#) keys.
- **Sound:** Allows you to enable SoundSentry, which causes Windows to generate visual warnings when the system makes a sound.
- **Display:** Allows you to enable High Contrast, which causes Windows to use colors and fonts designed for easy reading.
- **Mouse:** Allows you to enable MouseKeys, which lets you control the pointer with the numeric keypad on the keyboard.
- **General:** Allows you to automatically turn off accessibility features after a set amount of idle time. You can also enable the notification feature, which causes Windows to make a sound when you turn a feature on or off.

Certificates

The Certificates dialog box allows you to import, store, and view security certificates. Certificates and certificate authorities ensure that an SSL connection is made to the intended secure server. Certificate information is exchanged between the terminal browser and the secure server when establishing a connection. If a trusted certificate authority can authenticate the certificate, the secure page automatically displays. A private key is also used to encrypt data over an SSL connection.

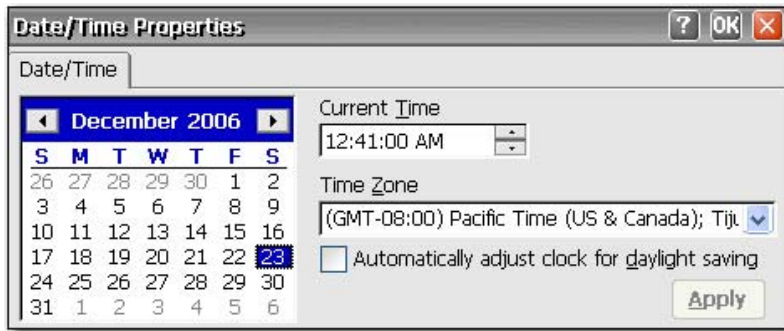


To import a certificate or private key:

1. Select the type of certificate you would like to import from the drop-down list.
 - Trusted Authorities are digital certificates issued by certification authorities. The Windows CE browser comes with a pre-defined list of trusted certification authorities that include Equifax, Thwarte, Entrust, GlobalSign, GTE, and others.
 - My Certificates are your personal digital certificates.
 - Other Authorities are intermediate certificate authorities. No intermediate authorities are loaded by default.
2. Click **Import**, select the location source of the certificate or key, and then click **OK**.
 - **From a File** allows you to import a certificate or key from any mapped drive. Browse to the certificate or key and select it, or select the **Type** and type the name of the certificate or key in the **Name** box.
 - **From a Smart Card** allows you to import a certificate from a Smart Card. Make sure the Smart Card is inserted and select a **Reader** from the list. The radio button is active only if a smart card is inserted.
 - **Friendly name** allows you to rename a certificate that you import.
3. Click **OK**.

Date/Time

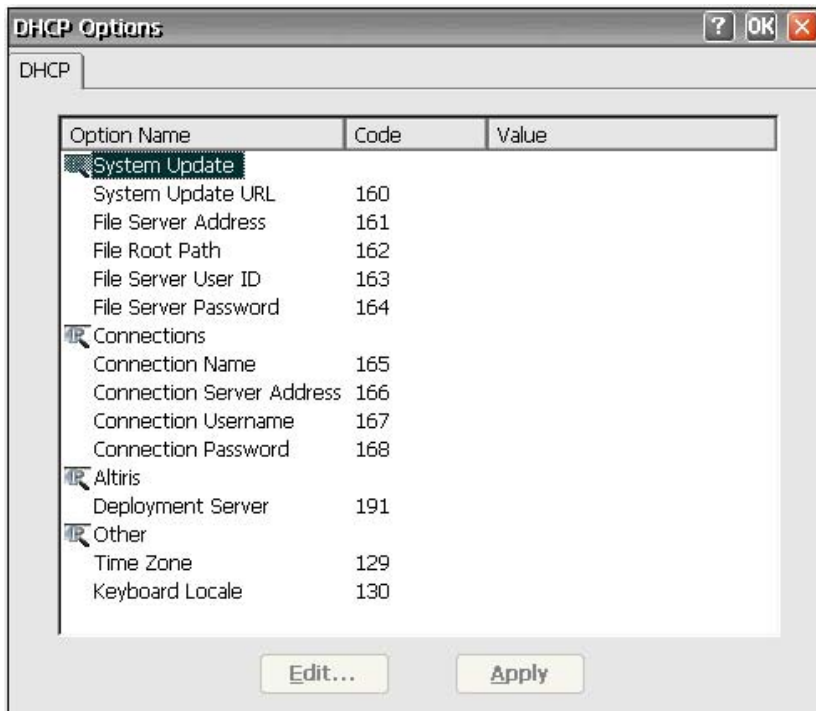
The Date/Time Properties dialog box allows you to set the date and current time, select the appropriate time zone, and enable automatic clock adjustment for daylight savings time for the terminal.



- Select the appropriate date and time information, and then click **Apply**.

DHCP Options

The DHCP Options page allows you to configure the thin client with the port locations for various information that the client retrieves from the FTP server. For information about resetting thin client settings to factory defaults, see the [System on page 52](#) section later in this chapter.



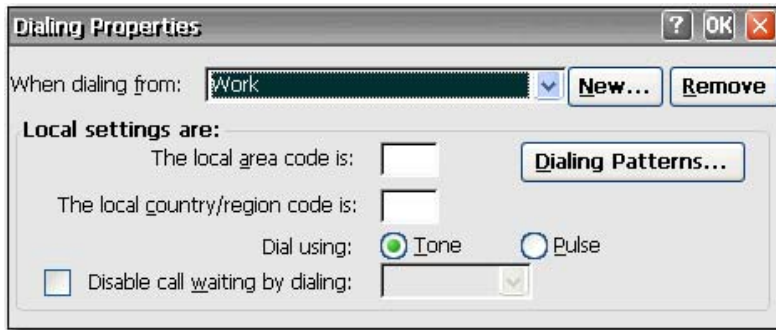
To change port values:

1. Double-click on the name of the option to change. A dialog box displays with a list of all valid options.
2. Select the appropriate value from the list, and then click **OK**.

Dialing

The Dialing Properties dialog box allows you to:

- Add or select a dialing location.
- Configure dial-up settings for the selected location. Local settings include the area code, county/region code, and tone or pulse dialing.
- Disable call waiting.
- Set up dialing patterns for local, long distance, and international calls.

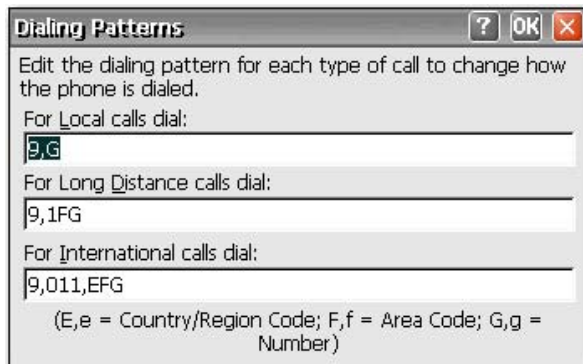


To add a dialing location:

1. Select or add a **When dialing from location** and type the local settings for the location.
2. Click **OK** after entering the information.

To configure the system to use an area code for local calls:

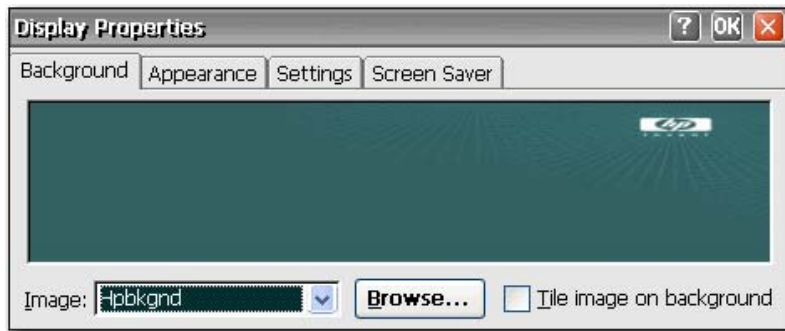
1. Click **Dialing Patterns**.



2. In the **For Local calls** dial box, add an **F** before the **G**. For example, **F,G** will dial the area code, then 7-digit phone number.

Display

The Display Properties dialog box allows you to configure the background image, appearance scheme, screen resolution, color quality, refresh frequency, and screen saver.



NOTE: You can also access the Display Properties dialog box by right-clicking on the desktop and selecting Properties.

Reboot the terminal for display property changes to take effect.

The Background tab allows you to set the background image that appears on your monitor. You can use a background image that is any of the following formats:

- bmp
- gif
- jpeg

Save background image files in the **Hard Drive** folder to assure the client can find them after a reboot.

The **Appearance** tab allows you to set the Windows CE color scheme.

The **Settings** tab includes a **Test** button that you can use to test the resolution and refresh settings. If you select settings your monitor does not support and you do not test updated settings, the next time you reboot, your display will not work and you must press **F9** to reset to defaults.

In the **Screen Saver** tab you can set up password protection as well as configure the following screen saver options:

- no screen saver
- turn off monitor
- floating image
- tiled image

The following table lists the available screen resolutions, color quality settings, and refresh frequencies. The default is 800x600x16 @ 60Hz.

Resolution/Color	60Hz	75Hz	85Hz
640x480x8	X	X	X
640x480x16	X	X	X
640x480x32	X	X	X
800x600x8	X	X	X
800x600x16	X	X	X
800x600x32	X	X	X
1024x768x8	X	X	X
1024x768x16	X	X	X
1024x768x32	X	X	X
*1152x864x16	X	X	X
*1152x864x32	X	X	
1280x1024x8	X	X	X
1280x1024x16	X	X	X
1280x1024x32	X		
*1600x1200x8	X	X	
*1600x1200x16	X	X	

*These resolutions are not supported on all thin client models.

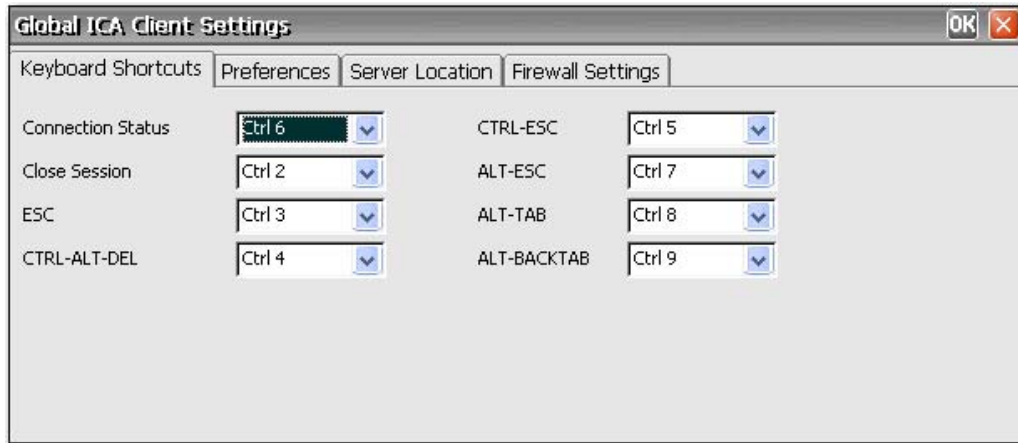
*All refresh rates are not supported by all monitors.



NOTE: If you set the display settings out of range, you must reset the terminal to factory defaults by rebooting the terminal and holding down the F9 key until you see a window that says "Loading..." at the bottom. Resetting the terminal to factory defaults erases all configuration settings and connections.

ica Global ICA Client Settings

The Global ICA Client Settings dialog box allows you to configure ICA default client settings.



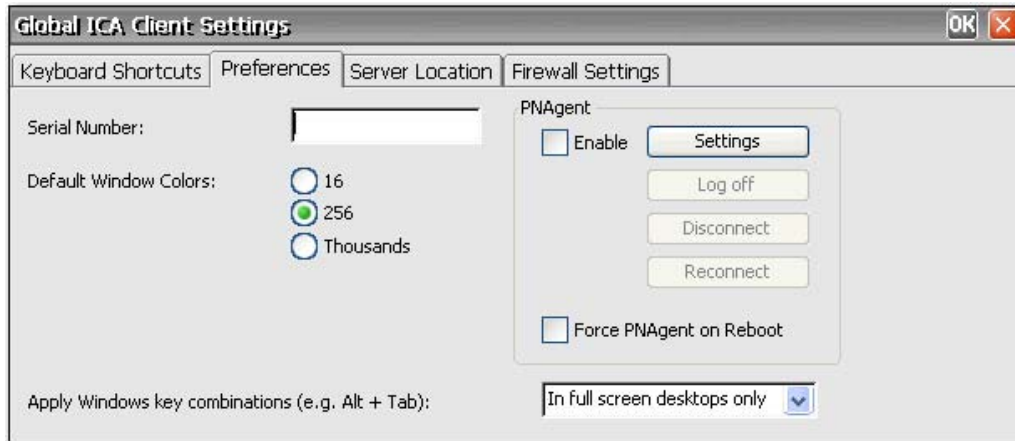
Keyboard Shortcuts

The **Keyboard Shortcuts** tab allows you to configure hot key combinations that you can use during active ICA sessions. You can assign the hot keys used to perform a function by selecting the hot key combinations from the list next to each function.

- **Connection Status** invokes a message about the status of the connection.
- **Close Session** disconnects the terminal from the server but does not actually close the session on the server. The session will continue to run on the server until the terminal operator logs off.
- **ESC** performs the same function as the [Esc](#) key.
- **CTRL-ALT-DEL** invokes the terminal Security dialog box.
- **CTRL-ESC** displays the Remote Task list on WinFrame servers, or displays the Start menu on MetaFrame servers.
- **ALT-ESC** cycles the focus through the minimized icons.
- **ALT-TAB** cycles through open applications in sequential order.
- **ALT-BACKTAB** also cycles through open applications sequentially, but in the opposite direction.

Preferences

The **Preferences** tab allows you to set color preferences during an ICA session.

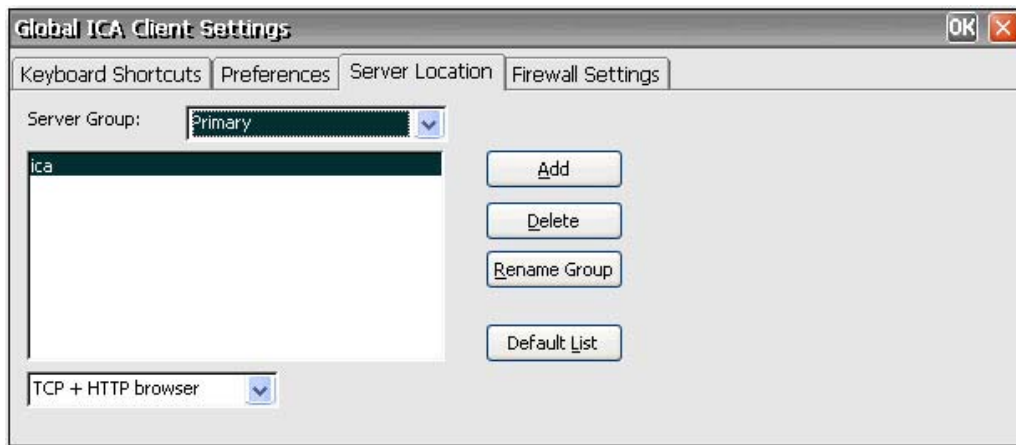


The **Preferences** tab contains the following:

- **Serial Number:** Type the serial number of the ICA Client software exactly as it appears on the serial number card. This is necessary when using the ICA Windows CE Client with certain products, such as WinFrame Host/Terminal. It is not necessary for MetaFrame servers.
- **Default Window Colors:** Select the color option for the ICA client. If the ICA server does not support the selected color option, then it defaults to 16-bit color.
- **PNAgent:** Select to enable PNAgent.
 - **Settings:** Click to display a dialog box that allows you to type the URL of the PNAgent server. You can use this server to remotely configure PNAgent settings. You can configure ICA seamless settings in these screens.
 - **Force PNAgent on Reboot:** Select to cause PNAgent to prompt you to log in every time you reboot.
- **Apply Windows key combinations:** Select the option in which you want key combinations to function.
 - **In full screen desktops only** and **On the remote desktop** apply to the ICA session.
 - On the local desktop applies to the local client.

Server Location

The **Server Location** tab allows you to view/add Citrix servers on the network that have ICA connections configured.

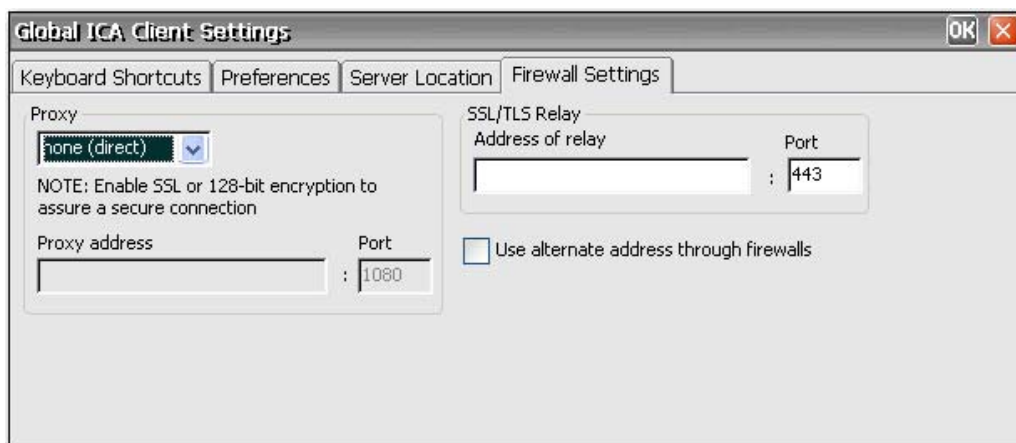


The **Server Location** tab contains the following:

- **Server Group:** Select whether the servers in the server address list belong to your Primary, Backup 1, or Backup 2 group.
- **Server address list:** Lists the entered server locations.
- **Add:** Click to add a server address.
- **Delete:** Click to delete a server address.
- **Rename Group:** Click to rename the selected server group.
- **Default List:** Click to recall the previous server address list.

Firewall Settings

The **Firewall Settings** tab allows you to set up a firewall by placing a proxy server between a server and a client.



In the **Proxy** section, select a protocol from the list, and then type the proxy address and port.

In the **SSL/TLS Relay** section, type the relay address and port for the Socket Security Layer (SSL) or Transport Layer Security (TLS) protocol.

If the firewall uses address remapping, you must configure the client to use the alternate address returned by the data collector by selecting **Use alternate address through firewalls**. This is necessary whether or not you are using a SOCKS or secure proxy server.



HP Thin State Capture

Thin State capture and deploy allows you to capture a thin client image and deploy it to other thin clients of the same model.

ATTENTION: When deploying an image and settings from a “source” or “master” thin client to a “target” thin client, please make sure that source/master and target thin clients have identical hardware. This is applicable regardless of deployment method being used: HP ThinState Tools, Altiris Deployment Solution, HP OpenView Client Configuration Manager, or any other deployment solution being used.

Thin State Capture

The HP ThinState Capture tool is a simple wizard-based tool that you can use to capture an HP thin client image that you can then deploy to another HP thin client of identical model and hardware.

What do you need to have?

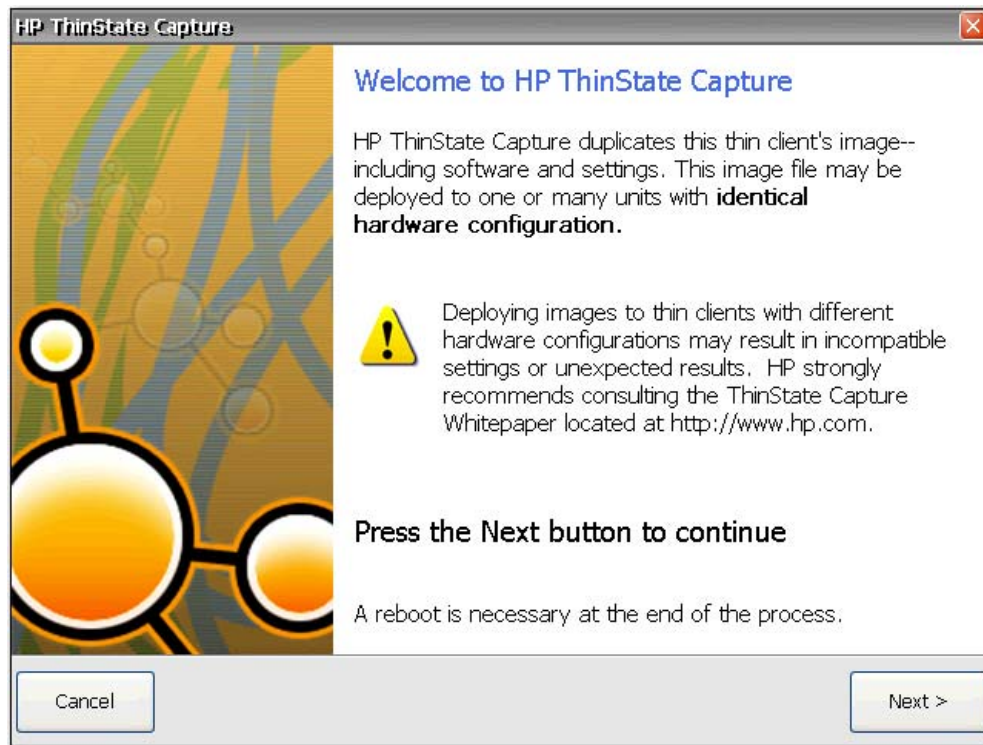
- An HP thin client CE unit that contains the latest HP provided image.
- An HP-approved USB flash drive.



NOTE: The HP ThinState Capture tool is not a standalone tool and can only be accessed by the administrator from within the thin client image.

NOTE: Save all data on the USB flash drive on some other device prior to performing this procedure. The USB flash drive will be formatted and all data will be lost.

1. Once you launch the ThinState Capture tool from within the Control Panel, you are presented with the following screen.



2. Click **Next**.
3. Connect a USB flash drive to the unit. The USB flash drive letter and size are displayed. The USB flash drive must be greater in size than the on-board flash disk.
4. Click **Capture**.
5. Click **Yes** on the warning screen. The ThinState Capture tool formats and makes the USB flash drive bootable. ThinState Capture reboots the system.

After you perform these actions, please follow the on-screen instructions.

You can now use the USB flash drive to deploy the captured image to another HP thin client of the exact same model and hardware.

Thin State Deploy

To perform a ThinState deployment:

1. Set the boot order in the F10 System Bios to USB boot (if necessary).
2. Attach the USB flash drive to the thin client unit you wish to deploy the captured image to, and then power on the unit.
3. Follow the on-screen instructions.

After you remove the USB flash drive and cycle power to the system, the image unbundles. Do not interrupt or cycle power to the unit during this process.

You may use the captured image (flash.dd) found in the USB flash drive in combination with Altiris Deployment Solution to remotely image multiple thin client units.



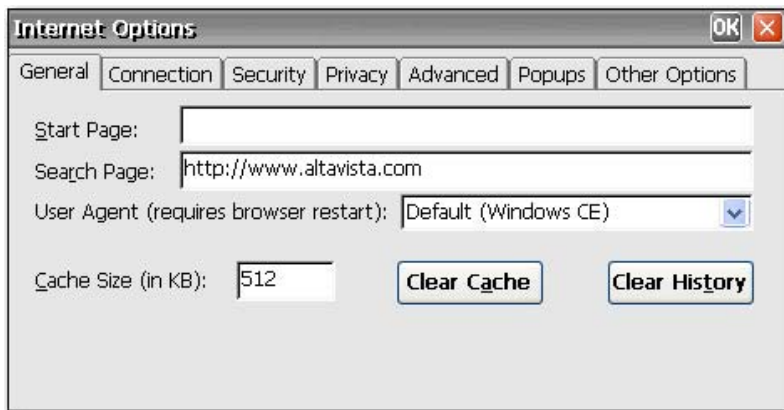
NOTE: You must use flash.dd in conjunction with HP's ThinState Deploy utility (e.g. ibr.exe). Flash.dd is not compatible with Altiris' rdeploy.exe or rdeployt.exe utilities. Please consult the HP Compaq Thin Client Imaging Tool at: <http://h20000.www2.hp.com/bc/docs/support/SupportManual/c00485307/c00485307.pdf>

For more information about Altiris, see <http://www.altiris.com/>.



Internet Options

The Internet Settings dialog box allows you to configure Internet browser settings on the terminal.



The Internet Settings dialog box includes the following tabs:

- **General:** Allows you to enter start and search pages, identify the Web browser type to determine how Web pages are displayed, set the cache size, and clear cache and history.
- **Connection:** Allows you to select LAN or autodial connections and to configure proxy server settings.
- **Security:** Allows you to specify Web sites that are trusted, restricted, and so on. Also allows you to configure ActiveX, scripting, and other advanced-type internet options.
- **Privacy:** Allows you to configure how the browser handles cookies.
- **Advanced:** Allows you to configure multiple internet options, including options for accessibility, browsing, multimedia, and security.
- **Popups:** Allows you to configure how the browser handles pop-ups, including blocking, notification when pop-ups are blocked, and exceptions that allow popups from specific sites.
- **Other Options:** Allows you to enable browser window resizing, enable favorites, and set the font size.



NOTE: Due to CE architecture, proxy exceptions are not available.



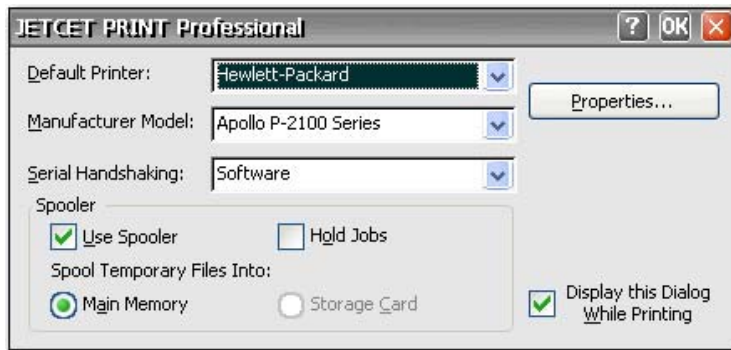
JETCET PRINT 4.0

The JETCET PRINT Professional dialog box allows you to set up the terminal for local printing from Ttxpad and Internet Explorer.



NOTE: Windows CE is best suited for printing small documents.

NOTE: Printer port designations are: LPT1 = parallel, LPT2 = USB.



To set up a printer:

1. In the **Default Printer** box, select a default printer.
2. In the **Manufacturer Model** box, select the printer model.
3. If printing using a serial connection, in the **Serial Handshaking** box select either **Hardware** or **Software** for serial handshaking between the terminal and printer.
4. Set the appropriate print spooler options. You must select **Use Spooler** for other options to become available.
5. Click the **Properties** button to configure printer settings. Define printer settings as appropriate.
6. If you want to configure Internet Printing (IPP) to allow you to print to network printers:
 - a. Click the **Internet Printing** tab.
 - b. Click **Add Port**.
 - c. Type the IP address of the network printer to which you want to print.
 - d. Select the port from which to send print jobs from the **Virtual Port** list. To avoid port conflicts, HP recommends selecting COM2 as the virtual port.
 - e. Click **OK**.
 - f. Click **OK** to exit the JETCET dialog box.

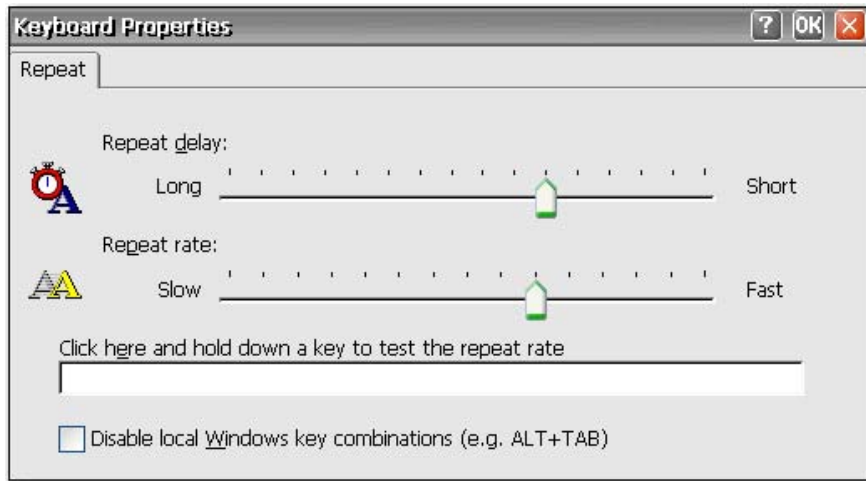


NOTE: For more information, refer to the JETCET user guide at <http://www.westtek.com/support/pocketpc/jetcet.html>.

NOTE: Internet Explorer uses LPT1 as its default printer port. If you want to print using a different port, in Internet Explorer, select **File > Page Setup** and select the port to which to print.

Keyboard

The Keyboard Properties dialog box allows you to configure your keyboard.



Repeat delay determines how long you must hold down a key before its character starts repeating.

Repeat rate determines how quickly a character repeatedly displays on screen when the key is held down.

If you are a legacy user, see [Regional Settings on page 43](#) to change keyboard settings.

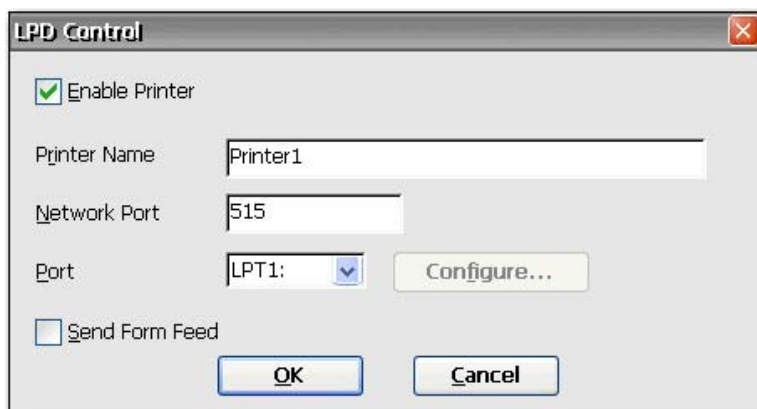
Select **Disable local Windows key combinations (e.g. ALT+TAB)** to disable the passing of hot keys to the terminal service server.

LPD Control

The LPD Control dialog box allows you to set the terminal up as a line printer (print server).



NOTE: HP Compaq t5300 thin client models do not have legacy ports. Therefore, the LPD Control program will not appear in the Control Panel for those systems.



To set the terminal up as a print server:

1. Select **Enable Printer**.
2. Type the **Printer Name** and **Network Port**.
3. Select the appropriate printer port from the list. If you select a COM port, you have the option of configuring the serial port by clicking **Configure** and typing the appropriate parameters.
4. Select **Send Form Feed** if form feeds are necessary. Form feeds are primarily used with older printer technology.

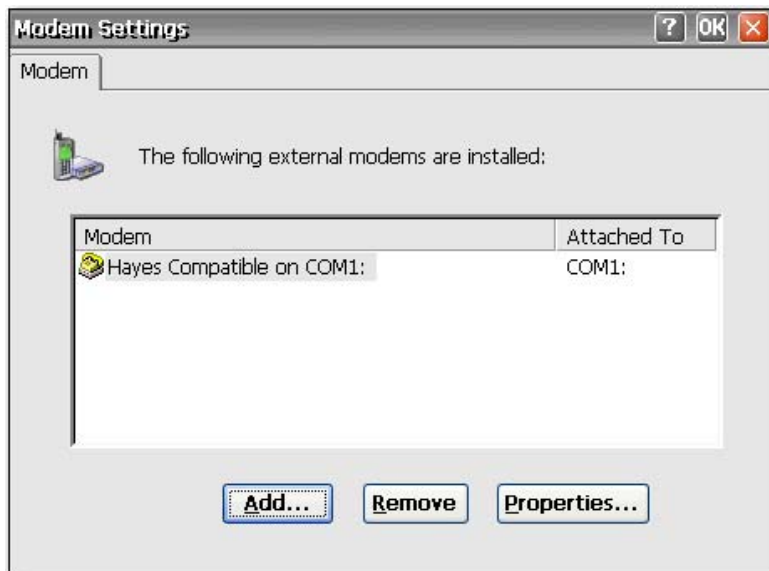


NOTE: Verify the terminal serial port is enabled in BIOS and in the Control Panel Port Lock window. You must also set up the application server for LPD printing.



Modems

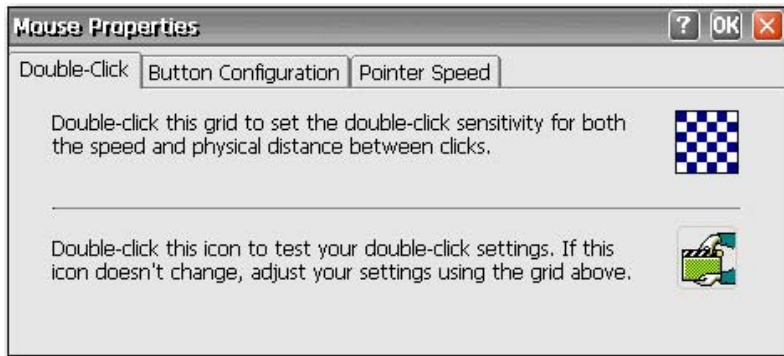
The Modem Settings dialog box allows you to access and modify settings for external modems.



Refer to the device instructions that shipped with the modem, or located on the manufacturer Web site, for listings of modem "AT" commands available for the modem.

Mouse

The Mouse Properties dialog box allows you to set the mouse double-click sensitivity for speed and physical distance between clicks.



- Use the **Double-Click** tab to set the double-click sensitivity by double-clicking the grid icon, then test the setting by double-clicking the test icon.
- Use the **Button Configuration** tab to configure for left-handed use.
- Use the **Pointer Speed** tab to configure how fast the mouse pointer moves on the screen based on how the users moves the mouse.

Network and Dial-up Connections

The Network and Dial-up Connections window allows you to configure connectivity between the terminal and the Internet, a network, or a computer.



To make a new connection, double-click the **Make New Connection** icon, select the type of connection you want to make, and then configure the connection.

Choose from the following connection types:

- Dial-up Connection
- Direct Connection
- VPN (PPTP)
- VPN (L2TP)
- Ethernet (PPPoE)

Dial-up connection

You can use a dial-up modem with the thin client to access a dial-up server. This method provides two ways to access the enterprise intranet:

- An enterprise dial-up server connects directly to the enterprise intranet.
- An Internet Service Provider (ISP) dial-up server provides access to the Internet, from which the thin client must access an enterprise Point-to-Point Tunneling Protocol (PPTP) Virtual Private Network (VPN) server that connects to the enterprise intranet.



NOTE: The dial-up server must be a Microsoft Remote Access Server or another server that supports industry-standard protocols.

Direct connection

This type of connection allows you to connect directly to another computer through the serial port on the terminal.



NOTE: This option is available only to thin clients with serial ports.

Virtual Private Network (PPTP) connection

Point-to-Point Tunneling Protocol (PPTP) is a network protocol that enables the secure transfer of data between a remote client (in this case the thin client) and an enterprise server environment by creating a VPN across TCP/IP-based data networks such as the Internet. It provides a password-protected path through the enterprise firewall to the enterprise server environment in which the network and session services required by the thin client reside.

Access to the internet requires an Internet Service Provider (ISP). You may use any of the standard means of connecting to the ISP, such as a dial-up modem, cable modem, or DSL modem.

You must first establish the connection to the ISP, before contacting the enterprise PPTP VPN server. This includes dial-up access as well as direct access through the cable modem and DSL modem paths.

Virtual Private Network (L2TP) connection

Layer Two Tunneling Protocol (L2TP) merges Microsoft's PPTP protocol with Cisco's Layer Two Forwarding (L2F) protocol. L2TP is basically the same as PPTP; the primary difference is that L2TP supports encryption.

PPP Over Ethernet (PPPoE) connection

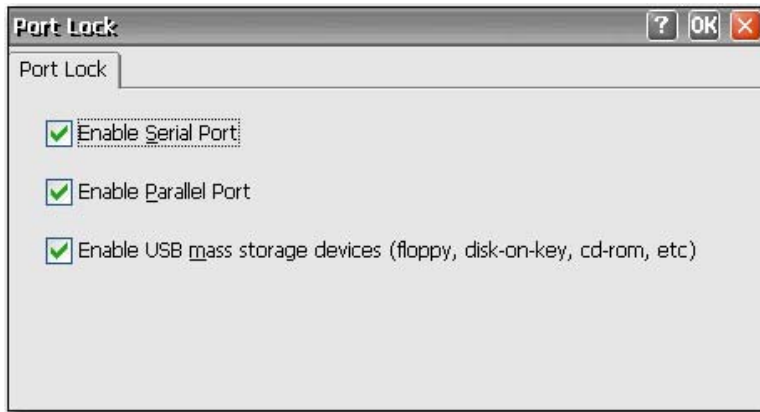
This is a connection from the thin client Ethernet port directly to the enterprise intranet. No additional hardware is required.

In this configuration all network services may be used, including the enterprise DHCP server. A DHCP server on the network may provide not only the terminal's IP address, but also the location of the file server containing the software updates.



Port Lock

The Port Lock dialog box allows you to enable or disable COM 1 ports, LPT ports, and USB mass storage devices.



To enable a port, select the appropriate check box, and then click **OK**.

RDP/ICA Printers

The RDP/ICA Printers dialog box allows you to add local RDP/ICA printer configurations and modify existing RDP/ICA printer configurations. This configuration enables the terminal to print from an RDP/ICA server session to a local printer.



NOTE: Windows CE is best suited for printing smaller documents.



The RDP/ICA Printers dialog box contains an **Add Printer** icon and an icon for each configured printer.

You can use Internet Printing Protocol (IPP) to print to network printers. IPP defines a standard protocol for printing as well as managing print jobs.



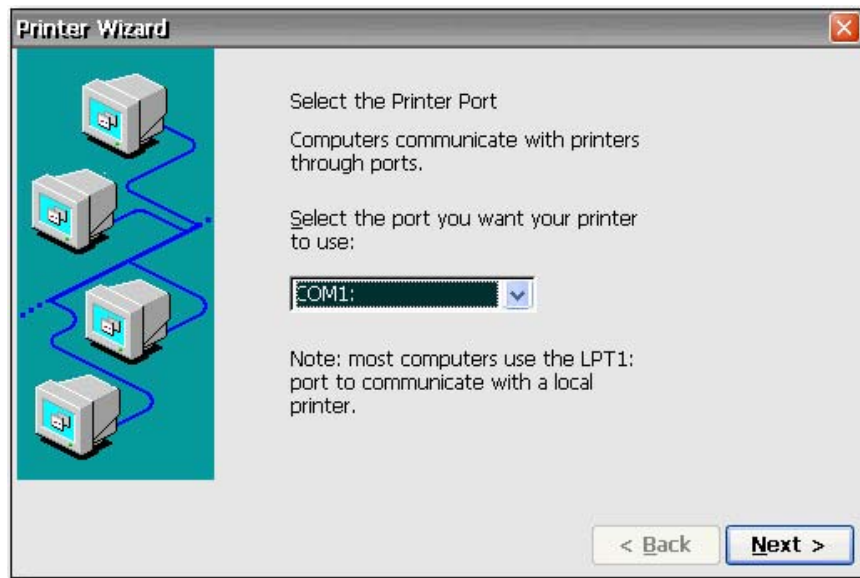
NOTE: To avoid port conflicts, HP recommends using COM2 for IPP printing.

Adding a printer

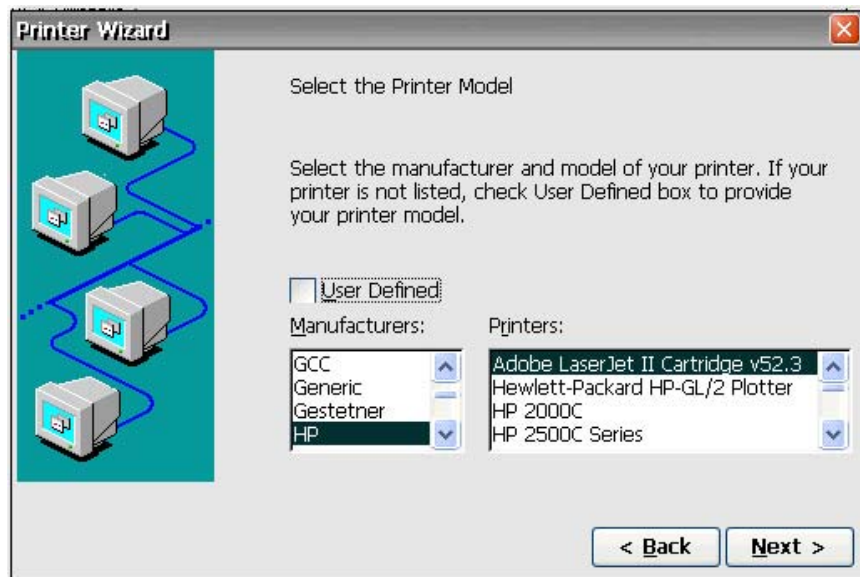
To add a printer configuration from the Printers dialog box:

1. Double-click the **Add Printer** icon to invoke the Printer Wizard, which allows you to configure a new printer.

2. In the first panel of the wizard, select the port that you want the printer to use, and then click **Next**.



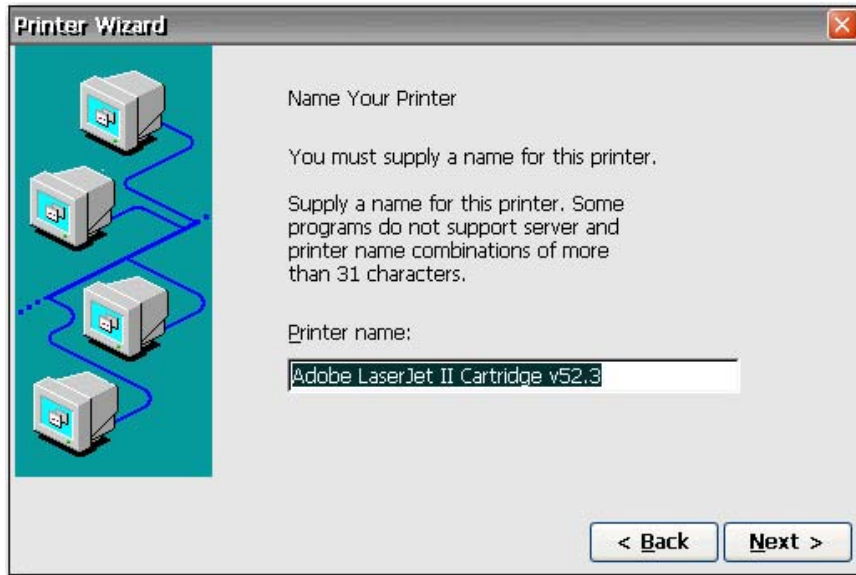
3. In the next wizard panel, select the printer manufacturer and model. If the desired printer is not listed, select **User Defined**, and then click **Next**.



CAUTION: It is critical that the model name entered in step 3 matches EXACTLY with the model name of the driver installed on the terminal server. Otherwise, printing will fail.

4. If you selected **Network** in step 2, type the network path for the printer. If you selected **User Defined** in the previous wizard panel, type the manufacturer and model of the printer. Click **Next**.

5. In the next wizard panel, type a name for the printer, and then click **Next**.



6. In the next wizard panel, select whether you want to configure another printer, and then click **Next**.
7. After completing all printer configuration selections, click **Finish**.
8. Connect to an RDP session, add the printer, and verify that it is working properly.

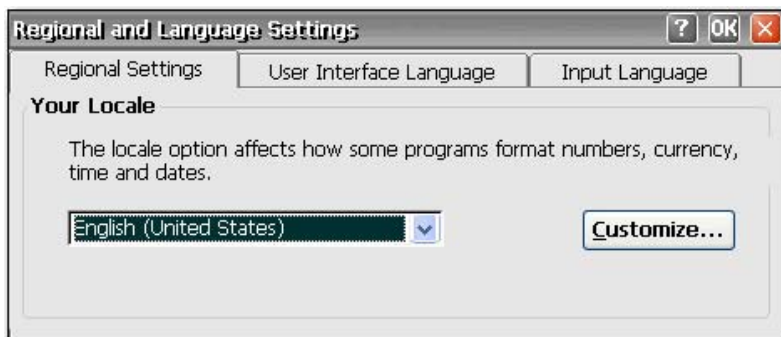
Modifying an existing printer configuration

To modify an existing printer configuration in the Printers dialog box:

1. Double-click the desired printer icon or select the icon and click **Properties**. The Printer Properties dialog box displays.
2. Make any necessary modifications, and then click **OK** to save.

Regional Settings

The Regional and Language Settings dialog box allows you to customize regional settings for the terminal. You can change the way Windows CE displays numbers, currency amounts, times, and dates.



The Regional Settings Properties dialog box includes the following tabs:

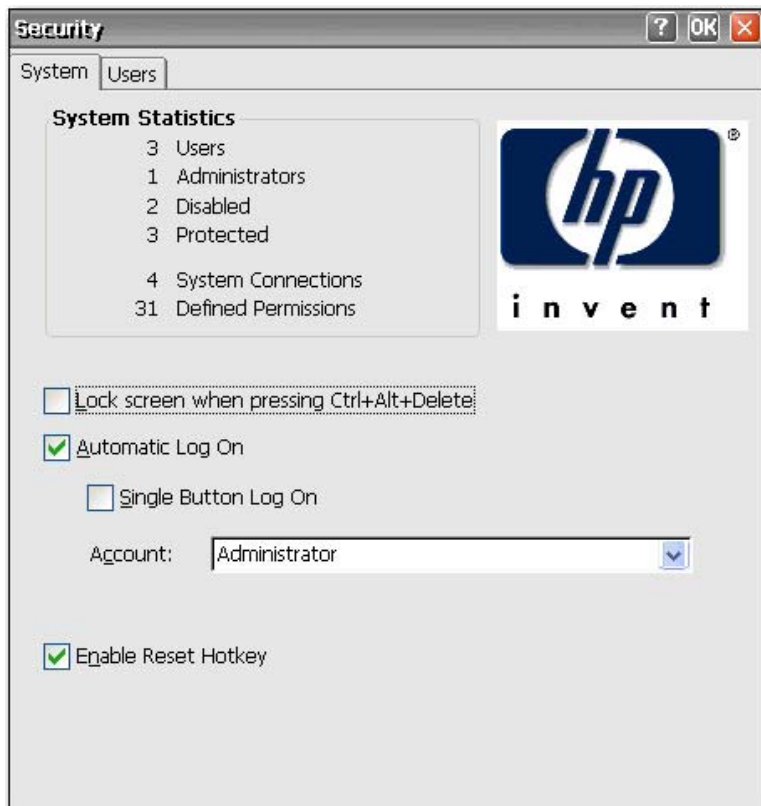
- **Regional Settings:** Allows you to select an input locale, which determines how some programs format numbers, currency, time, and dates. The options available on the other tabs are determined by the selected region.

Click **Customize** to configure the way Windows displays the following:

- Numbers
- Currency
- Time
- Date
- **User Interface Language:** Allows you to determine the language used for the menus, dialogs and alerts. Only English is supported.
- **Input Language:** Allows you to select the keyboard language. You can select multiple languages. You can toggle between languages by clicking on the language system tray icon.

Security

The Security dialog box allows you to control various terminal functions related to security and terminal operator accounts.



Enabling security

System security is enabled by default, which forces users to log in if the automatic login feature is not enabled.

- Select **Lock screen when pressing Ctrl+Alt+Delete** to allow users to lock the terminal through the [Ctrl+Alt+Delete](#) keyboard command.
- Select **Automatic Log On** to bypass the need for the user to enter a password to log in. This also activates the **Single Button Log On** check box and **Account** list.
 - Select **Single Button Log On** to enable the single button connect feature, which invokes a dialog box that requires the terminal operator to press a keyboard key or click the **Logon** button on the dialog box to log in.
 - In the **Account** list, select the account that the terminal will use to log in user. For information about creating a new account, see [Creating a user account on page 45](#).

Select **Enable Reset Hotkey** if you want to allow users to reset the terminal to factory defaults (registry and shortcuts) by pressing and holding the [F9](#) key during boot.

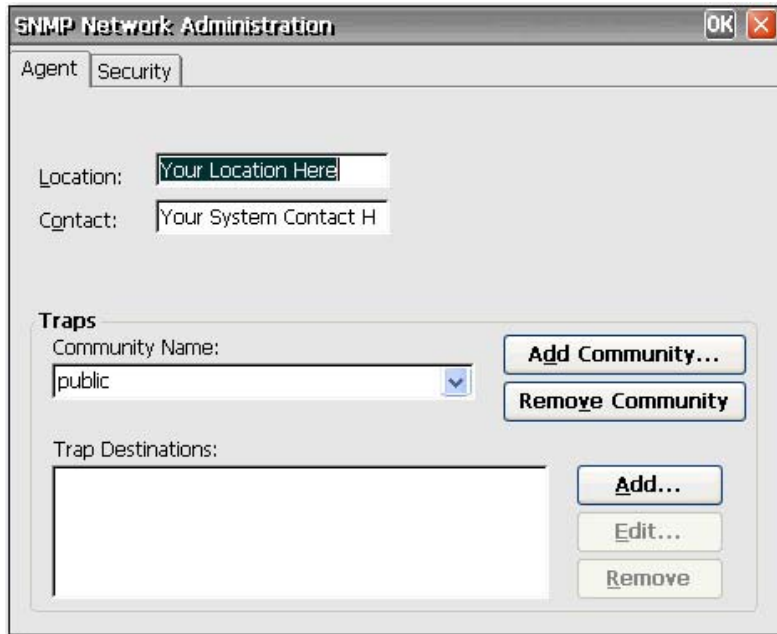
Creating a user account

To create a new security account for a terminal operator, select the **Users** tab on the Security dialog box. This tab lists all the operator accounts and shows which accounts are set up with Administrator security privileges and which accounts are enabled.

For more information about creating user accounts, see [Creating user accounts on page 9](#) in Chapter 3.

SNMP

You can manage the terminal through standard third-party simple network management protocol (SNMP) tools. The SNMP Network Administration dialog box allows you to enter parameters required for SNMP management.



The image shows a screenshot of the 'SNMP Network Administration' dialog box. It has a title bar with 'SNMP Network Administration' and 'OK' and 'X' buttons. Below the title bar, there are two tabs: 'Agent' and 'Security', with 'Security' selected. The main area contains several fields and buttons:

- 'Location:' field with the text 'Your Location Here'.
- 'Contact:' field with the text 'Your System Contact H'.
- 'Traps' section containing:
 - 'Community Name:' dropdown menu with 'public' selected.
 - 'Add Community...' button.
 - 'Remove Community' button.
 - 'Trap Destinations:' empty list box.
 - 'Add...' button.
 - 'Edit...' button.
 - 'Remove' button.

SNMP agents run in network elements and respond to Network Management Station (NMS) queries (GETs). SNMP provides a means to query all terminals assigned to a specific community. Each community should have a unique name, and all members of a community have the same access privileges. You can assign a single terminal to multiple communities.

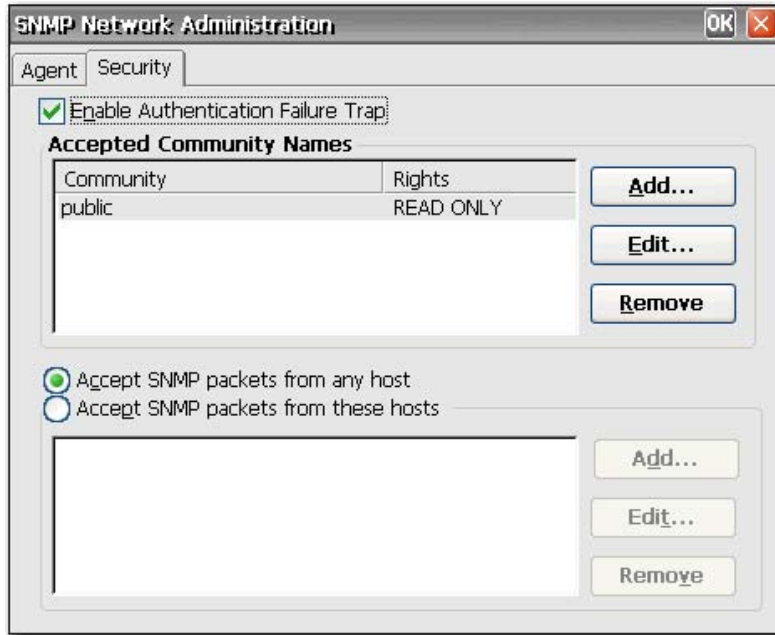
Agents send unsolicited reports (traps) back to a specified IP address when a particular network activity occurs. The following traps are supported: cold start, warm start, authentication failure, link down, and link up.

To add a new community:

1. Click the **Agent** tab.
2. In the **Traps** section, click **Add Community**.
3. Type the new community name, and then click **OK**.

To add and assign rights to an accepted community:

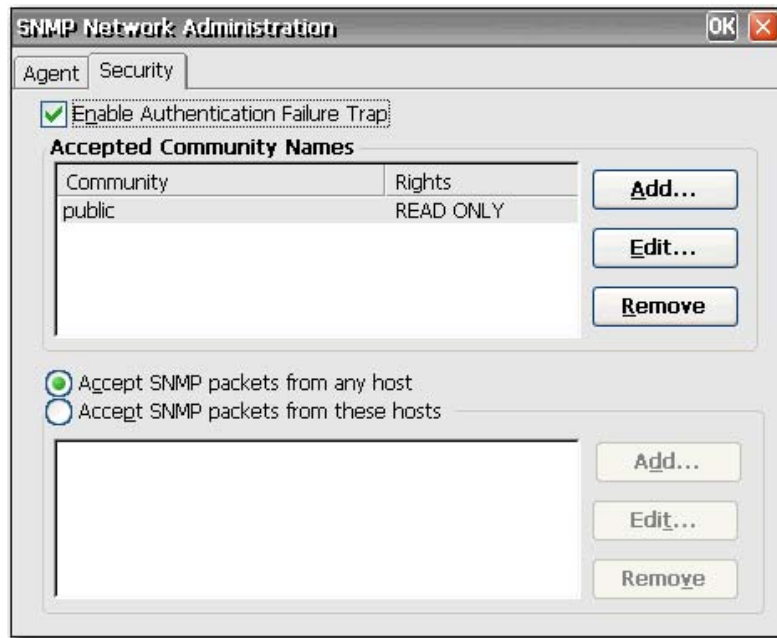
1. Click the **Security** tab.



2. Click **Add** in the **Accepted Community Names** section. The Community Configuration dialog is displayed.
3. Type the name of the community in the **Community Name** box.
4. Select the rights to the community in the **Rights** list, and then click **OK**.

To add SNMP packets:

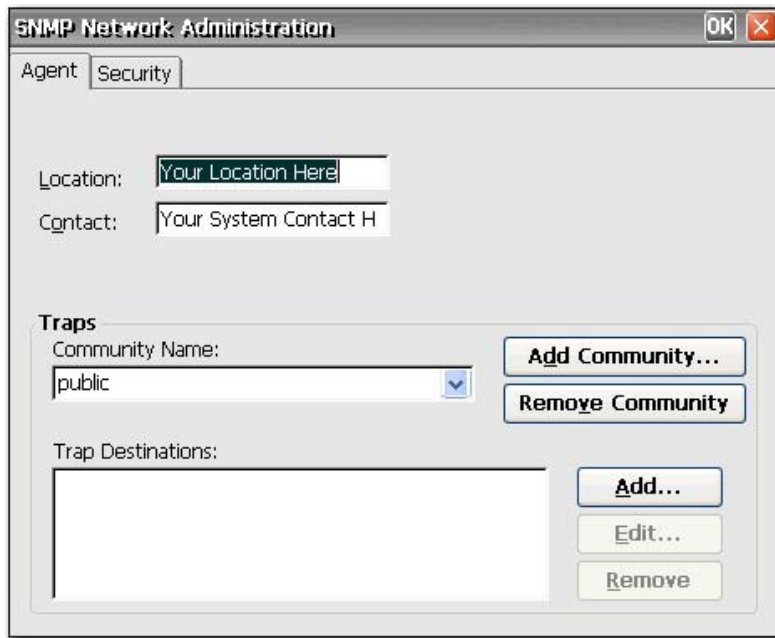
1. Click the **Security** tab.



2. Select **Accept SNMP Packets** from these hosts.
3. Click **Add** in the **SNMP packets section**. The SNMP Configuration dialog displays.
4. Type the host name or IP address, and then click **OK**.
5. Repeat steps 1 and 2 to add more hosts.

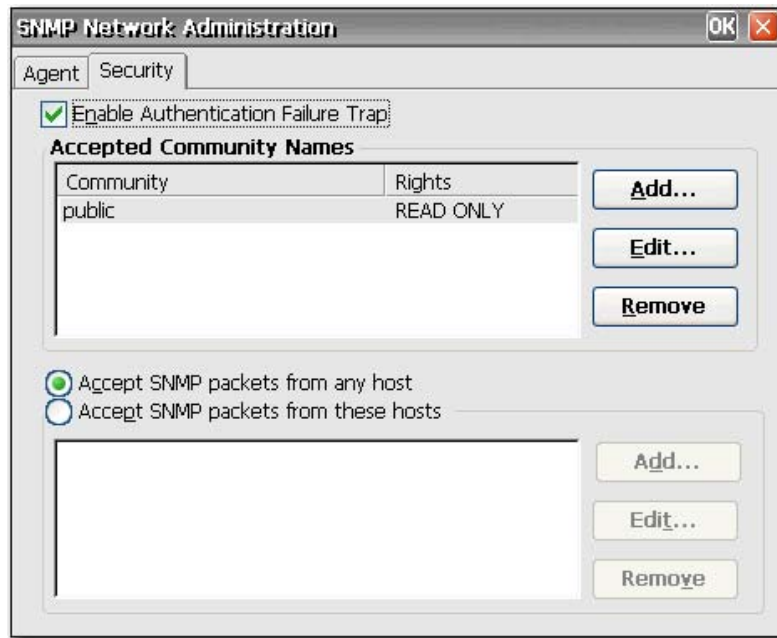
To configure SNMP:

1. On the **Agent** tab, type the physical location of the terminal in the **Location** box.



2. Type the name of the contact person responsible for the terminal in the **Contact** box.
3. Assign the terminal to a community by selecting a community from the **Community Name** list.
4. To add a trap destination:
 - a. In the **Trap Destinations** section, click **Add**. The SNMP Configuration dialog is displayed.
 - b. Type the host name or IP address of the NMS trap server, and then click **OK**.

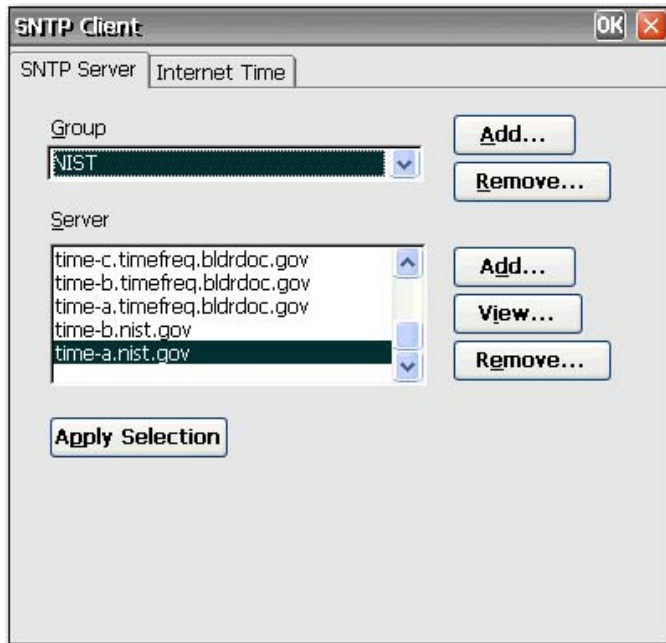
5. If you want to add or change SNMP security settings, click the **Security** tab.



6. To enable an authentication failure trap, select **Enable Authentication Failure Trap**.
7. Select the hosts from which SNMP packets may be accepted. Choose either **Accept SNMP packets from any host** or **Accept SNMP packets from these hosts**.
8. Click **OK** after entering all the necessary SNMP information.

SNTP Client

The SNTP dialog box allows administrators to synchronize the clocks on all thin clients. Administrators can set thin clients to automatically synchronize with an Internet time server or with a boot server.



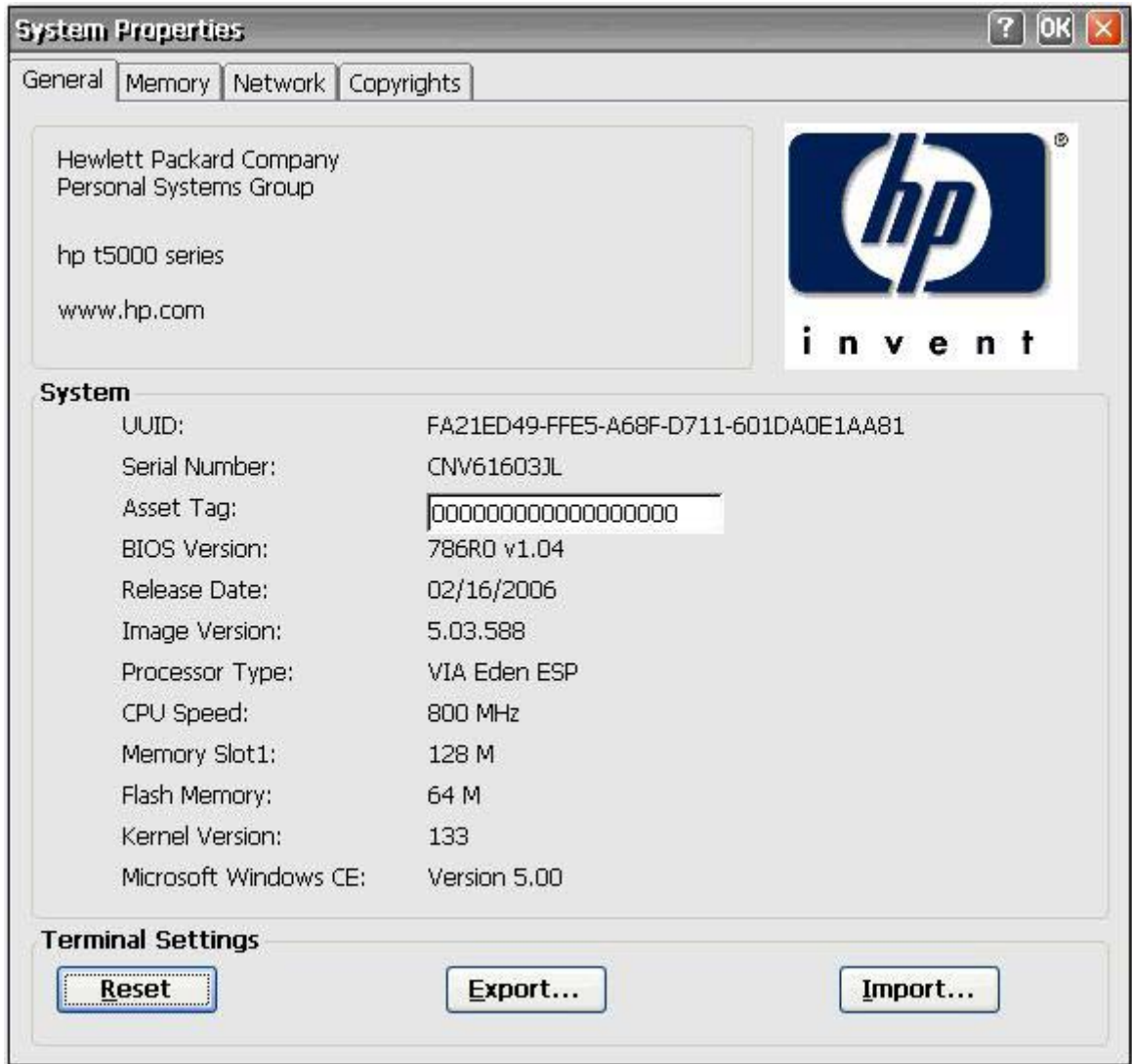
Synchronization can occur only when your computer is connected to the Internet.



NOTE: This feature can generate significant network traffic.

System

The System Properties dialog box allows you to view manufacturer and product information, network settings, and copyright information. You can also reset the terminal to default factory settings, adjust the memory allocated for storage and running programs, assign a device name for network identification purposes, and configure the network card.



The System Properties dialog box includes the following tabs:

- **General:** Displays manufacturer and product information for the terminal. Includes a **Reset** button that you can use to reset the terminal to factory default property settings. It also includes **Export** and **Import** buttons for easy registry import/export. For more information, see [Copying registry settings on page 53](#).
- **Memory:** Allows you to adjust memory allocation between memory for storage room and memory needed to run programs.
- **Network:** Allows you to designate a device name and description that identifies the terminal across the network. You can type a name or accept the name provided by the DHCP server. The default

device name is “HP” followed by the MAC address. If the device is reset to factory defaults, the device name reverts to the factory default name.

This tab also displays network settings and provides a **Configure Network Card** button that allows you to adjust the speed/duplex for the card.

The **Renew** button renews the terminal IP address.

- **Copyrights:** Displays copyright information for the terminal.

Resetting settings to factory defaults

To reset all thin client settings to factory defaults:

1. Click the **General** tab.
2. In the **Terminal Settings** section, click **Reset**.
3. Click **Yes** to reset the terminal to factory settings. The terminal restarts.
 - The default for **File Server** is 161.
 - The default for **Path and Filename** is 162.

Copying registry settings

You can copy and transfer the registry settings from one thin client to another. Also known as “ARP”, this feature allows you to configure a thin client and then transfer that configuration to multiple other thin clients. To clone an entire thin client image, you must first update the image, and then transfer the registry files.

You can transfer registry settings on only “like-to-like” clients, meaning that the thin client you transfer to must have the same of the following list as the thin client you transfer from.

- model number
- build number
- add-ons

To transfer registry settings to one thin client:

1. Configure a thin client to your specifications.
2. In **Control Panel > System > General** tab, in the **Terminal Settings** section, click **Export**.
3. Navigate to where you want to save the settings file. You can save the file to the hard drive, a network drive, a USB drive key, etc. After you give the file and name and click **OK** to save the file, it can take up to five minutes for the file to save.
4. After exporting the registry settings file, from the thin client to update, go to **Control Panel > System > General** tab, and in the **Terminal Settings** section, click **Import**.
5. Navigate to where you exported the settings file, select the file, and then click **OK**. You must restart the client for the new settings to take effect.



NOTE: The registry settings file does not include desktop shortcuts.

NOTE: You can use Altiris or FTP to transfer registry settings to multiple thin clients.

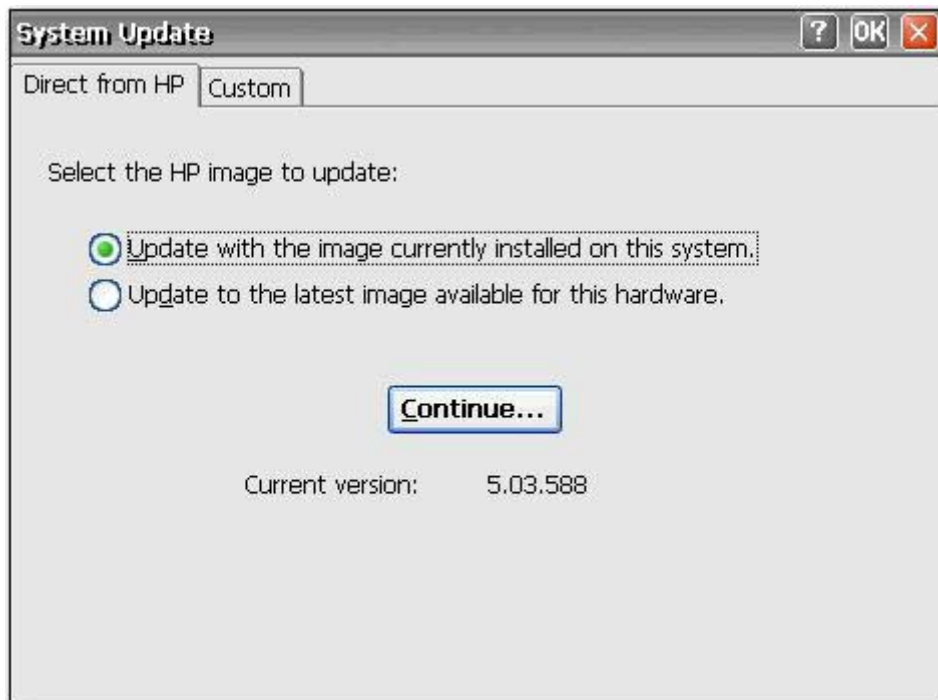
For more information about exporting registry settings, see Chapter 6, [Registry Import/Export on page 73](#).



System Update

The System Update dialog box allows you to define the means by which you update the terminal image. The feature updates only the operating system, The BIOS is not updated. You can update the image:

- Directly from HP by manually entering HP FTP file server information for the server that contains the update.
- By allowing the DHCP server to locate the FTP file server that contains the update.



You may want to update your image because of the following:

- You receive a new client, perform updates to the client image, and decide you want to revert to the “good, known” image.
- An image gets corrupted and the client requires re-imaging.
- Your client image is old and you want the newest available stable image.

The System Update dialog box contains two tabs:

- **Direct from HP**
- **Custom**



CAUTION: Turning off the power before the update is complete may corrupt the flash memory on the terminal.

For information about automatically updating your client, see the related white paper at: <http://h20000.www2.hp.com/bc/docs/support/SupportManual/c00448549/c00448549.pdf>.

Direct from HP

Use this tab to update the terminal with the latest available image directly from Hewlett-Packard or restore the image currently installed on the terminal.

To update or restore the image, select the appropriate button, and then click **Continue**.

Custom

This tab allows you to automatically update the image by having the DHCP server provide the location of the file server on which the upgrade files are located. This feature provides an alternative to Altiris for image deployment.



NOTE: For more information on setting DHCP values, refer to the “DHCP Options” section in this chapter.

The screenshot shows the 'System Update' dialog box with the 'Custom' tab selected. The 'Server type' dropdown is set to 'FTP'. The 'Host' field is empty. The 'Path' field is empty, and the adjacent port number box contains '21'. The 'User ID' field contains 'anonymous', and the 'Password' field contains seven asterisks. The 'Domain' field is empty. The 'Connect...' button is highlighted, and the 'Check for updates at startup' checkbox is checked.

To update the image using the DHCP server:

1. From the **Server type** list, select either **FTP** or **Network Share**.
2. In the **Host** box, type the name of the
3. In the **Path** box, type the path. If you selected **FTP** from the **Server type** list, you must also type the port number in the box to the right of the **Path** box.
4. In the **User ID** and **Password** boxes, type the user ID and password required by the FTP file server.
5. If you selected **Network Share** from the **Server type** list, in the **Domain** box type the

6. Select **Check for updates at startup** to cause the unit to check the entered FTP site for software updates.
7. Click **Connect** to connect to the server you configured in the previous steps. The **Connect** button is not available until you enter valid information for the server.
1. Select **Use Values from DHCP Server**.
2. In the Server Name/IP box, type the FTP Server Name/IP.
3. In the **Path and Filename** box, type the path and file name of the image.
4. In the **Server Port** box, type the FTP server port.
5. In the **User ID** and **Password** boxes, type the user ID and password required by the FTP file server.
6. To automatically update the image each time the terminal is restarted, select **Automatically check for updates on startup**. This feature allows you to place a single, updated image on an FTP site and have clients automatically check that site at boot-up and update with the new image.
7. Click **Update** to begin the update process.

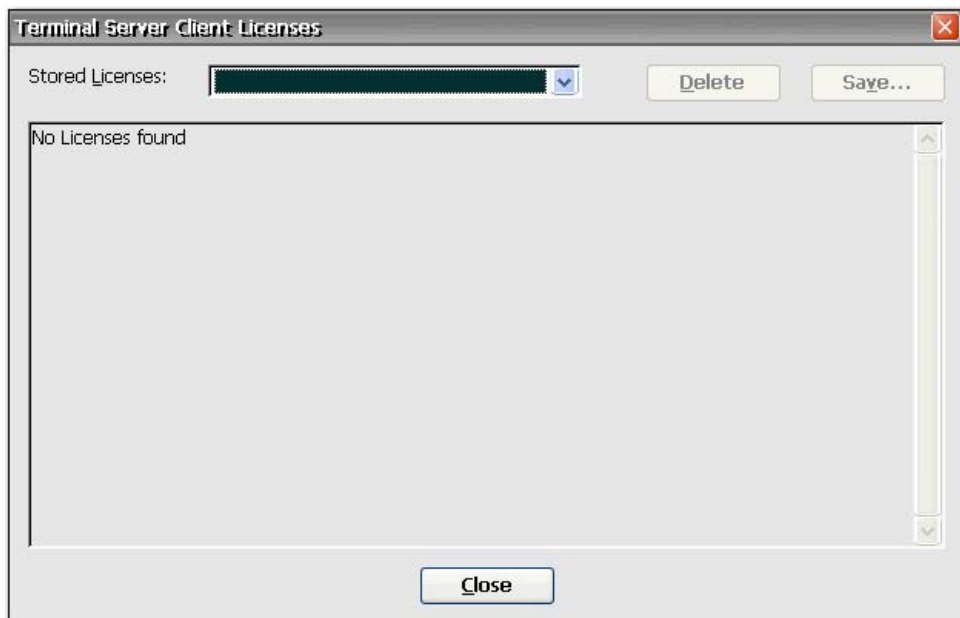
The DHCP Options dialog allows you to set the DHCP tags that identify the FTP location of the update image.

To change the FTP option IDs, type over the entry in the **Server Port** box, and then click **OK**. The value must match what is set up on the DHCP server.



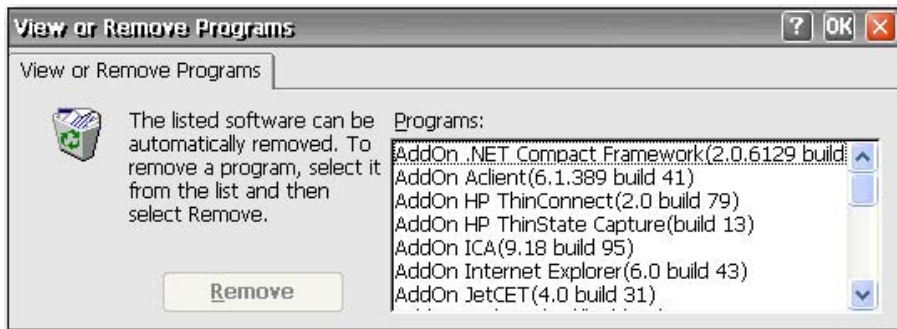
Terminal Server Client Licenses

The Terminal Server Client Licenses dialog box allows you to view stored licenses. You can use this window to delete or save licenses.



View or Remove Programs

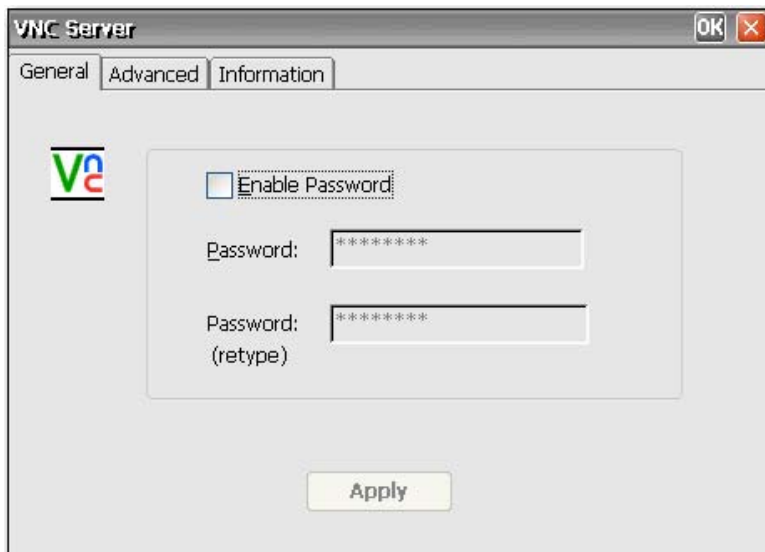
The View or Remove Programs dialog box allows you to view or remove software programs currently installed on the terminal.



To remove a program, select the program from the list and click **Remove**.

VNC Server

Virtual Network Computing (VNC) is a remote control program that allows you to view and interact with one computer (the “server”) using a simple program (the “viewer”) on another computer anywhere on the Internet. The VNC Server runs as a service and therefore is available even when the user is logged off the thin client.



Settings for VNC Server

Configure VNC Server on your thin client by selecting the following:

Check Box	Explanation
Prompt local user to accept incoming connections	The default should be ENABLED and Auto Accept should be ENABLED
Enable Viewer Cursor	This setting allows the viewer to show its cursor on the screen while moving the mouse. The viewer shows a small dot that points to the actual location of the "hot spot" of the remote cursor location. Enabling this setting will show the local cursor of the viewer; however, the remote dot will lag behind the local viewer cursor as it tries to synchronize the local viewer cursor.
Accept input events from clients	Enabling this setting will allow the viewer to control the keyboard and mouse of the unit remotely.
Autoport Select	This setting will be devalued, leaving only the "Accept connections on port" and "Allow HTTP connections on port".
Accept connections on port	Defaults to the standard VNC port of 5900.
Allow HTTP connections on port	Defaults to the standard VNC port of 5800 for JVM (Java)-enabled Web Browser Viewers.

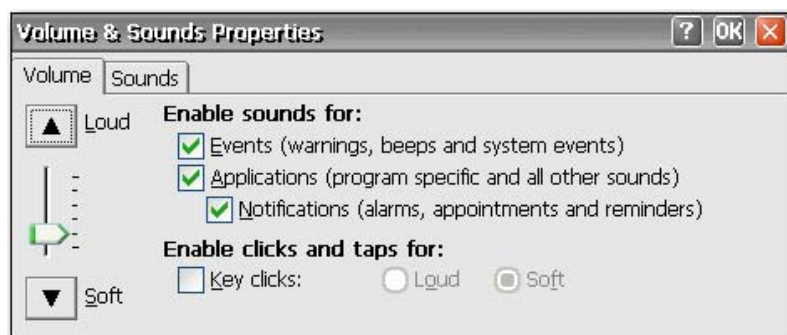


NOTE: Windows CE does not support Java.

You can find additional information about VNC Server features at: <http://www.realvnc.com/documentation.html>.

Volume & Sounds

The Volume & Sounds Properties dialog box allows you to adjust the volume setting and enable sounds for various events and conditions. You can also create custom sound schemes for various events.



5 Programs and Add-ons

This chapter provides detailed information about programs and add-on programs for the CE 5.0 image. You can download add-ons from the HP Support Web site.

Add-ons are programs that you can add and remove from a thin client. Add-ons consist of both programs that come with the default thin client image, and programs that you can add.

The following table provides a list of Add-ons and whether they are included in the image:

Add-On	In Factory Image	Add-On	In Factory Image
Aclient	Y	RDP 5.1	
BioTouch		RDP 5.5	Y
ClearVue Office Viewers		Setup Wizard for 5.0	Y
ConAdm 2.0	Y	SNTP Client 5.0	Y
Edgeport		TEC 5.0	Y
Elotouch for 5.00		ThinPrint	Y
ICA 8.x		TxtPad	Y
ICA 9.0	Y	USB Mass Storage 5.0	Y
Internet Explorer 6.0	Y	USB Modem	Y
JetCet 3.1		USB Parallel Port	Y
JetCet 4.0	Y	VNC Server	Y
Keyboard Intl	Y	Win Explorer	Y
Media Player 9.0	Y	SCM SC Reader for 5.0	Y
Messenger 4.0		USB Wireless	
Messenger 5.0		XLan 220	
PCSAM	Y		

Programs

ThinPrint

The following steps illustrate how to set up ThinPrint over ICA and RDP and ThinPrint over TCP. You must set up ThinPrint on the server before attempting any ThinPrint jobs. For more information about how to set up the server, see www.thinprint.com

ThinPrint over ICA and RDP

1. Connect a local printer to the thin client.



NOTE: Windows CE assigns LPT1 to the parallel port and LPT2 to the USB port.

2. Open ThinPrint by selecting the icon on the Windows task bar or by clicking **Start > Programs > ThinPrint**.



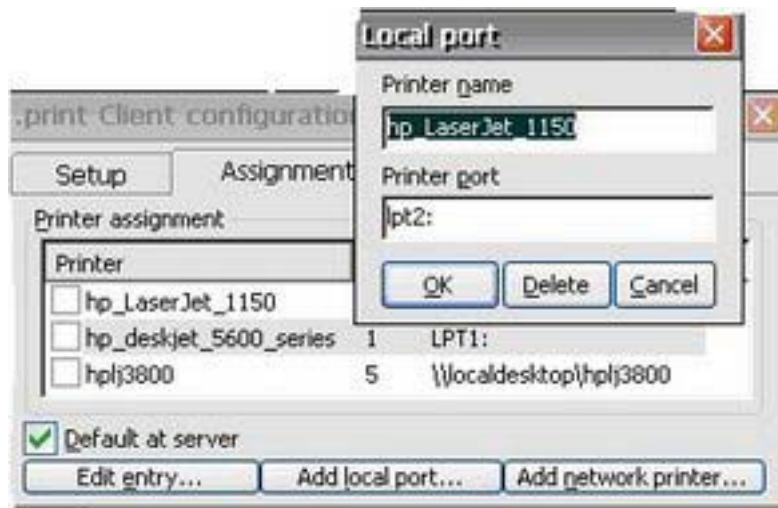
3. Click the **Assignment** tab to set up the printer. The default printer name and port appear as LPT1:LPT1.



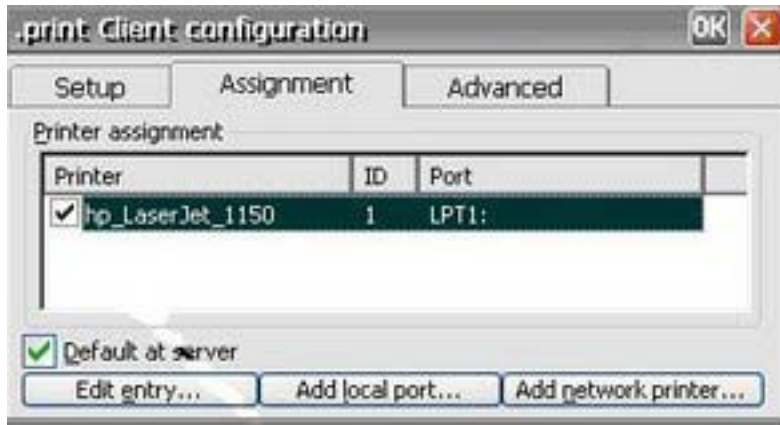
4. Click **Add local port** to enter a new printer name and port; for example, HP_LaserJet_1150. You can change the printer name by selecting the printer and clicking the **Edit entry** button.



NOTE: The printer name has to match the printer name on the server



5. Select the printer you just created.

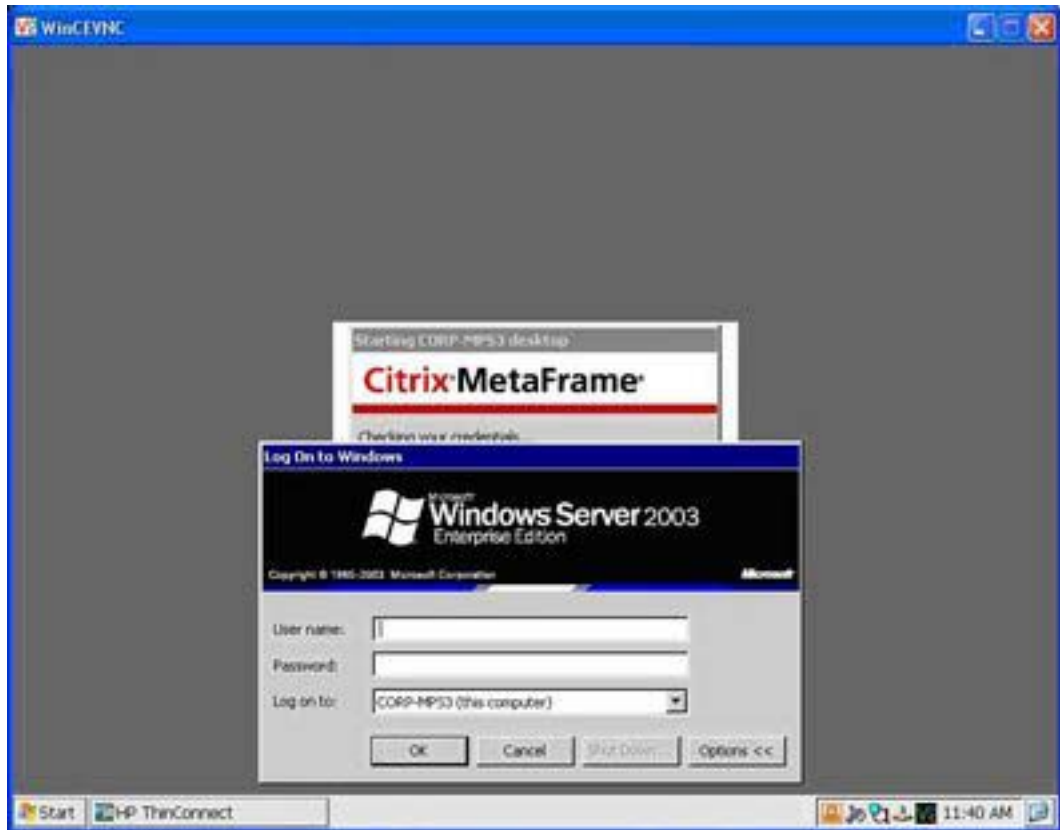


6. Click **OK** to close the ThinPrint screen.
7. Re-open ThinPrint.
8. Select the printer you created from the **Current printer** list.

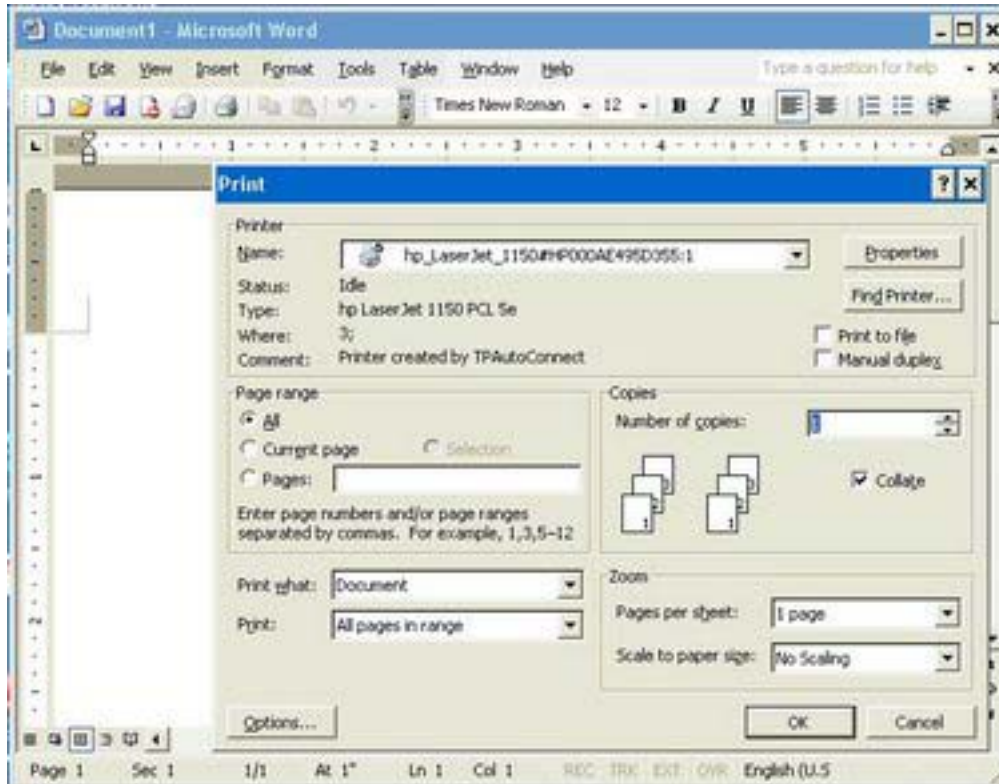


9. Click **OK** to save settings.
10. Set up ICA/RDP, and then log in.
11. Create an ICA or RDP connection in HP Thin Connect.
12. Double-click on the connection you just created.

13. Log in to the server.



14. Open any Word document and click **File > Print**.



15. Select the printer from the list. The display format is printer name#computer name. (For example, hp_LaserJet_1150#HP000AE495D355:1)
16. Click **OK** to print the document.

ThinPrint over TCP

1. Open ThinPrint.
2. Click the **Assignment** tab, and then click the **Add Network Printer** button.
3. If configuring a shared printer:
 - a. Select **Shared printer**.
 - b. Type the **Printer name**.
 - c. Type the **Network path, User name, and Password**.



NOTE: The printer name must match the printer name set up on the server.

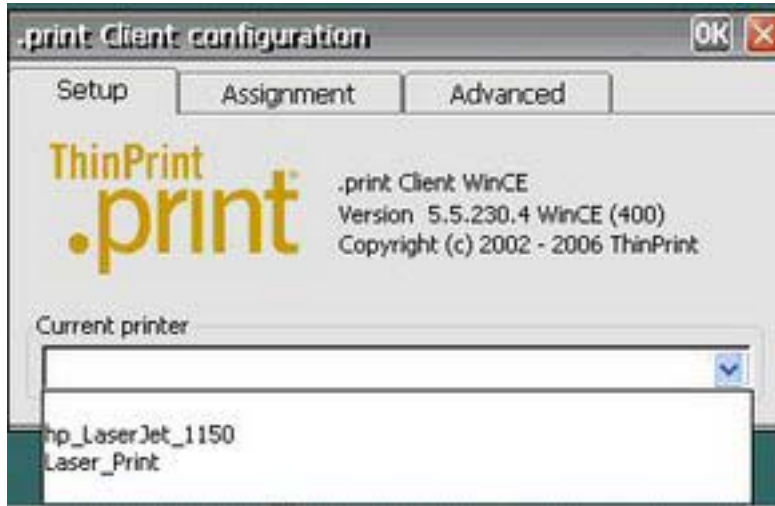
4. If configuring an LPD Printer:
 - a. Select **LPD Printer**.
 - b. Type the **Printer name**.
 - c. Type the printer's IP address in the **Printer address** field.



NOTE: The printer name must match the printer name set up on the server.

5. Click **OK** to save settings and close the Network Printer window.
6. On the **Assignment** tab, select the check box next to the printer you just set up.
7. Click **OK** to save settings and close ThinPrint.

8. Open ThinPrint and select the printer you just added from the drop-down list..



9. Log in to ICA or RDP.
10. Open any Word document. and then select **Print**.
11. Select the printer from the list.
12. Select **OK** to print the document.

HP Connections for Citrix Software

The HP Connections for Citrix Software window provides a quick and easy means of creating new ICA connections. You can also delete and edit connections, as well as create desktop shortcuts for connections.



NOTE: Any ICA connection created will appear in both the HP Thin Connect window and the HP Connections for Citrix Software window. For more information about HP Thin Connect , see Chapter 3, [HP Thin Connect on page 7](#).

You can access the HP Connections for Citrix Software window from:

- **Start > Programs > HP Connections for Citrix Software.**
- The shortcut icon on the desktop.

Creating a New ICA connection

The upper section of the window contains the ICA connection.

To create a new connection:

1. Double-click the icon in the top section.
or
2. From the **File** menu, highlight **New Connection** and select the type of connection you want to make. Follow the instructions in the Wizard or dialog.

Deleting a connection

To delete an established connection:

1. Right-click on the connection and select **Delete Connection**.

or

Select the connection and press the **Delete** key.

2. Click **Yes** to delete the connection.



NOTE: Deleting a connection through HP Connections for Citrix Software also deletes the connection from HP Thin Connect.

Editing a connection

To edit an established connection:

1. Right-click on the connection and select **Edit Connection**.
2. Modify the connection.

Creating a desktop shortcut to a connection

You can create a shortcut to a connection on the desktop through HP Connections for Citrix Software. You cannot create shortcuts through HP Thin Connect.

To create a shortcut, right-click on the connection and select **Send to Desktop**.

RDP 5.5

Remote Desktop Protocol (RDP) 5.5 replaces RDP 5.1 and provides the following functionality:

- Unicode compatibility, which enables you to send Unicode values of characters as virtual key codes to the keyboard input.
- RDP supports operation in any environment that allows network localization, automatic disconnect, and remote configuration.
- Variable bandwidth allocation through client-side bitmap caching and optional compression for low-bandwidth connections, significantly improving performance over low-bandwidth connections.
- Multichannel-capable protocol that permits separate virtual channels for carrying presentation data, serial-device communication, licensing information, and heavily encrypted data.
- Remote control which lets the support staff view and control a Terminal Services session. Sharing input and display graphics between two Terminal Services sessions lets support staff diagnose and resolve problems remotely.
- Network Load Balancing (NLB), available in Windows 2000 Advanced Server and Datacenter Server.
- High color 8-bit, 16-bit, and 24-bit graphics are supported if they are also supported in the graphics driver.

- Clipboard sharing, also known as clipboard redirection. The local clipboard becomes a part of the clipboard viewer chain in the remote session, allowing the user to copy and paste between applications running in both the remote session and on the local client.
- Local-printer redirection so server applications can print locally to the client device.
- Local audio playback so server applications can direct audio to the client device or play at the Terminal Server.
- Local-port redirection so server applications can use parallel and COM ports of the client device.
- Local drive redirection so server applications can use the file system (including ATA) of the client device.
- File redirection filter that permits exposing only specific directories. If you specify that only external storage, such as Compact Flash or USB storage, be exposed through the redirected drive, information is saved only to the redirected drive.
- TS CAL maintenance tool. This control panel window is available in any OS design that supports Control Panel programs, such as the Enterprise Web Pad. It requires that RDP client be in the run-time image.

RDP now runs in Graphics, Windowing, and Events Subsystem (GWES) rather than in its own process space. This provides faster display updates by reducing the protected server library (PSL) and kernel overhead. RDP running in GWES can improve performance up to 30%.



NOTE: If you configured RDP to run in GWES, you cannot run RDP inside a Web browser. Optionally, you can configure RDP to run in Microsoft ActiveX Control.

Terminal Emulation Connection

Terminal Emulation Connection (TEC) allows you to create a terminal emulation session for a terminal. You can create two different types of TECs, a one-time connection, or a connection associated with a user account.

To create a one-time connection:

1. Click **Start > Programs > Terminal Emulation**.

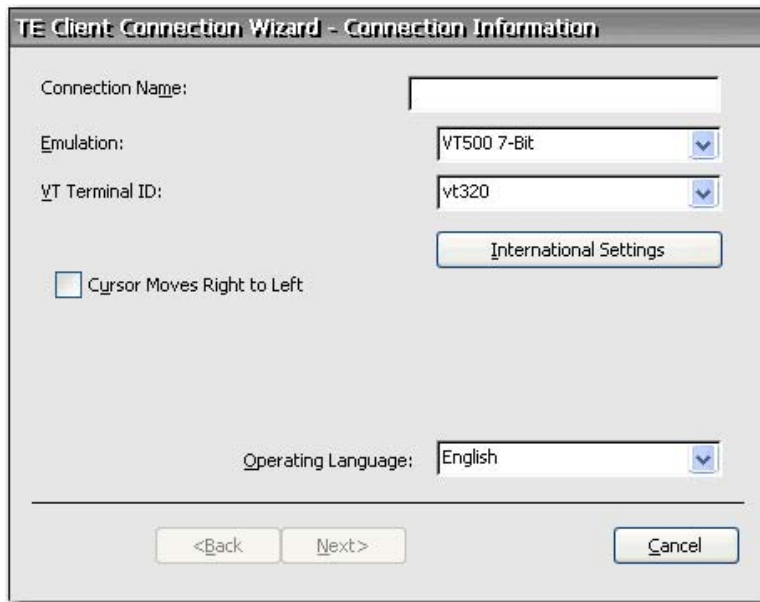


2. In the **Type** box select the connection type.
3. Click **Configure** to configure settings for the connection type you selected.

4. If you selected **TCP/IP** in the **Connect** box, click **Telnet Options** to further configure the connection.
5. In the **Connect To** box select the port to which to connect.
6. Click **Connect** to establish the connection. The **Connect** button is not available until the connection is properly configured.

To associate a TEC with a user account:

1. **Start > Programs > HP Thin Connect.**
2. Click **Add.**
3. Select **Terminal Emulation**, and then click **OK.**



4. Follow the wizard to configure the connection.

TxtPad

TxtPad is a simple text editor in the Windows CE the image. TxtPad associates with the following file extensions: .txt, .ini, .log, and .arp.



NOTE: The maximum character limit is 5-MB of ASCII data.

TxtPad is available from a shortcut in the **Start > Programs** menu.

Add-ons

The following section provides information about add-ons that can be added to your CE-based thin client image.

ELO Touch Screen

The ELO Touch Screen applet allows you to enable or disable the touch screen. You can also calibrate the touch screen by clicking the Align button.

Messenger 5.0

The Windows Messenger 5.0 add-on adds the following functionality:

- Support for categorizing contacts into groups and for dragging and dropping contacts.
- User Interface (UI) improvements, including system tray notifications (known as alerts) for incoming messages, and ToolTip support.
- An updated .NET Messenger Service.
- Microsoft Windows Messenger for Windows CE real-time communications software combines real-time voice and text communications with file transfer capability. The .NET Messenger Service is one of two Windows Messenger client application server types. It enables a user to communicate with contacts using a .NET Passport account.

USB Wireless

The wireless add-on allows you to set up wireless connections.

To set up a wireless connection:

1. Load the driver on the unit.
2. Plug in the driver. The following screen displays.



3. Select your wireless device from the list. The device configuration screen displays.

4. Configure the wireless network key and IEEE information, as required.



5. Click **OK**. The  icon in the taskbar indicates an active wireless connection.

6 Registry Import/Export

ATTENTION: When deploying an image and settings from a “source” or “master” thin client to a “target” thin client, please make sure that source/master and target thin clients have identical hardware. This is applicable regardless of deployment method being used: HP ThinState Tools, Altiris Deployment Solution, HP OpenView Client Configuration Manager, or any other deployment solution being used.

This chapter explains how to import/export a thin client registry using Altiris Deployment Server. For more information about Altiris, see <http://www.altiris.com/>.

For information about installing an Altiris BootWorks partition, see <http://h20000.www2.hp.com/bc/docs/support/SupportManual/c00215445/c00215445.pdf>.

The Registry Import/Export tool is an HP-engineered software technology that makes it significantly easier and more cost efficient to manage HP thin clients. Registry Import/Export allows thin client devices to inherit properties of other thin client devices. Extracting the settings of one device and redeploying the same settings to other devices reduces network congestion. Registry settings can be 100 to 10,000 times smaller than the entire image.

Please note the following about the Registry Import/Export tool:

- The tool requires extensive knowledge of Altiris Deployment Server.
- The source and target machine must have the same image with the same quantity of software add-ons, and the software add-ons must be of the same revision. The Registry Import/Export Tool cannot upgrade or downgrade application versions.
- The import/export process may take approximately two minutes to complete.



CAUTION: Currently, Registry Import/Export between the HP Compaq t5510 thin client and the HP Compaq t53x0 and t5500 thin clients is not supported.

Clearing the destination registry

Before importing a new registry to a thin client, you must clear the destination machine registry. To clear the registry, drag and drop **CE_RegReset** from the Job window to the Destination Computer. Completion of this process takes two to three minutes.

Exporting and importing a registry

To export a registry:

1. Open the Deployment Server Console.
2. Select **CE_RegExport** from the Job window and drag and drop the Job to the source unit under the Computers window. This copies the source computer's registry and prepares it for import.
3. Select **CE_RegImport** from the Job window and drag and drop the job to the destination computer under the Computers window. This imports the settings from the source computer to the destination computer.

Importing a registry to multiple units

You can import a single registry to multiple units. To import a registry to multiple units:

1. Select **CE_RegExport** from the Job window and drag and drop the Job to the source unit under the Computers window. This copies the source computer's registry and prepares it for import.
2. Select **CE_RegImport** from the Job window and drag and drop the job to "All Computers" under the Computers window. This imports the settings from the source computer to the network.

Exporting registries from multiple units

While it is possible to export registries from multiple thin clients, it is important to ensure the registry files have different names. The export process saves a time stamp as part of the name for the saved file (for example, 051306840.reg, which is May 30, 2006 at 8:40). If you export multiple units at the same time, the registry file names will be identical. To create distinct file names for each registry, HP recommends that you capture each registry a minute apart.

Index

Symbols/Numerics

508 Accessibility features 24

A

Accessibility 24

accounts

 default 9

 user 9

add-ons 59, 69

adding

 connections 8, 14

 permissions 12

 printers 36, 41

 rights to community 47

 shortcut 67

 SNMP packets 48

 user accounts 9

Advanced window 8

Altiris Deployment Server 73

appearance scheme 28

area code 27

ARP 53

Assign Connections tab 15

assigning connections to users 15

associating

 TEC with user account 69

Auto column 16

auto starting

 HP Thin Connect 19

automatic log on

 enabling 21

B

background image 28

Based on box 12

bypass auto logon 22

C

call waiting 27

capturing images 33

Certificates 25

changing display settings 4

Citrix 66

clearing the registry 73

color quality 28

configuring

 dialing patterns 27

 display properties 28

 mouse 39

 SNMP 49

 user interface 19

connections

 adding 14

 adding ICA 66

 assigning 15, 17

 automatic 18

 deleting 15

 deleting ICA 67

 dial-up 40

 direct 40

 editing 14

 editing ICA 67

 primary 16

 primary or secondary 17

Control Panel 23

copying registry settings 53

country code 27

creating

 desktop shortcut 67

 new ICA connection 66

 one-time TEC 68

 user account 9

 user accounts 45

D

Date/Time 25

default accounts 9

deleting

 connections 15

 ICA connection 67

 user accounts 13

deploying images 34

designating connections 17

desktop 3

desktop icons 5

device name 53

DHCP Options 26

dial-up connection 40

Dialing 27

dialing patterns 27

direct connection 40

Display 28

display settings 4, 28

documentation 2

E

editing

 connections 14

 ICA connection 67

ELO touch screen 70

Enable Reset Hotkey check

 box 22

enabling

 automatic connection 18

 security 45

export 73

exporting a registry 74

F

factory defaults 53

features 1

firewall settings, ICA 32

form feeds 38

frequency 28

FTP server 26

G

GETs 46

Global ICA Client Settings 30

GWES 68

H

hidden
 Start menu 3
 taskbar 3
High Contrast display 24
HP Connections for Citrix
 Software 66
HP SAM 2
HP Thin Connect
 auto starting 19
HP Thin State Capture 33

I

ICA
 connection 66
 firewall settings 32
 keyboard shortcuts 30
 preferences 31
 seamless 31
 serial number 31
 server location 32
 ThinPrint 60
icons 5
image 2, 54
import 73
importing a registry 74
Internet Options 35
Internet printing 36
Internet Printing Protocol 41
IPP 36, 41

J

Java 58
JETCET PRINT 36

K

Keyboard 37
keyboard shortcuts, ICA 30
Kiosk mode 20

L

L2TP 40
local printing 36
LPD Control 23, 37
LPT1 & 2 36

M

memory allocation 52
Messenger 5.0 70

Modems 38
modifying
 printers 41, 43
 user accounts 13
Mouse 39
MouseKeys 24
My Certificates 25

N

name 53
Network and Dial-up
 Connections 39
network device name 53
Network Management Station
 query 46
NMS 46

O

Other Authorities 25

P

permissions 12, 13
Persistent column 17
PNAgent 31
Port Lock 40
PPPoE 40
PPTP 40
preferences, ICA 31
primary connections 17
printer
 adding 41
 modifying 43
 ports 36
printing 36, 37, 41
pulse dialing 27

R

RDP (5.5) 67
RDP, ThinPrint 60
RDP/ICA Printers 41
reconnection 18
refresh frequency 28
region code 27
Regional Settings 43
registry
 clearing 73
 importing and exporting 74
 settings 53
registry import/export tool 73
Remote Desktop Protocol 67
repeat delay 37

repeat rate 37
resetting settings 53
resolution 28

S

SAM 2
screen resolution 28
screen saver 28
screen settings 28
seamless 31
secondary connections 17
Security 44
serial number 31
Session Allocation Manager 2
Set from Template button 11
setting
 Kiosk mode 20
 permissions 12
settings
 VNC server 58
Setup Wizard 2
shortcuts 5, 67
Single Button Log On check
 box 22
SNMP 46
SNTP Client 51
sounds 58
SoundSentry 24
SSL 25
SSL/TLS Relay 33
Start menu 3, 5
StickyKeys 24
support documentation 2
switching users 22
System 52
System Update 54

T

taskbar 3, 4
TEC 68
Terminal Emulation
 Connection 68
Terminal Server Client Licenses 56
Thin Connect
 Advanced window 8
Thin State 33
Thin State capture 33
Thin State deploy 34
ThinPrint
 ICA 60

- RDP 60
- TCP 64
- time 25
- tone dialing 27
- touch screen 70
- traps 46
- Trusted Authorities 25
- TxtPad 69

U

- updating your system 54
- USB wireless 70
- user accounts 9, 45
- user interface 19
- users
 - assigning connections to 15
 - switching 22

V

- View or Remove Programs 57
- Virtual Network Computing 57
- Virtual Private Network 40
- VNC Server 57
- Volume and Sounds 58
- VPN 40

W

- Web sites
 - Altiris 73
 - HP SAM 2
 - JETCET 36
 - latest image 2
 - support documentation 2
 - VNC 58
 - white paper for Alitiris
 - BootWorks partition 73
 - white paper for auto updating clients 55
- wireless 70

