Help Contents - December 4, 2012

1 - 10ZiG Manager

10ZiG Manager is an enterprise level remote management solution for 10ZiG thin clients facilitating centralized device configuration and image management.

- **10ZiG Manager Server** is the core of the solution consisting of a Windows service that coordinates various components including a SQL database for thin client configuration management, a network boot server for PXE-booting supported clients, and various other network communications modules.
- **10ZiG Manager Console**, an MMC Snap-in, provides the user interface for the Manager Server, giving administrators the ability to monitor thin client status, perform remote configuration administration, and remotely boot, reboot or shutdown their thin clients.

These individual components offer a scalable architecture and allow delegated administration, requiring only one central Manager Server. Multiple remote Manager Consoles can be configured to communicate with the central server.

1.1 - Configuring and Managing the Server

Configuring and managing the **10ZiG Manager Server** service is accomplished with the **10ZiG Manager Service Controller** application, which provides a notification icon that appears in the system tray to indicate if the Manager Server service is running. Right-clicking on the tray icon provides a context menu to start and stop the service as well as

to update the Manager Server settings.

Service Controller tray icon

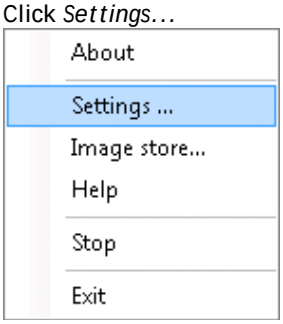
The Service Controller is set to start automatically when a user logs onto the Manager server; however, it can also be launched using the *Start* menu shortcut.

1.1.1 - Server Settings

Server settings are changed via the *Settings* dialog. These settings include the *Default Network Adapter* used for communication between the Manager Server and *Remoting Port* used for Manager Console access to the server.

To start the settings dialog:

1. Right-click on the Manager Service Controller icon in the Windows Notification Area.
2. Click *Settings...*



1.1.2 - Network Settings

Network Adapter - Specify the adapter connected the network where your 10ZiG

Note: It is also important to remember if Windows Firewall is enabled, "MgrService.exe" MUST be added to the exclusions.

1.1.3 - Ports Used

The 10ZiG Manager communicates with the thin clients using remote procedure call (RPC) and Active Directory relies on remote procedure call (RPC) for replication between domain controllers thus resulting in a conflict if on the same server.

- Network Ports and Purpose
  - TCP 3306 - Used by the local MySQL service hosting the Manager database.
  - TCP 11132 - The Manager Console retrieves information from the Server via this port.
  - TCP 11133-11147 - A Manager Console will register one of the ports in this range, usually 11133, with the Server to receive various notifications.
- Client Discovery and Communication Ports
  - UDP 52500 - Broadcast discovery port for Windows (XTC Agent) and Linux 9 thin clients.

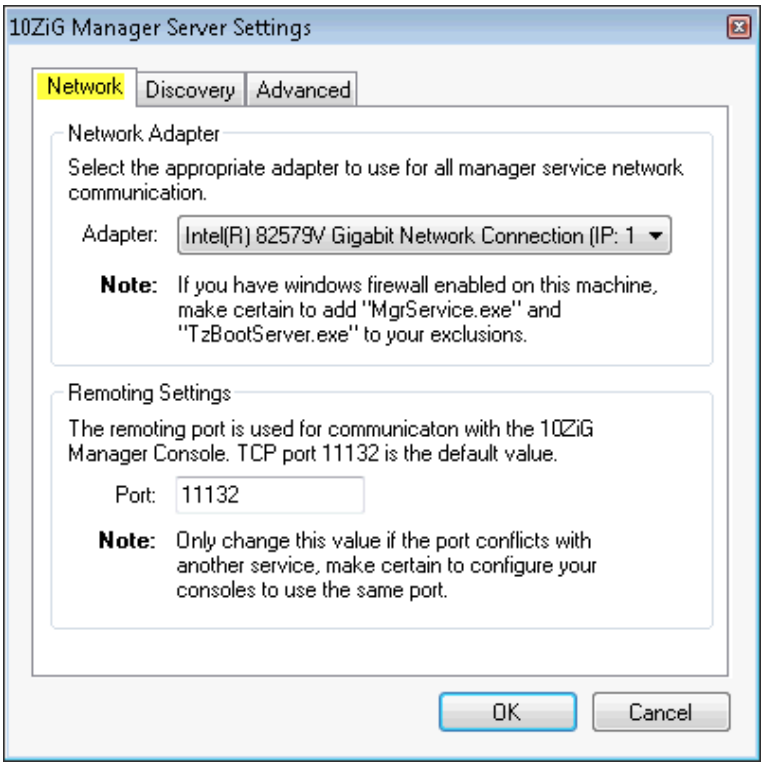
- TCP 52510 - This RPC port is used by Manager Server to perform remote operations and queries on Windows (XTC Agent) clients.
- TCP 52511 - This RPC port is used Windows (XTC Agent) clients to notify the manager server when they come online or are going offline.
- TCP 80/443 (HTTP/HTTPS) -These Web ports are used by Manager Server to query information from and perform operations on Linux 9 (LTC Agent) clients.
- UDP 1680 or TCP 1680 - Depending on whether TCP discovery is enabled, one of these ports is used to discover of Linux 8 and Windows CE thin clients.
- TCP 21(FTP) - The port is used by Manager Server to query information from and perform operations on Linux 8 (Browsed Agent) clients.
- TCP 8001 - The Manager Server publishes firmware update packages for Linux clients on this port.

- PXE Boot Ports

  - UDP 68 (DHCP/BOOTP) - The Manager Server responds to DHCP/BOOTP requests from this port for PXE-Booting clients for image deployment/recovery.
  - UDP 69 (TFTP) - When PXE-Booting, the PXE configuration and boot image are transferred to the client via TFTP

- *Remoting Port* - Defines the TCP communications port on which Manager Consoles should communicate with the Manager Server. The default value, *11132* should be used unless this conflicts with other services.

NOTE: If the port must be changed, make certain to configure all related Manager Consoles to use the same port.



1.1.4 - Discovery Settings

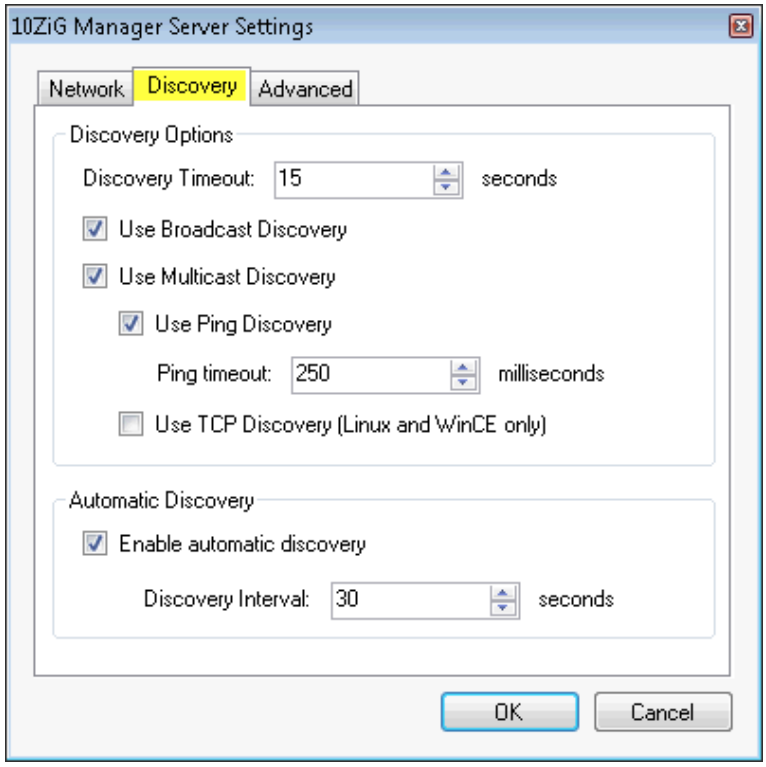
- *Automatic Discovery*

1. *Enable automatic discovery* - When enabled, the manager server automatically attempts to discover new 10ZiG thin

clients and check existing clients' status at the configured interval. (Enabled by default.)
2. *Discovery Interval* - The number of seconds between automatic discovery jobs. (Default: 30 seconds)
3. *Discovery Timeout* - The number of seconds before a client discovery connection attempt times out. (Default: 15 seconds)

NOTE: If you find the 10ZiG Manager is not picking up your thin clients try changing the Discovery Timeout to 30 seconds

- *Discovery Options*
  1. *Use Broadcast Discovery* - (Enabled by default) - Enable/disable broadcasting UDP packets to discover thin clients.
  2. *Use Multicast Discovery* - Enable/disable polling individual addresses within specified multicast IP ranges for the thin client.
  3. *Use Ping Discovery* - When enabled, the manager server pings an IP address to determine if a device is online prior to attempting a connection for client discovery. (Enabled by default)
  4. *Use TCP Discovery (Linux and WinCE only)* - By default, the manager server performs a connectionless query (Disabled by default)
- Click *OK* to save the settings and exit the dialog.



1.1.5 - Advanced Settings

- Windows Client Connectivity
  - RPC Timeout - Timeout period for remote management calls to Windows Thin Clients. Increase this value if certain tasks are failing due to high latency. Default: 45 seconds
- Wake-On-LAN
  - Wake-on-LAN (WOL) is an Ethernet computer networking standard that allows a computer to be turned on or woken up by a network message. Default: port 9
- Boot Server
  - Enable Boot Server - Enable/Disable integrated PXE boot server functionality. Specify localhost if the integrated

TFTP server is to be used or the IP address of an existing TFTP server to use. Default: Enable

To use an existing PXE server already on the network, copy the files in the TFTP folder under the 10ZiG Manager installation directory and place them on the existing PXE server where the PXE server is publishing files. The image file(s) need to be placed in the general repository directory on the existing PXE server. In the Manager Server Settings - Advanced Tab - uncheck Enable TFTP server and under the TFTP Host put the IP of the existing PXE server on the network. Boot the thin client in PXE mode and restore the image from the existing PXE server.

- Enable TFTP Server - Enable/Disable integrated TFTP server. Default: Enabled

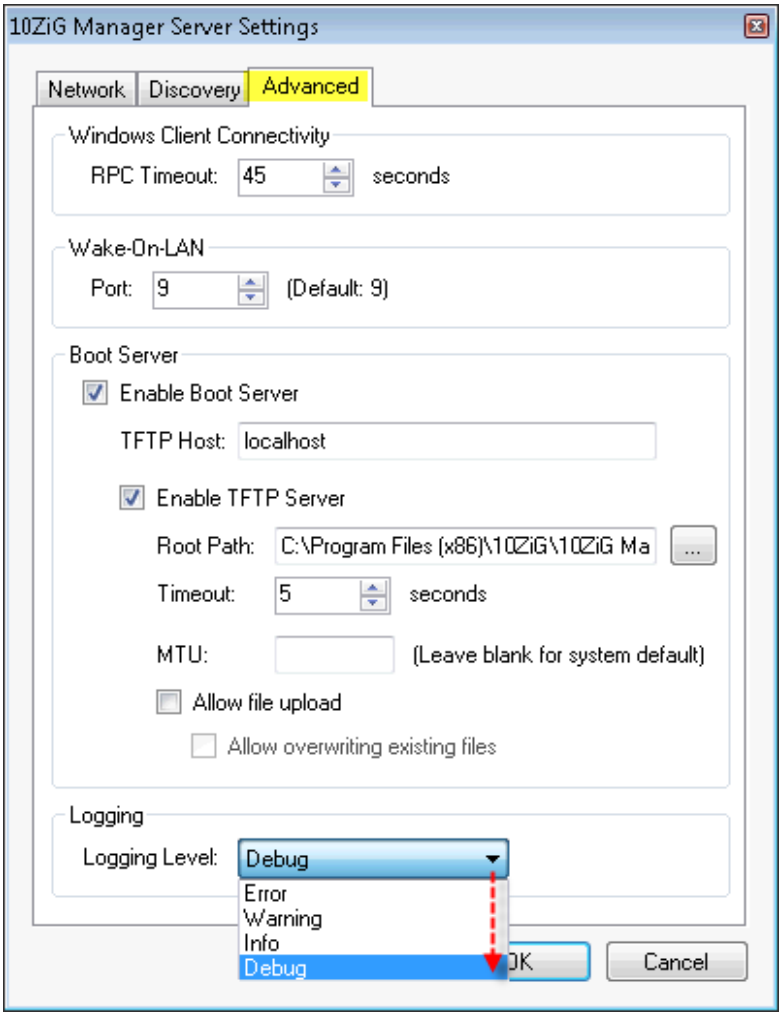
  - Root Path: Path to the tftp folder/directory on the 10ZiG Manager server
  - Timeout: Timeout period before TFTP transfers are cancelled if no acknowledgement is received from the client. Default: 5 seconds
  - Allow file upload: Enable/Disable uploading files to the TFTP server. Default: Disabled
  - Allow overwriting existing files: Enable/Disable overwriting files of the same name when uploading. Default: Disabled

- Logging - System Log

  - Logging Level: Specify the logging verbosity level. Messages are filtered based on criticality. Default: Info

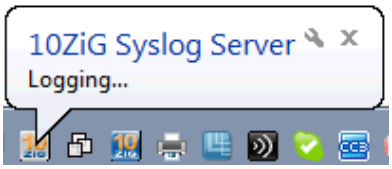
How to generate a detailed 10ZiG Manager System Log

1. Change the logging level from Info to Debug in 10ZiG Manager Server Settings - Advanced Tab

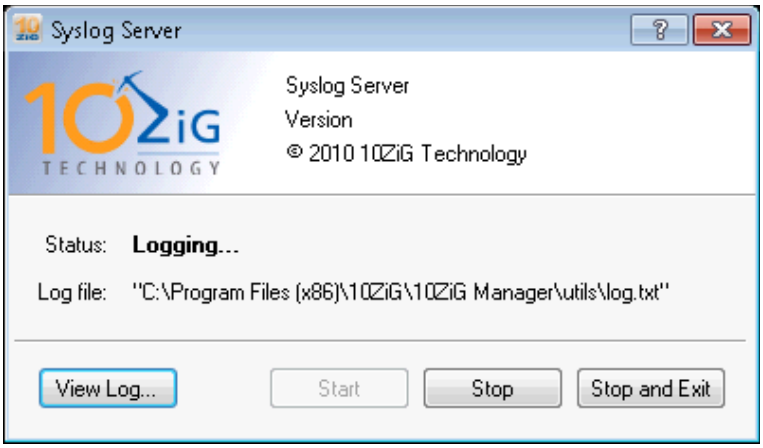


2. Start the Syslog from the menu option under the 10ZiG Manager - 10ZiG Syslog

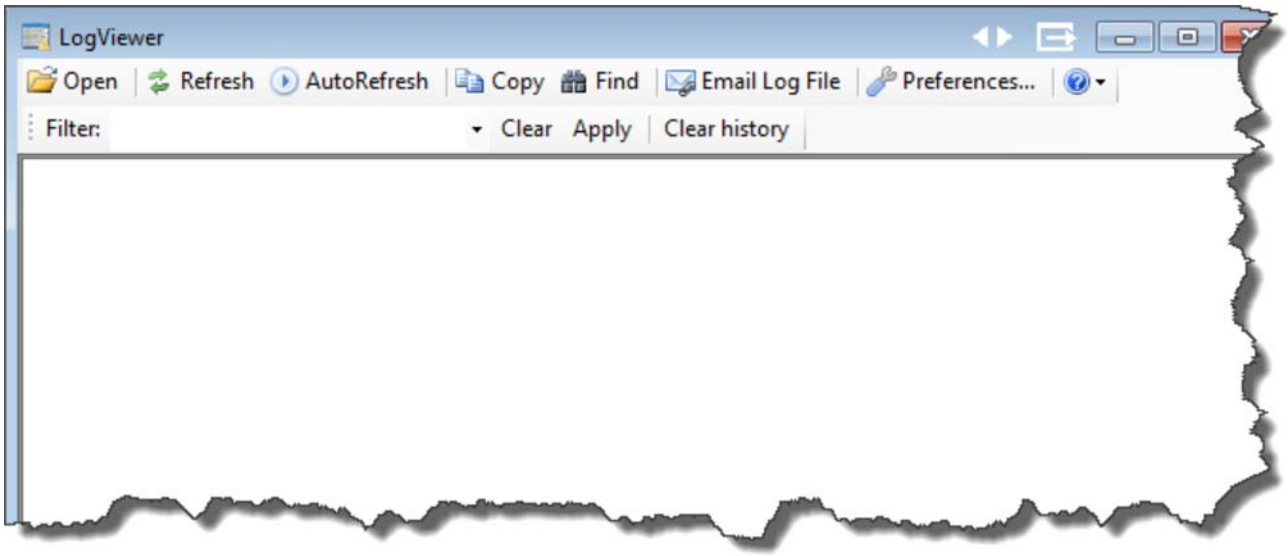
3. The ICON in will be display in the Windows notification area



4. Double click on the ICON to open the Syslog Server Program



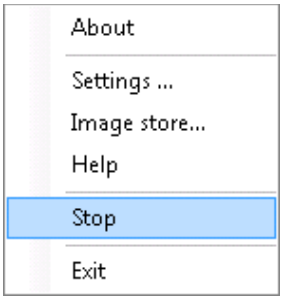
5. Select View Log...the log is displayed. Click on AutoRefresh to view live log.



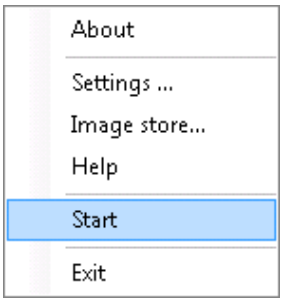
1.1.6 - Starting and Stopping the Server

Aside from using the Windows Services console, the Manager Server service can be started and stopped via the Service Controller context menu. Since the service is configured, at installation time, to start automatically when the server computer boots, it is generally unnecessary to manually start the server. However, if the server settings are updated, the service should be restarted either by rebooting the server or by performing the following:

1. Right-click on the Manager Service Controller icon
2. Click *Stop*



3. When the service has stopped, the tray icon will be grayed.
4. Right-click on the grayed Manager Service Controller icon
5. Click *Start*



6. When the service has started, the tray icon will be blue.

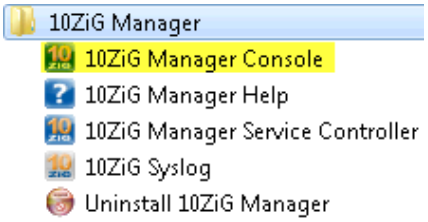
1.2 - Configuring and Starting the Console

The 10ZiG Manager Console is an MMC Snap-in, and during installation, a pre-configured MMC console, *MgrConsole.msc* is created. Shortcuts to the console are also created in the **10ZiG Manager** *Start* menu group and on the desktop.

1.2.1 - Launching the Manager Console

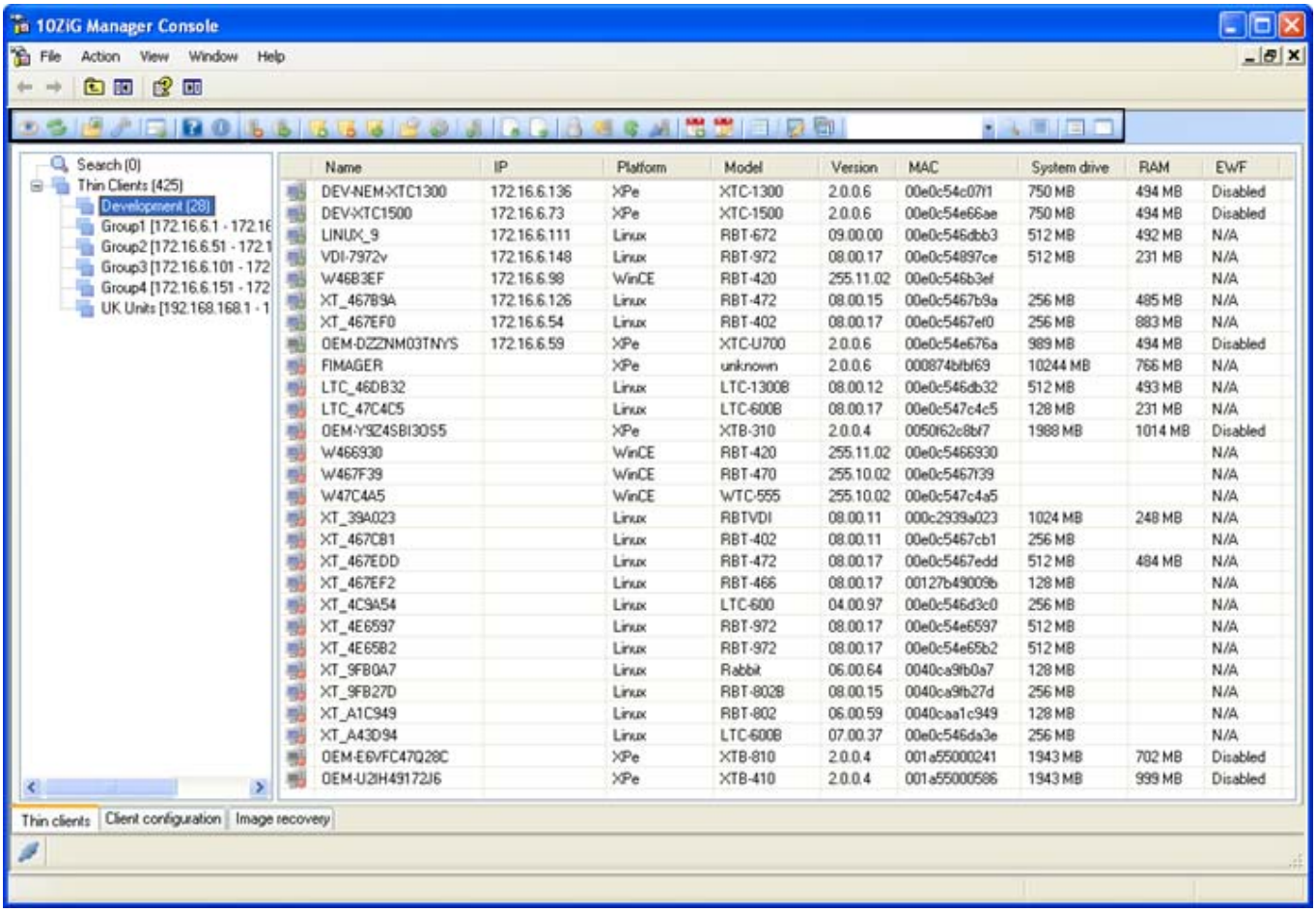
Ensure the Manager Server has been started before launching the Manager Console.

- Select *10ZiG Manager Console* from the *Start* menu group to launch



- or double-click the desktop shortcut

Tip: On the Manager Server computer, double-clicking on the server controller tray icon will also launch the Manager Console.

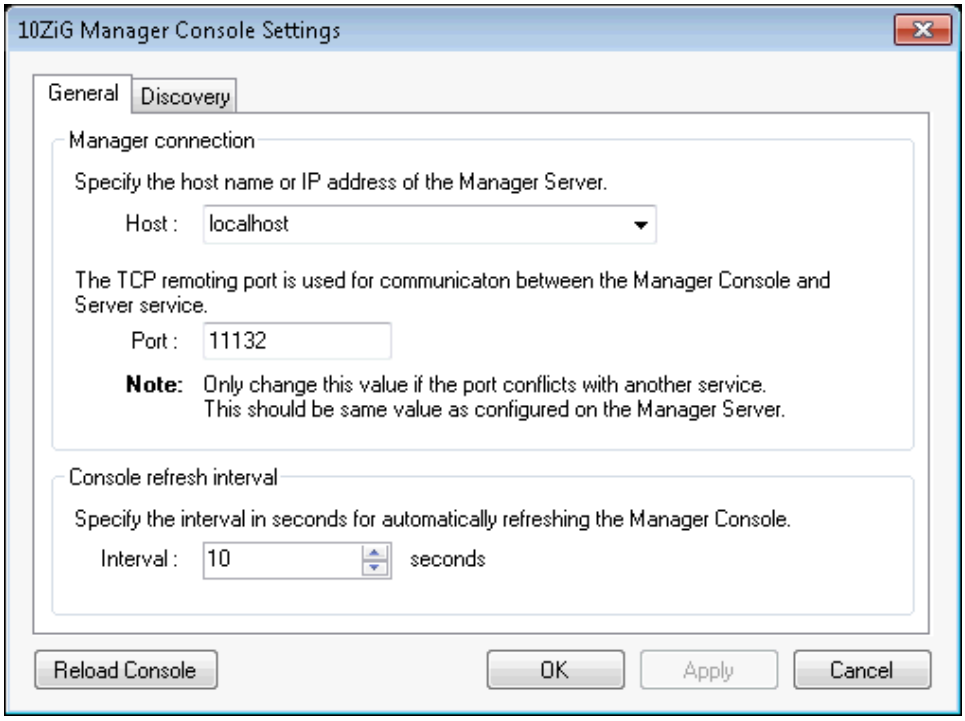


The *10ZiG Manager Console* consists of various toolbars and a tabbed window with three tabs, *Thin Clients*, *Client Configuration*, and *Image Recovery*.

1.2.2 - Console Settings

The Manager Console settings include the host address and port to which the Console uses to communicate with the Manager Server. By the default, the Console is configured to contact the Manager Server using the *localhost* or loopback address (127.0.0.1). However, if a console has been installed on a computer other than the main Manager Server, the appropriate address must be specified in the settings. As well, if the Manager Server has been configured to use a different port, the console must be configured with the same port.

1. From the Manger Console, select the *Settings* toolbar button to start the *Console settings* dialog.
2. In the *Host* field, specify the IP address or host name of the Manager Server. (Default: localhost or 127.0.0.1)
3. In the *Port* field, specify the same port as the *Remoting Settings* port configured in the Manager Server settings. (Default: 11132)
4. In the *Console refresh interval* select the interval in seconds for automatically refreshing the Manager Console (Default is 10 seconds).



5. Click *OK* to save the settings and exit the dialog.
6. For any setting changes to take effect, the Console must closed and restarted or select Reload Console

Note: Discovery Tab information can be found under the Thin Client Management section 2.2.1

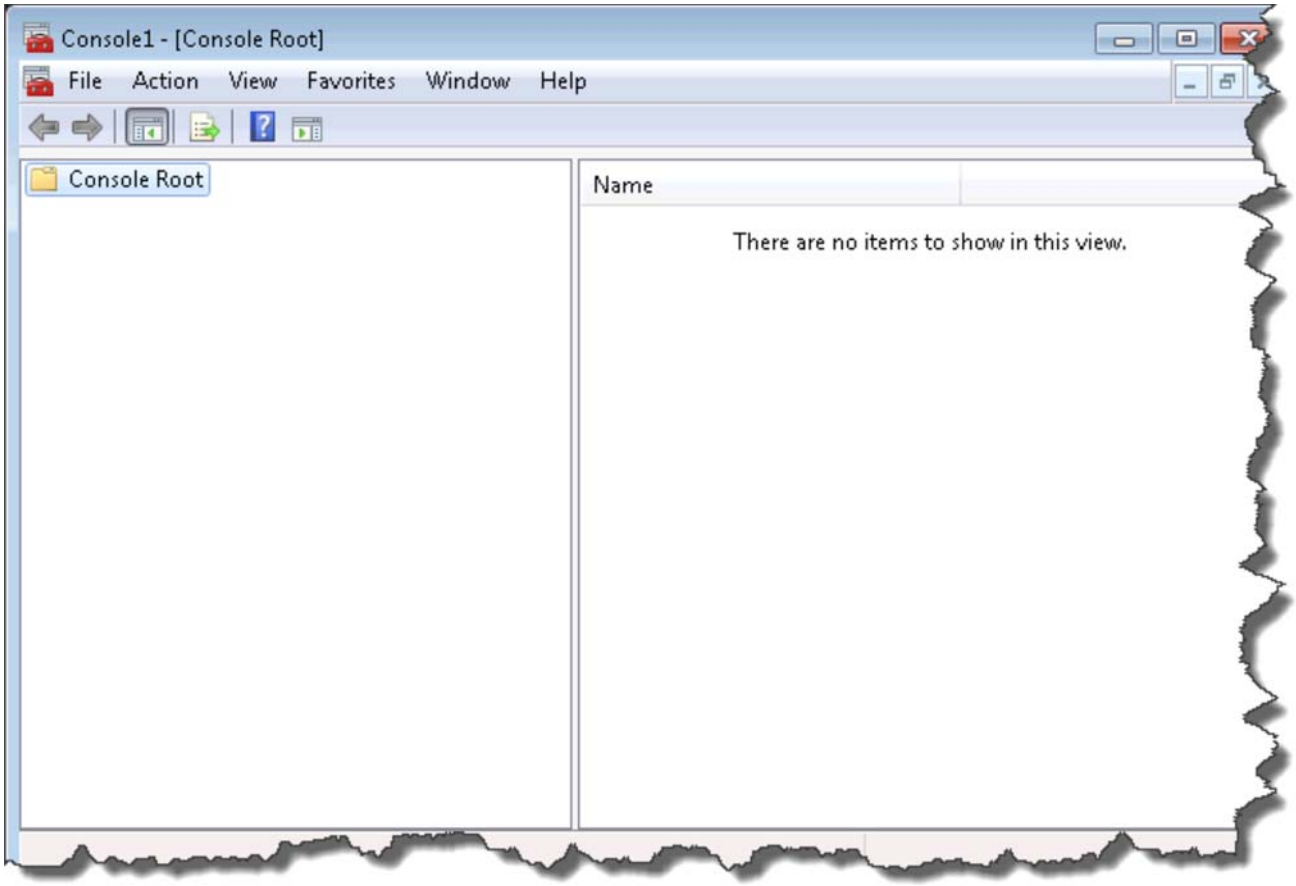
1.2.3 - Adding the 10ZiG Manager Console Snap-in to a custom MMC console

You may wish to create a custom MMC console, grouping commonly used MMC tools together and adding an instance of the 10ZiG console snap-in. Consult **Microsoft MMC documentation** for further details.

Create a custom MMC console:

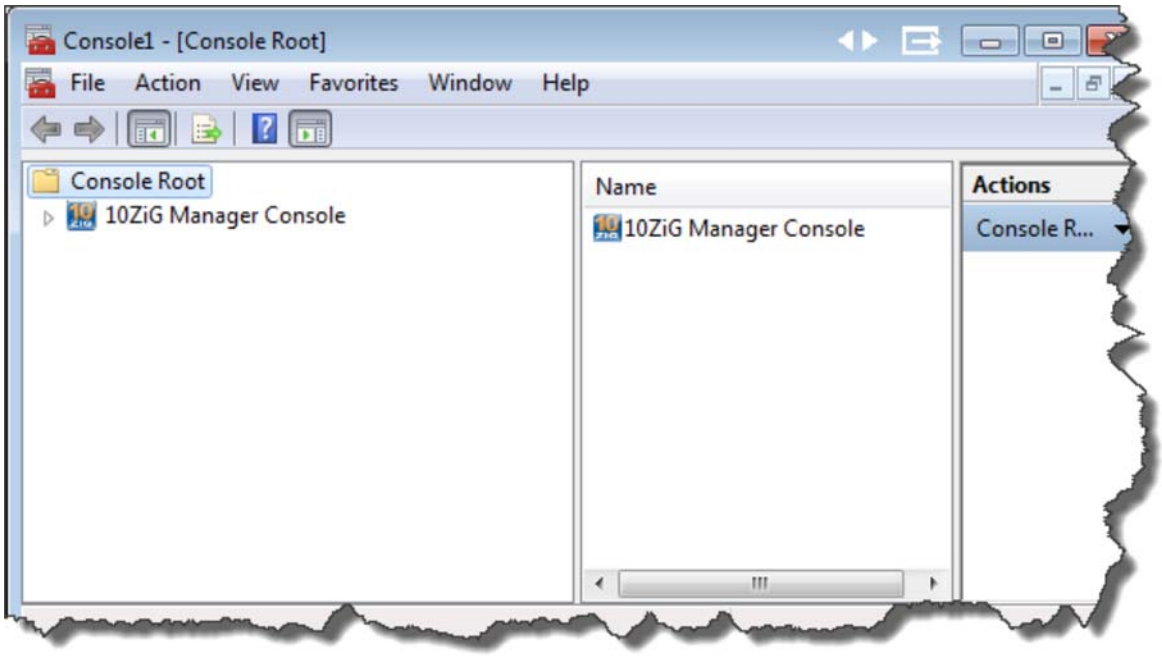
1. From the *Start* menu
2. select *Run*
3. type *mmc*, and press enter

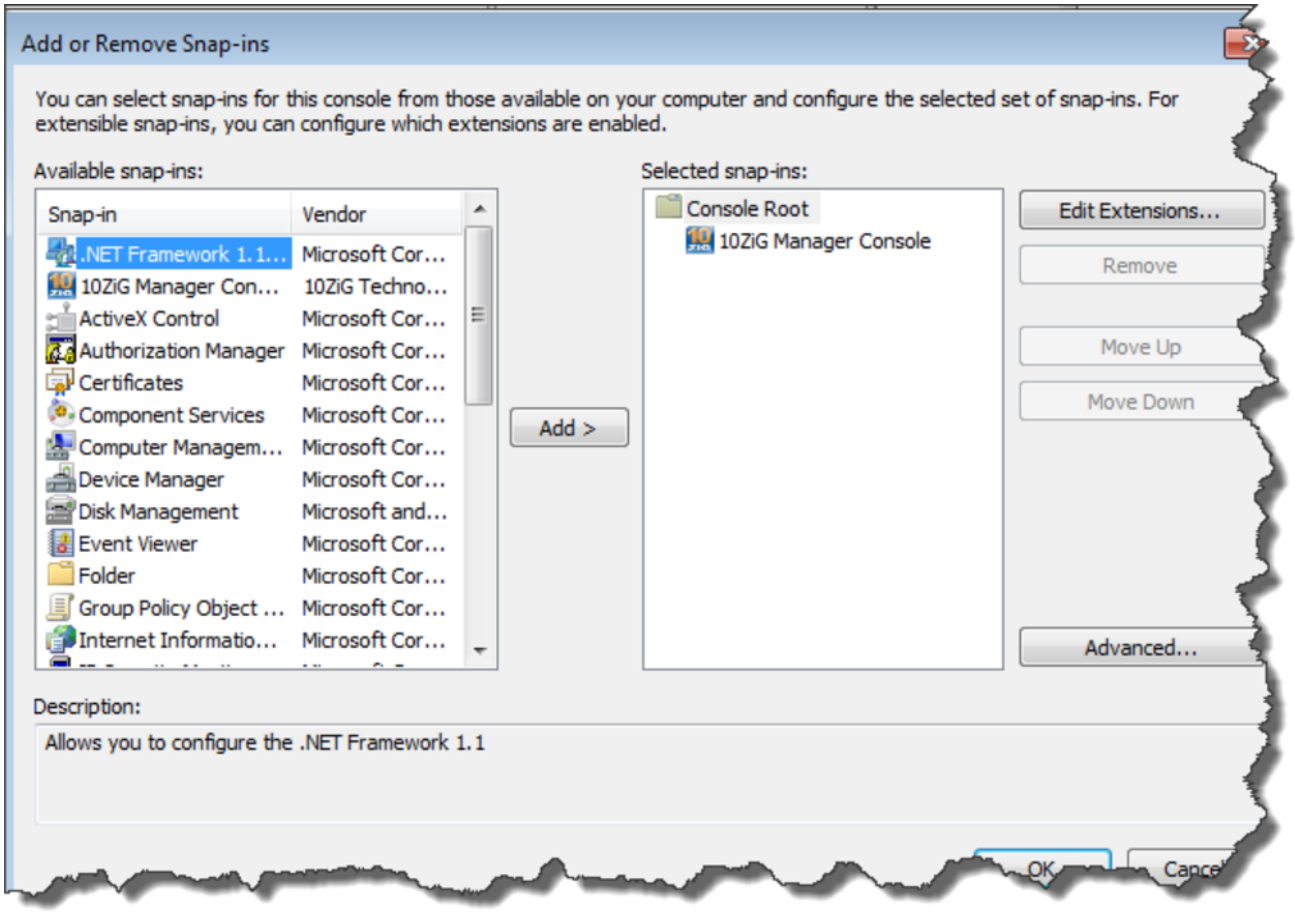
An empty MMC console



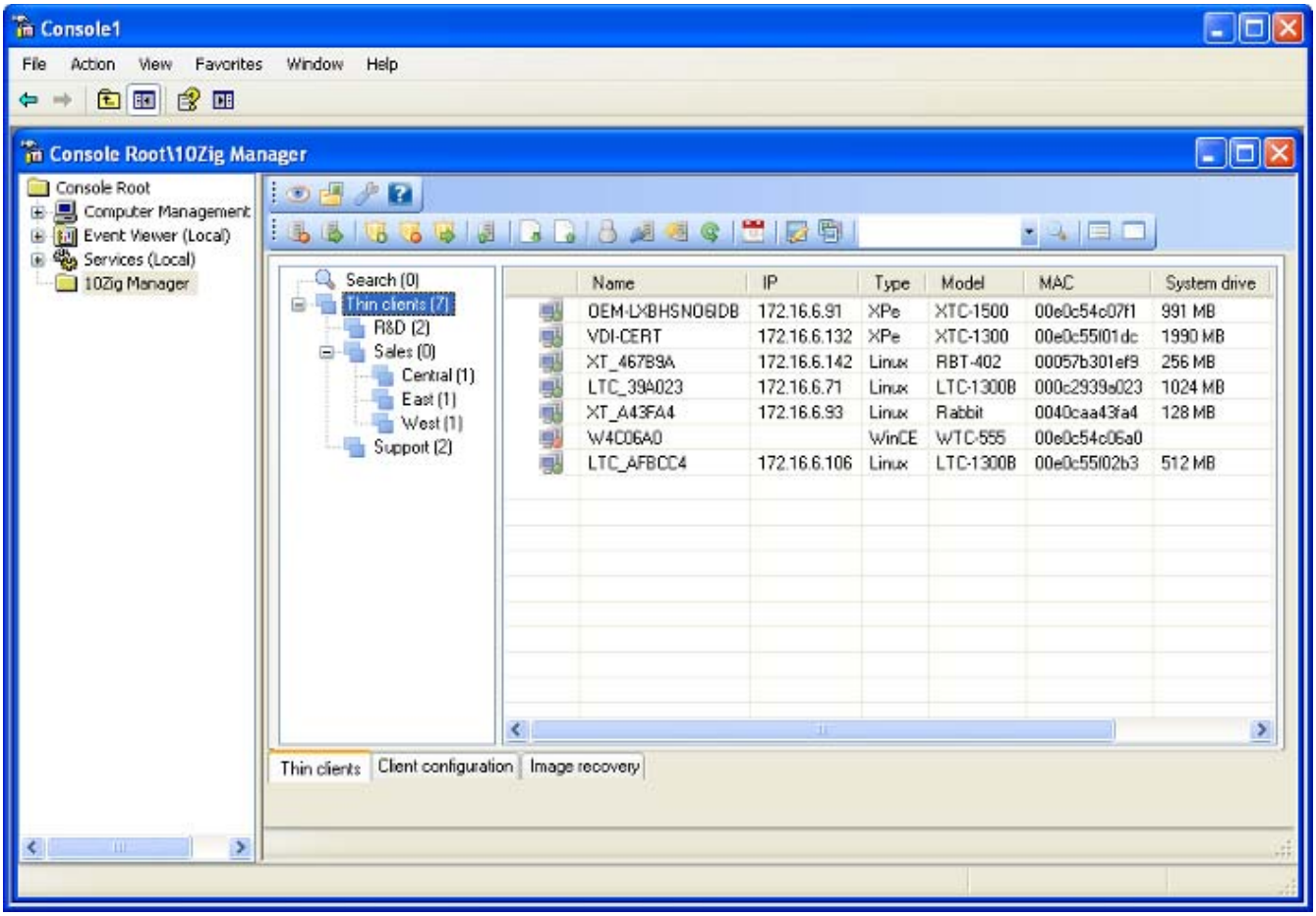
Add Snap-ins:

1. From the *File* menu, select *Add/Remove Snap-in* to launch the *Add/Remove Snap-in* dialog.
2. Click the *Add* button on the *Standalone* tab to display the *Add Standalone Snap-in* dialog.
3. Choose the desired snap-in(s) to include and click the *Add* button.
4. Click the *Close* button when done.
5. Click the *OK* button on the *Add/Remove Snap-in* dialog.





A new custom MMC console



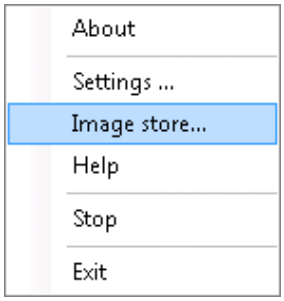
1.3 - Image Storage Configuration

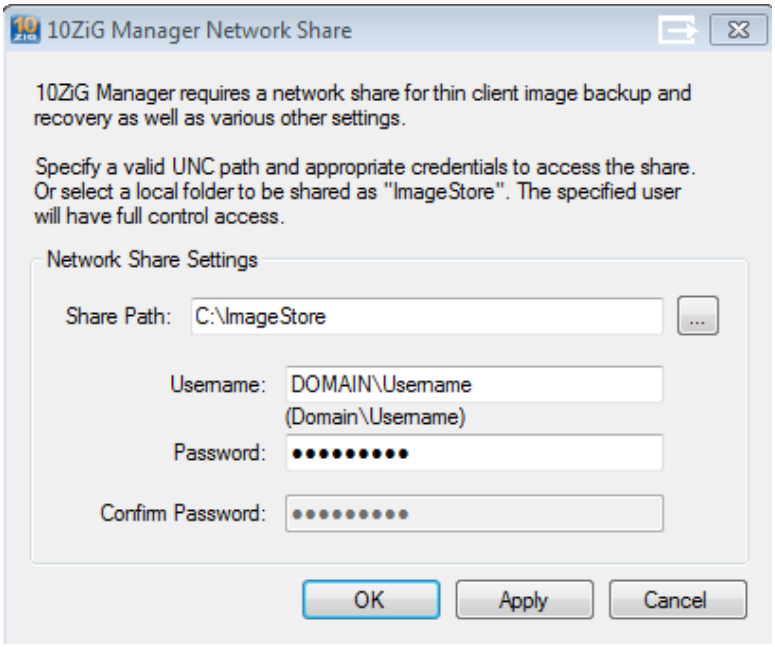
10ZiG Manager provides the ability to backup and restore entire thin client drives, and the resultant files are referred to as *Images*. The 10ZiG Manager requires a network share for thin client image back and recovery as well as various other settings.

Specify a valid UNC path and appropriate credentials to access the share or select a local folder to be shared as *"Image Store"*. The specified user will have full control access.

To set up the Image Store:

1. Right-click on the Manager Service Controller ICON
2. Click *Image Store...*





3. In the *Share Path* field, the default will be the local file path C:\ImageStore or click the browse button ... to choose the folder to share. During the install, the program will check to see if C:\ImageStore exists and if it does not the program prompt for permission to create the folder and set the share properties.

   When 10ZiG thin clients are in recovery mode, they need to map the shared *"Image Store"* in order to read from or write to the folder. Therefore, one must specify user account credentials with read/write access to the store folder to be used by the thin clients when mapping the share.

4. In the *Username* field, enter the user name preceded by the computer name for a local user or the domain for a domain user.
   i.e. *thiscomputer\localuser* or *somedomain\username*
5. Enter the user's password into the *Password* field
6. Confirm the password by entering it again into the *Confirm Password* field.
7. Click *OK* to save the settings and exit the dialog.

1.4 - Troubleshooting

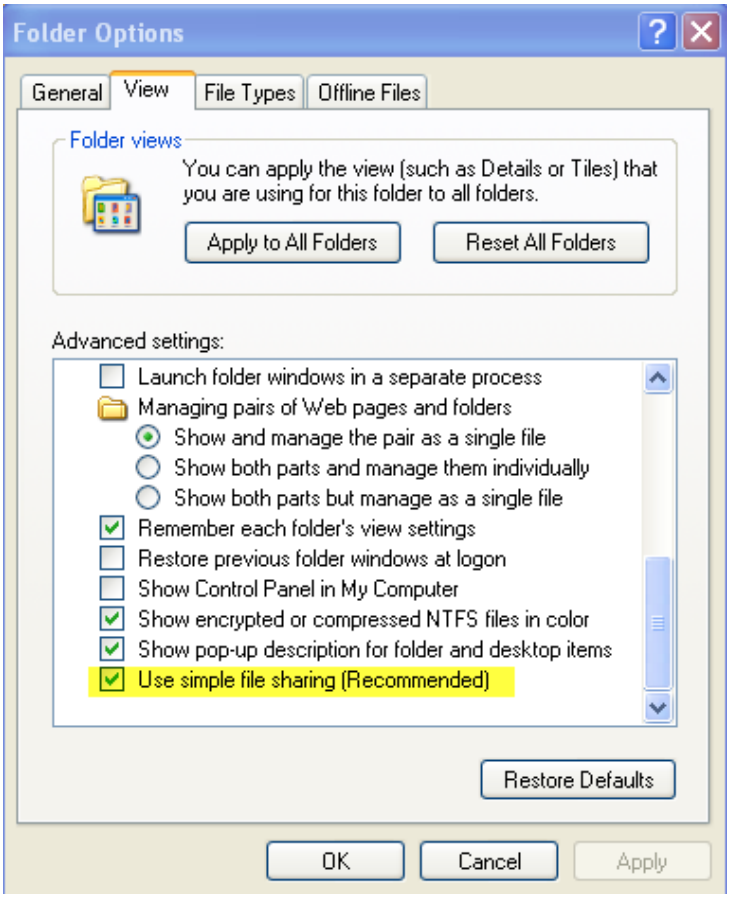
Why won't my 10ZiG Manager Console connect to the Manager Server?

Ensure the Manager Console settings have been configured with the correct host and port for the Manager server. Refer to Manager Console Settings for further details.

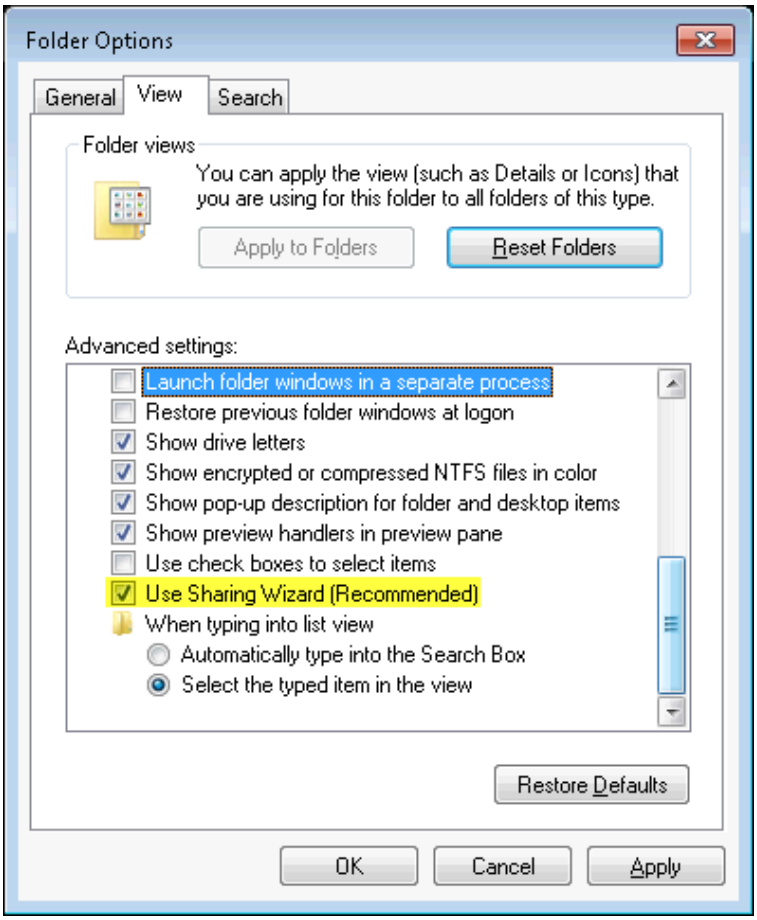
Why can't I select OK or Apply after I entered my credentials in the share path?

Turn off Simple File Sharing in folder options:

Windows XP - Uncheck Use simple file sharing (Recommended) in folder options



Windows 7 - Uncheck Use Sharing Wizard (Recommended) in folder options

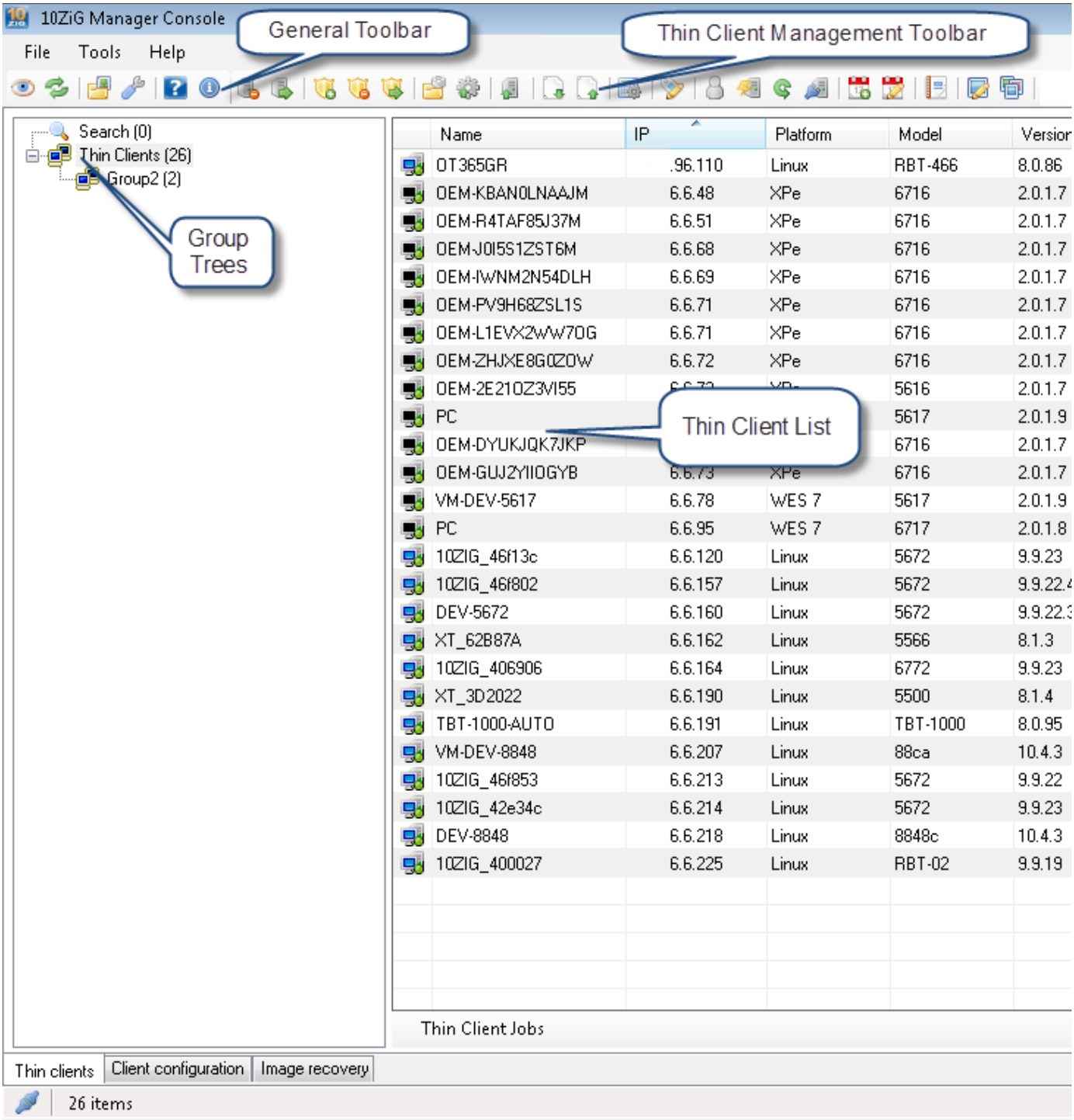


2 - Thin Client Management

Using the **10ZiG Manager Console** user interface, administrators can determine the status of 10ZiG thin clients, remotely boot, reboot or shutdown thin clients, and execute various other remote management functions. These remote tasks can be manually initiated on individual or multiple clients. The boot, reboot and shutdown tasks can be scheduled for automated one-time or recurrent execution. Additionally, thin clients can be organized into logical groups to ease management of large numbers of related units.

2.1 - Thin Clients View

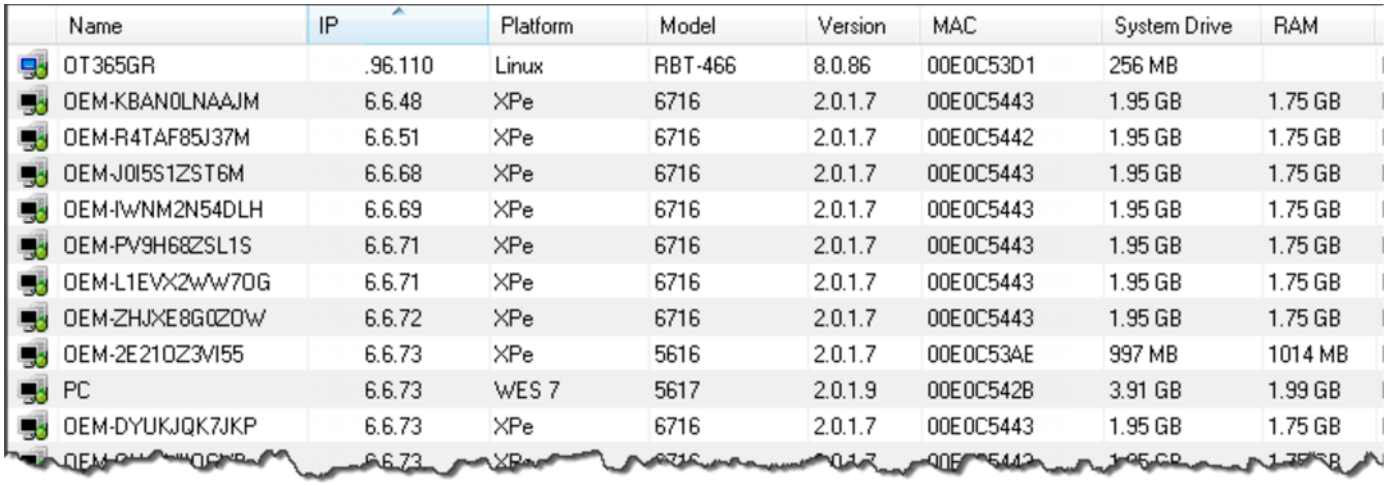
When the Manager Console starts, the *Thin Clients* tab is shown by default. This view includes a general toolbar common to all tab views, a thin client management specific toolbar, a group tree in the left pane, and a client list in the right pane.



- The thin client management toolbar contains buttons to execute various remote operations. At least one client entry must be selected before performing any of these tasks.

- The group tree view contains two base groups or roots; the *Search* results and the global *Thin Clients* root where all clients are first added/displayed, along with any custom Logical Groups. Like Windows Explorer, groups can be expanded and collapsed using the expand ⊞ or collapse ⊟ buttons respectively.

- The thin clients list provides a summary of useful details of all discovered 10ZiG clients.



Name	IP	Platform	Model	Version	MAC	System Drive	RAM
OT365GR	.96.110	Linux	RBT-466	8.0.86	00E0C53D1	256 MB	
OEM-KBAN0LNAAJM	6.6.48	XPe	6716	2.0.1.7	00E0C5443	1.95 GB	1.75 GB
OEM-R4TAF85J37M	6.6.51	XPe	6716	2.0.1.7	00E0C5442	1.95 GB	1.75 GB
OEM-J0I5S1ZST6M	6.6.68	XPe	6716	2.0.1.7	00E0C5443	1.95 GB	1.75 GB
OEM-IWNM2N54DLH	6.6.69	XPe	6716	2.0.1.7	00E0C5443	1.95 GB	1.75 GB
OEM-PV9H68ZSL1S	6.6.71	XPe	6716	2.0.1.7	00E0C5443	1.95 GB	1.75 GB
OEM-L1EVX2WW70G	6.6.71	XPe	6716	2.0.1.7	00E0C5443	1.95 GB	1.75 GB
OEM-ZHJXE8G0Z0W	6.6.72	XPe	6716	2.0.1.7	00E0C5443	1.95 GB	1.75 GB
OEM-2E210Z3VI55	6.6.73	XPe	5616	2.0.1.7	00E0C53AE	997 MB	1014 MB
PC	6.6.73	WES 7	5617	2.0.1.9	00E0C542B	3.91 GB	1.99 GB
OEM-DYUKJQK7JKP	6.6.73	XPe	6716	2.0.1.7	00E0C5443	1.95 GB	1.75 GB

The list columns:

1. The first column contains.

   - Client status icons as follows

   Indicates the client is on.

   Indicates the client is off.

   Indicates the client is on, but the Manager server does not have ownership of it.

   Indicates the client is off, but the Manager server does not have ownership of it.

2. The *Name* column displays the host or NetBIOS name of the client.
3. The *IP* column contains the IP address of the client.
4. The *Platform* column displays the thin client's Operating System type.
5. The *Model* column shows the 10ZiG client model.
6. The *Version* column shows the version of firmware installed on the thin client
7. The *MAC* column displays the thin client's network MAC address.
8. The *System drive* column shows the client's system drive capacity.
9. The *RAM* column displays the client's total RAM amount.
10. The *EWF* column displays the system drive EWF write protection status for Windows XPe clients.
11. The *Last Responded* column displays the last date and time the 10ZiG Manager recorded a response from the thin client.

2.2 - Thin Client Discovery

The Manager Server must initially discover and register 10ZiG thin clients to obtain their status and gather relevant information. The following occurs during discovery:

- The Manager Server queries and updates the status of clients that have been previously registered with the server.
- The server broadcasts a request for any undiscovered clients to initiate registration.
- The server tries to contact clients at each address within configured IP ranges.

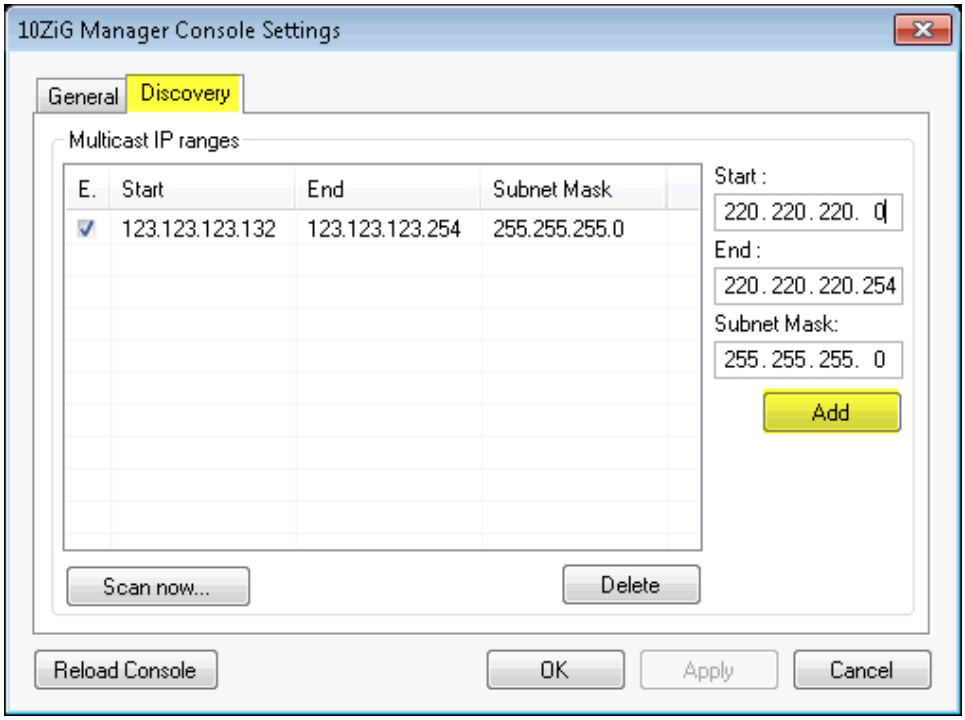
This discovery process begins when the Manager Server starts and repeats every 30 seconds to update client status. However, the administrator can refresh client status information by clicking the *Manual discovery* button .

2.2.1 - Multicast IP Ranges

Multicast IP Ranges define ranges of IP addresses or sub networks in which the Manager Server should attempt to contact 10ZiG thin clients. During discovery, each address a range is polled for client response. If no address range is defined, the Manager Server polls the entire network to which the *Default Network Adapter* is connected.

To add an IP Range:

1. Launch the *Console settings* dialog by clicking the *Settings* toolbar button .
2. Select the *Discovery* tab.



3. Enter the first IP address of the range into the *Start* field.

   Note: The default gateway address, usually something like xxx.xxx.xxx.1, should not be included within the range.

4. Enter the last IP address within the range into the *End field.*

   Note: The broadcast address, usually something like xxx.xxx.xxx.255, should not be included within the range.

5. After the desired IP range values have been enter, click *Add*.
6. The new range will appear in the range list.
7. To remove any previously added ranges, check the desired range(s) in the list and click the *Delete* button.

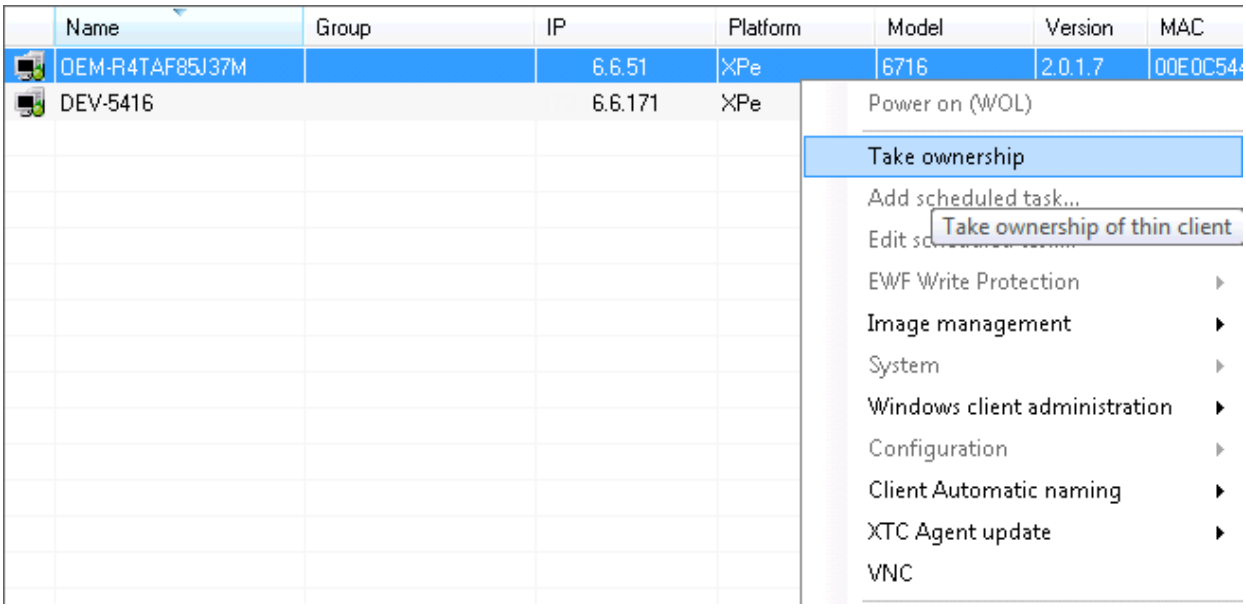
2.2.2 - Thin Client Ownership

When a 10ZiG **Windows Embedded** thin client is discovered for the first time, the discovering Manager Server receives *Ownership* of that client. That is to say the server will maintain the client's configuration information and will be authorized to perform any and all remote management functions on the client. Only one

Generally, only one instance of the 10ZiG Manager Server should be installed on a network, however, if multiple Manager Servers exist on the same network, some clients may be owned by one server and others owned by another. As well, if a Manager Server is uninstalled removing all of its saved data, and a new Manager Server is installed; the new server will not have ownership of the XPe clients. Therefore, it may be necessary at times to take ownership of these clients.

Taking Ownership:

1. In the Manager Console Thin clients list, right-click on an XPe client entry that the Manager Server does not have ownership.



2. Select the *Take ownership* menu item.
3. A progress bar will appear briefly while the process completes.
4. The client's status icon will change from to when ownership has been assumed.

2.3 - Thin Client Management Tasks

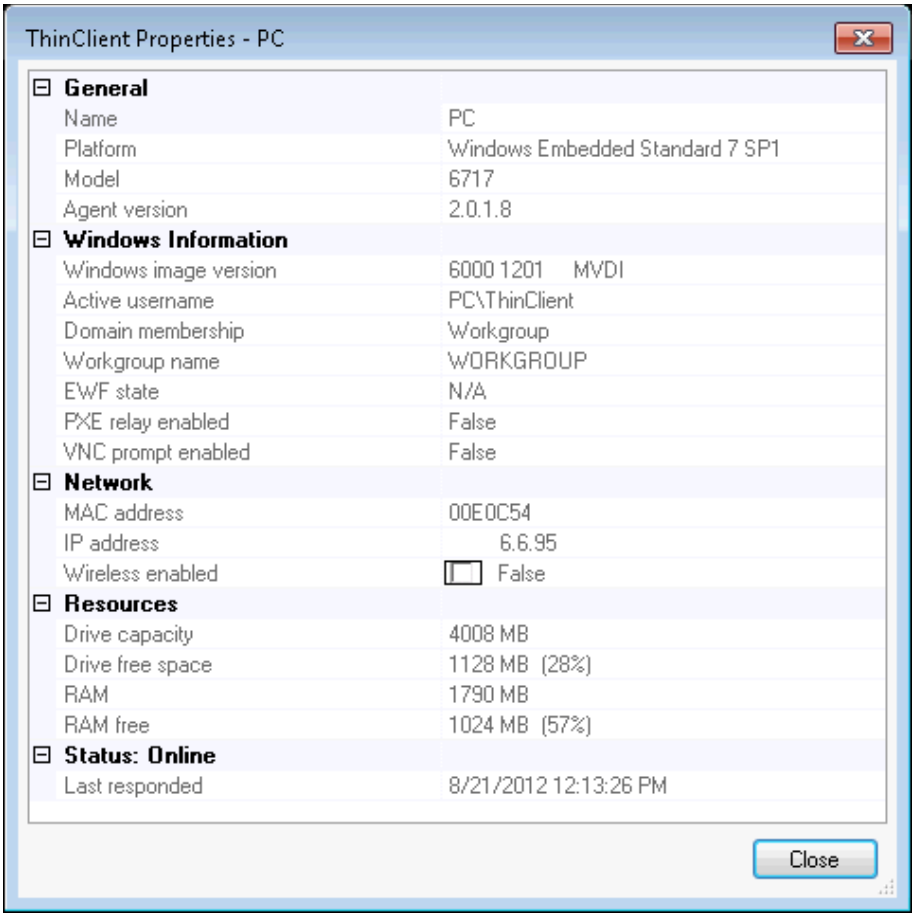
The 10ZiG Manager supports all 10ZiG thin client operating systems including Windows XP Embedded, Linux, and Windows CE. Many remote management tasks are common to all the types of thin clients, however, as platforms vary in capability; some tasks are specific to each.

2.3.1 - Common Tasks

Many management tasks are universal to all 10ZiG thin clients regardless of OS; these tasks are detailed as follows.

2.3.1.1 - Properties

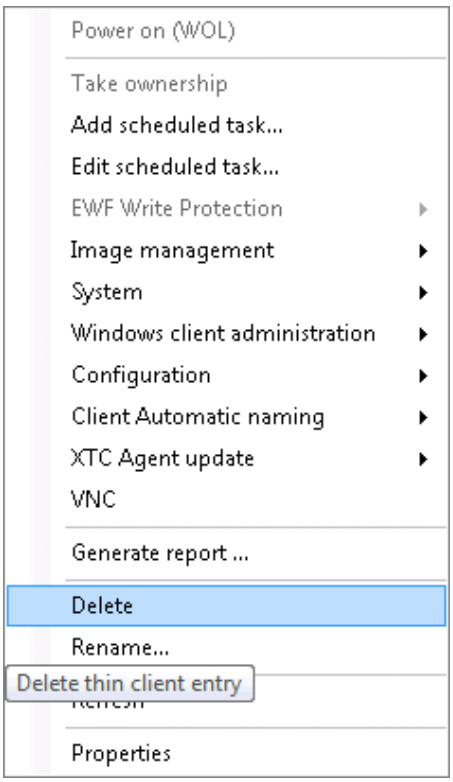
To display some basic information about a thin client including the client model, computer name, agent software version, and hard drive and RAM resources, right-click on the client entry and select the *Properties* menu item.



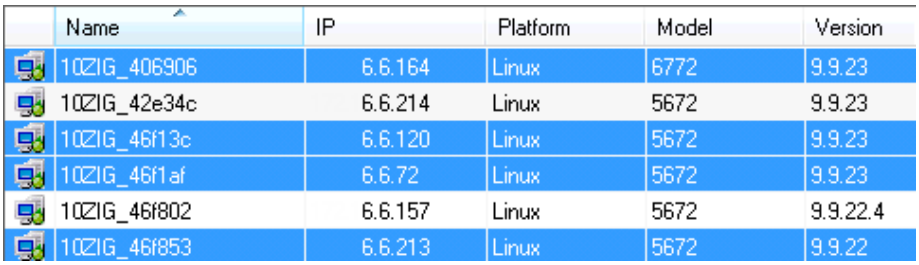
2.3.1.2 - Thin Client Entry Maintenance

At times some thin client entries may need to be removed from the Manager Console clients list either because thin clients have been removed from the network so the entry is no longer required or because it is necessary to have the thin client be rediscovered and registered with the Manager. There are several ways to remove these entries.

1. To Right-click on an entry and select the *Delete* menu item.



2. Highlight each thin client entry to remove, use control or shift keys to select multiples. Right click then click select *Delete* or press the **Delete** key on the keyboard.

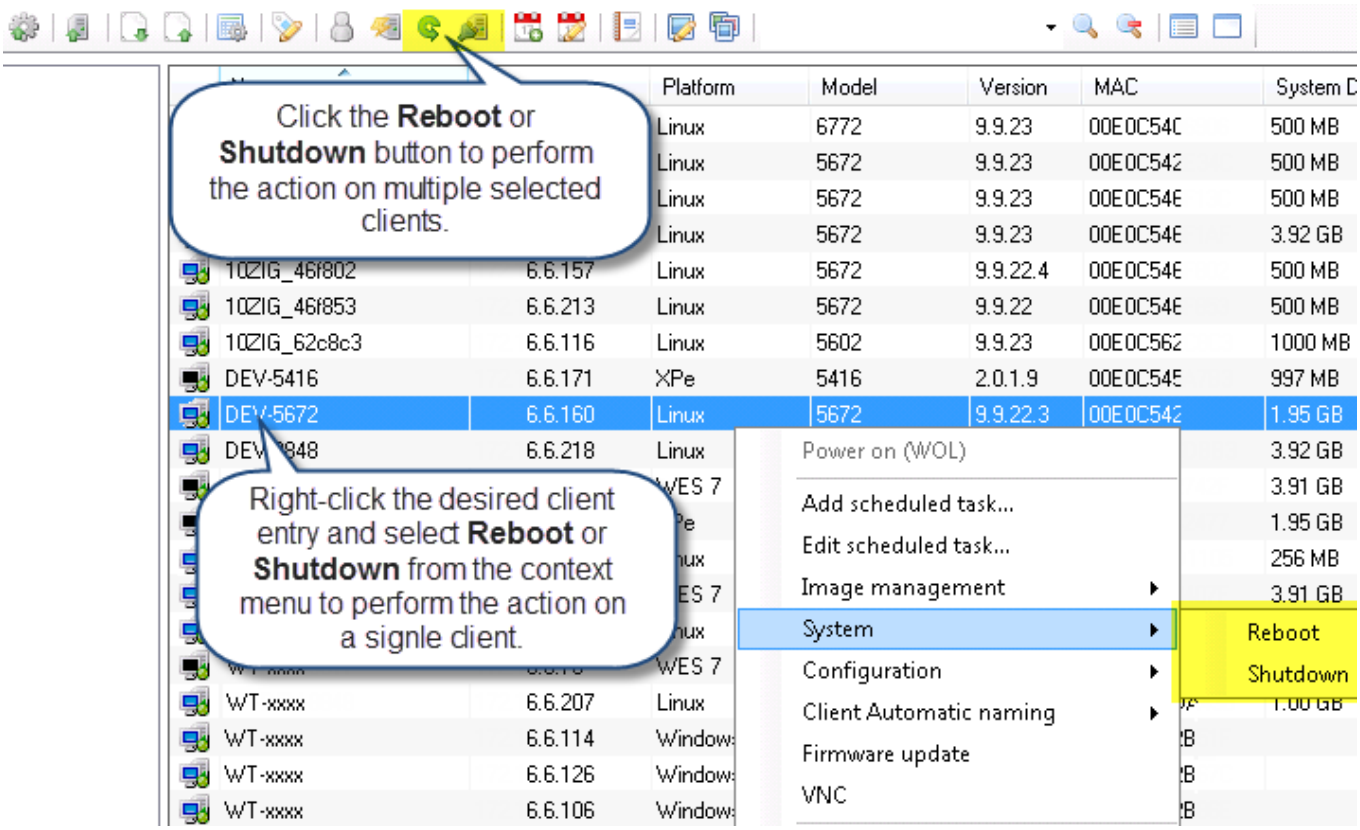


Name	IP	Platform	Model	Version
10ZIG_406906	6.6.164	Linux	6772	9.9.23
10ZIG_42e34c	6.6.214	Linux	5672	9.9.23
10ZIG_46f13c	6.6.120	Linux	5672	9.9.23
10ZIG_46f1af	6.6.72	Linux	5672	9.9.23
10ZIG_46f802	6.6.157	Linux	5672	9.9.22.4
10ZIG_46f853	6.6.213	Linux	5672	9.9.22

3. All clients can be selected by clicking the *Select all*  or deselected by clicking the *Deselect all*  toolbar buttons and then either press the **Delete** key or right click on the manager console and select **Delete**.

2.3.1.3 - System Tasks

Remote system tasks include shutting-down, rebooting and powering-on clients. To Shut down or reboot a single client, right-click the client entry and select *Shutdown* or *Reboot* from the *System* submenu.



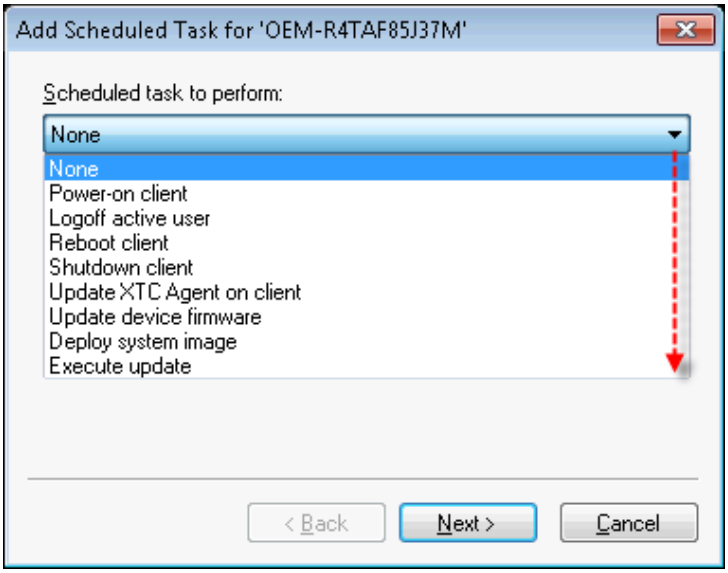
2.3.1.4 - Scheduled System Tasks

Schedule system tasks such as shutting-down, rebooting and powering-on clients  or edit scheduled tasks 

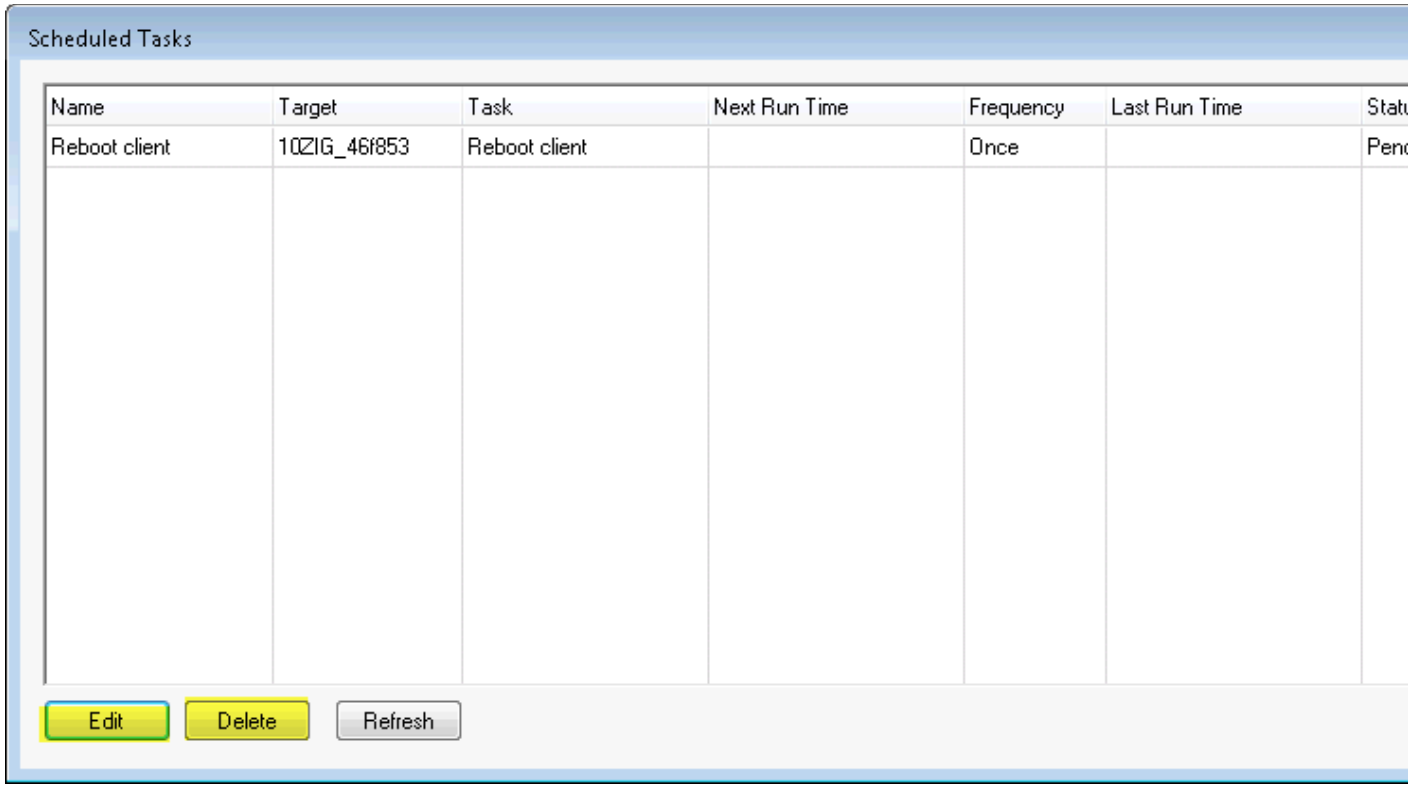
2.3.1.5- VNC

VNC allows shadowing the thin client from the console. For privacy reasons security is set in the VNC parameters when shipped.

2.3.1.6 - Add Scheduled Task



2.3.1.7 - Edit Scheduled Tasks

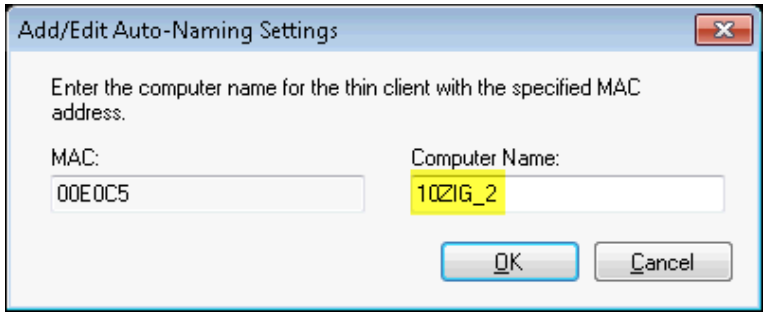


2.3.1.8 - Client Automatic Naming

The 10ZiG Manager features Automatic Client Naming which sets a defined computer name based on a thin client MAC.

To set Client Automatic naming on a specific thin client that has already been discovered by the 10ZiG Manager, right click on the specific thin client and select Client Automatic Naming - > Add/Edit Naming Entry.

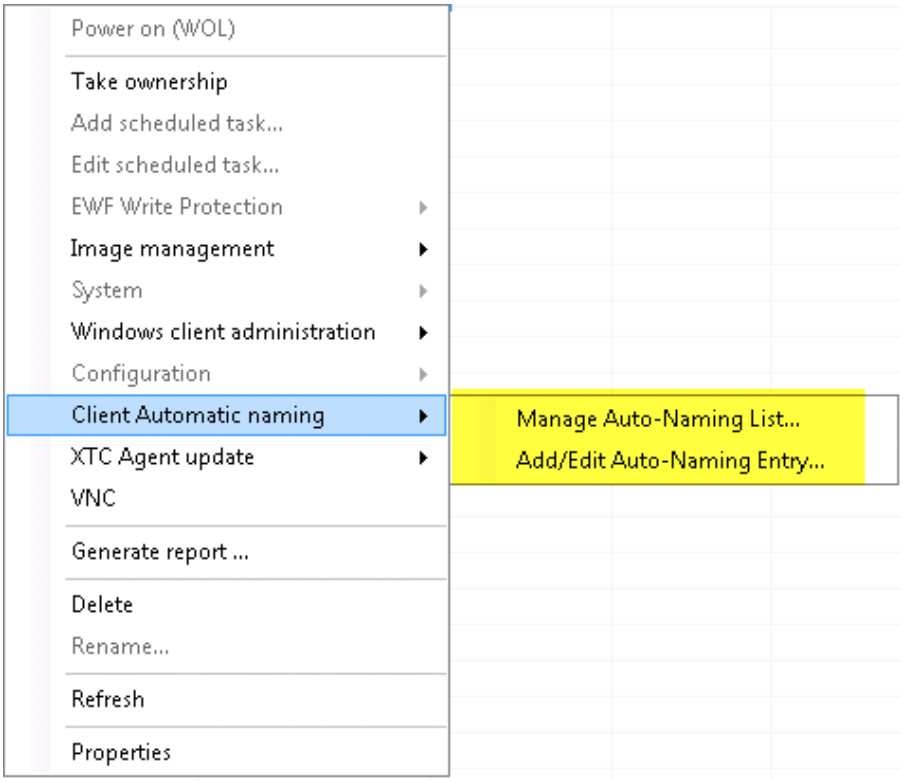
The Add/Edit Auto Naming Settings will be displayed with the MAC already displayed - enter the new Computer Name and select OK.

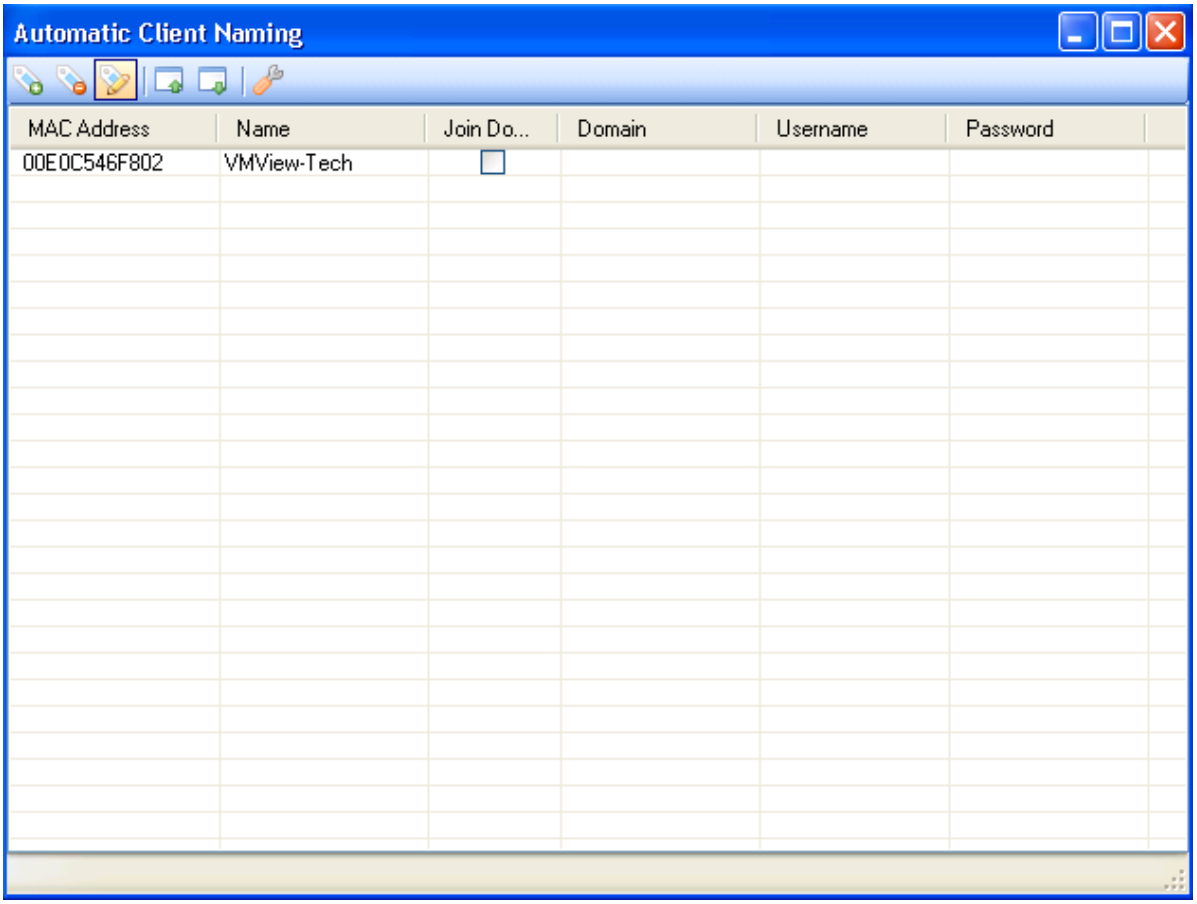


Once OK is selected, the MAC and computer name are added to the managed list.
To access the Manage Auto-Naming List right client on any thin client and select Client Automatic naming - > Manage

Auto-Naming List or select the ICON 

When the 10ZiG Manager makes a connection with the thin client the list is checked and if the thin client's MAC is listed and the name is different from the thin client's current name, the change is made immediately.

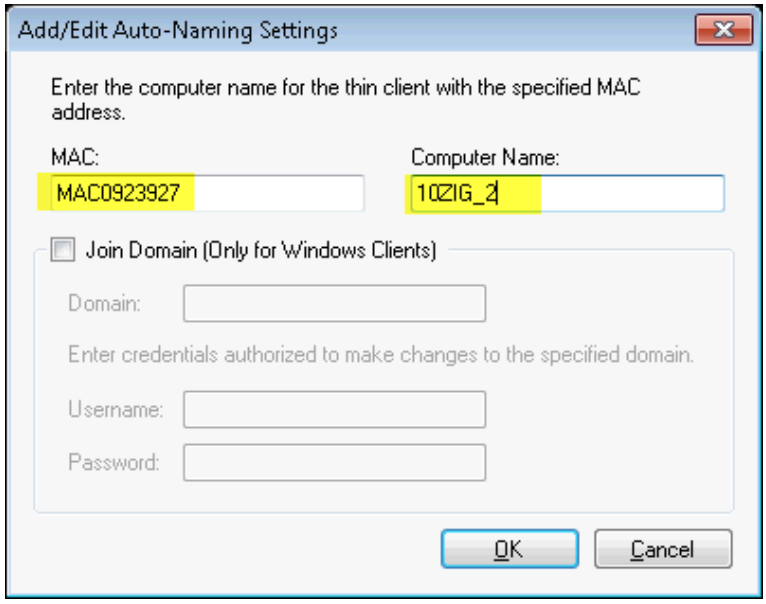




To manually add a thin client MAC in the list right click anywhere in the grid or select the ICON to add thin client MAC

Enter the MAC and the Computer Name.

Note: Join Domain is for Windows Clients Only

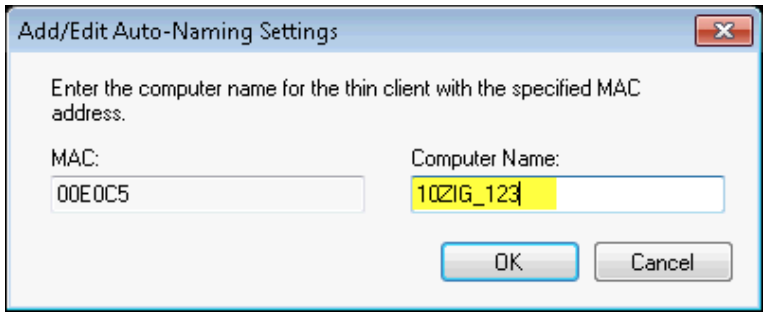


When the thin client boots, the 10ZiG Manager checks the MAC against the information stored in the table and makes changes accordingly.

The unit below had the default out of box name and was changed to VMView-Tech based information displayed on the images above

VMView-Tech	172.16.6.152	Linux	5672	9.9.12.2	00E0C546F802	500 MB	995 MB	N/A

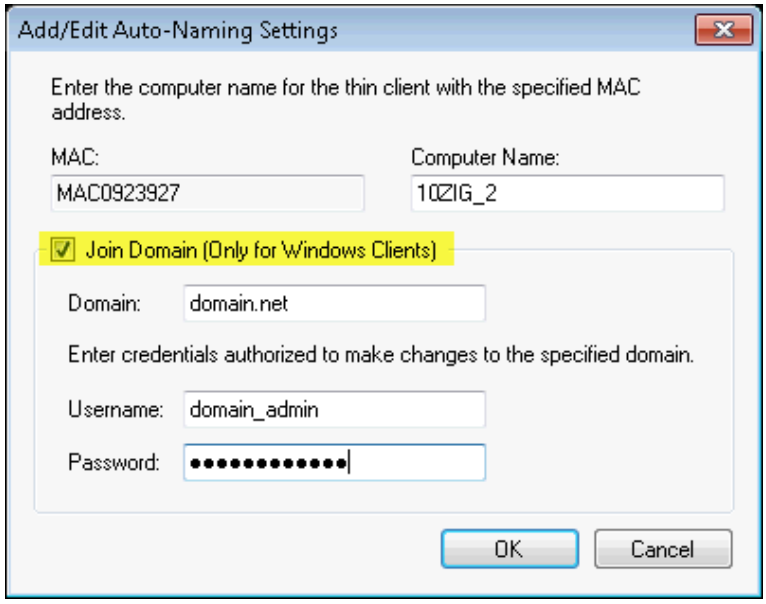
To make name changes to one specific thin client right click on it in the 10ZiG Manager and take the option for Automatic Client Naming and then Add/Edit Auto Naming Entry.



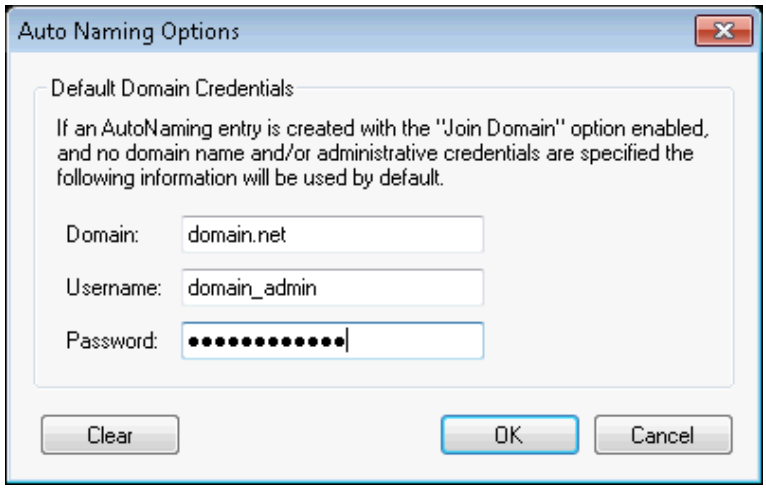
Change the Computer Name and select OK. Once OK is selected the thin client will reboot. Once the reboot has completed the computer name has been changed.

10ZiG_2	6.6.152	Linux	5672	9.9.12.2	00E0C	500 MB	995 MB	N/A

For Windows thin clients, in addition to the computer name change, the computer name can be added to Active Directory. Complete the Domain information making certain the username has the authority to add a computer to the domain.



To enter Default Domain Credentials select the ICON 



For large numbers of thin client name changes it is possible to export and/or import a .csv file

Using the ICONs above will allow for importing and exporting to making large modifications more manageable.

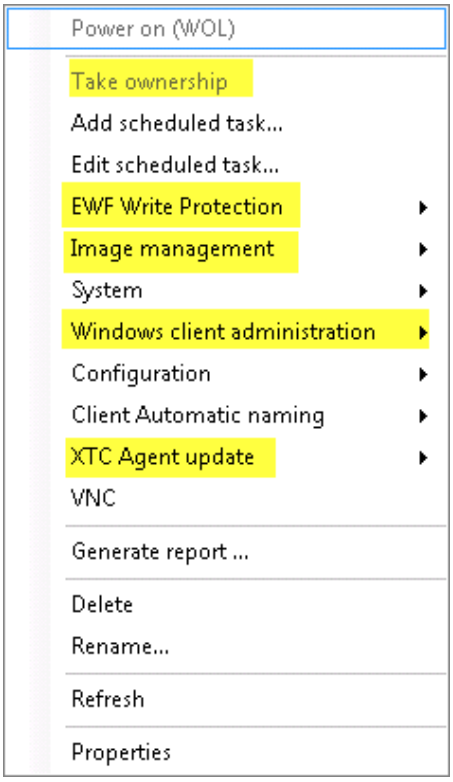
Prior to deploying thin clients a list can be built and saved in .csv format, once the list is completed and saved, it can be imported.

The video below walks through adding names to the list, exporting the list and then importing.

NOTE: If the video above does not play correctly, view the HELP file by right clicking on the 10ZiG Manager ICON in the notification area of the desktop and selecting Help.

2.3.2 - Windows XPe, WES 2009 and WIN 7

Windows Embedded-based 10ZiG thin clients



Many options are available to specific client types; if the option is grayed out it does not apply to the thin client selected.

2.3.2.1 - EWF Write Protection

Enhanced Write Filter (EWF) provides the ability to write-protect XPe image. **Write Protection must be turned off or disabled before cloning an image!**

2.3.2.2 - XPe and WES 2009 Image Management

Image management (Clone and Deploy System Image) this process performs an fbreseal before creating an image to be used for cloning. Once the image has been resealed, the thin client must be PXE booted to the 10ZiG Manager to maintain the resealed image where it can be backed up as a binary or compressed image. The cloned image can then be

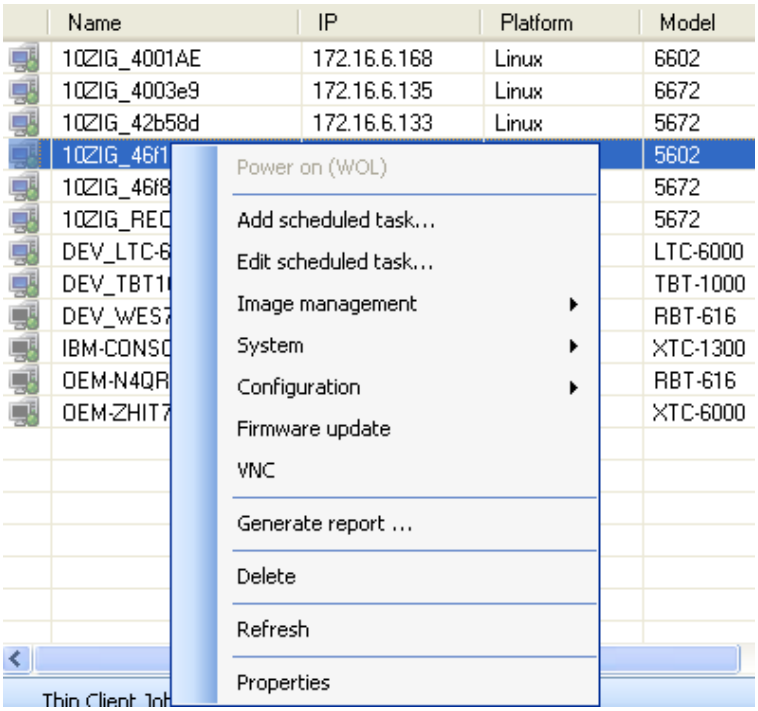
pushed out to other XPe thin clients. When the cloned image is booted for the first time it is assigned a unique security ID (SID) and computer name. *See Section 4*

2.3.2.3 - WIN 7 Image Management

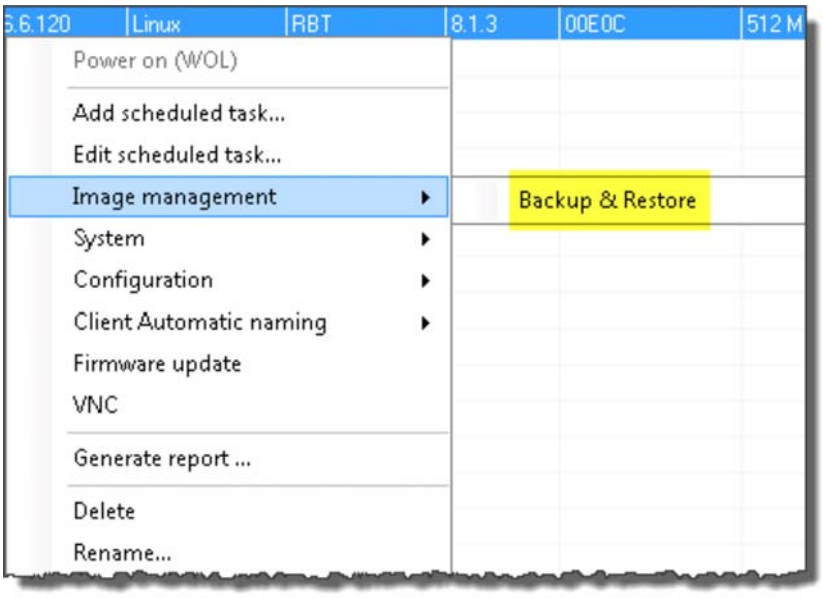
Image management (Clone and Deploy System Image) this process does a sysprep before creating an image to be used for cloning. Once the sysprep settings are set and sysprep is complete the image is ready to be cloned, the thin client must be PXE booted to the 10ZiG Manager to maintain the syspreped image where it can be backed up as a binary or compressed image. The cloned image can then be deployed to other like thin clients. When the cloned image boots for the first time a unique security ID (SID), computer name and sysprep settings are assigned to the system. *See Section 5*

2.3.3 - Linux

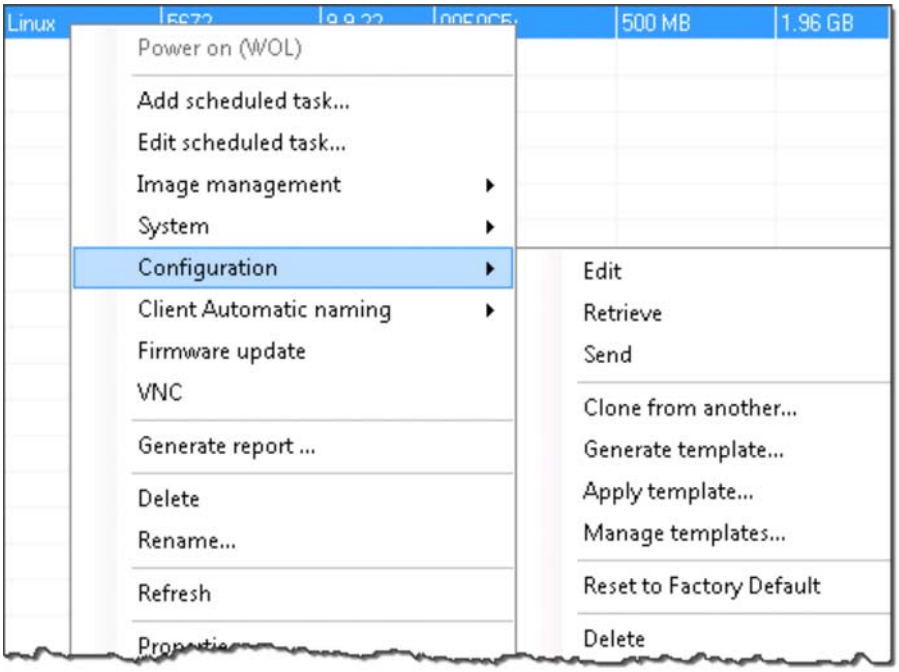
Linux Functions



2.3.3.1 - Image Management *See Section 6*

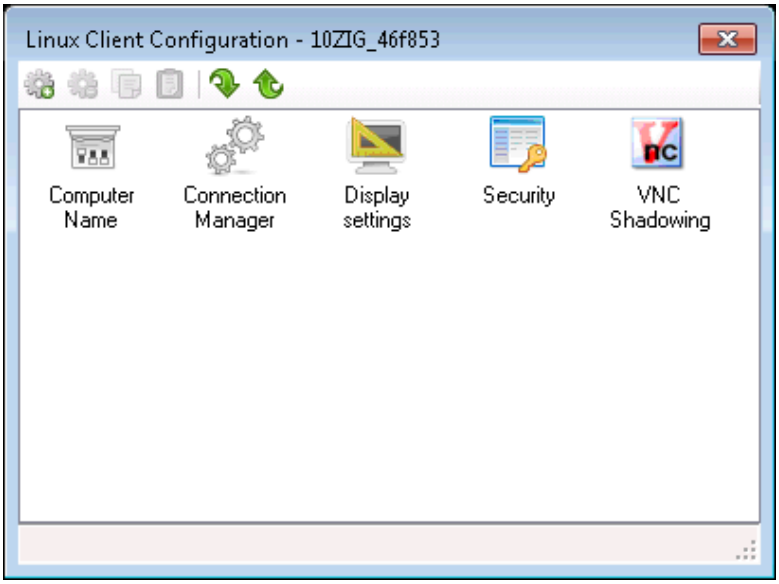


2.3.3.2 - Configuration

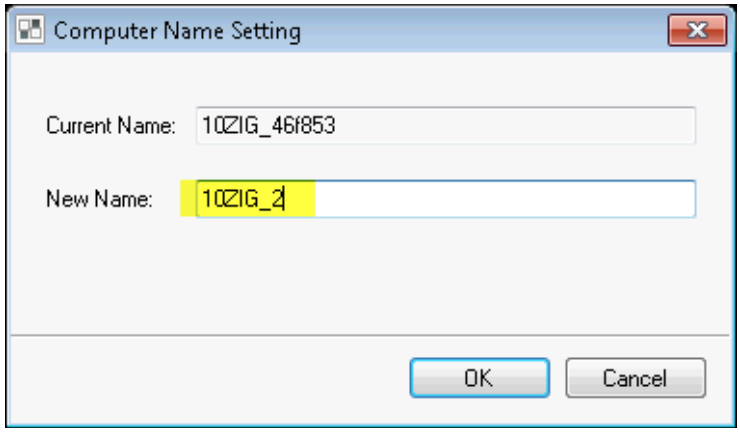


NOTE: Before editing the configuration take the option to Retrieve. Retrieve will pull in the current configuration of the thin client. Double click on the thin client to display the Linux Thin Client configuration properties.

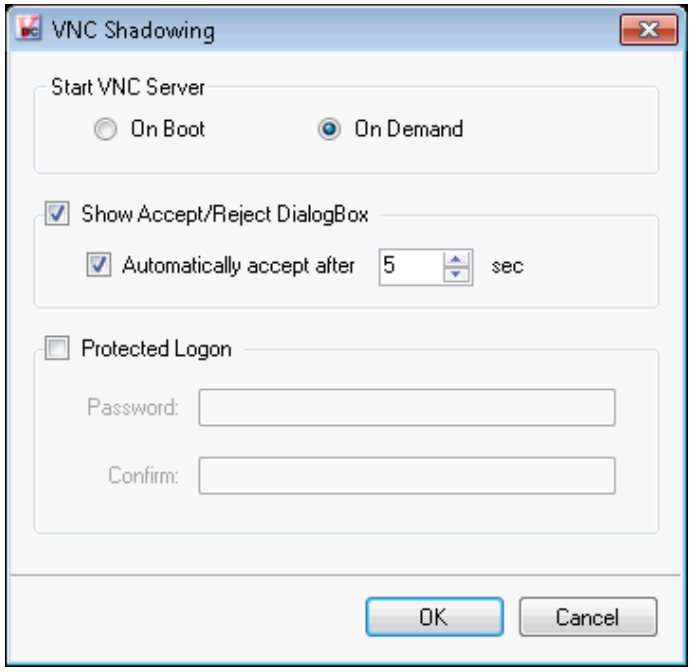
Edit



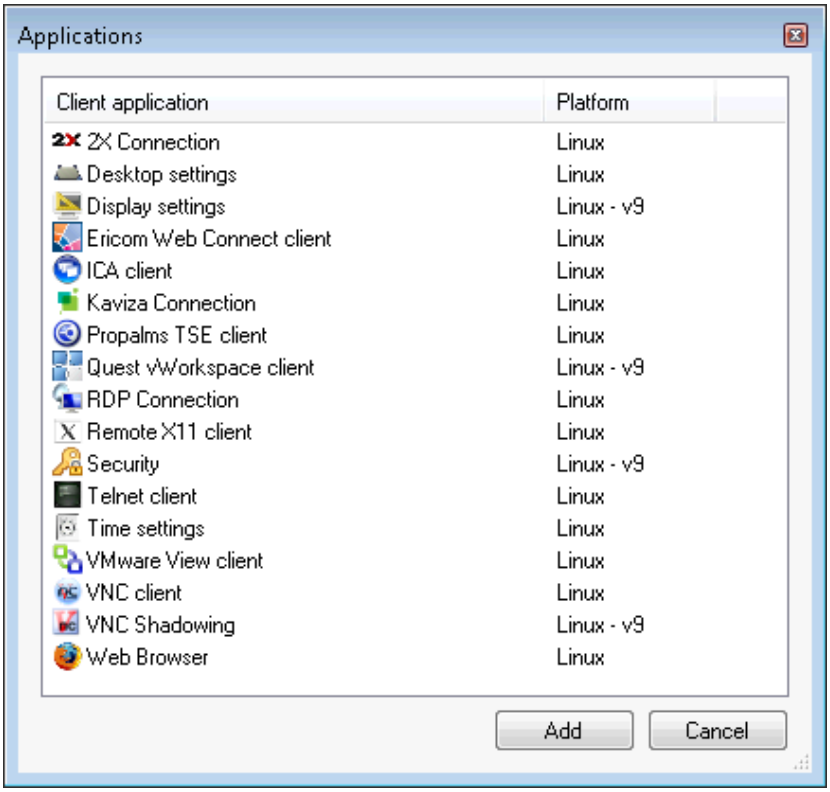
To change the Thin Client name double click on the Computer Name and enter the New Name



To Edit VNC settings double click on the VNC ICON

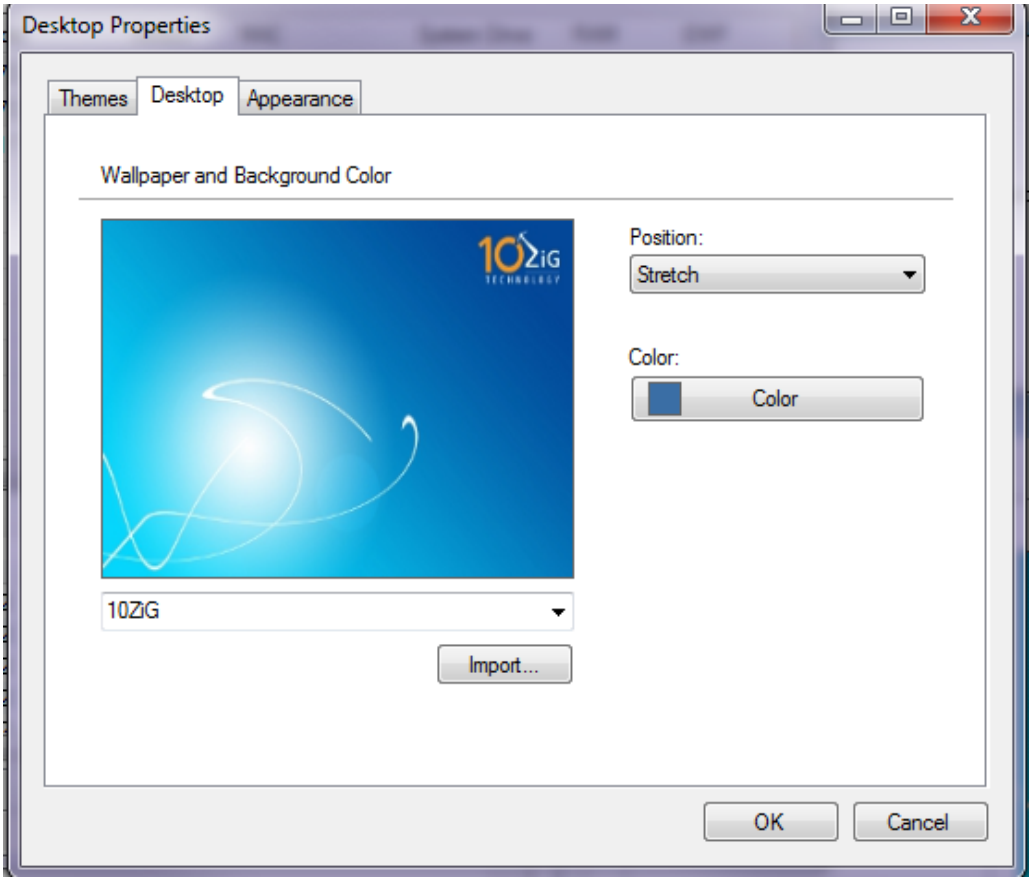


From here you can edit the connection manager, create new sessions,  and edit the terminal properties.

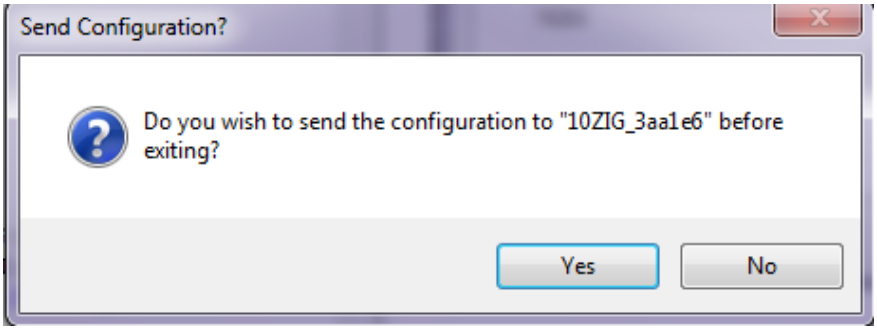


- **Import Wallpaper**
  - Double click on the Linux v9 thin client to access Client Configuration.
  - Double click on Desktop 

ICON.



- Click on Import and select the .jpg image to use as wallpaper
- Select OK
- Use the drop down box to select the imported image
- Send configuration to thin client

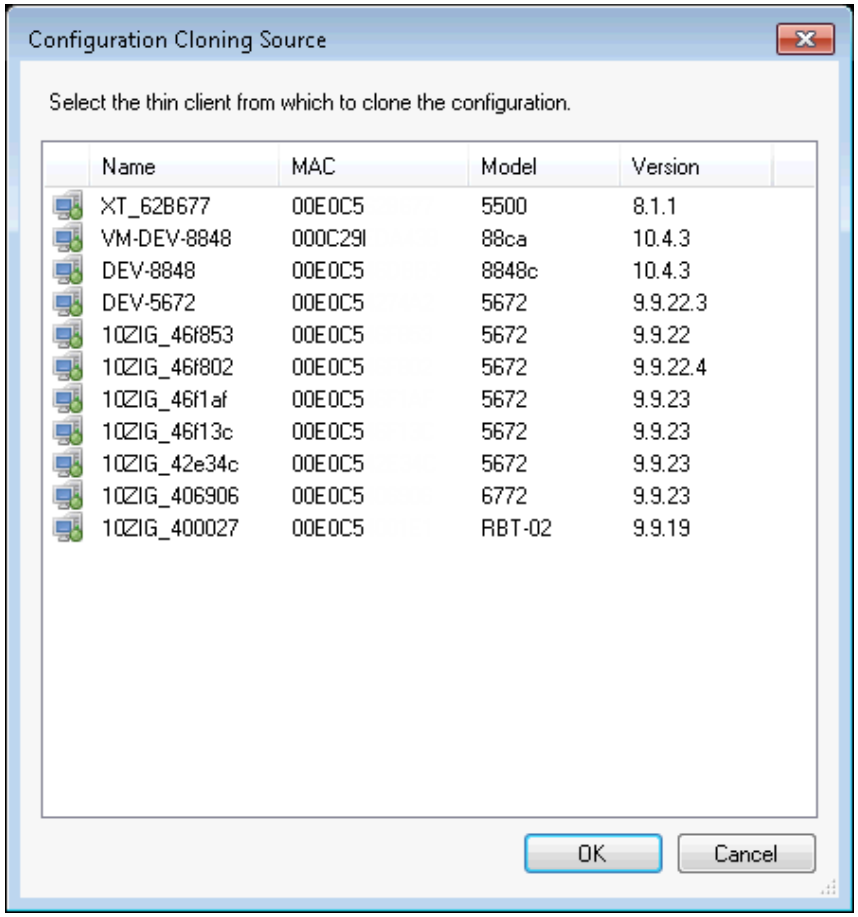


- Thin Client will reboot

NOTE: Desktop Properties to change Wallpaper can be changed via the 10ZiG Manager in Linux **Version 9** ONLY!

• Clone From Another

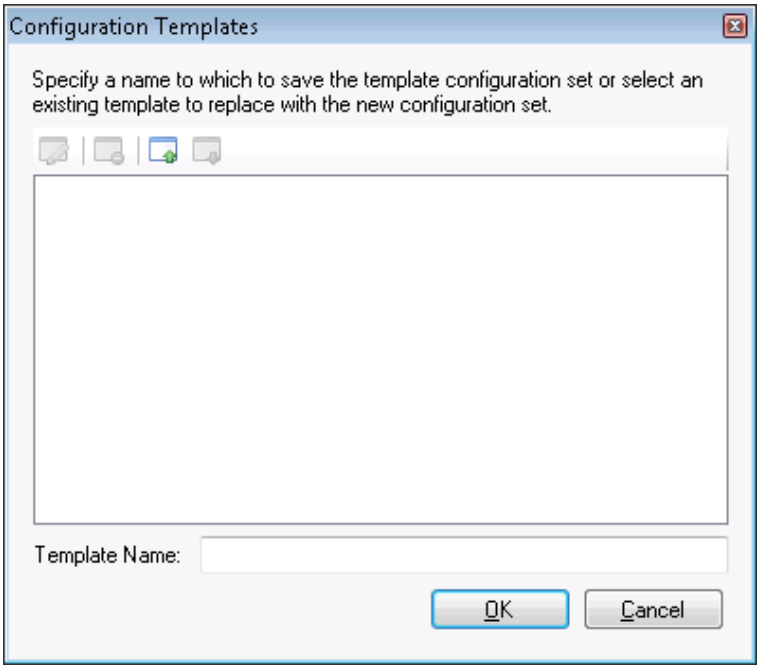
Select the thin client to clone configuration from another thin client. Select the thin client from which to clone the configuration. This must be the same model of thin client.



Click here to view a short video on Linux Cloning

- **Generate Template**

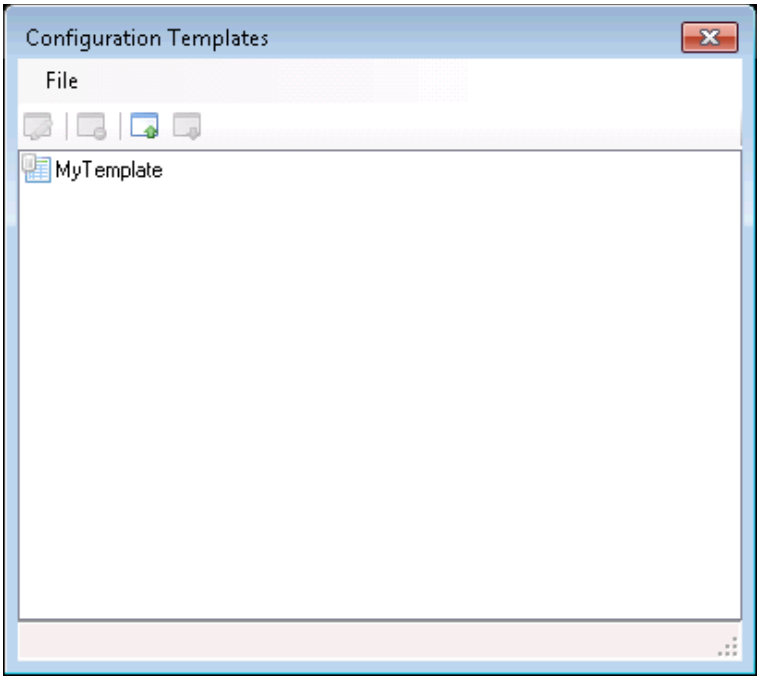
Templates are meant for specific configurations to be applied to other thin clients of the same model. Templates of the same type will overwrite each other such as two 5250 templates. If both are applied the last one applied will be the template used. *Templates will add to existing configurations*.



- **Apply Template**

Applies a previously created template to a thin client. Templates of the same type will overwrite each other such as two 5250 templates. If both are applied the last one applied will be the template used. *Templates will add to existing configurations or overwrite based on the configuration template.*

Example: Thin client was configured to use dual monitor and specific resolution and then a template is applied that has the display option configured with single monitor and a set resolution. Once the template is applied with the display configuration will change to the single monitor settings in the applied template. To avoid this scenario, edit the template and remove the display settings before applying the template.

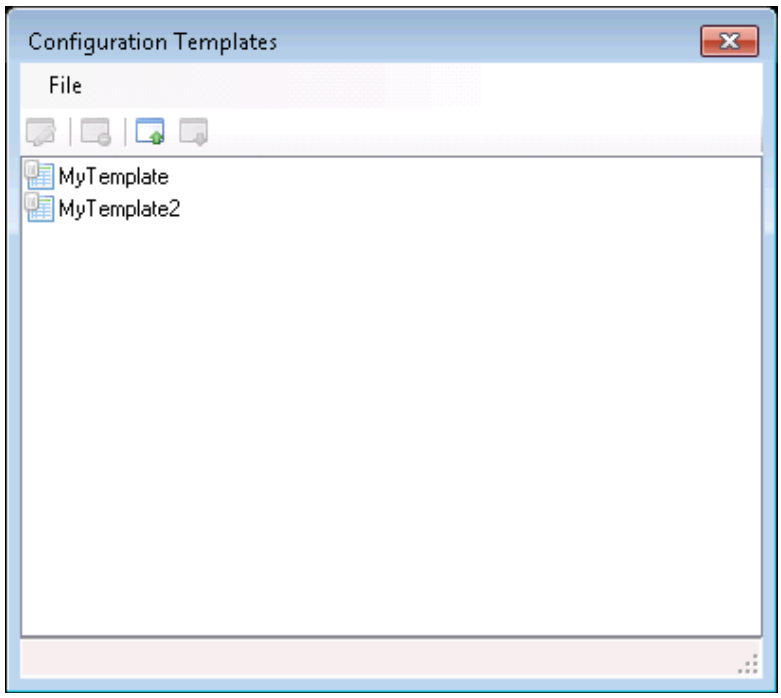


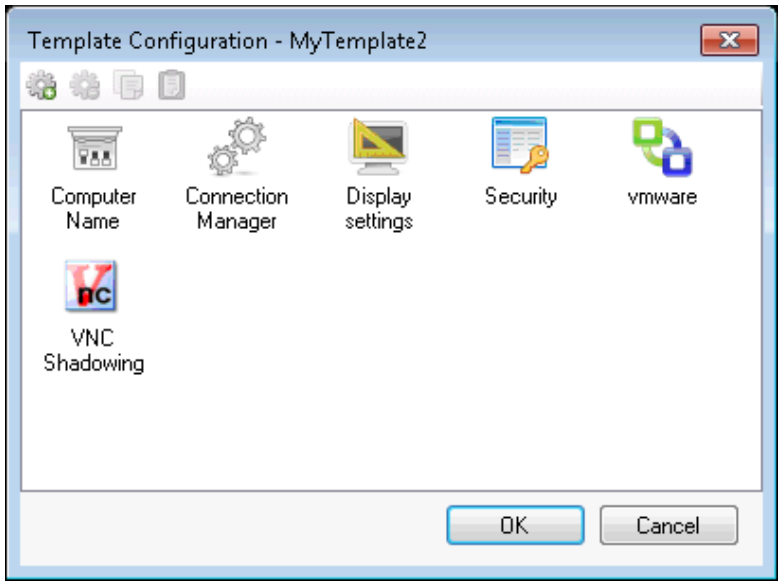
 **Click here to view a short video on Templates**

- **Manage Templates**

Manages a previously created template - options are to Edit, Rename, Delete, Import and Export templates

Example below of Edit Template:





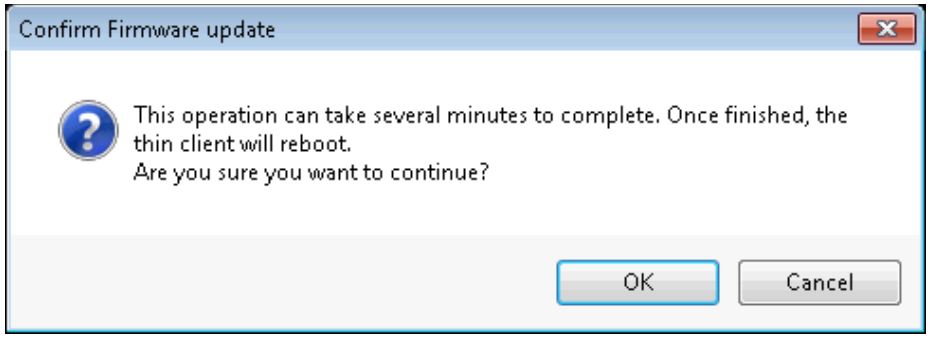
2.3.3.3 - Reset Factory Default

Right click on the intended thin client - select configuration - select **Reset To Factory Default**

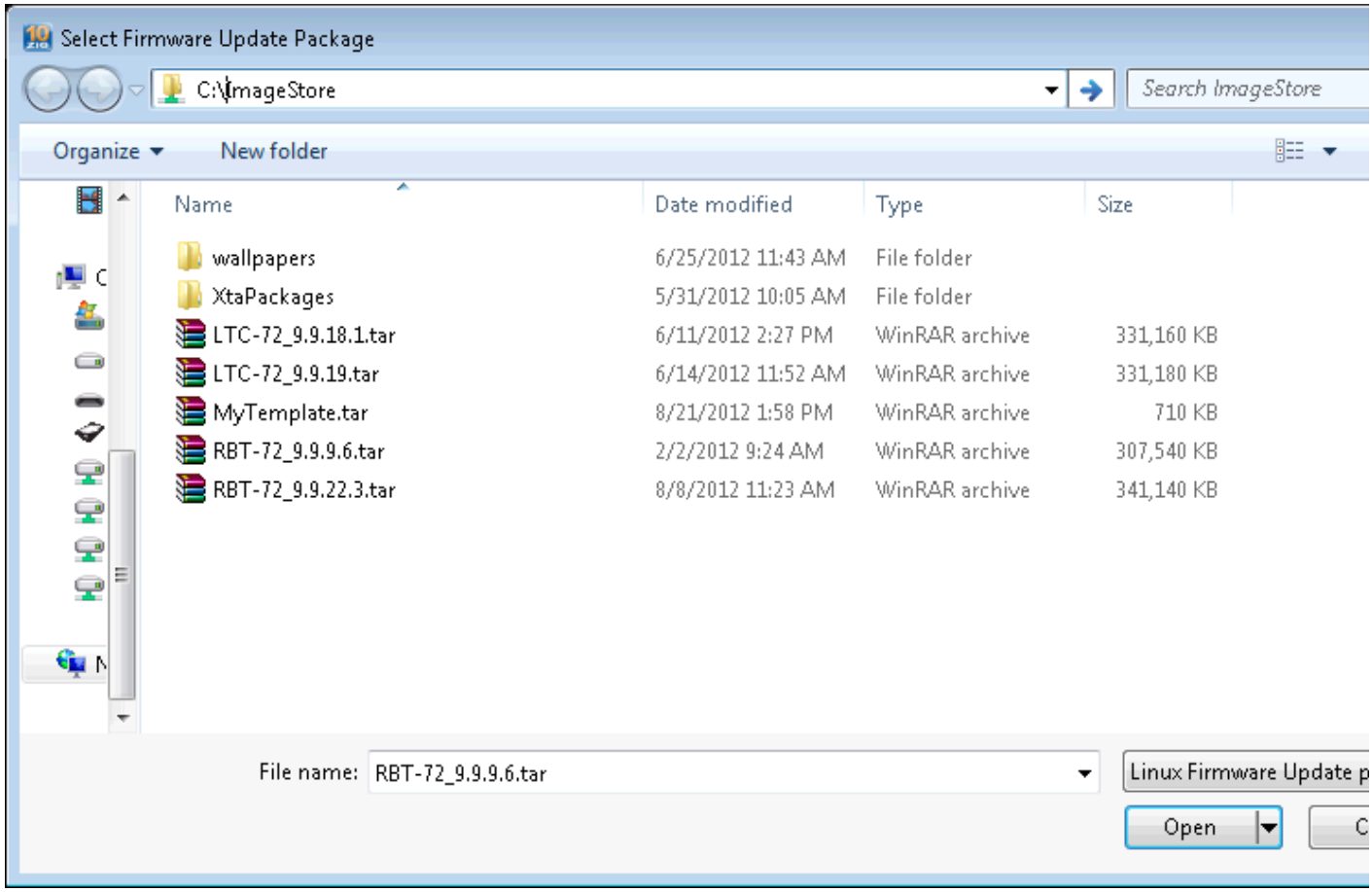

Click here to view a short video of resetting factory defaults

2.3.3.4 - Firmware Update

Upon selecting Firmware Update you will be prompted to verify the update process.



Upon confirming the Firmware Update you will be prompted to select a tar file.



The firmware update will begin. A progress bar will continue until the update has completed at which time the thin client will reboot. The thin client itself will display *Updating Firmware* during the process.

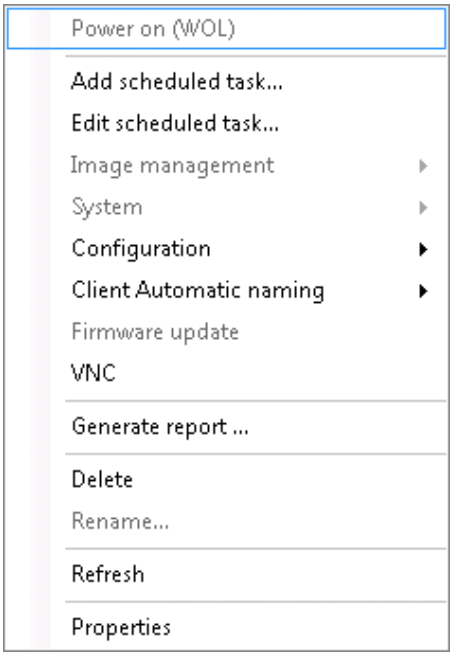
2.3.3.7 - VNC

VNC allows shadowing the thin client from the console. To access the thin client via an Ultra VNC Client outside of the 10ZiG Manager, set the VNC options in Terminal Properties - Control Panel - VNC Shadowing to Start VNC Server On Boot.

2.3.4 - Windows CE

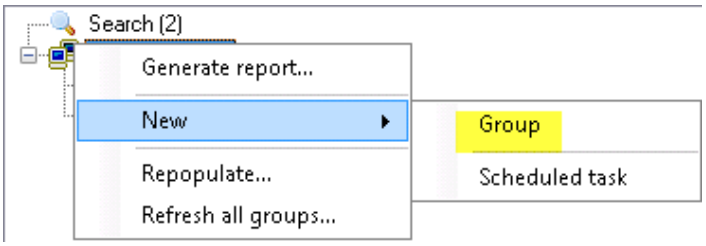
Options for Windows CE thin clients are *ADD SCHEDULED TASK*, *SYSTEM* (reboot and Shutdown), and *VNC*.

NOTE: Management for CE thin clients is not as inclusive as with Linux or XPe thin clients and options are limited - use BOSmanager instead.

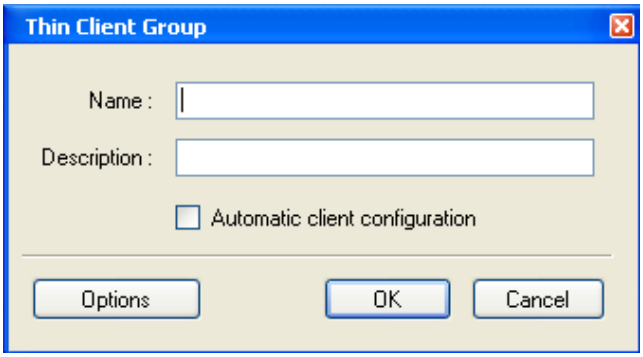


2.4 - Logical Groups

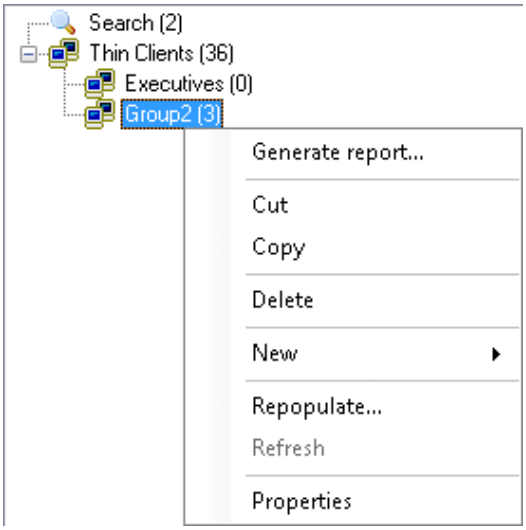
This feature is used to create logical groups of thin clients. Right click on Thin Clients and select New - > Group.



To include an IP range or other filtering options by selection the Options button.



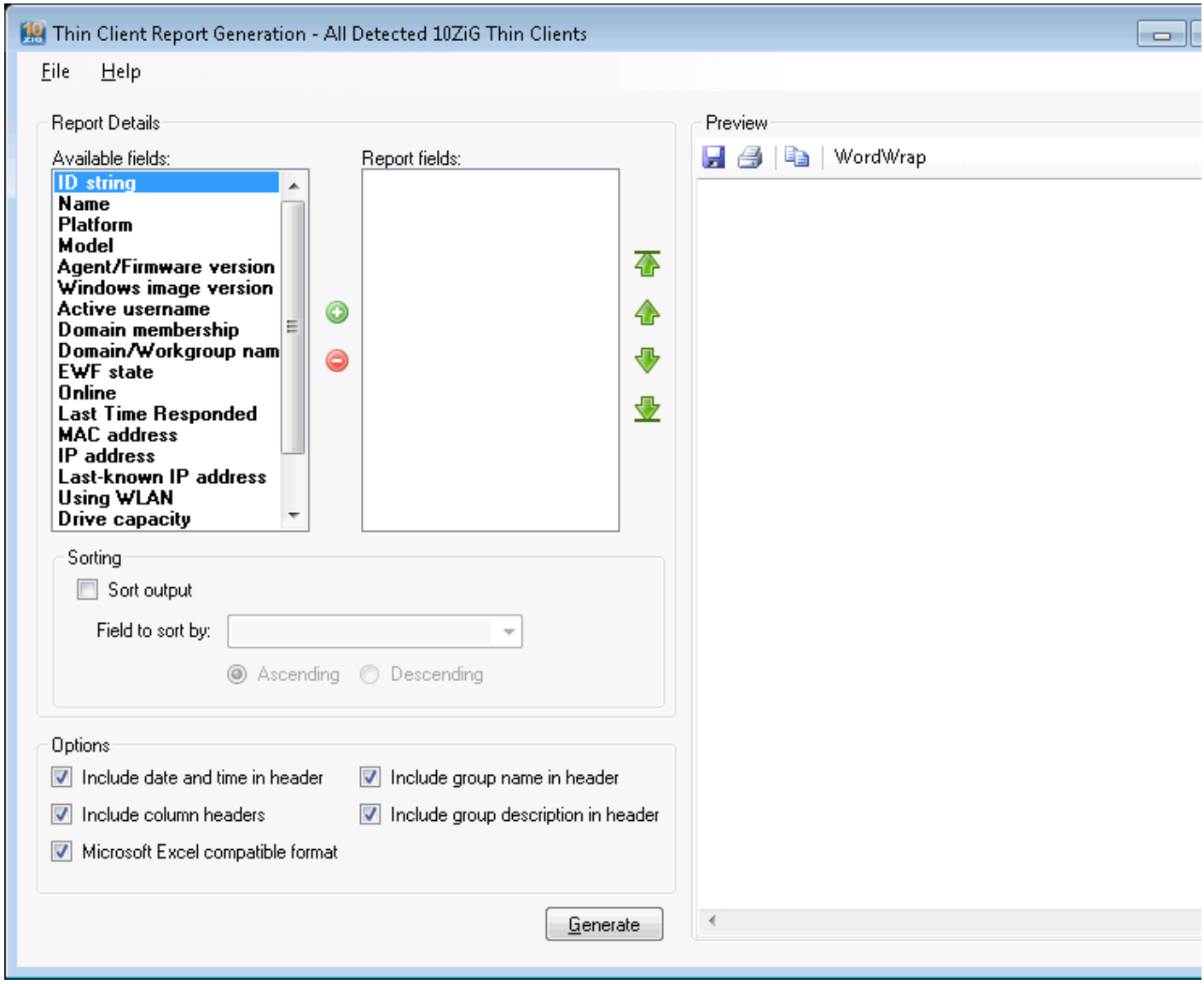
To edit the group properties right click on the group and select Properties



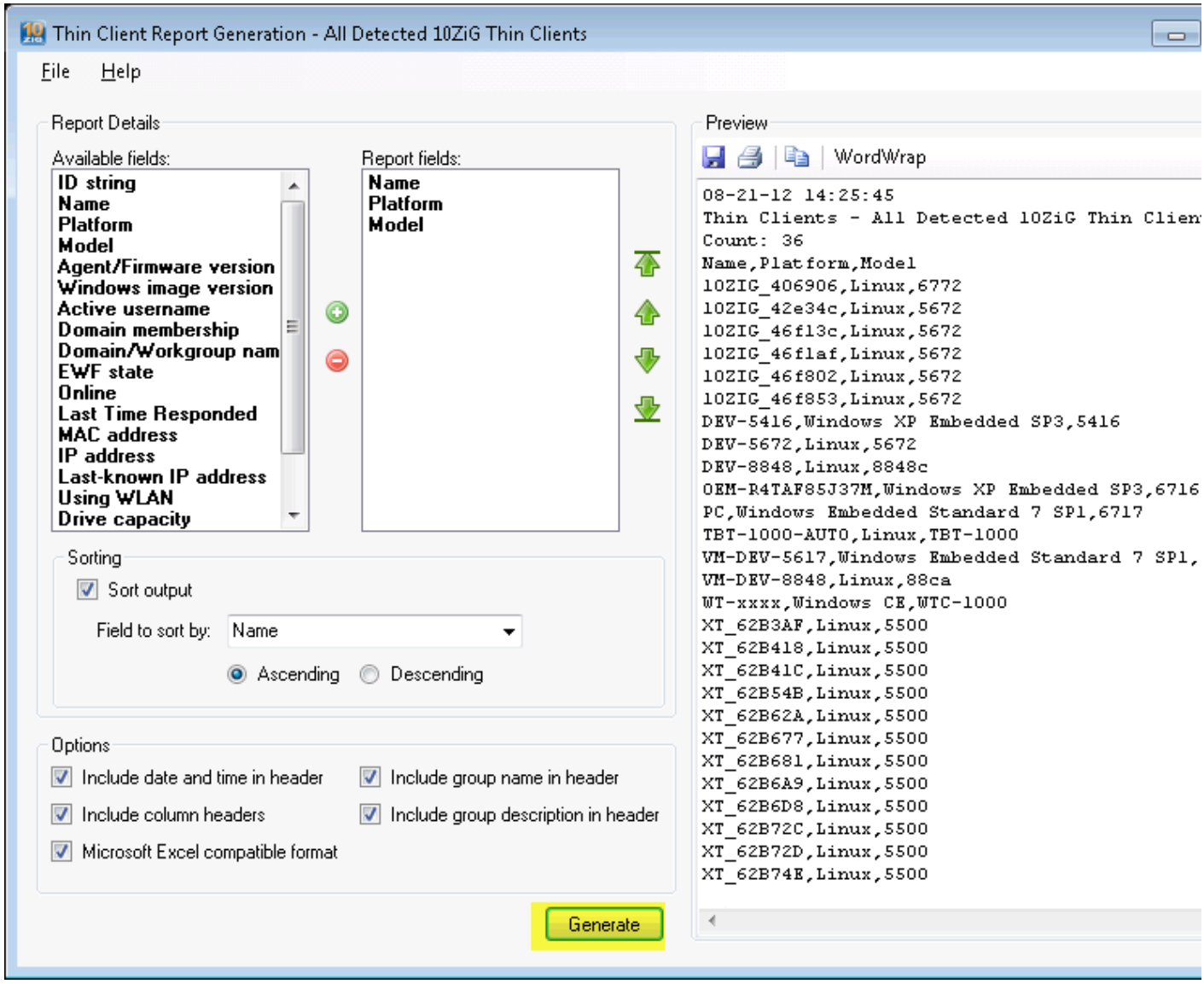
2.5 - Generate Report

To generate a report right click on a group and select Generate report....

Select which available fields to be reported and move them to the report fields by selecting the green button with a plus sign in it.

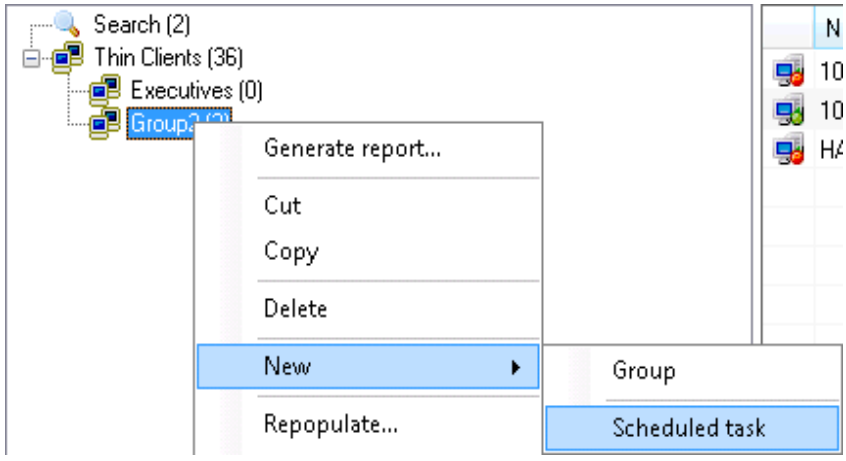


Select Generate to generate the report.

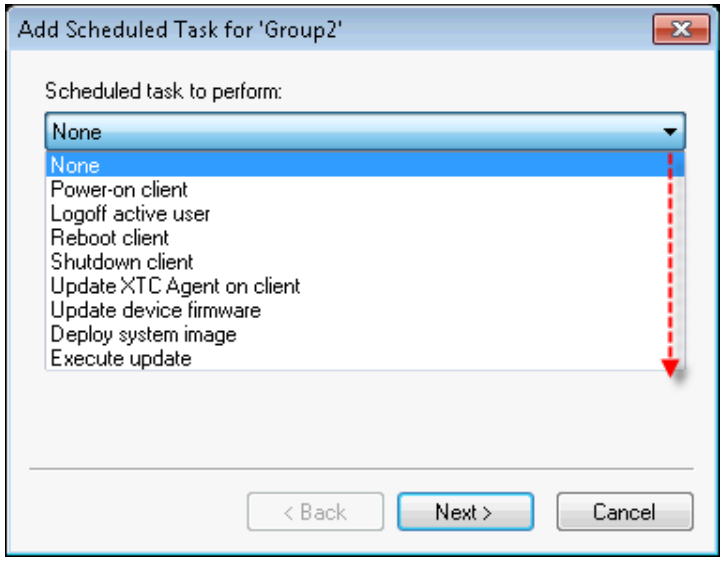


2.6 - Task Scheduling

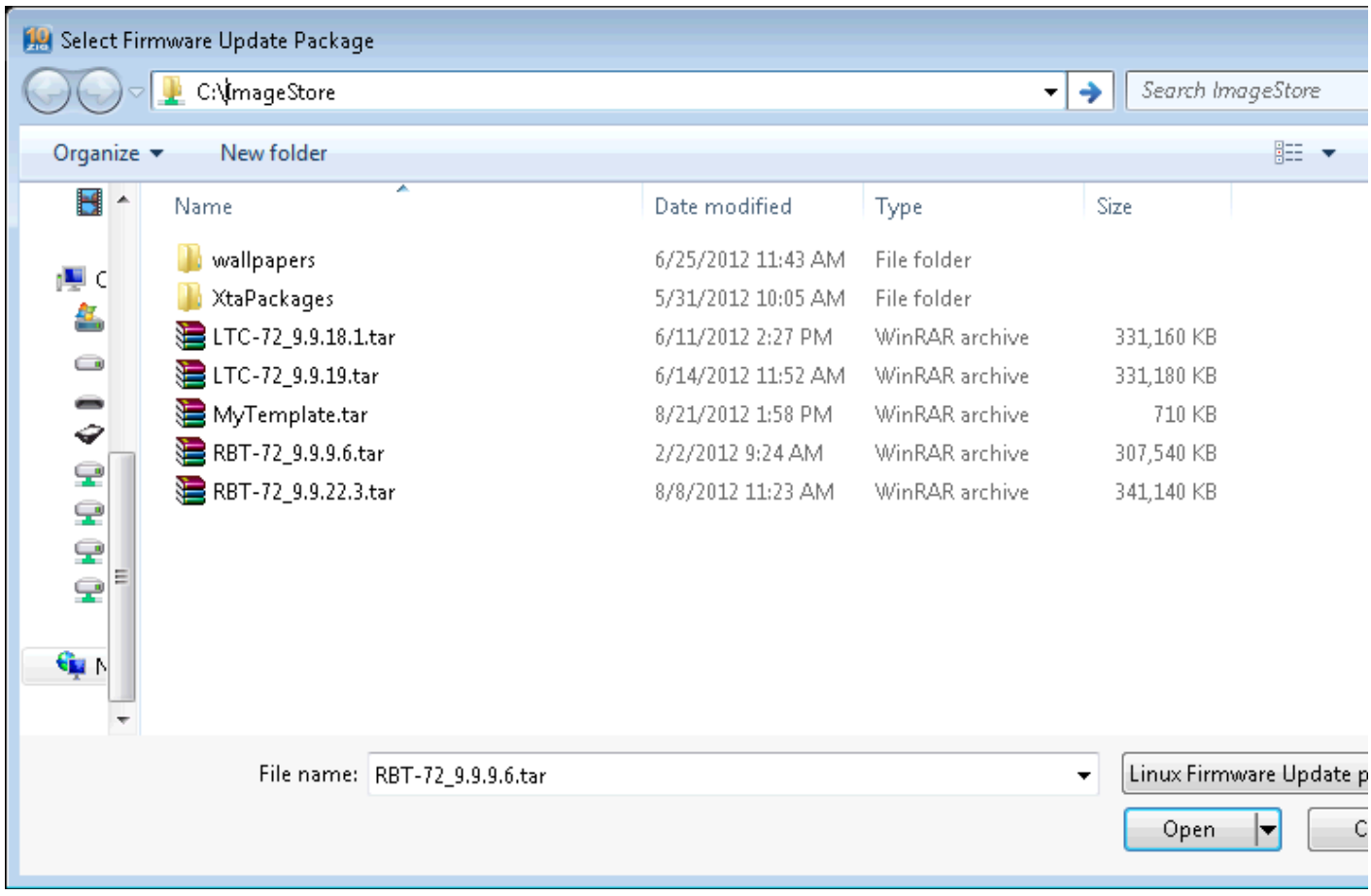
Right click on the Group and select New -> Scheduled task…

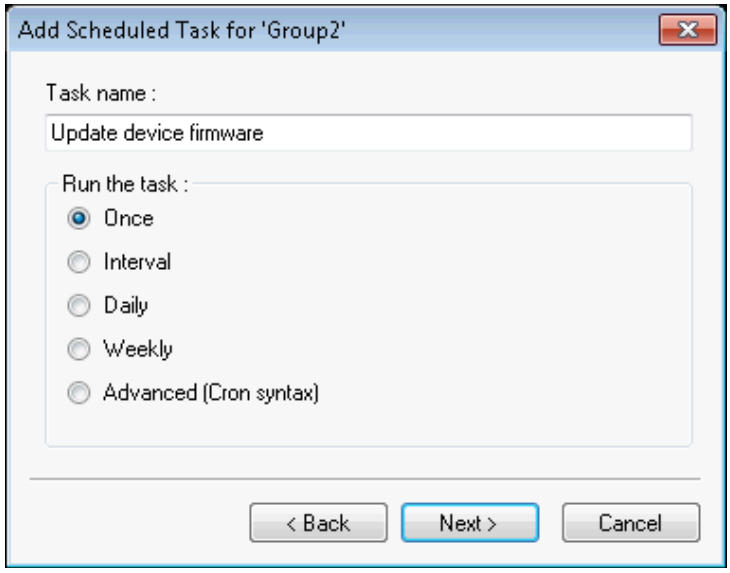


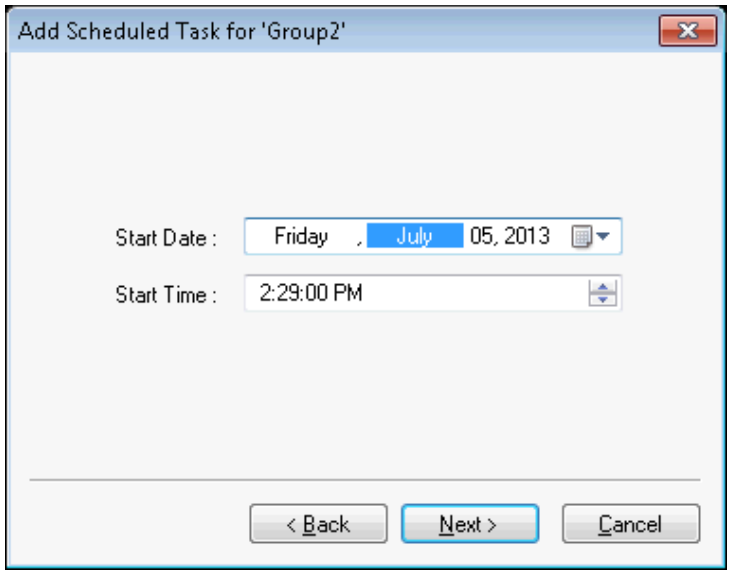
Select the desired task to be scheduled

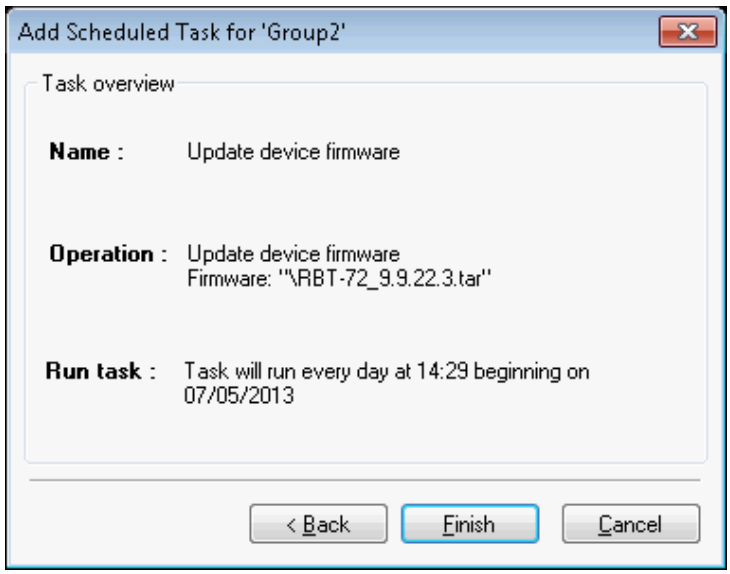


Below is an example of the task Update Device Firmware









2.7 - Searching for Thin Clients

To search for a thin client use the search option. Click on the red ICON to the right of

the magnifying glass (search button) to clear the search results.

3 - Remote Client Configurations

- The 10ZiG Manager allows the user to build, store and deploy settings for thin clients
- It also provides template management via organizational groups
- The settings are mainly client connection oriented

- The configuration is done in the *Client Configuration* tab of the console

Tip: You can access a thin client configuration by double-clicking the thin-client entry

3.1 - Navigation

How do I navigate? To navigate through groups one can:

- Use the tree view in the left part
- Click on each group to see thin clients in the group

How do I populate groups? You can populate groups by editing the properties of the group and setting the filter option. See Section 3.2 for more details.

or **drag and drop** items into groups:

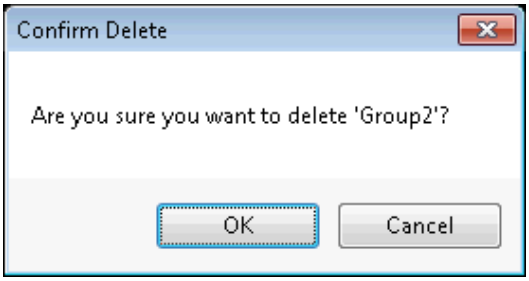
- - One by one in the tree view
- - Single/Multi by selecting the item in the main view

How do I delete items? - To delete a thin client from a group:

- To remove a thin client, the properties of the group must be modified to no longer include the thin client. For example if you are filtering by MAC address, edit the MAC list and remove the MAC of the thin client to be removed. Delete the thin client from the 10ZiG Manager and
- Once the thin client properties have been removed from the group, right click on the thin client and select Delete.
- If the thin client was dragged into the group and there are no set properties in the group, right

How do I delete an entire group?

- Select the items (in the tree view or in the main view)
- Press *Delete*



How do I delete a user?

- From the Client Configuration tab find the user, right click and select Delete

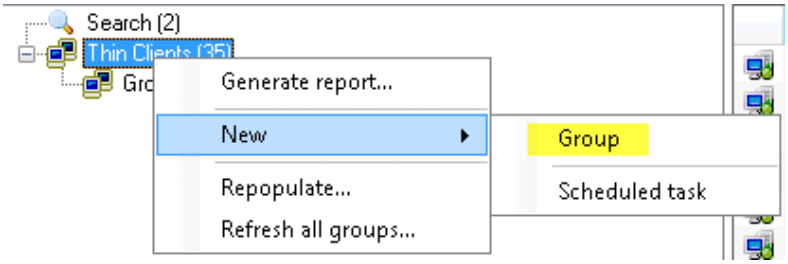
3.2 - Groups

Why would I use a group?

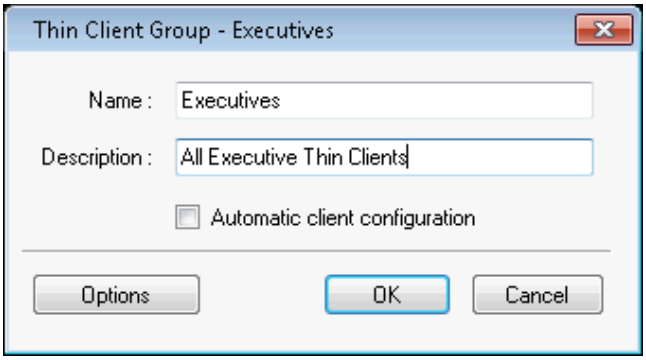
- Organize the units and users into logical containers that are representative of the location or organization
- Provide layered/inherited or customized settings
- Allow specific thin clients to pull their configuration automatically based on preconfigured criteria

How do I create a group?

- Right click on a group item (in the tree view or in the main view)
- Click *New...Group...*



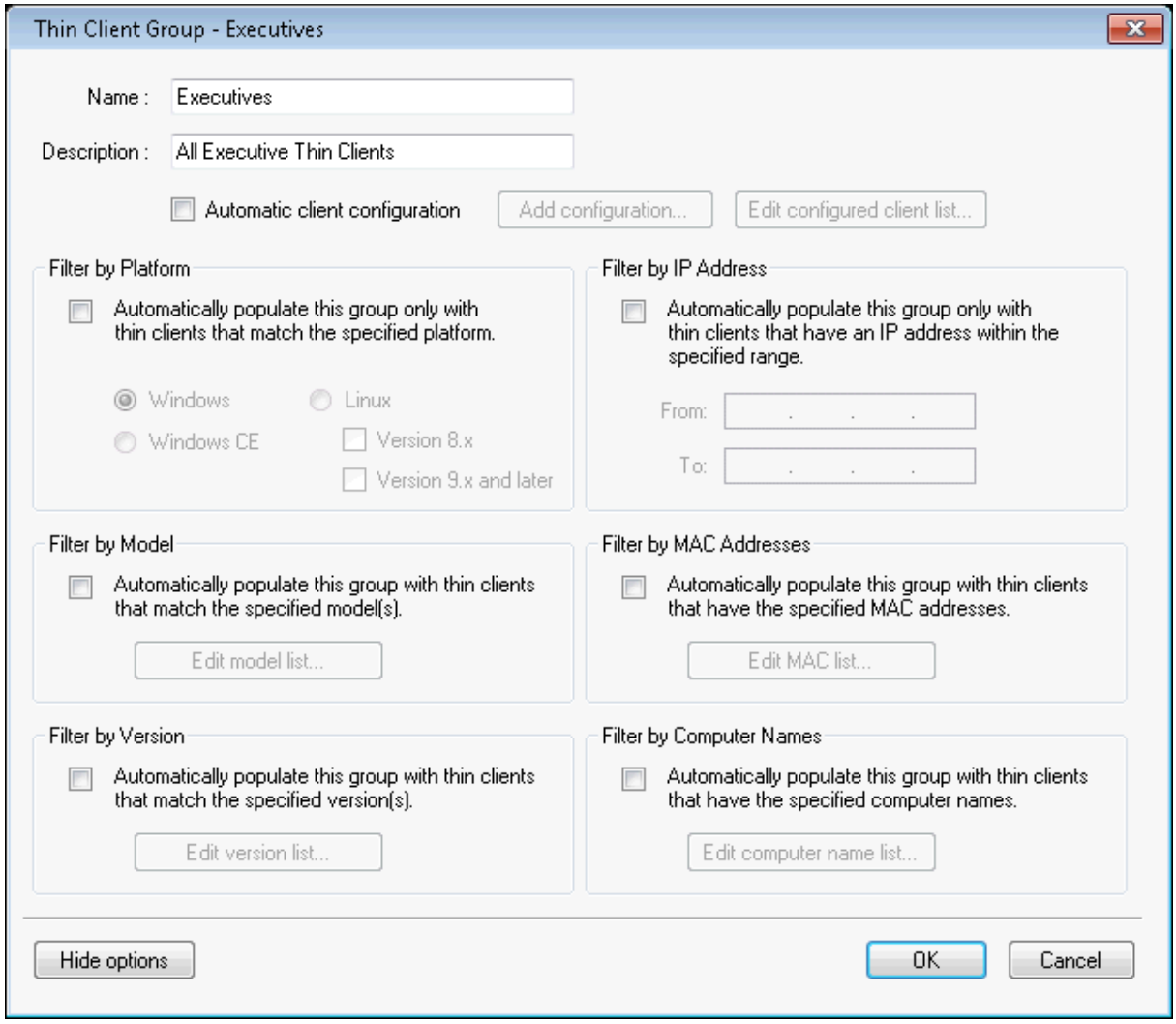
- Name the group



- Click on Options to edit the filtering options

Groups can be populated based on:

- Platform
- Model
- Version
- IP Address
- MAC Address
- Computer Name



Thin client will now be displayed in the group - subgroups can also be utilized as seen in the next section:

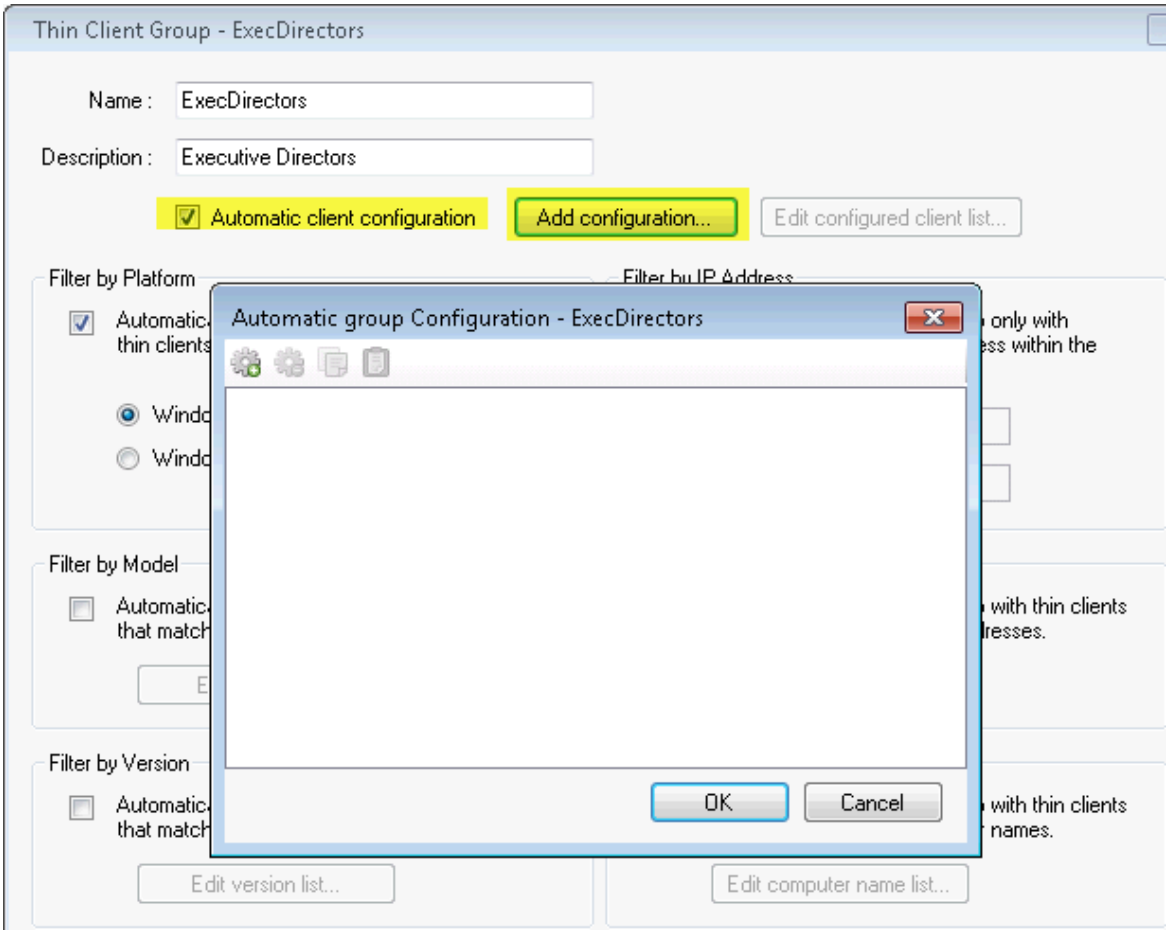
3.2.1 - Automatic Client Configuration

Automatic Client Configuration - check this to enable automatically configuring thin clients that have been discovered and added to this group using the specifications assigned. Configurations can be created by selecting Add configuration...

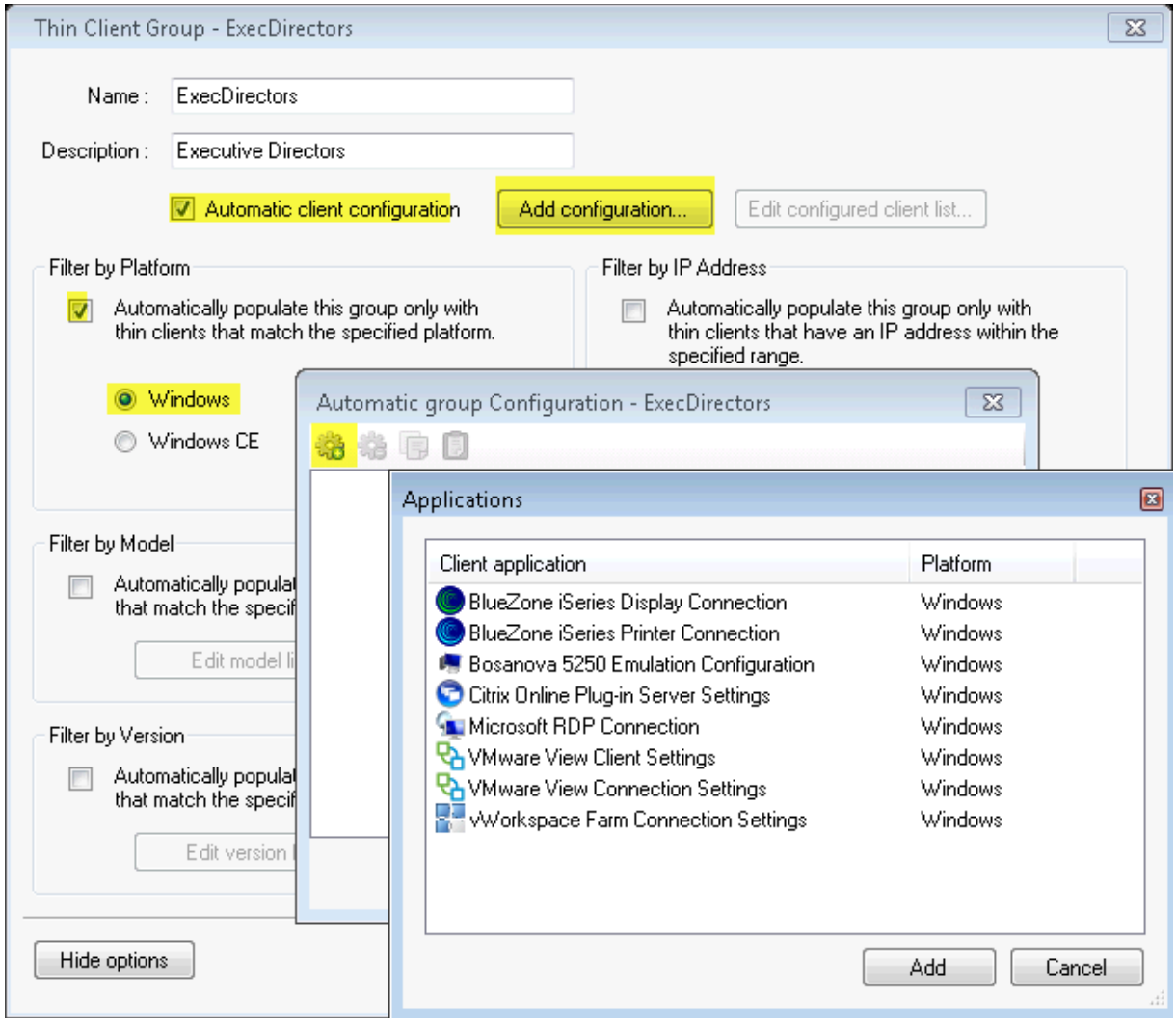
To use Automatic client configuration Filter by Platform must be checked and the specific OS selected.

Configuration options for Linux Thin Clients can be done by using Templates:

- Add template
- Remote Template from Auto Configuration
- Delete Template from Database
- Edit Configuration
- Import Template
- Export Template



Configuration options for Windows Thin Clients can be done by using Windows Client Configuration:



NOTE: To replace or change an existing configuration of a specific thin client, the MAC must be removed from the **Edit configured client list....**

3.3 - Thin clients (from the Client Configuration Tab)

The manager currently supports three different platforms:

- Windows XPe
- Windows CE
- Linux

How do I create a thin client configuration?

There are two ways to create a thin client configuration

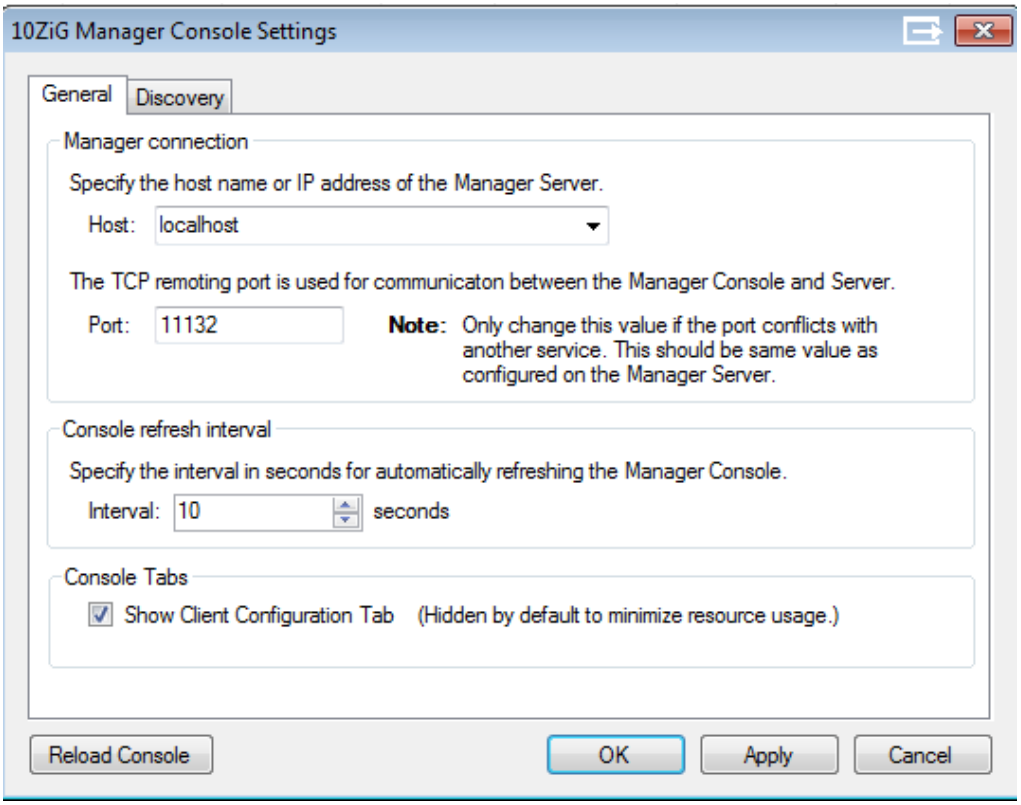
- With the XPe units the manager creates an empty entry as the thin client is discovered.
- For Linux and WinCE you need to receive the configuration manually. This will create a configuration entry initialized with the existing settings.

3.4 - Users (from the Client Configuration Tab)

This section only relates to the XPe thin clients as Linux and WinCE platforms do not provide user based sessions. The manager gives the opportunity to deploy a specific configuration depending on which user is logged on. In fact

depending on the application the configuration will be updated when the user logs on or when he starts the application.

To enable this option select the wrench in the upper left corner of the ICONS. Check Show Client Configuration Tab. This option is hidden by default to minimize resource usage.



- Domain users: Based on a domain user account.
- Roaming user: A roaming user is tied to a local account but the configuration is consistent.
- Local user: A local user is a tied to a local account and a specific thin client.

What is the priority of the configuration entries? A user connects the manager will look for an available configuration.

1. If the user connects as a domain user, the manager will try to find the corresponding **Domain User** configuration. If the configuration does not exist it will look for a **Roaming user** configuration
2. If the user connects as a local user or if the previous step failed the manager will look for a **Roaming user** configuration
3. If the a **Roaming user** configuration does not exist, the manager tries to **Local user** attached to the thin client he is using
4. Ultimately if no user has been defined the configuration of the Thin client will be used

3.4.1 - Domain & Roaming users (from the Client Configuration Tab)

How do I create a domain or roaming user?

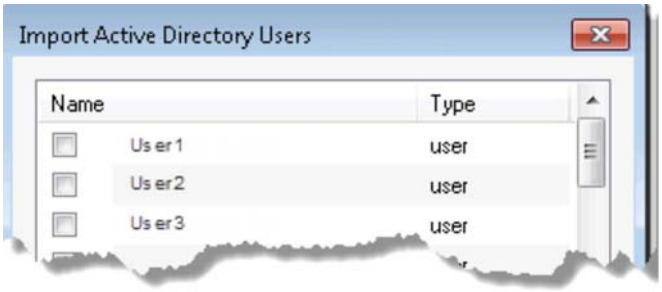
To create a user:

To use this method the domain user name must be known in advance.

- Right click on Users in the Client Configuration Tab.
- Select *Add User*
- Select the Domain and enter the domain user name

How about Active Directory? The manager allows you to import Active Directory user names. In fact the manager connects to your main Domain server and enumerates

- Right click on a user group item or the domain root
- Click *Import AD users...*



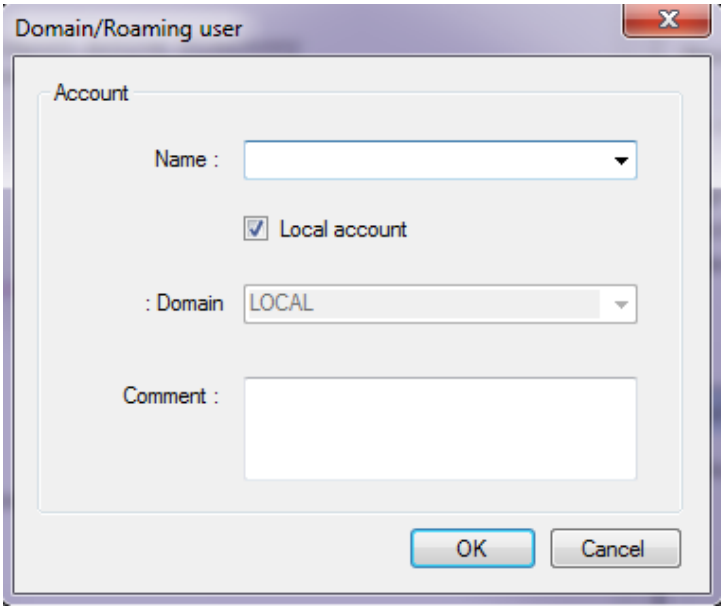
- Check the users to import and select OK.

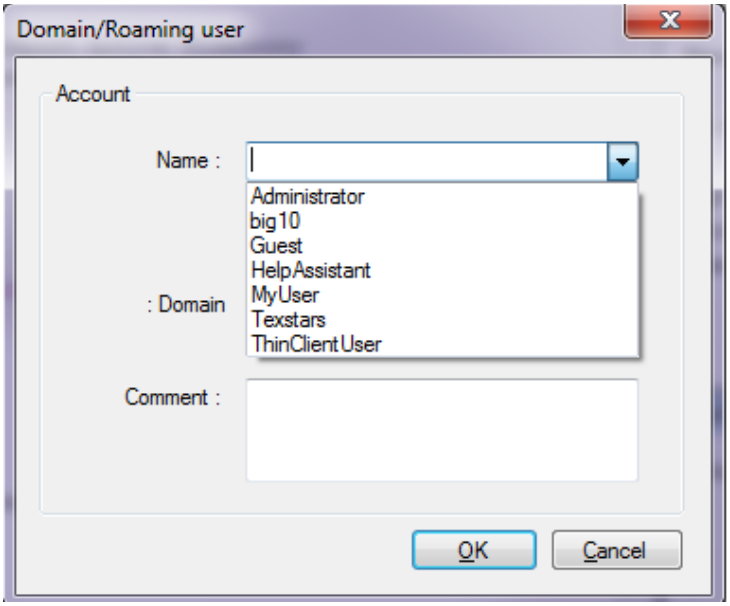
3.4.2 - Local users (from the Client Configuration Tab)

How do I create a local user? The local user must already be added to the XPe thin client itself.

To create a user:

- Right click on *Users*
- Click *Add User…*
- Check the Local Account box - use the drop down box to select a local user.





3.5 - Group Configuration Settings (from the Client Configuration Tab)

To manage a group, user or thin client settings you just need to right click on the group and select *Edit Configuration* or just click on a user or thin client to *Edit Configuration*.

The console will then display the list of applications configuration (connection) as well as the current path of the current item.

The regular icons represent the actual configuration of your item. The faded icons represent the configuration inherited from the parent group.

How do I duplicate settings?

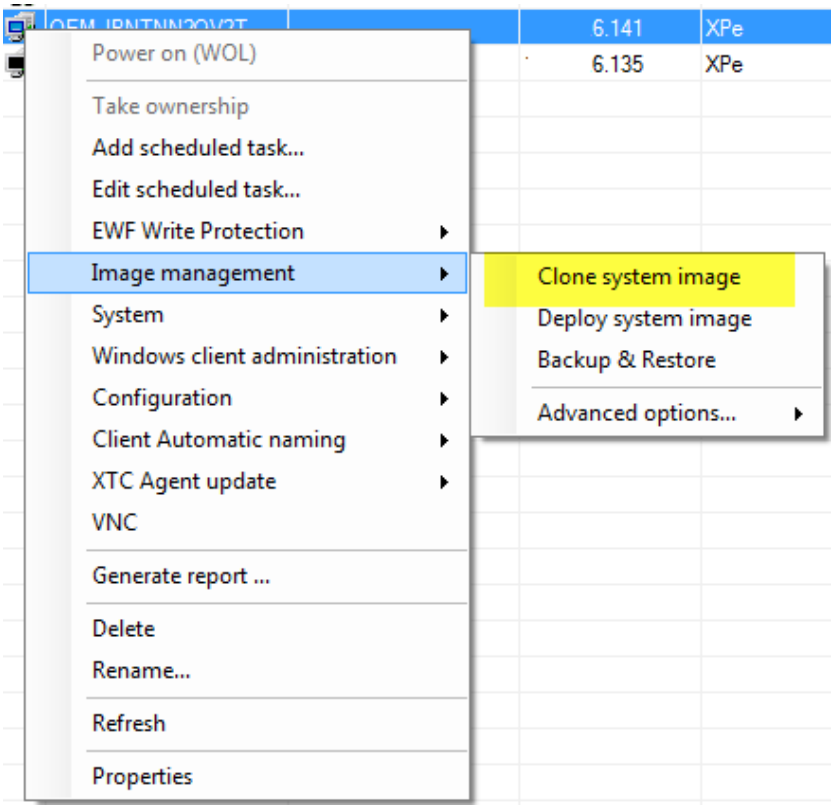
To duplicate settings:

- Right click on a configuration item
- Click copy (configuration item is copied to clipboard)

Or

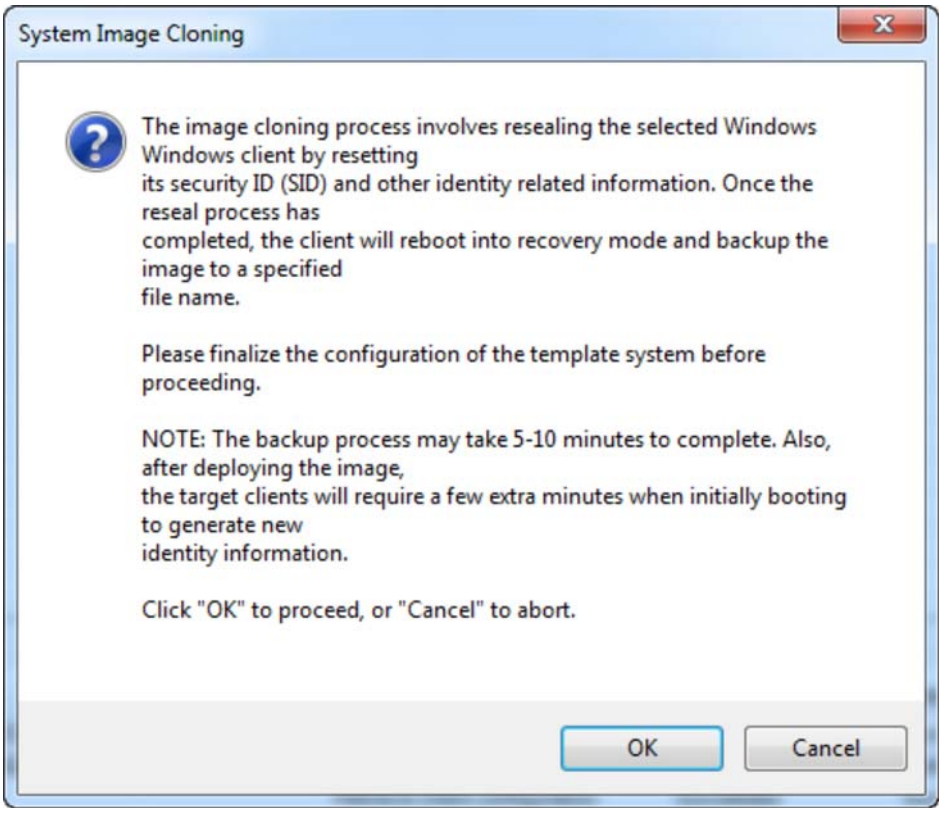
- Select the item to copy to and edit the configuration
- Right click and select copy…(configuration item is pasted from the clipboard)

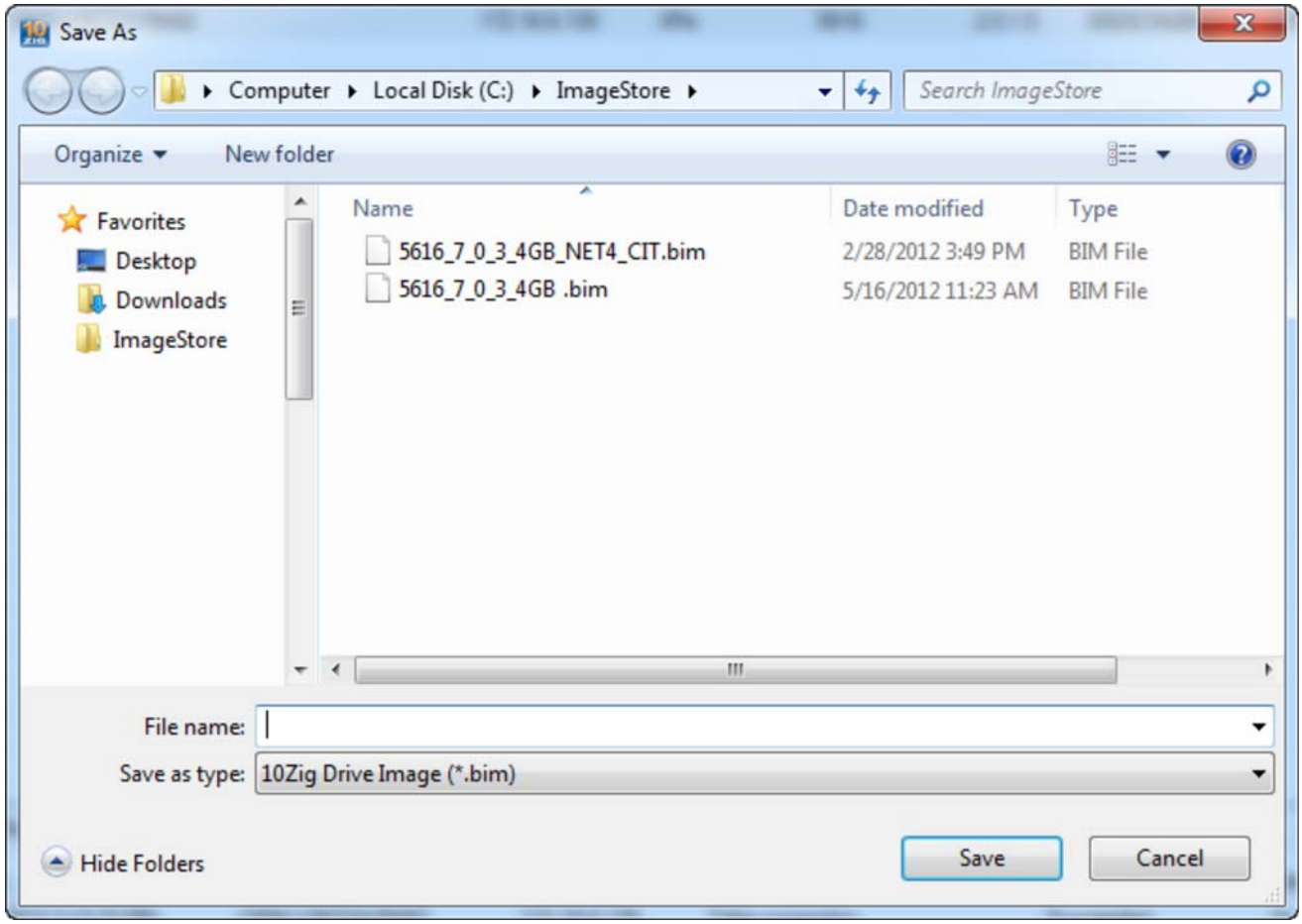
4 - XPe and WES 2009 Image Management



4.1 - XPe and WES 2009 Clone System Image

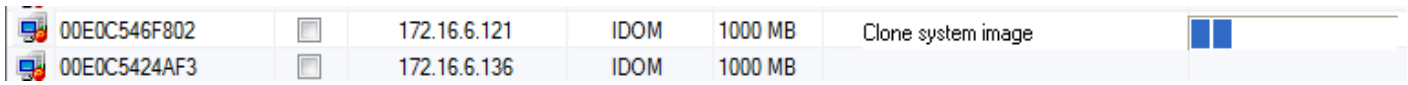
The image cloning process involves resealing the selected Windows XPe client by resetting its security ID (SID) and other identity related information. Once the reseal process has completed, the client will reboot into recovery mode and backup the image to a specific name.



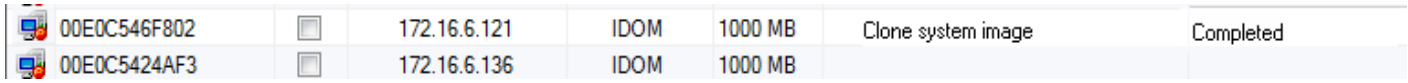


The image is saved as a compressed image (.bim) to the ImageStore.

The thin client will now show up under the Image recovery tab with a task of *Clone System Image*. The thin client will shut down and boot into PXE mode. It will boot to the PXE server (10ZiG Manager) and begin the cloning process. A blue progress bar will be displayed in the status column.

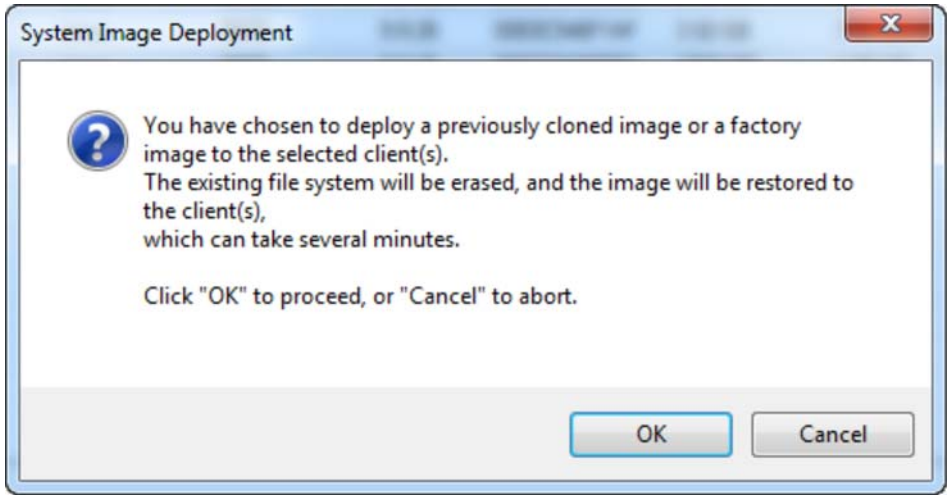


Once cloning image is complete the status will change to Completed.

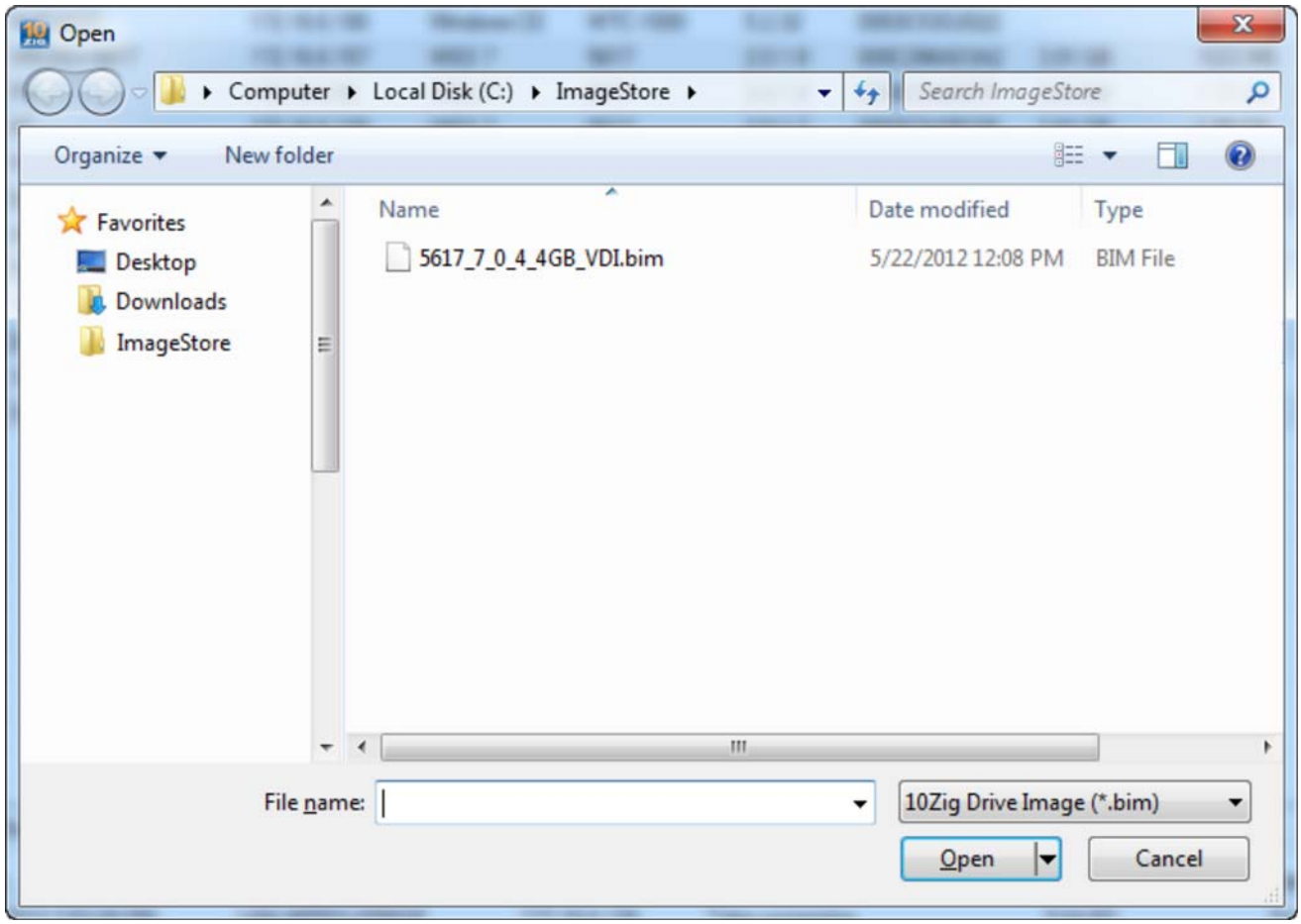


4.2 - XPe and WES 2009 Deploy System Image

The Deploy System Image deploys a previously cloned image or a factory image to the selected Client(s). Keep in mind the existing file system will be erased.



Select the previously saved image (.bim) compressed or (.bin) binary to deploy to the thin client.

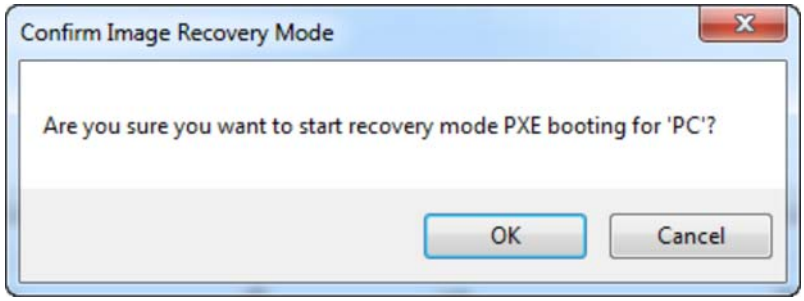


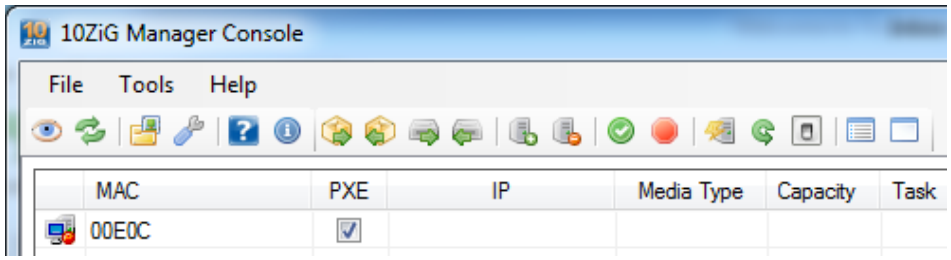
The thin client will shut down and boot into PXE mode. It will boot to the PXE server (10ZiG Manager) and begin the deploying process. The image recovery tab will show display the task *Deploy Image System*. Once the process begins you will see a blue progress bar in the status column while the image is being deployed. The Status will change to Completed one the image has been successfully deployed.

4.3 - XPe and WES 2009 Backup and Restore

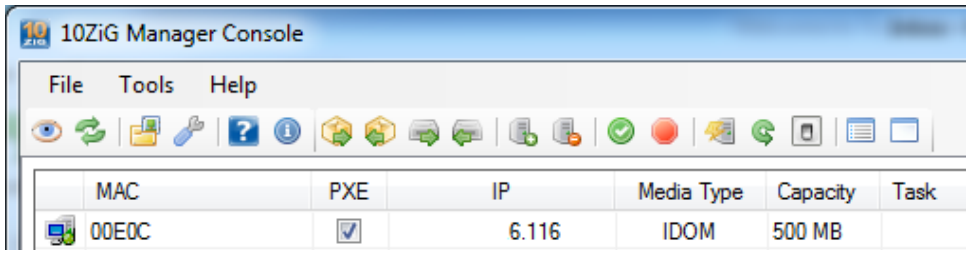
Backup and Restore sets the thin client in PXE mode. All backup and restore options are then done from the Image Recovery Tab. Once the confirmation is accepted, the thin client will shut down and boot in PXE mode. If the thin client does not boot in PXE mode you will need to access the thin client's BIOS and set the first boot device to the network.

NOTE: This option for backup does not do a reseal on the image. The clone option must be used for the reseal.

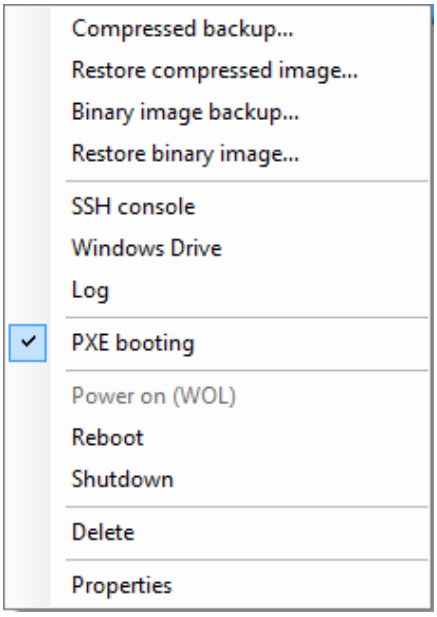




Once the thin client has booted into PXE mode you will see it go active in the Image Recovery Tab and then wait for a backup and



Right click on the thin client to be presented with the backup and recovery options.



Click here to view a short video of back up to a Compressed Image

4.4 - XPe and WES 2009 Image Deployment Concepts

Image recovery options are performed under the Image Recovery Tab

- **Compressed Backup** - backs up the image in compressed mode to the ImageStore (this is quicker and uses less disk space).
- **Restore Compressed Image** - restores a compressed image that was created using the Compressed Backup option.
- **Binary Image Backup** - back up the image in binary mode to the ImageStore.
- **Restore Binary Image** - restore a binary image that was created using the Binary Image Backup.

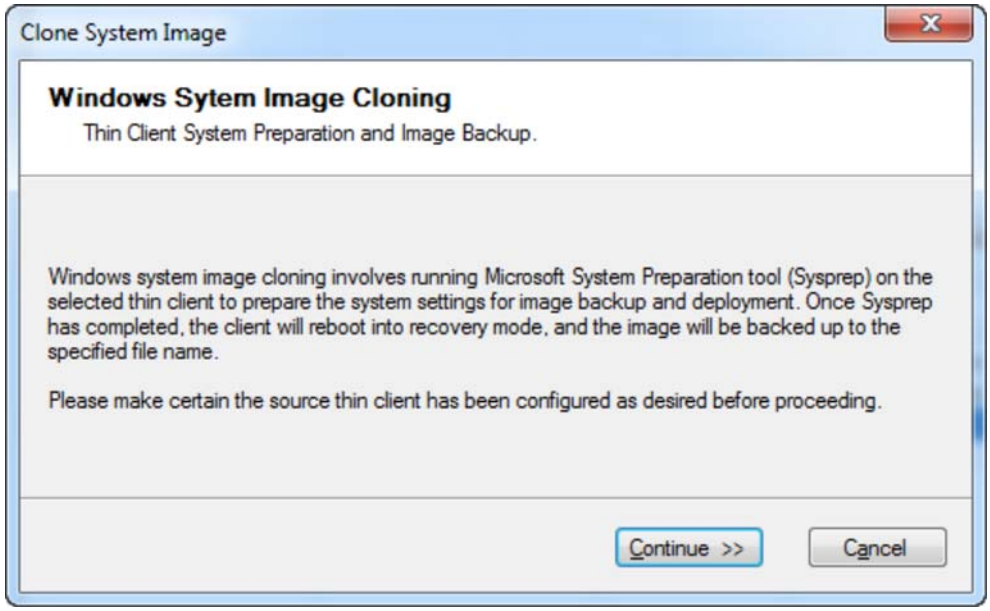
Note: Should you receive a binary image download location from 10ZiG Technical Support, copy it to the ImageStore and restore to the thin client using the Restore Binary Image option.

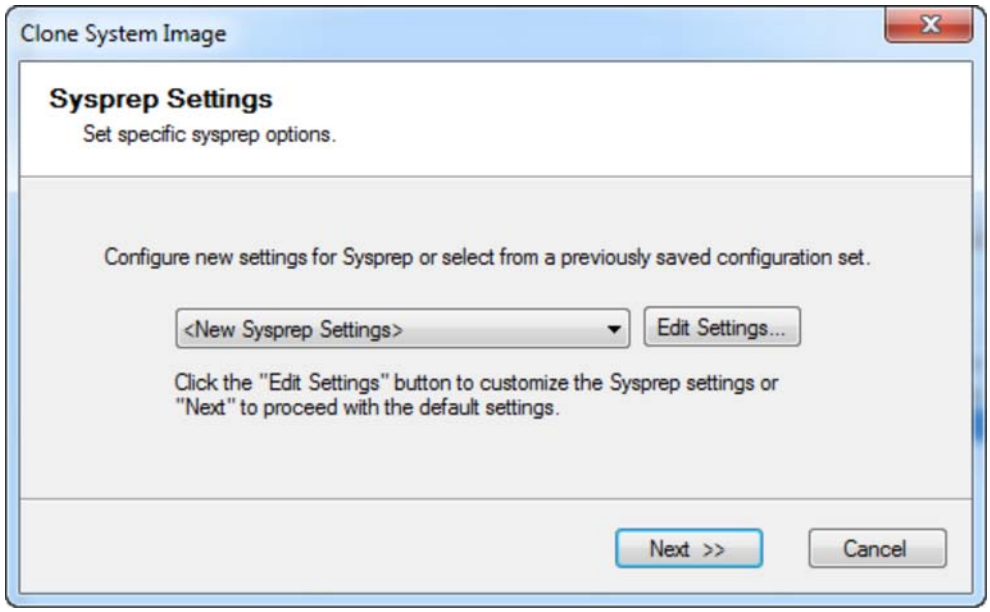
- SSH Console allows connection to the thin client in recovery mode using SSH console
- XPe Drive - displays the drive information on the XPe thin client
- Log will display a log of recovery operation
- PXE Booting will set the PXE to yes or no - check or uncheck the box under PXE - a warning must be answered to continue
- Power on (WOL)
- Reboot and Shutdown
- Delete - removes the thin client from the Image Recovery Tab

5 - Windows 7 Image Management

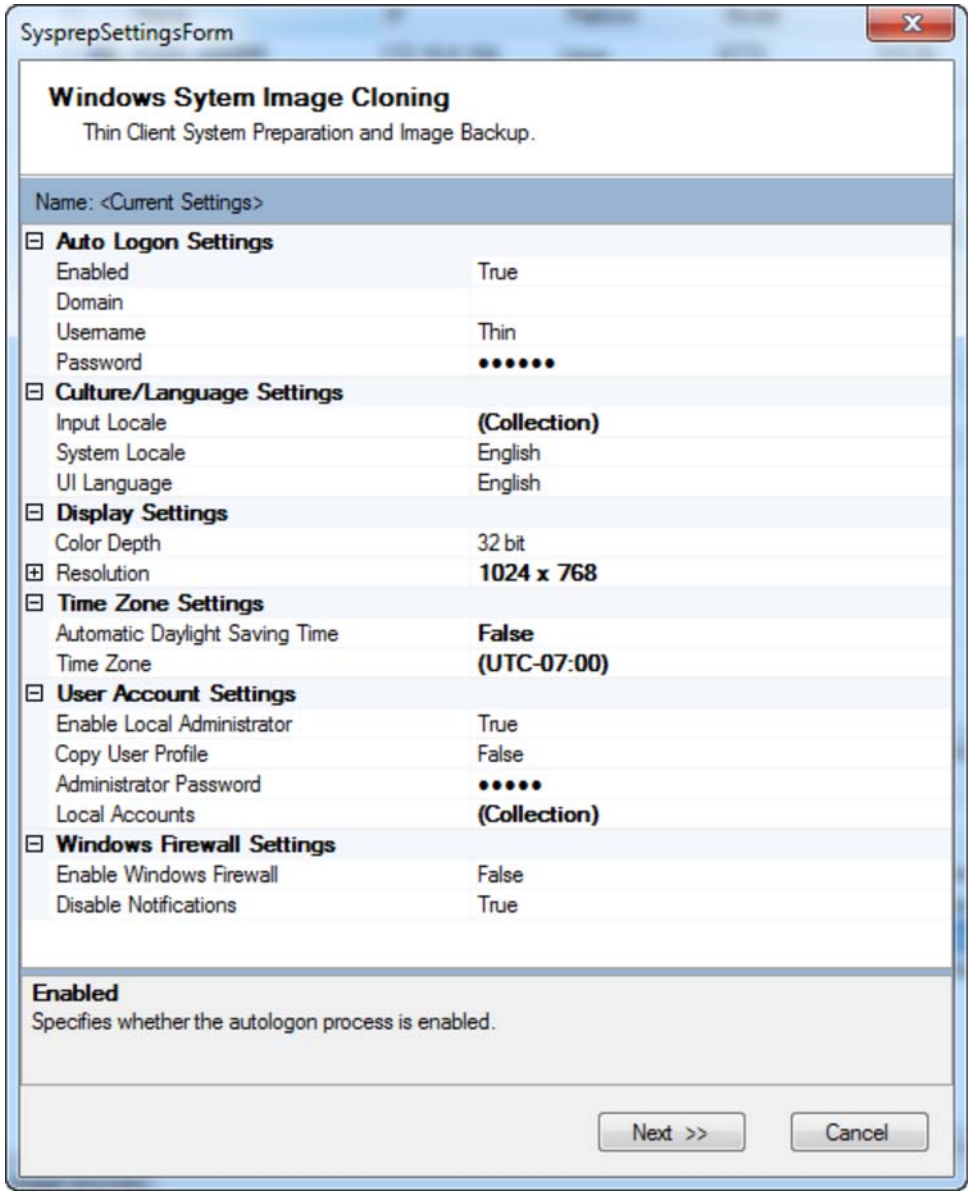
5.1 - Windows 7 Clone System Image

From the Thin Clients tab, right click on the Win 7 thin client to be cloned and select Image Management -> Clone System Image

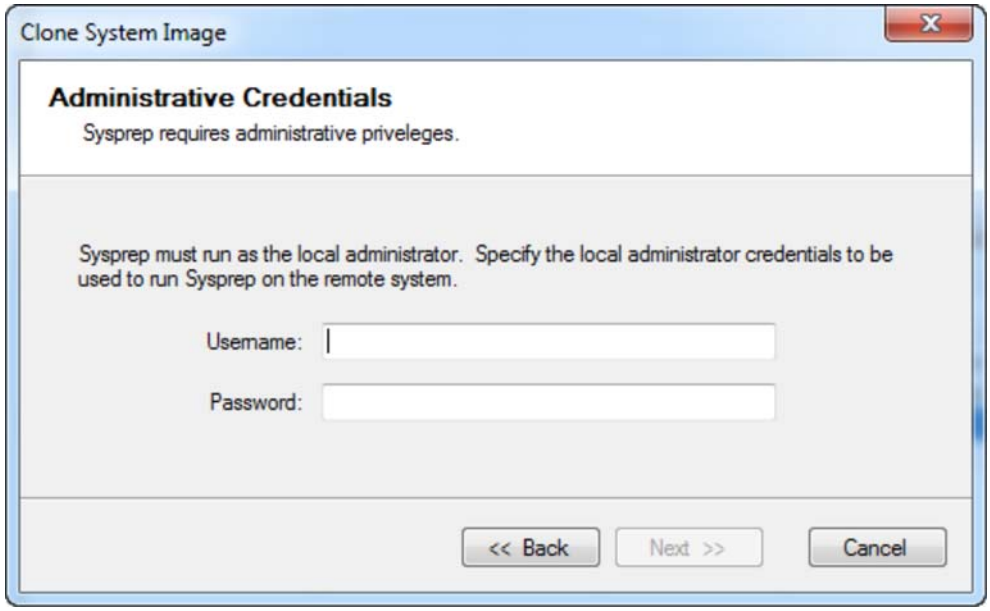




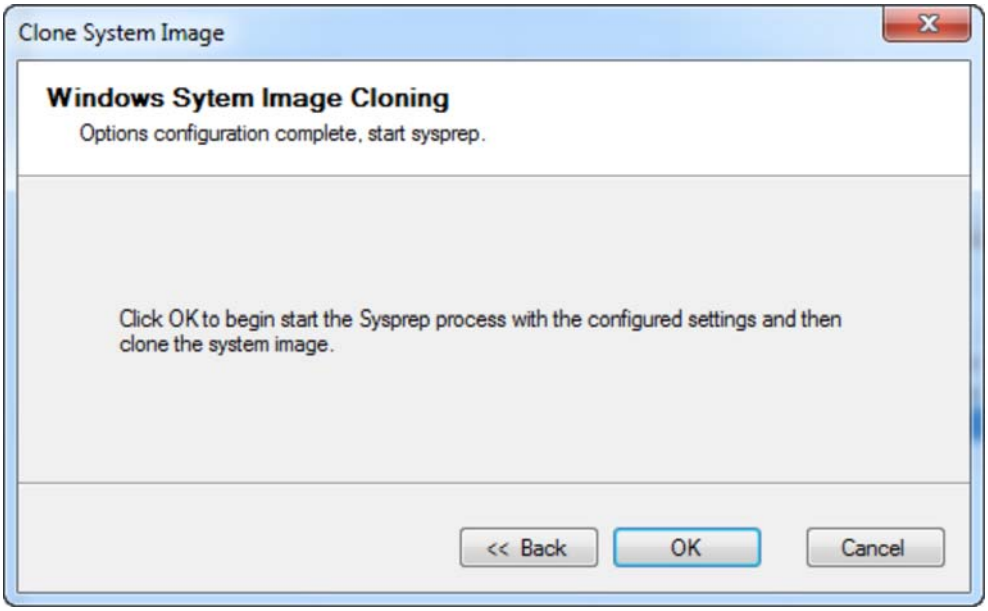
Make any changes required to the Sysprep Settings



Enter the local administrator user ID and password for the thin client



Select OK to begin the Sysprep process and then clone the system image



Once the sysprep has completed the thin client will boot to the 10ZiG Manger in PXE mode where the image is ready to be backed up.

Once the image has been backed up uncheck the PXE option

5.2 - Windows 7 Deploy System Image

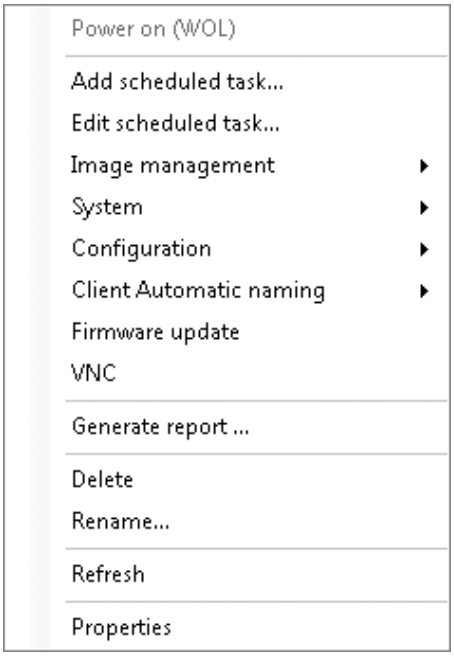
Deploying a Window 7 System Image is the same process as in the previous section 4.2

6 - Linux Image Management

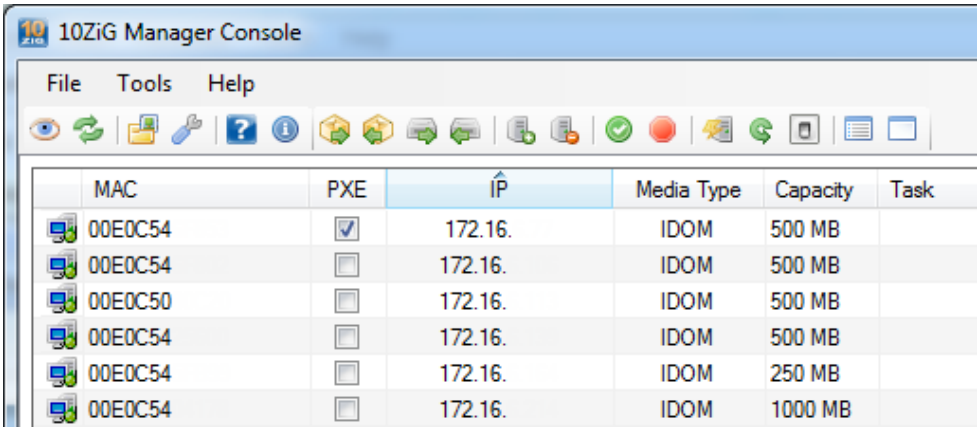
6.1 - Linux Image Backup & Restore

Backup and Restore is mainly used to backup a Linux thin client for the purpose of restoring that specific thin client should the need arise.

If directed by 10ZiG Technology tech support to restore a binary or compressed image, place that image in the ImageStore folder, follow directions below to PXE boot the thin client and take the option to restore the binary or compressed image.

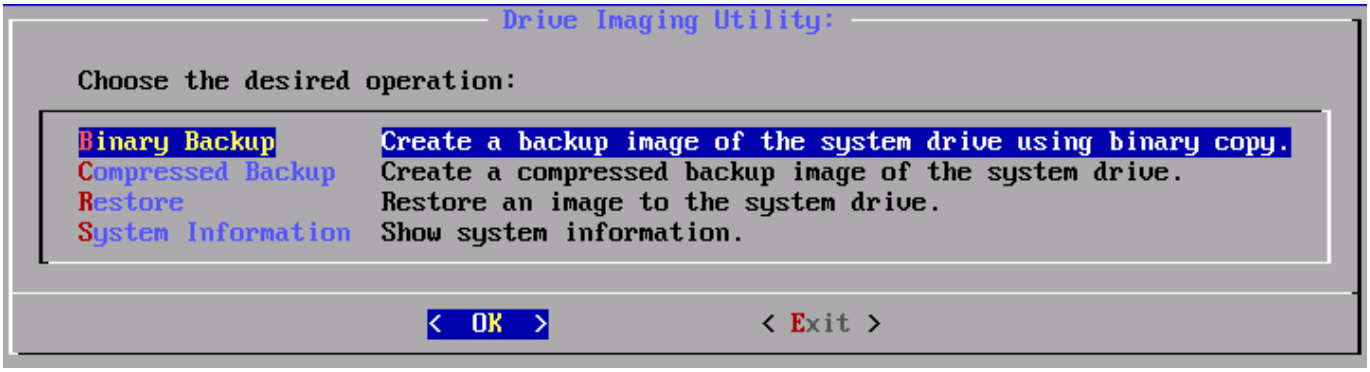


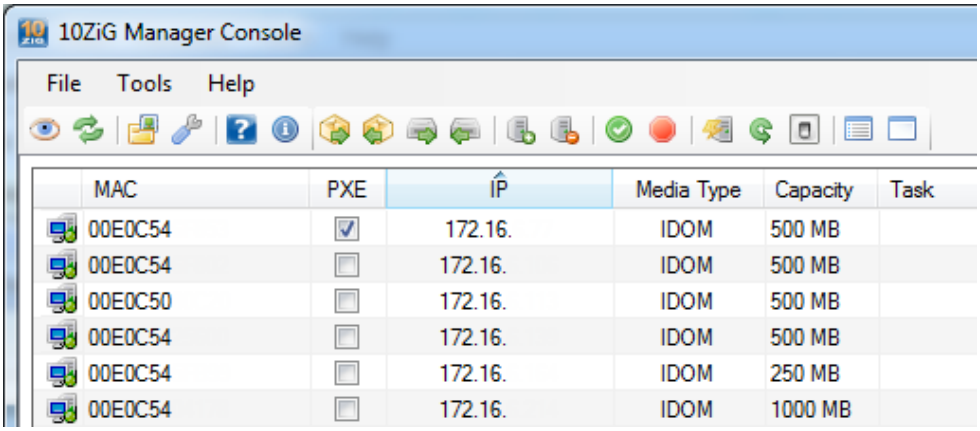
The Backup & Restore option moves the thin client to the Image Recovery tab and sets the PXE value to Yes.



NOTE: If the thin client does not boot in PXE mode you will need to access the BIOS and set the first boot device to the network.

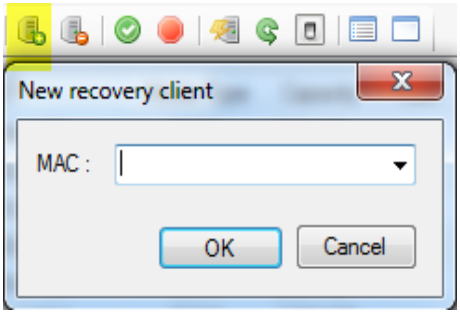
When the thin client has PXE booted to the 10ZiG Manager the screen on the thin client should look similar to the image below:





Once the image has been backed up or restored set the PXE back to NO by unchecking the box under the PXE column and reboot the thin client.

If the thin client has not been seen prior in the 10ZiG Manager manually add its MAC to the Image Recovery tab by selecting



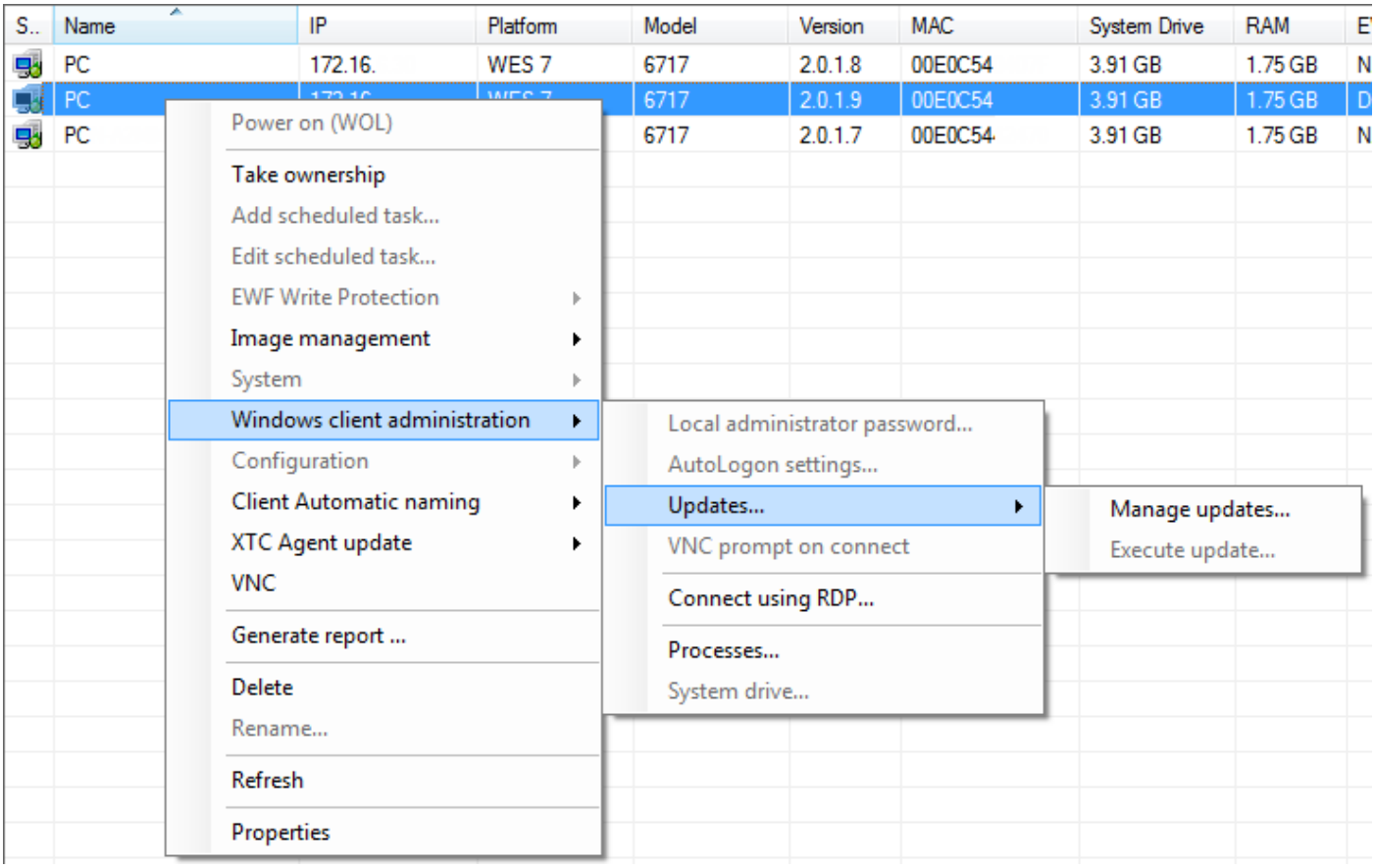
NOTE: This backup and restore is for recovery only. Each image is licensed based on the thin client's MAC and if copied from one Linux thin client to another a license error would be displayed on boot. If you need to create an image to to push out to other like thin clients please contact tech support for further instructions.

7 - Windows Client Administration

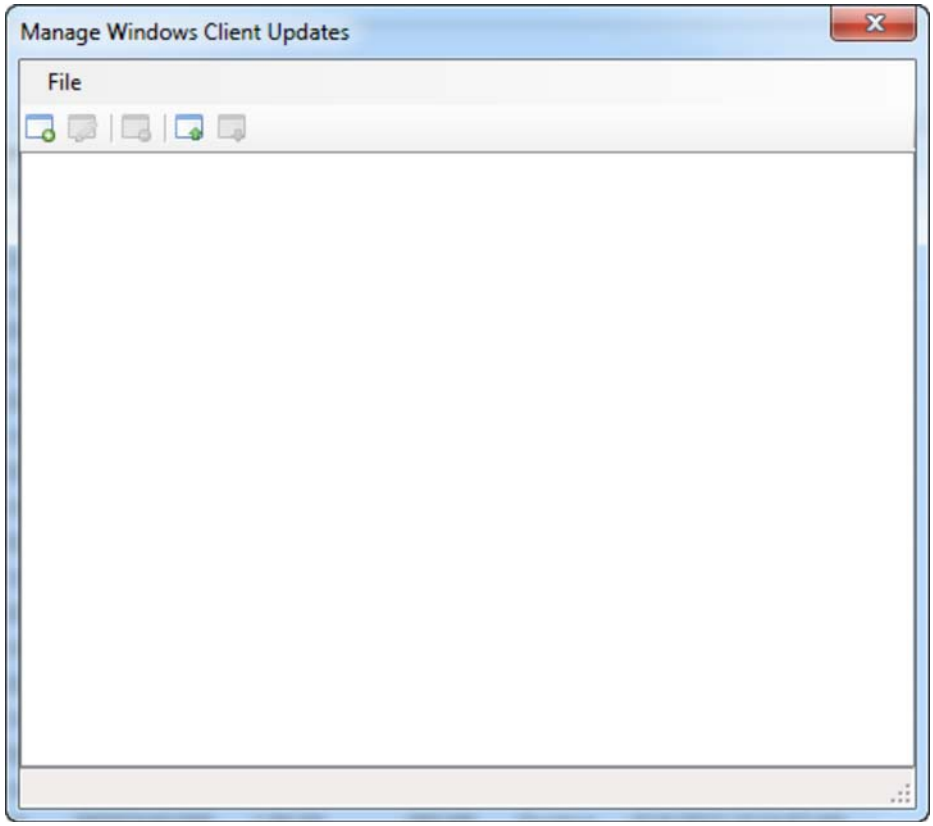
Starting with version 2.0.2.7 it is possible to update software on a Windows thin client. Any program that will run on the operating system can be installed but the program must have the option for a silent install to use the 10ZiG Manager's Windows Client Administration menu option. The example below will show the creation and installation of VMware View 4.6 and then updating that version to VMware View 5

7.1 - Manage Updates

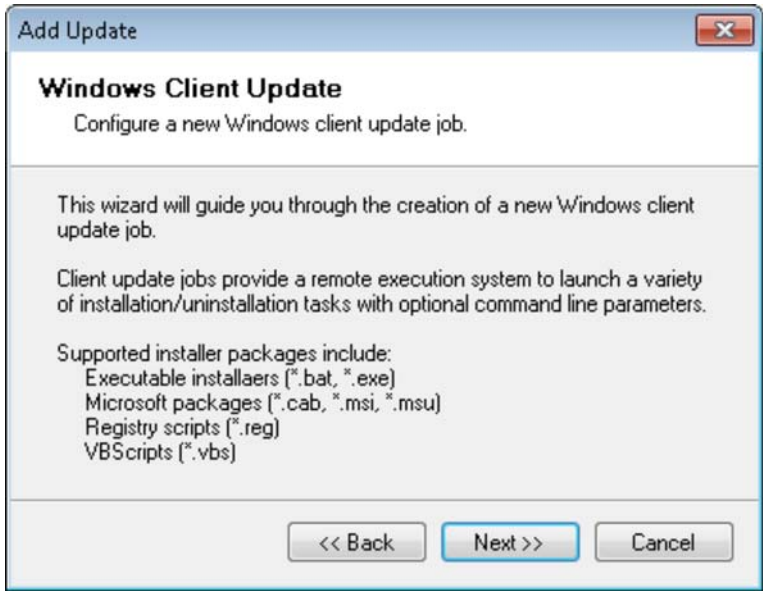
Right click on the Windows unit to update and select Windows Client Administration -> Updates -> Manage updates.



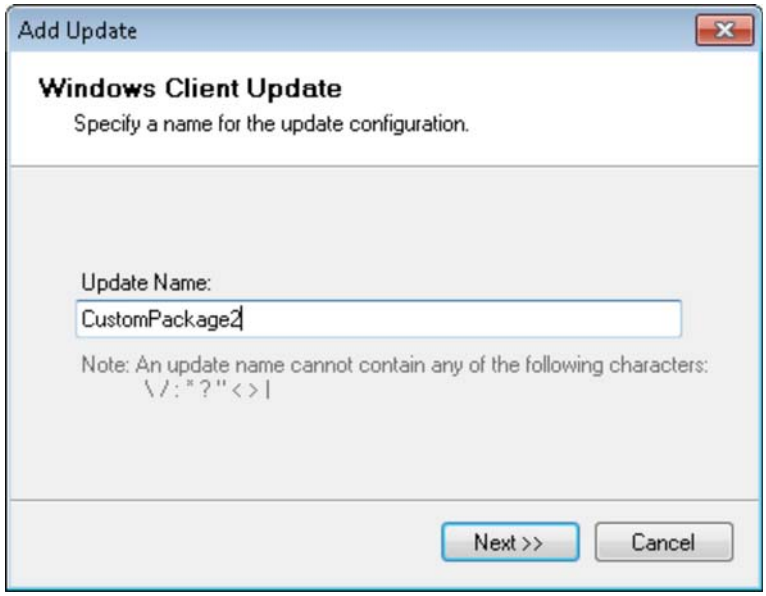
Select Manage Updates to generate a new update. Click on the ICON in the top left of the Windows Client Updates window.



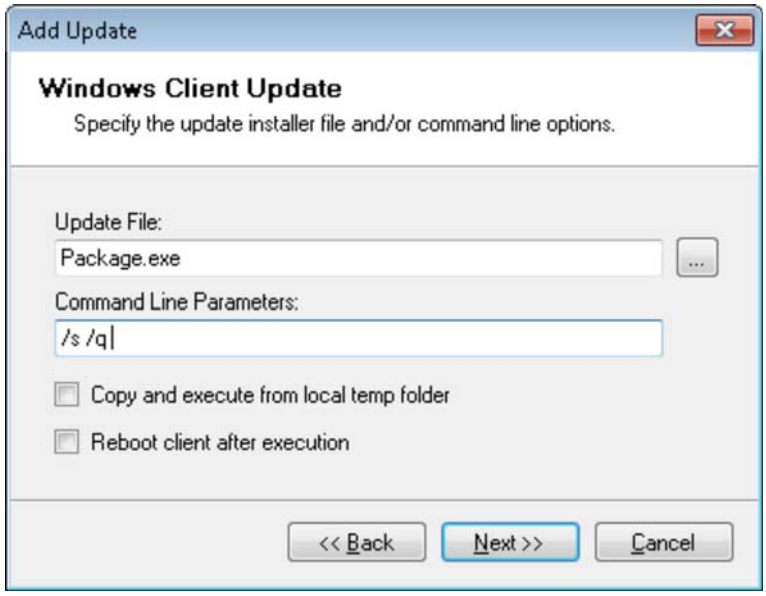
The add update wizard is presented



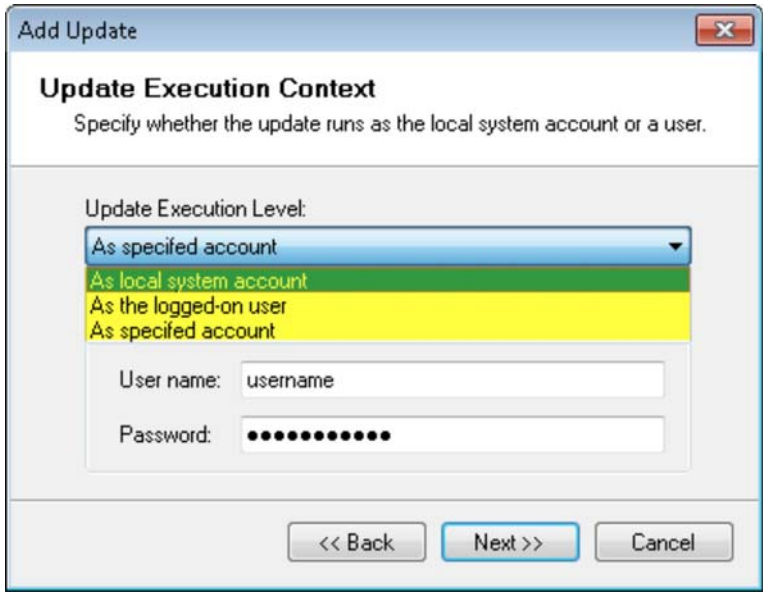
Select Next



Name the Update and select Next

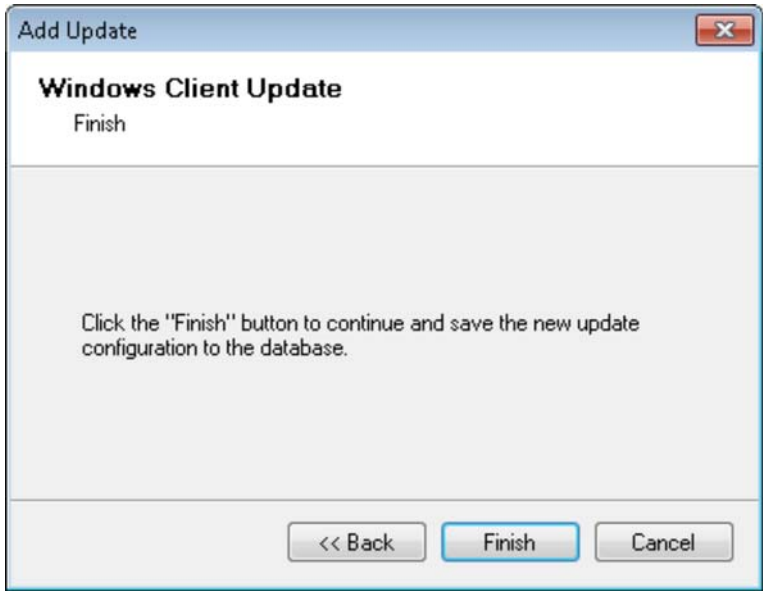


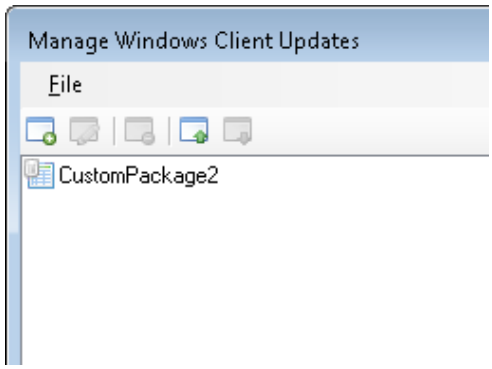
Select Next and then select the Update Execution Level



Select the EWF Write Protection Parameters if write protection is enabled

Keep in mind that if the thin client has been running for a while and the Disable EWF before execution is selected, the thin client will commit changes and reboot saving all changes since the last reboot. To make certain the image is clean take the option to Reboot to flush the EWF prior to executing the Disable EWF.





The above update creation was created based on the following information which was copied from VMware's Knowledge Base

To perform a Silent installation of the View Client and View Agent:

1. Copy the Client setup on the local machine.

   Note: The Client and Agent packages can be downloaded or copied from the Connection Server at C:\Program Files\VMware\VMware View\Server\broker\webapps\downloads.war.

2. For a View Client Silent installation, open a command prompt on the machine where you want to install the View Client and run this command:

   VMware-viewclient.exe /S /V /qn DESKTOP_SHORTCUT=0 VDM_SERVER=INSTALLDIR=C:\VDM RDPCHOICE=0 REBOOT=Reallysupress

   Where these are the options used:

   - REBOOT=Reallysupress suppresses a reboot after the install. If you remove REBOOT=Reallysupress, the machine automatically reboots after the install.
   - VDM_SERVER defines the Connection Broker.
   - DESKTOP_SHORTCUT=0 prevents a shortcut from being placed on the Desktop. A shortcut is placed on the Desktop by default. If you do not want a shortcut, set the value to 0.
   - INSTALLDIR=C:\VDM specifies the installation path.
   - RDPCHOICE=0 prevents RDP from being enabled. After the installation, RDP is enabled by default. If you do not want RDP to be enabled, set the value to 0.

3. Copy the Agent to the View desktop

4. Open a command prompt on the desktop and run this command:

VMware-viewagent.exe /S /V /qn REBOOT=Reallysupress

Note: REBOOT=Reallysupress suppresses a reboot after the install. If you remove REBOOT=Reallysupress, the machine automatically reboots after the install.

You can use these switches when running the commands to perform a Silent installation:

- /a performs an administrative install
- /a patches an existing administrative install
- /s hides the initialization dialog. For silent mode use, /s /v/qn
- /v indicates parameters to pass to the installer
- /c cleans out installation registration information
- /l performs detailed logging
- /l performs detailed logging

Note: For a large deployment, commands can be entered into a script to automate the Silent installation.

7.2 - Execute Updates

Once the updates have been created they can be run, edited, deleted, imported or exported. To apply an update to multiple thin clients use the CTRL key to select multiple thin clients and then execute the update.

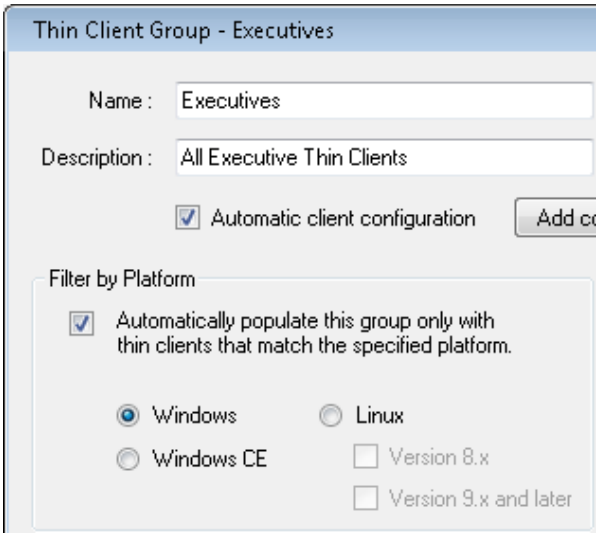
Click here to watch a short video on Execute Updates or save and view using a browser.

Appendix

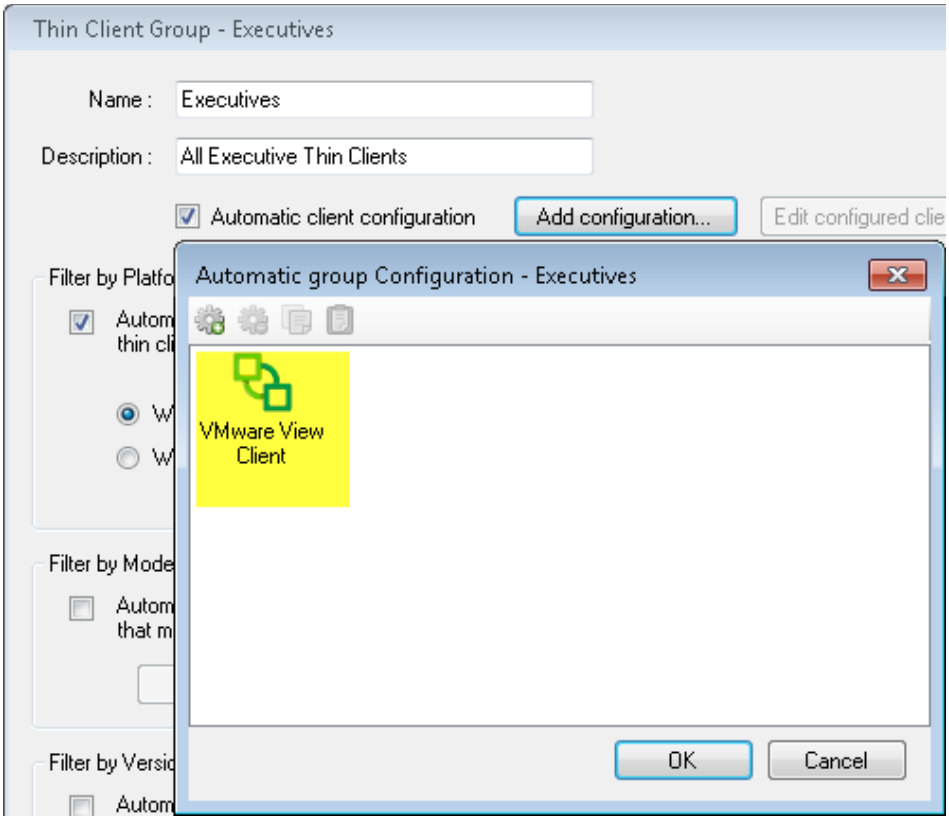
Automatic Client Configuration Examples

Linux:

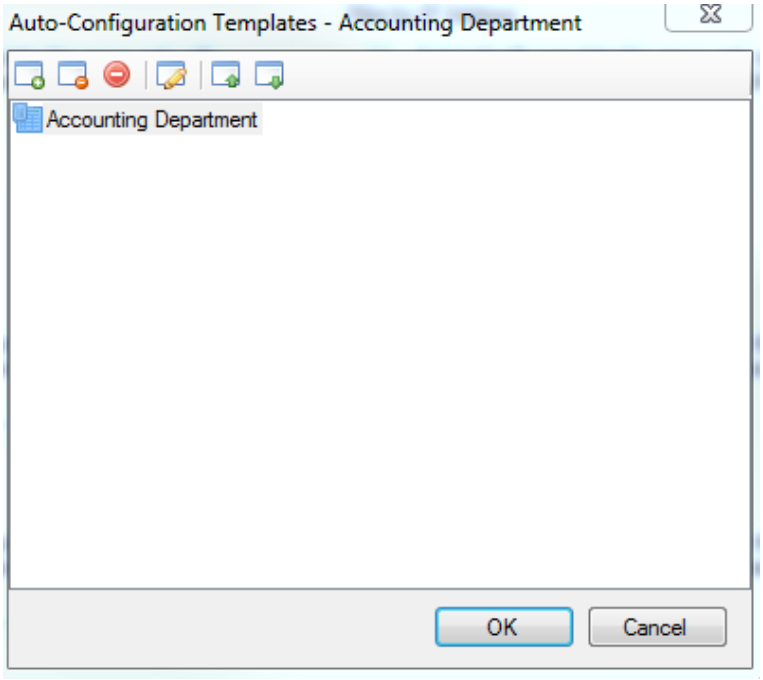
1. Templates must be created prior to adding configuration *see Template section*.
2. Create a Group
3. Access the Thin Client Group Properties by right clicking on the group and selecting Properties
4. Check the correct the Linux Platform and narrow it down further if necessary by using filters.



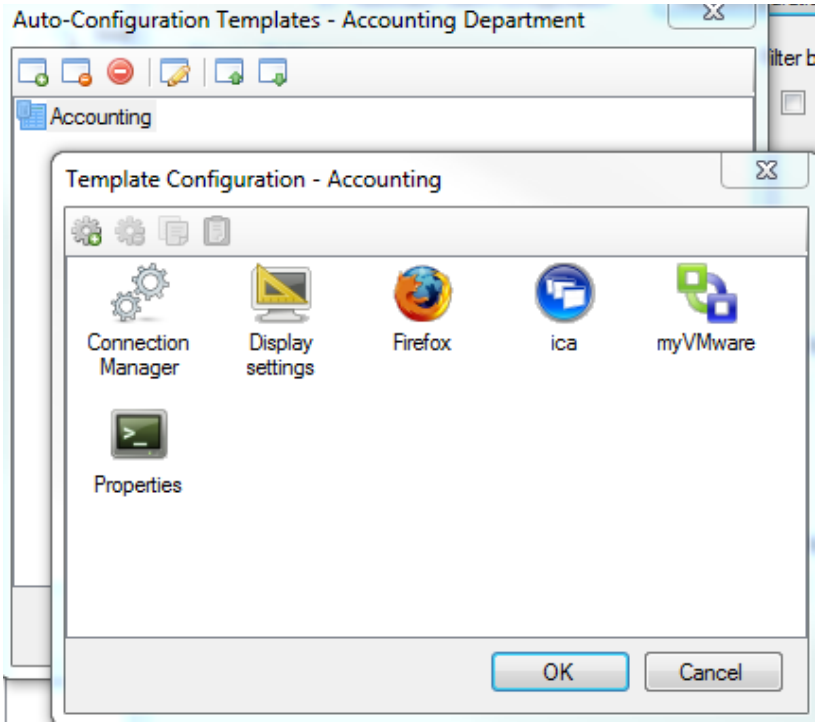
5. Check Automatic Client Configuration
6. Select Add configuration...
7. Templates may be added or imported.



8. Select the desired Template - at this point templates can be edited.

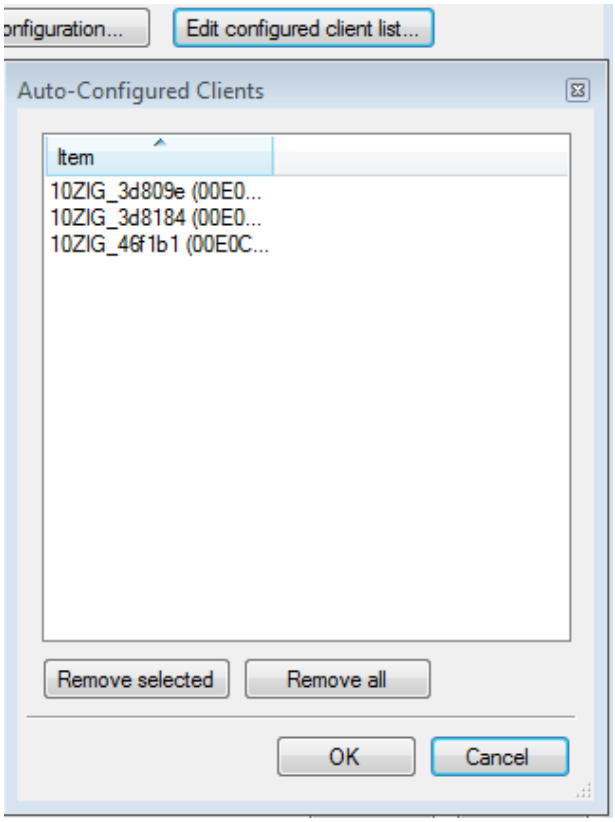


9. Add or remove connections



10. The thin client contacts the 10ZiG Manager and the 10ZiG Manager moves it into the designated group. If Automatic client configuration is enabled the thin client will pull the configuration assigned. When the configuration file has been loaded the thin client will reboot once again

NOTE: When a change is made to the template if the thin client is in the group and its MAC is not listed in the configuration list, the thin client will immediately reboot to update the configuration. If a change is made to the template and the thin client's MAC is listed in the Auto-Configured Clients list, the MAC(s) must be removed for the thin client to pick up the changed configuration.



FAQ

http://www.10zig.com/faq/10zigmgr.htm