
Thin Client Administrator

Reference Manual

Revision: 2.13.3

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Preface

The Maple Thin Client Manager is designed to provide remote management and control of Maple Thin Clients. This software is built on the TCP/IP industry standard SNMP (Simple Network Communication Protocol). Agents are built into the clients for remote management and configuration.

Currently the Maple Thin Clients supported by the Manager are of four types:

WBT - Windows CE Based Terminal

XPE - Windows XP Embedded

LBT - Linux Based Terminal

The basic client function supported for these client types are:

Function	WBT	XPE	LBT
Messages	Yes	Yes	Yes
Remote Display	Yes	Yes	Yes
Upgrade (Menu) *	Yes	No	Yes
Upgrade (Drag/Drop)	No	Yes	Yes
Registry Edit	Yes	Yes	No
Reboot	Yes	Yes	Yes
Shutdown	Yes	Yes	Yes
Reset to Default	Yes	No	Yes

The functions labeled **No** are handled by special functions.

* Upgrade firmware from files in FTP server path

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Administrator Introduction

The Administrator management software (*SNMPadm*) can be used to manage the Computer Lab International Thin Client line of products.

This program is designed to allow a system administrator or help desk personnel manage all Maple terminals within their network from a centralized location.

Features at a Glance

- Discover all Maple terminals on the network or subnet. Supports 'AutoCheckIn' by terminal on power up.
- Shadow any terminal and take control for Debug, Configuration, or Help Desk functions
- Flash update any single Maple terminal or group of Maple terminals on the network or subnet
- Copy configuration parameters from any Maple terminal on the network or subnet
- Copy configuration parameters to any or any group of Maple terminals on the network or subnet
- Check version of any Maple terminal on the network or subnet
- Separate listings of Maple terminals by groups
- Separate listings of Maple terminals by subnets
- Define FTP server, path and login information
- Send message to user or group of users
- View and edit terminal registry (configuration)
- View terminal configuration via Graphical User Interface
- View upgrade status on individual unit

- Reboot, Reset configuration to default, or Shutdown of a Maple terminal
- Build custom configuration WBT image for DHCP auto-config
- Remotely change the configuration of a single Maple terminal
- Create a custom configuration for one or multiple Maple terminals
- Discover other brand SNMP compatible WBTs
- Build and manage device database, export database to various file formats for reporting and analysis
- Schedule updates and other functions to be performed at a later time with Remote Image Server update support to overcome bandwidth limitations
- Wake-on-LAN terminals (wake powered off terminals)
- Security: Set SNMP Community name, Create user signons with defined function/task permits
- Terminal firmware patch facilities

Hardware and Operating System Requirements

- Pentium II class computer or better
- Windows NT 4.0 Workstation, Server or Terminal Server edition
- Windows 2000 Professional
- Windows 2000 or 2003 Server (any class)
- WindowXP Professional
- FTP server for flash and configuration updates
- Routers configured to route SNMP packets

Operating System Configuration Requirements

- Win2003, WinXPpro, Win2000 or WinNT *SNMP Service* is installed and running
- Win2003, WinXPpro, Win2000, WinXP or WinNT *SNMP Trap Service* is **NOT** running
- Other SNMP software trap not running
- If local Firewall is enabled, add SNMPadm.exe as an exception

Administrator Concepts

Discover all Maple terminals on the local or wide area networks

This feature allows the user to “locate” all the Maple terminals on the local area network and all those on a wide area network.

- The user can discover all Maple terminals on the local network or subnets (subnet = individual locations of the wide area network such as a branch office)
- The “Discover from Database” feature reduces discovery time up to 99%
- Terminals supporting the “Auto-Check-in” feature can check in when powered on eliminating the need to be discovered
- The IP address, MAC address and Maple terminal version number and other data are displayed on the screen for discovered terminals

Flash update firmware to one or many Maple terminals

Occasionally, you may want to upgrade the firmware on the terminal to take advantage of a new feature, or to apply a bug fix. This feature allows the administrator to upgrade one, many, or all with a single click from the SNMP Manager software.

Upgrade a single unit on the LAN or WAN

Upgrade a group of units based on custom grouping or Subnet

Remotely configure any Maple terminal

Some administrators will want to configure Maple terminals without having to go to the terminal. This feature allows the administrator to copy a saved configuration image to any (or many) Maple terminals or

directly change the configuration on the client.

The configuration of any Maple terminal can be copied to the SNMP Manager. The administrator then uses the image "as is", or changes it based on the specific requirements of the site. That image is "copied" to the target Maple terminal. Create a custom configuration for one or multiple Maple terminals.

Create a custom configuration for one or multiple Maple terminals

As discussed above, the administrator can make multiple generic "images" so he can have a unique image for his warehouse, order entry or remote store, etc.

- Enables administrator to easily organize multiple configurations
- Allows administrator to save time by having "stock configurations" whenever they are needed for Adds, Changes, or Replacements

Check firmware version of any Maple terminal

The main panel of the SNMP Manager displays the IP address, MAC address (hardware address of Ethernet card), firmware version and other information about the thin client. The version is essential for the administrator to effectively manage his terminals.

- Clearly displays the version number so updates can be targeted at only those devices which need them
- Allows for administrator to match configuration image with version

Organize listings of Maple terminals by groups or subnets

Many customers have multiple locations. The way that locations are organized in an IP network is by "subnet". A subnet is a "sub-network". A subnet has a specific set of IP addresses assigned to it. A subnet is the "natural" way to organize devices when being managed with a software package such as the Administrator.

- Intuitive or natural way to organize hundreds or thousands of Maple

terminals on the network

- Organizing via groups would be used by smaller users or by users with a large number of devices on a LAN. Groups can be nested allowing you to organize clients in a logical view based on your network or user groups.

Send message to user or group of users

The administrator may find it useful to send a message to some or all Maple terminal users. For example, to inform users that the unit is going to be upgraded or the system is going down. See Appendix A for special WBT configuration/control messages.

Reboot or reset configuration to default of a Maple terminal

An administrator may need to reboot or reset-to-default a Maple terminal to clear a problem or to have the machine automatically pickup a new firmware version or config image.

- This feature would be most often used by customers taking advantage of the "auto-config" feature of the Maple terminal

Build custom configuration image which will automatically load on any Maple Windows CE terminal

The WBT firmware supports auto-config. This feature, when properly setup on the servers, enables the terminal to be taken out of the box, plugged into the network and download a configuration with no user or administrator intervention.

A critical element of the auto-config feature is the ability to build a custom config image for this purpose.

- A customer could deploy ten or thousands of WBT terminals with no user or administrator intervention saving countless hours of help desk and administrator time
- This is a complicated feature and requires a sophisticated network

setup to implement

- This feature is best for customers who can use a limited number of generic configurations for all devices.
- This feature can be useful for customers who need a unique configuration for each device, because the device is pre-configured with a "base configuration", which can save significant implementation time
- This feature requires DHCP custom options to set the FTP host address and other custom settings on the terminal

Discover other SNMP compatible WBTs

If a customer has more than one WBT vendor in his location, Administrator can display those vendors equipment along with the Maple terminal.

- Currently only Wyse is supported
- More can be added upon request
- Other manufacturers WBTs cannot be updated or “managed”, they can only be displayed

Build and Manage Device Database

The application automatically builds a database of all discovered terminals. This database can be used for Asset Management or other device management purposes.

- Database is dynamically built as device is discovered
- Database can be exported to multiple formats including .XLS for import into Excel, Access or other program where the data can be manipulated and reports generated
- “Last Scan” date indicates the last time the terminal was detected by the management software, which can be useful for loss or change/move purposes

Shadow / Remote Control

An Administrator can “shadow” a client terminal and remotely control that terminal to change configuration, Debug, or assist/train user.

- Powerful feature that allows administrators to resolve most issues, including application problems without having to physically visit the terminal
- Full keyboard and video control

Wake On LAN (WOL)

WOL is an industry standard hardware and software feature which allows the administrator to “turn on” a terminal which is powered off.

- Wake Up one or more terminals on your LAN or WAN (routers must be WOL capable and enabled)
- Useful for doing updates off hours or to determine if devices have been removed from the network
- Remote Shutdown is also supported

Reset to Default

Terminals can be reset to default to prepare the device for reconfiguration or to cause the device to automatically configure.

Schedule

The Schedule feature is designed to allow the administrator to do firmware updates and other functions to begin at a set time and date.

- Schedules updates to run during periods when WAN utilization is low or on weekends
- A Remote Image Server can be used to serve XPe or Linux images. These images can be large and it may be impractical to update multiple terminals on a WAN link due to bandwidth considerations. Images can be placed on any computer running SNMPadm and that computer can act as a remote server.

User Security

Multiple user types such as Administrator and Help Desk can use SNMPadm. The administrator can limit available functions (such as Reset to Default) for the various user types.

SNMP Security

An SNMP Community Name (pseudo-password) can be set. An SNMP community is a logical relationship between an SNMP agent and one or more SNMP managers. A device can belong to multiple communities; but a device's SNMP agent ignores requests from management systems that are not part of the community.

Administrator Installation

IMPORTANT NOTES:

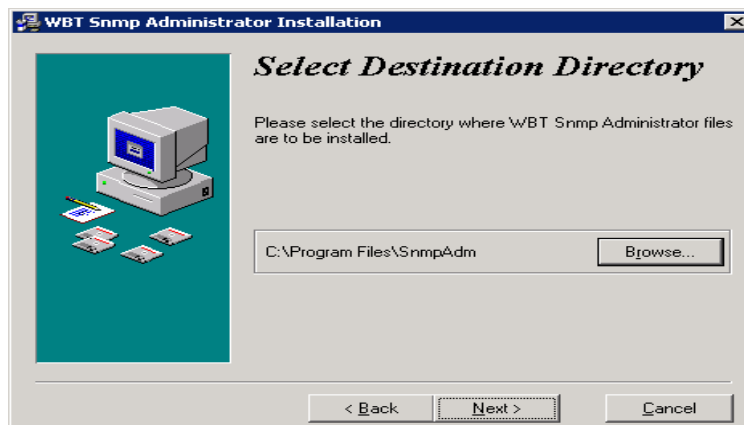
Make sure the Win2000, Win2003, WinXP, or WinNT **SNMP Service** is installed and running and the SNMP Trap Service is NOT running. If another version of SnpAdm is installed in this PC/Server, be certain to uninstall the software first or install the new version in a new folder.

If a local Firewall is enabled on the PC, add SnpAdm.exe as an exception or disable the Firewall.

1. From the CD or other electronic media, run SETUP.EXE.
2. If this is a first time installation, you must select the program directory and group name. By accepting the default parameters of the installation wizard, the Administrator will be installed in the following folder and program manager group:

Folder: C:\Program Files\SnpAdm

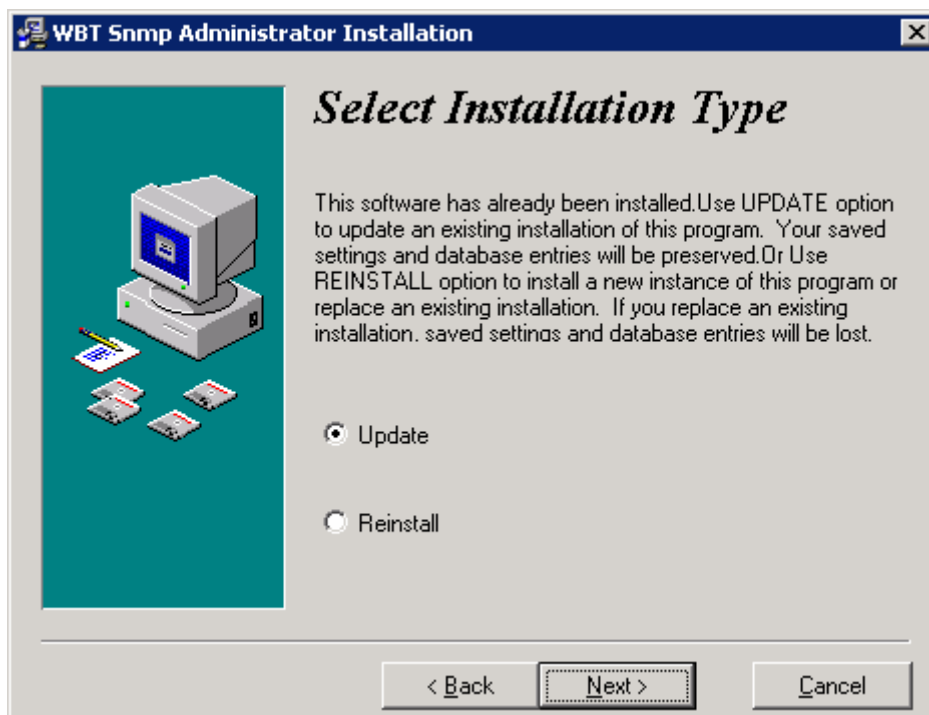
Group: Administrator



3. If this software has already been installed, the previously selected Folder and Program Manager Group are preserved and you are given the option to Update the executable program or Reinstall to replace



the existing installation and settings.



Skins can be used to change the software look and feel. After starting SnmpAdm, see File/Options/Skins.

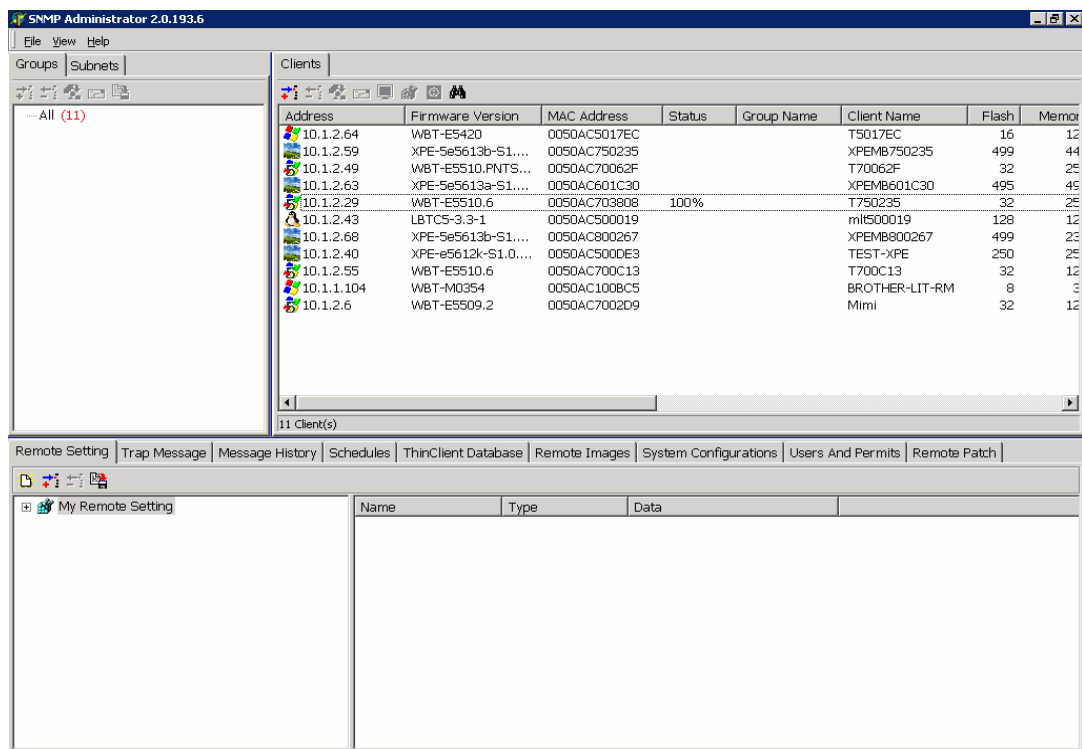
SnmpAdm can also be installed as a Service named 'SadmServer'. When run as a Service, the 'Administrator' is automatically logged on. To install as a service run 'Snmpadm.exe / INSTALL' and to uninstall run 'Snmpadm.exe /UNINSTALL'.

Using Administrator

Start Administrator

Start the Administrator software by executing **SnmpAdm.exe** or by selecting from a Windows desktop:

1. START
2. PROGRAMS
3. SnmpAdm (group)
4. SnmpAdm.exe (item)



The program display is as shown below.

Program Directory Notes : (c:\Program Files\SnmpAdm)

Files with **.SAC** extensions – SNMP AutoConfig file

Folder **Data** is used to hold data files used by SnmpAdm:

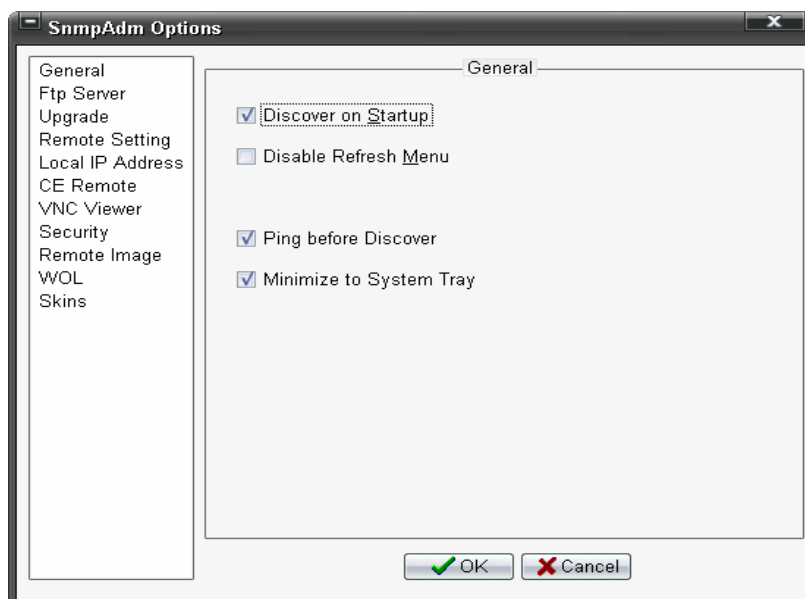
- name.BIN (configuration image files)
- ET3K.DAT/IDX (ThinClient Database plus Config parameters)
- Name.SMH/.SMG (XPe and Linux Image Files)

SnmpAdm Options Panel

The *SnmpAdm Options* panel allows you to define the FTP Server and related security parameters, the upgrade user interface options, image write options and the IP address/Network SNMPAdm will use to discover and manage clients.

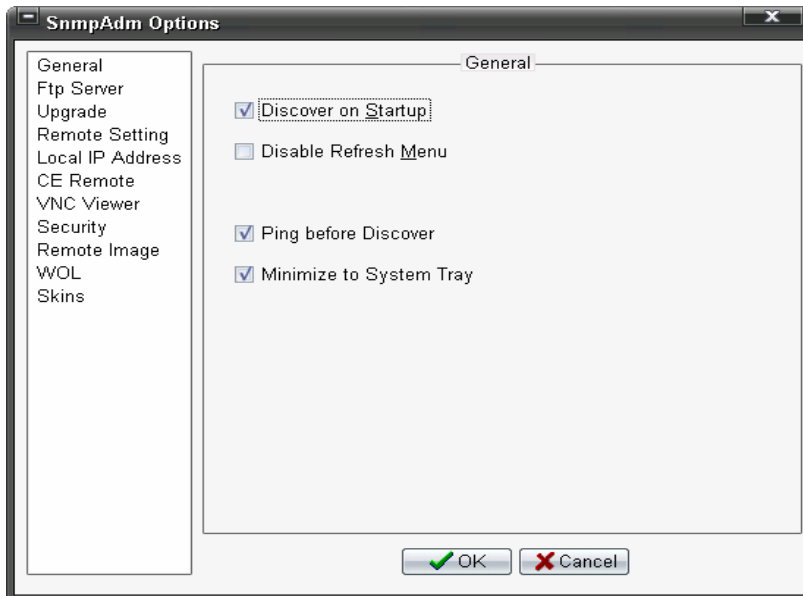
Access the *SnmpAdm Options* panel from the **File** menu and select **Options**.

A panel like the following is displayed. Click the desired option. These



options are described on the following pages.

General - Set initial startup options



Discover on Startup:

Upon starting the Administrator, automatically discover all terminals on your local LAN as determined by the IP address and Subnet of the computer running SnmpAdm. If other devices on the local LAN post SNMP Scan Alerts, you may wish to disable this feature; and create a subnet to limit discovery to Maple clients (manually display this subnet).

Disable Refresh Menu:

Disable the 'Refresh' option (F5).

If a Refresh is done while a client is being flash updated, that client may be dropped from the client list.

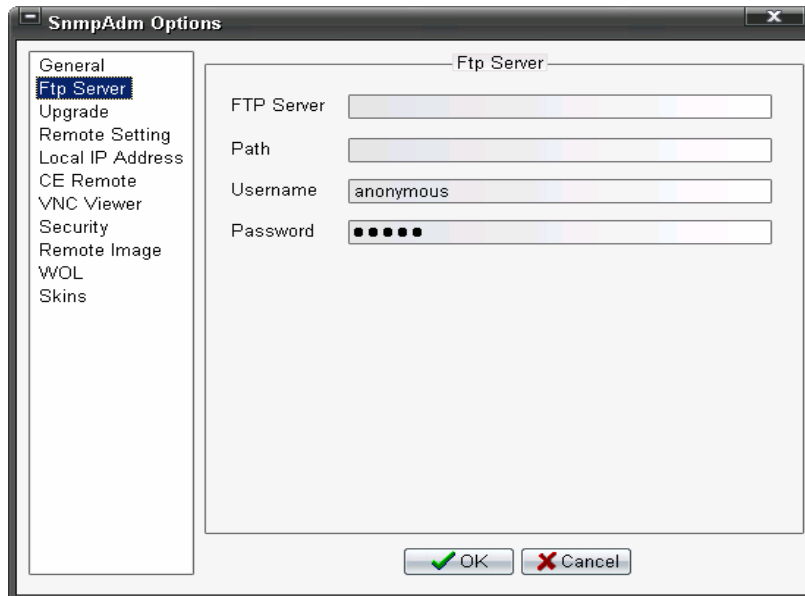
Ping before Discover:

This speeds up the "discover" process.

Minimize to System Tray:

If checked (default), SnmpAdm will be minimized to the System Tray. If not checked, the minimized SnmpAdm will appear on the task bar.

FTP Server - Define your FTP server



FTP Server:

Name or IP address of FTP server with flash image and/or Config image

Path: (from FTP root)

Directory or folder with flash image and/or Config image relative to FTP root.

For CE or Xpe, use backslash (\) in path. For Linux use forward slash (/).

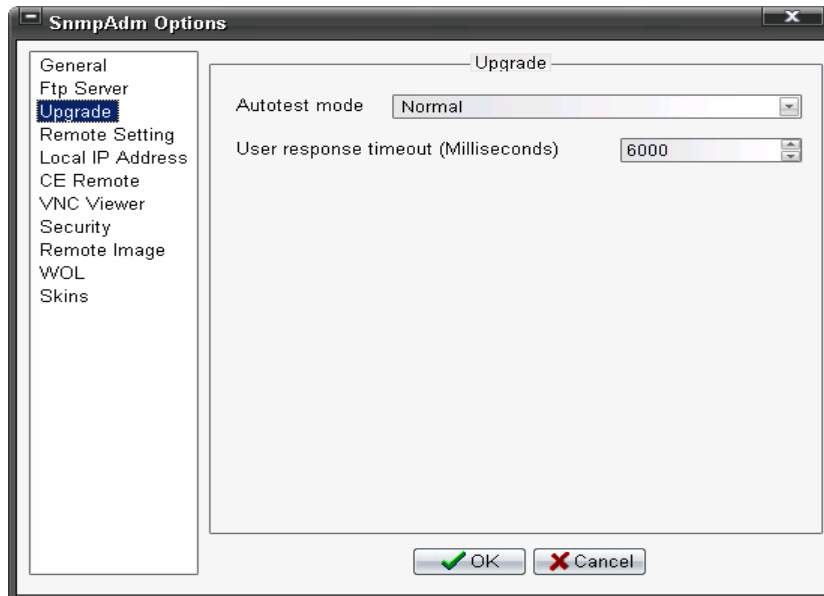
User Name:

User ID to access FTP server (if required)

Password:

Password to access FTP server (if required)

Upgrade - Define the user interface for updates



Autotest mode:

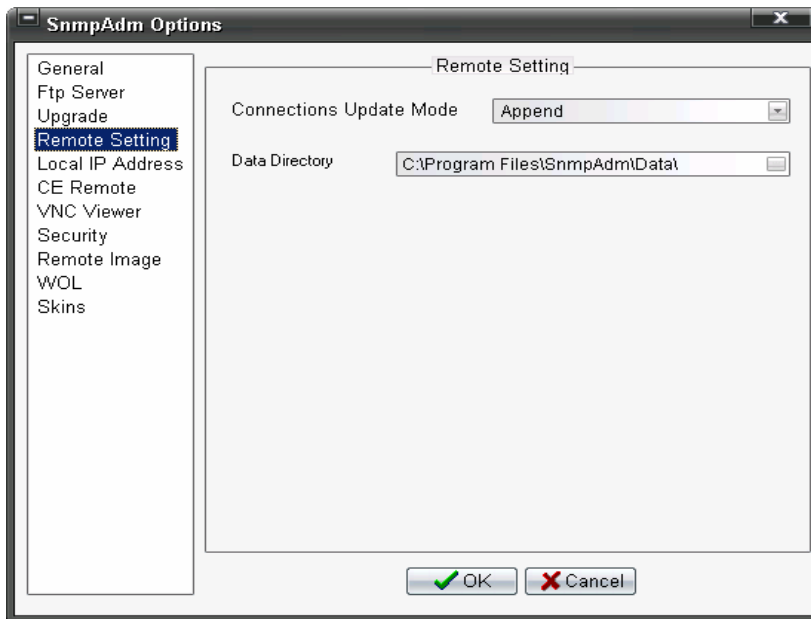
Normal – User must acknowledge reboot after upgrade

Auto Reboot – No user action required after upgrade
(Recommended)

User response Timeout (Milliseconds):

Amount of time "Cancel" panel is accessible for user to cancel update
(6000 = 6 seconds)

Remote Setting - Define Registry update method



Connections Update Mode: (WBT & XPe registry images)

Append – All Registry entries are added or replaced except existing connections. Existing entries will not be deleted. *This option should be used when pushing registry patches to a client.*

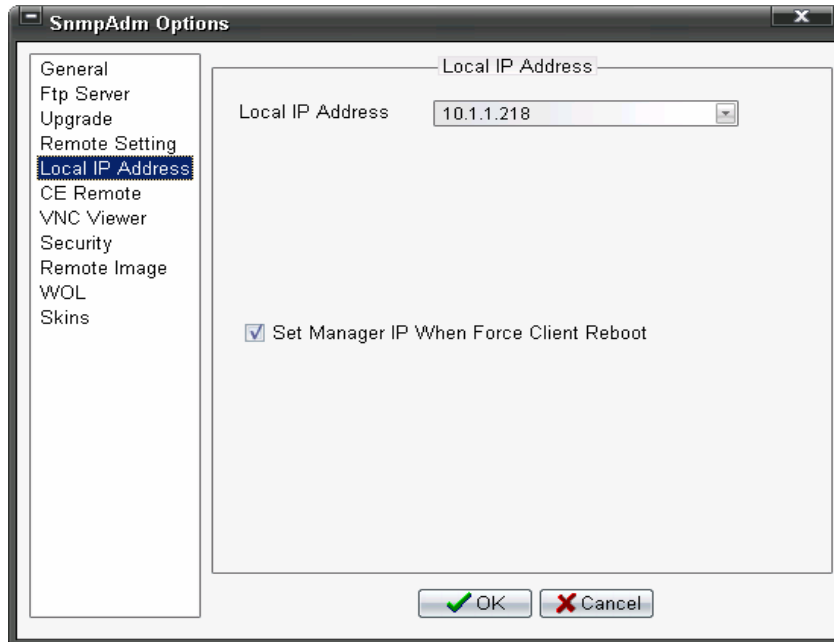
Replace – All registry entries are added or replaced including all existing connections. *This option is used to replace a configuration image with a new one – used for device cloning.*

Data Directory:

The default folder where configuration images (.BIN files) and XPe/Linux images (.SMH/.SMG) are saved. This can be a Shared Folder on a network resource.

Local IP Address - Set the IP address of the managing PC

In some PCs and Servers, there are multiple Ethernet or other network interfaces, which each have a unique IP address. Select the IP address (network) which has the terminals you wish to manage.



Local IP Address:

Set the IP address to use on the PC running SNMPadm. This is the address to which Shadowed images will be displayed.

If the IP address changes, some functions such as Remote Display will not function. If the IP address of the computer changes for any reason, you must revisit this screen to update this parameter.

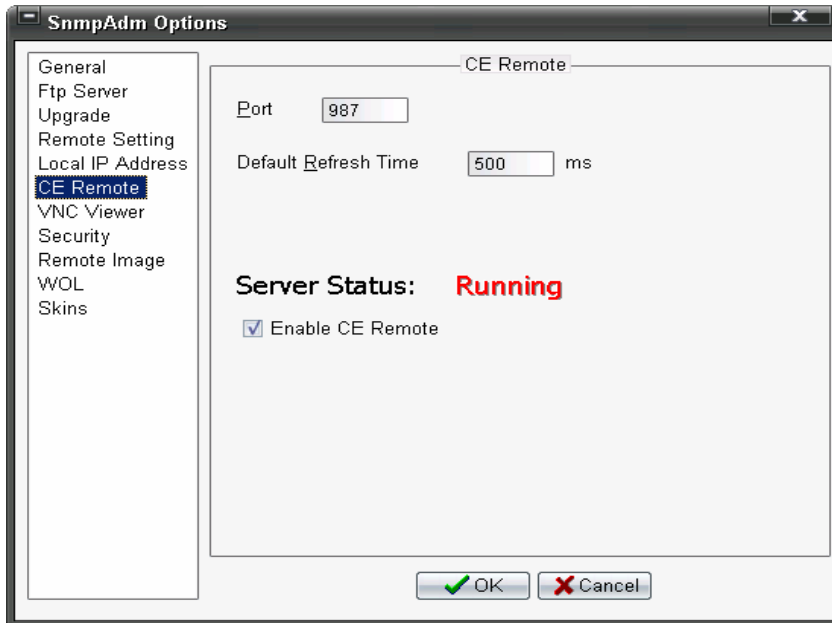
Set Manager IP when Force Client Reboot:

This option sets the IP address of the managing PC/Server automatically when the Reboot menu item is selected from the Clients Panel.

The primary purpose of this option is to allow you to see the status of an upgrade in the *Trap Message (Upgrade Status)* panel.

CE Remote - Set Remote Shadow/Control parameters

Set the Remote Shadow/Control parameters for Windows CE based clients. Shadowing allows you to see a specific client's screen and control that client from your keyboard and mouse.



Port:

The default port value is 987.

Default Refresh Time:

This value determines how responsive the Shadow process is. The default value of 500 (.5 seconds) is a good starting value. The smaller the value the faster screen updates appear and the more load on the network. The larger the value, the slower screen updates appear and the less load on the network.

Server Status:

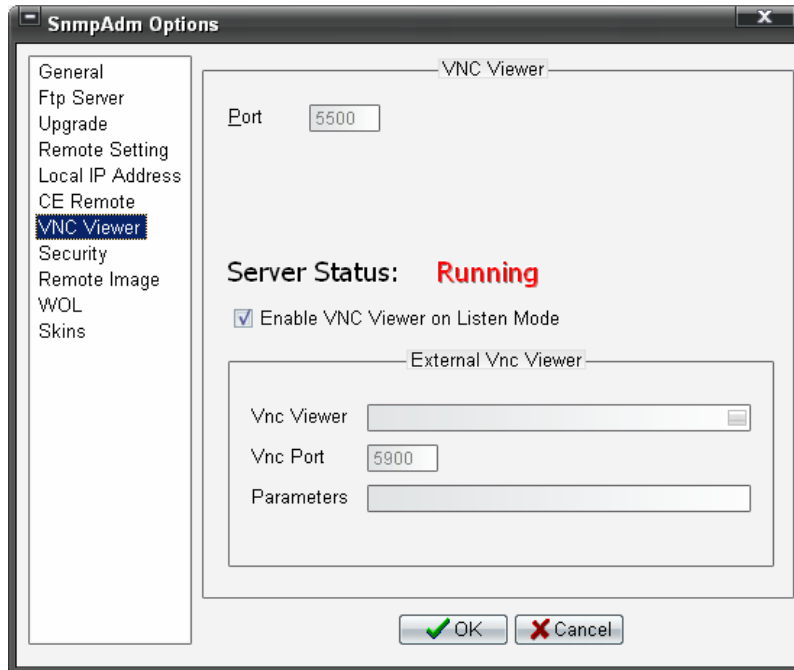
If active, status is **Running**.

Enable CE Remote:

Default is enabled (checked) to allow Remote Control of CE clients. For

security or other reasons, you can disable remote control of CE based thin clients.

VNC Viewer - Allow shadowing of Linux/XPe terminals



Port:

The default port is 5500.

Server Status:

If active, status is **Running**.

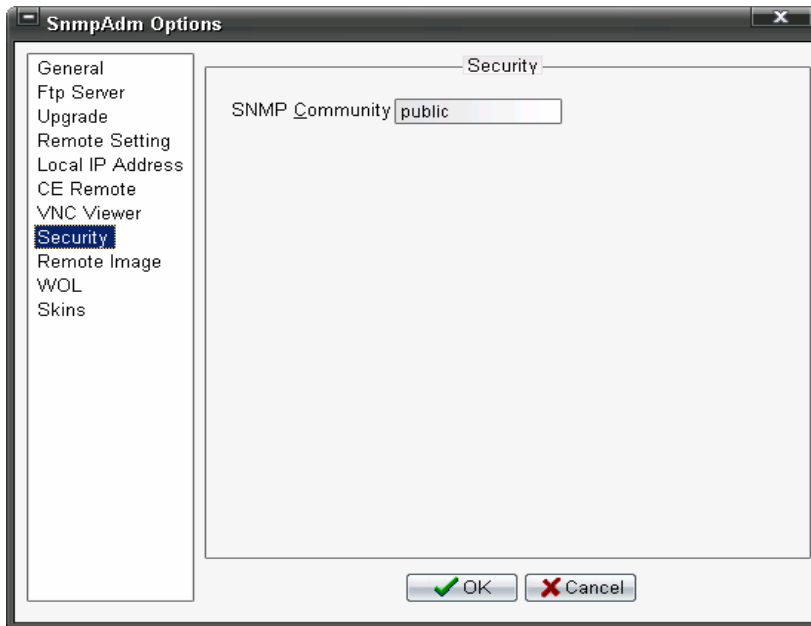
Enable VNC Viewer:

Default is enabled (checked) to allow Remote Control of XP and Linux embedded clients using built in Viewer

External VNC Viewer:

To use your own viewer, uncheck Enable VNC Viewer (above) and select desired viewer, port and parameters as may be needed. To browse for the viewer, click icon at end of VNC Viewer entry field.

Security - Define the SNMP Community name



SNMP Community:

Community Name (pseudo-password) – default is **public**. Another value can be entered to meet your SNMP Community requirements.

An SNMP community is a logical relationship between an SNMP agent and one or more SNMP managers. A device can belong to multiple communities; but a device's SNMP agent ignores requests from management systems that are not part of the community.

Clients are by default part of the 'public' community. For Windows CE clients, to add or replace community names, edit the client registry key:

```
HKEY_LOCAL_MACHINE/System/CurrentControlSet/Services/  
SNMP/Parameters/ValidCommunity
```

To secure SNMP on the WBT, add a private community name (e.g. privateppp) to the ValidCommunity and set it to dword=8 (read/write).

You should delete the 'public' entry. If a CE Client is reset to initial conditions, the community name will be reset to 'public'.

Refer to XPe or Linux manuals for the procedure to configure client SNMP communities.

Add the following entry under SNMPadm System Configuration (see page

70): Section=System, Ident=Broadcast Community as Public, Value=0.
This will inhibit, on LAN, the broadcast of a public community broadcast packet during discovery.

Remote Image - Set the XP Embedded or Linux image update rules

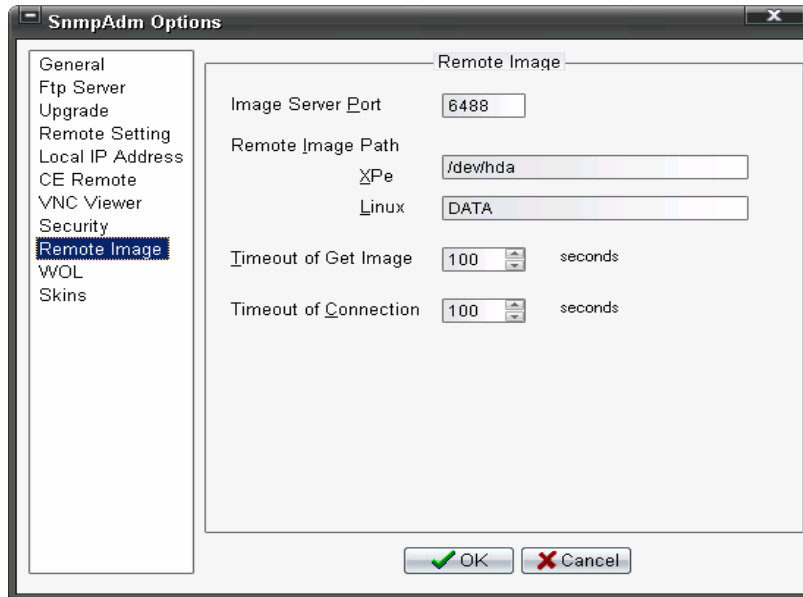


Image Server Port: The default port is 6488.

Remote Image Path: Specify the XPe and Linux Image type

Client OS	Path (Image Type)	Description / When to Use
XPe	/dev/hda	Complete image When to use /dev/hda -Update XPe image to new version -Create default. Master backup image of unmodified terminal -Pull master image from clone terminal on a different version -Push master image, default, or new version to client
XPe	/dev/hda2	XPe partition only When to use /dev/hda2 -Pull master image from preconfigured client with the intent to use that image to clone terminals on the same version -Push configured image to client on the same version
LBT (Linux)	all	Firmware and configuration parameters When to Use all -When duplicating both firmware and configuration parameters to client of same version
LBT (Linux)	image	Firmware image only, no configuration parameters When to use image -Updating the firmware version but not changing the terminal configuration
LBT (Linux)	data	Configuration parameters only (Display, Browser, RDP, etc.) When to use data -Duplicating or changing configuration but not the firmware image

Timeout of Get Image:

Get image timeout failure value (seconds). **Recommended value for XPe is 100 seconds.**

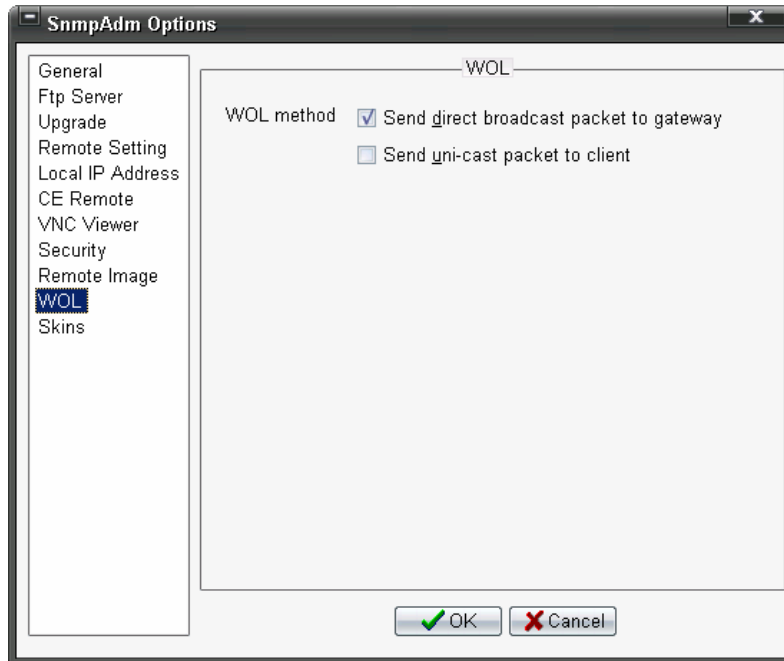
Image file: Name.SMH is the Control file. Name.SMG is the image file.

Timeout of Connection:

Connection failure timeout value (seconds). **Recommended value for XPe is 100 seconds.**

WOL - Define WOL (Wake on LAN) method

Define WOL (Wake on LAN) method to 'Wake' up units that have been powered off.



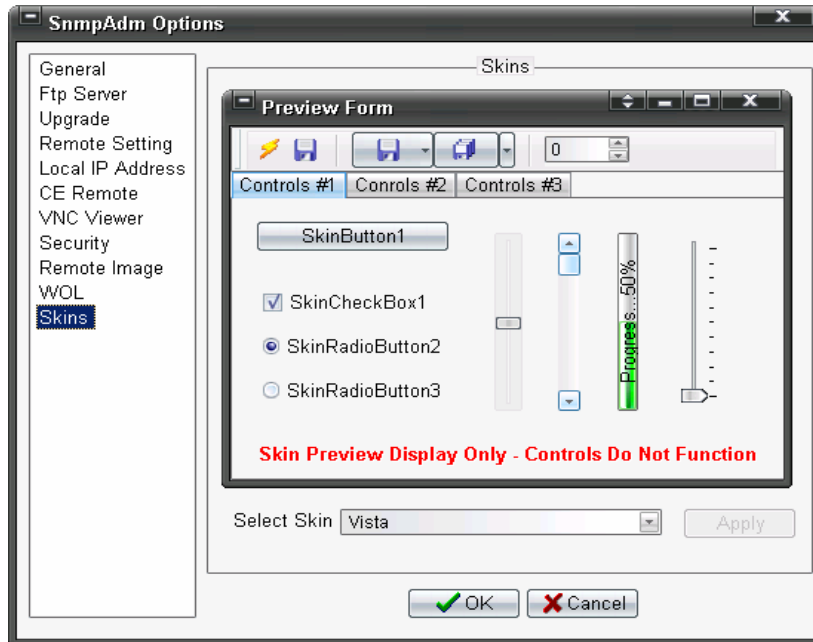
WOL Method:

Send direct broadcast – Use this option to wake up powered off devices that support WOL. This method (subnet directed broadcast) is not supported by many Routers (Gateways).

Send uni-cast packet – Send WOL packet to specified device. If the Router ARP cache has expired (life often measured in minutes), the specified device may not be found. Consider expanding the life of the ARP cache on the router to one or more days.

Skins – Skin (tailored GUI) Selection / Preview / Application

Skins are custom graphical appearances (GUIs) that can be applied to suit the tastes of different users. Applying a skin changes software's look and feel.



Select Skins:

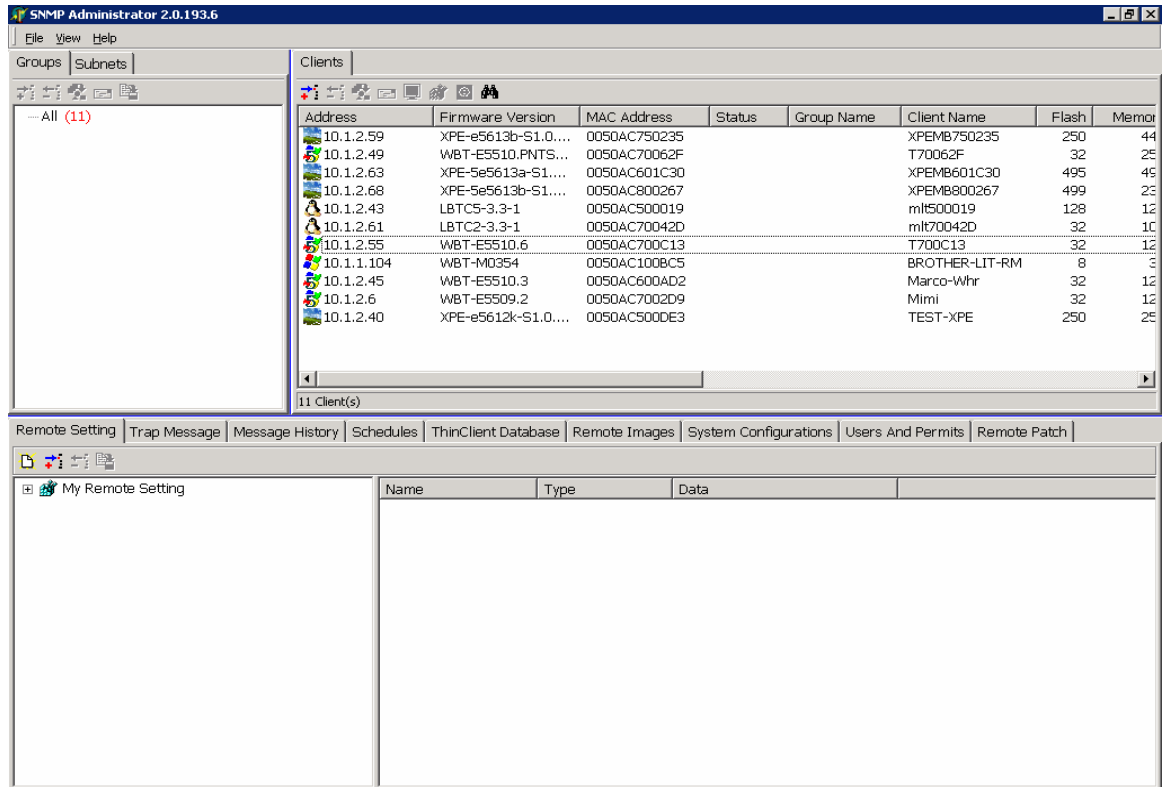
The following Skins are provided (list may change):

- Vista (Default)
- Windows XP Silver
- Office 2007
- Life Media
- WAX
- XFactor Premium

To add Skins, copy .SKN files to the **Data** folder. These new Skins will show in the list after SnmpAdm is restarted.

To view a Skin, select that Skin from the list and use the example controls to see the effect. To apply a Skin, click **Apply** then **OK**.

The Program Display



The program display is broken into three panels:

- **Group / Subnet**

Define Subnets and organize clients into Groups.

- **Clients**

Displays list of discovered Maple terminals including IP and other client information.

- **Task Panel**

Various Tabs are provided to select basic task functions. The number and type of tabs is determined by how the Administrator sets permit for him and for created users.

Users and Permits – Create Users and set permits to the various

tasks/functions.

Remote Setting - Device (WBT) configuration images are stored and the registry can be edited.

Trap Messages (Upgrade Status) - Display status of client during firmware upgrade or image writes.

Message History - History of messages sent to or from management software.

Schedules - Schedule automatic terminal processes.

ThinClient Database - Database of all discovered Maple terminals that can be exported for report generation.

Remote Images – Stored XP embedded or Linux images.

System Configuration – Advanced SNMPadm configuration options.

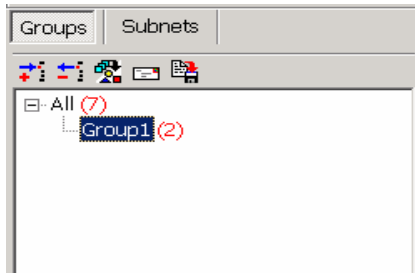
Remote Patch – Apply program patches.

Discovery Logs – Temporary client discovery log.

Group / Subnet

Organize the discovered Terminals by group or subnet

This panel allows you to organize the discovered Terminals into groups, define subnets and perform updates to groups of Terminals.

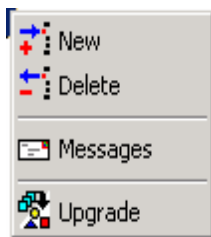


The default Group **All** contains all the Clients initially discovered for the local network plus any Clients manually discovered.

The default Subnet is the class address for the IP of the computer running the Administrator; e.g. 10.0.0.0.

Define a Group

1. Click on the **Groups** button
2. Right click within the Groups name panel and select "New" from the pop-up menu

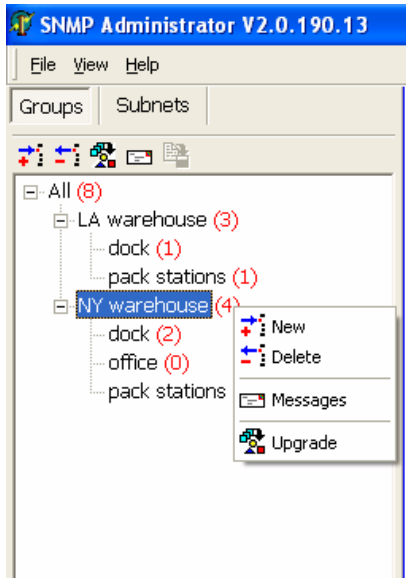


3. Drag and Drop clients from the Clients panel to the new group

To rename a group, click to highlight then click on the right (one or more times) and enter the new name.

Group nesting

Groups allow you to organize your discovered thin clients. Groups can be nested to help further organize your thin clients.

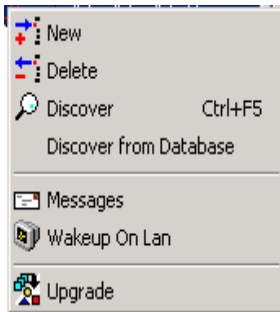


To create a group at any level, click on the level you wish to add the group, then right click and select New.

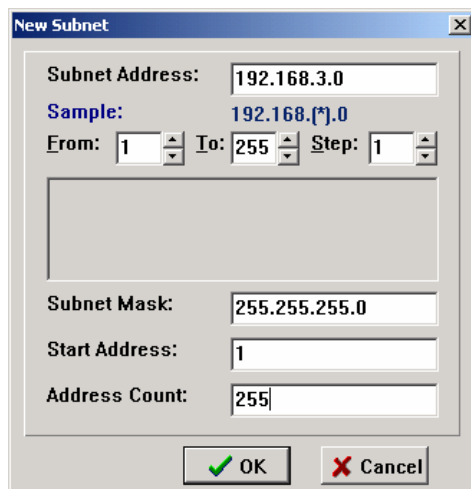
You can also Delete, send a Message or Upgrade all terminals in a specific group or in a nest of groups.

Define Subnets

1. Click the **Subnets** button
2. Right click within the Subnet name panel and select “New” from the pop-up menu



3. The **New** Subnet panel allows you to define one or a group of subnets which can be managed as well as limiting the IP address scope the software will try to discover.

A dialog box titled 'New Subnet' with a close button (X) in the top right corner. It contains several input fields: 'Subnet Address:' with the value '192.168.3.0'; 'Sample:' with the value '192.168.*.0'; 'From:' with a spinner set to '1'; 'To:' with a spinner set to '255'; 'Step:' with a spinner set to '1'; 'Subnet Mask:' with the value '255.255.255.0'; 'Start Address:' with the value '1'; and 'Address Count:' with the value '255'. At the bottom, there are 'OK' and 'Cancel' buttons.

4. To define a single subnet, simply enter any IP address in the **Subnet Address** field within the scope of the subnet and the appropriate subnet mask in the **Subnet Mask** field..
5. No other fields require entry.

Define multiple subnets to discover

The New Subnet panel allows you to define one or a group of subnets that can be managed as well as limiting the IP address scope the software will attempt to discover. The instructions below provide an example of how to perform this function.

1. Click the **Subnets** button
2. Right click within the Subnet name panel and select “New” from the



pop-up menu

3. To define a group of subnets, enter in the *Subnet Address* field the IP address of the group with the subnet variable entered as a wildcard, for example: 192.168.(*).0 .
4. Select the beginning subnet in the *From* field. In our example, we will use 1.
5. Select the ending subnet in the *To* field. In our example, we will use 10.
6. The list of subnets will be displayed directly below the selection fields.
7. Enter the appropriate subnet mask in the Subnet Mask field

New Subnet [X]

Subnet Address:

Sample: 192.168.(*)0

From: To: Step:

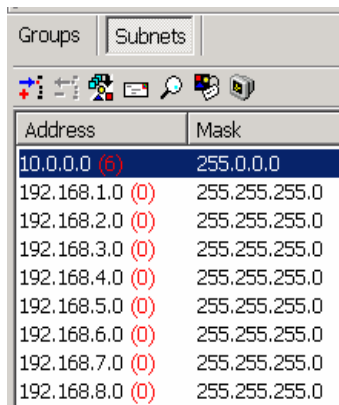
192.169.1.0
192.169.2.0
...
192.169.10.0

Subnet Mask:

Start Address:

Address Count:

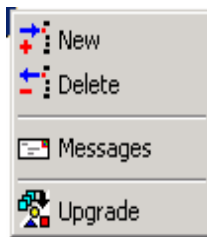
8. After you review your selection in the display box, click OK to create the defined subnets.



Address	Mask
10.0.0.0 (6)	255.0.0.0
192.168.1.0 (0)	255.255.255.0
192.168.2.0 (0)	255.255.255.0
192.168.3.0 (0)	255.255.255.0
192.168.4.0 (0)	255.255.255.0
192.168.5.0 (0)	255.255.255.0
192.168.6.0 (0)	255.255.255.0
192.168.7.0 (0)	255.255.255.0
192.168.8.0 (0)	255.255.255.0

Working with Groups and Subnets

Right click on any defined **Group** and you can:

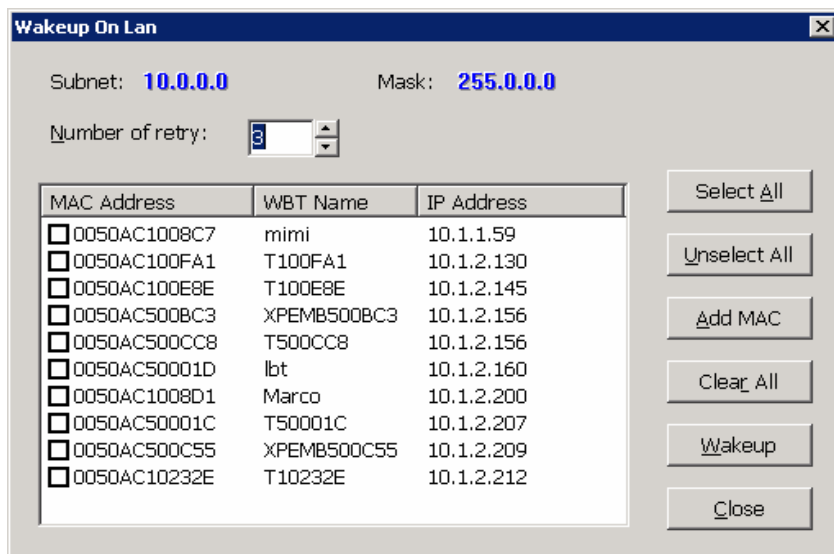


- Create a New defined group
- Delete an existing group definition
- Send a message to all devices on the group
- Upgrade firmware on all devices within the group



Right click on any defined **Subnet** and you can:

- Create a **New** defined subnet
- **Delete** an existing subnet definition
- **Discover** devices on the selected subnet
- **Discover from Database** – discover only clients stored in the thin client database. This discovery process is very quick.
- Send **Messages** to all devices on the subnet
- Do **Wake on LAN (WOL)** over the subnet (Wake powered off clients). A list of all WOL capable terminals for that subnet is displayed. If a terminal has not been discovered during a previous session, the MAC address will not be displayed.



Select (check) the previously discovered (database) clients and click Wakeup to send a WOL packet to the selected clients.

- **Upgrade** firmware on all devices within the subnet

Clients

The “Clients” panel displays the list of discovered Maple Terminals based on the filter defined in the Group/Subnet panel.


Address	Firmware Version	MAC Address	Status	Group Name	Client Name	Flash	Memory
10.1.2.49	WBT-E5510.PNTS...	0050AC70062F			T70062F	32	25
10.1.2.59	XPE-e5613ba-S1....	0050AC750235			XPEMB750235	250	44
10.1.2.43	LBTC5-3.3-1	0050AC500019			mlt500019	128	12
10.1.2.61	LBTC2-3.3-1	0050AC70042D			mlt70042D	32	10
10.1.2.55	WBT-E5510.6	0050AC700C13			T700C13	32	12
10.1.2.68	XPE-5e5613b-S1....	0050AC800267			XPEMB800267	499	23
10.1.2.63	XPE-5e5613a-S1....	0050AC601C30			XPEMB601C30	495	45
10.1.1.104	WBT-M0354	0050AC100BC5			BROTHER-LIT-RM	8	3
10.1.2.6	WBT-E5509.2	0050AC7002D9			Mimi	32	12
10.1.2.45	WBT-E5510.3	0050AC600AD2			Marco-Whr	32	12

Client Record Fields:

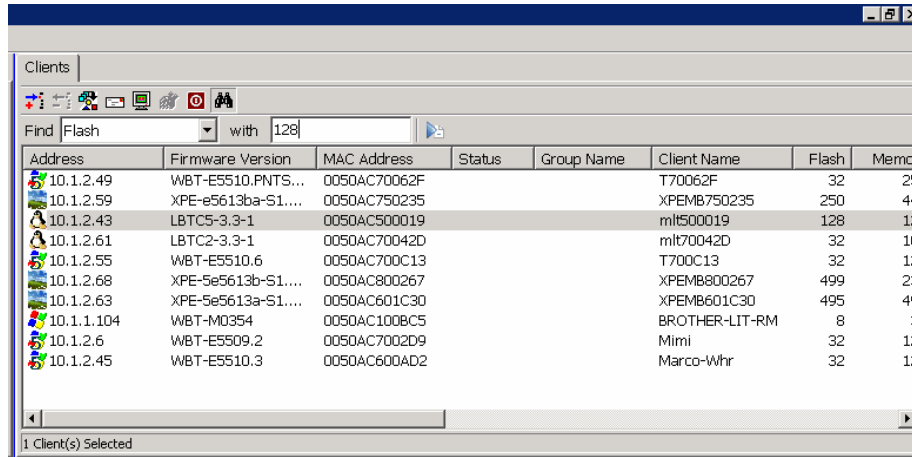
Field Name	Field Description
Address	Icon unique to Client type followed by IP address
Firmware Version	Type-Version. Type: WBT = Windows (CE) Based Terminal; LBT/C = Linux Based Terminal; XPE = XP embedded Terminal; S = Tablet.
MAC Address	Terminal MAC address (12 Hex digits - 48 bits)
Status	Normally blank. Count to 100 when being updated; 'New' icon when client does automatic checkin.
Group Name	Name of Group to which assigned; otherwise blank
Client Name	Client name from client
Flash	Flash Memory size (MB)
Memory	RAM Memory size (MB)
BIOS/BLDR	Bootloader/BIOS version/ID
Brand	Manufacturer ID; e.g. Computer Lab, WYSE
Model	Manufacturer Model; e.g. MT1500, ET5000x (all XPe models)
Domain	Domain name
Location	ID set at Client (user defined)
User1/User2/User3	ID's set at Client (user defined)
LastScanDateTime	Date & Time client was last detected: yyyy/mm/dd hh:mm:ss
WOL	Wake on LAN status. Yes = WOL capable

Serial No	Client Serial Number (if defined)
CreateDateTime	Date & Time client added to DataBase (only shown in DataBase panel)
DiscoverStatus	Date & Time last discovered. + prefix if OK; - if discover failed (“)

Search Client List

To search the list of clients click  to bring up a search window (click again to close window).

For **Find**, select the field to be found, enter the target field value, then press Enter. Click ► to Search Next.



The screenshot shows a window titled 'Clients' with a search bar containing 'Flash' and 'with 128'. Below the search bar is a table with the following columns: Address, Firmware Version, MAC Address, Status, Group Name, Client Name, Flash, and Memory. The table contains 10 rows of client data. The first row is selected.

Address	Firmware Version	MAC Address	Status	Group Name	Client Name	Flash	Memory
10.1.2.49	WBT-E5510.PNTS...	0050AC70062F			T70062F	32	25
10.1.2.59	XPE-e5613ba-S1...	0050AC750235			XPEMB750235	250	44
10.1.2.43	LBTC5-3.3-1	0050AC500019			mlt500019	128	12
10.1.2.61	LBTC2-3.3-1	0050AC70042D			mlt70042D	32	10
10.1.2.55	WBT-E5510.6	0050AC700C13			T700C13	32	12
10.1.2.68	XPE-5e5613b-S1...	0050AC800267			XPEMB800267	499	23
10.1.2.63	XPE-5e5613a-S1...	0050AC601C30			XPEMB601C30	495	49
10.1.1.104	WBT-MD354	0050AC100BC5			BROTHER-LIT-RM	8	3
10.1.2.6	WBT-E5509.2	0050AC7002D9			Mimi	32	12
10.1.2.45	WBT-E5510.3	0050AC600AD2			Marco-Whr	32	12

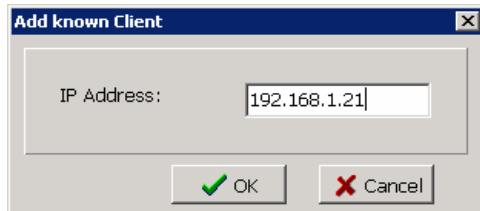
1 Client(s) Selected

Manage or define an individual Terminal

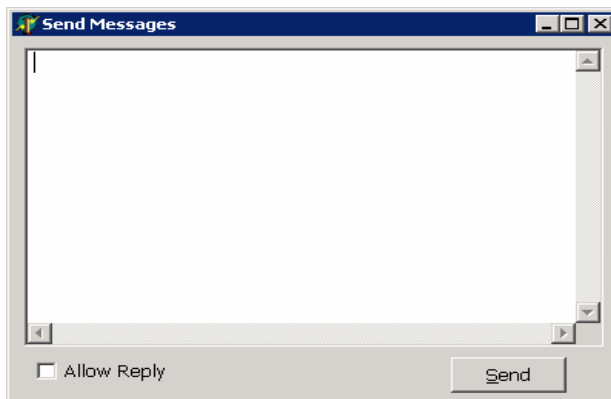
Right click on any discovered Maple TERMINAL and you can:



- Enter the IP address of a **New** defined manageable terminal (if it cannot be discovered via automatic process)



- **Delete** an existing manually defined terminal definition
- **Select all** displayed clients



- Send a **message** to one device or all selected
- **Remote Display** – view and control a client from within SNMP
- **Upgrade** firmware from FTP server path on one device or all selected (WBT only)
- **Edit** the registry (configuration) of the Maple TERMINAL (not LBT)
- **Shutdown** (power off) one device or all selected (only for WOL

capable clients)

- **Reboot** one device or all selected
- **Reset** the firmware to factory default on one device or all selected

Auto-Checkin

Auto-checkin is a feature that allows thin clients to automatically checkin to a specific computer on your network that is running SNMPADM. This feature allows the database to be updated automatically and simplifies device discovery.

Auto-checkin requires the client to be configured with the IP address of the designated computer running SNMPADM.

How to set the SNMPADM computer IP address:

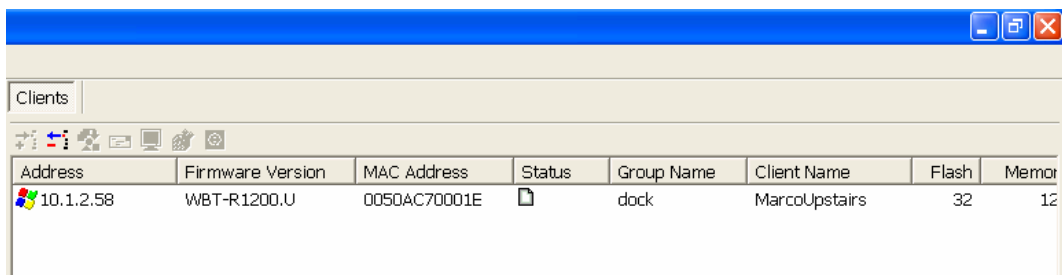
Windows CE5:


- reboot the terminal using SNMPADM or,
- manually type the IP address in the Upgrade tab or
- Set Advanced DHCP option 150 to the SNMPADM IP address (CE5 version E5501.8 or later)

Windows XPe

- reboot the terminal using SNMPADM

When a new client checks in, it will update the database with date and



Address	Firmware Version	MAC Address	Status	Group Name	Client Name	Flash	Memory
10.1.2.58	WBT-R1200.U	0050AC70001E		dock	MarcoUpstairs	32	12

time, and display the “New” icon in the Status field in Clients panel:

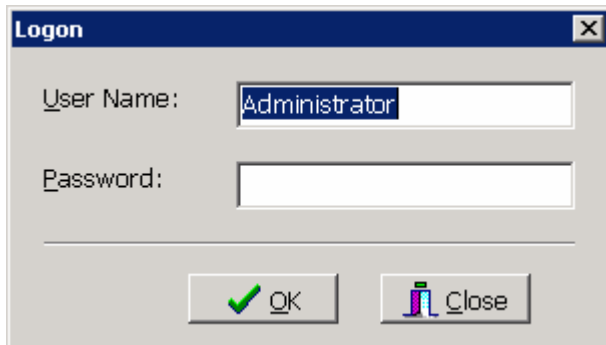
Notes:

- Maple recommends that the SNMPADM IP address be part of your standard configuration image. This will ensure that all clients perform auto-checkin and you do not need to configure each individually.
- Some older thin client firmware versions do not support this feature. Check with Maple tech support for minimum firmware requirements.

Users and Permits Security

This security feature allows the Administrator to create Users and limit their access to specific features in *SNMPAdm*.

The default User ID is **Administrator** with a blank (null) password. When *SNMPAdm* is started, you will be presented with a logon prompt.

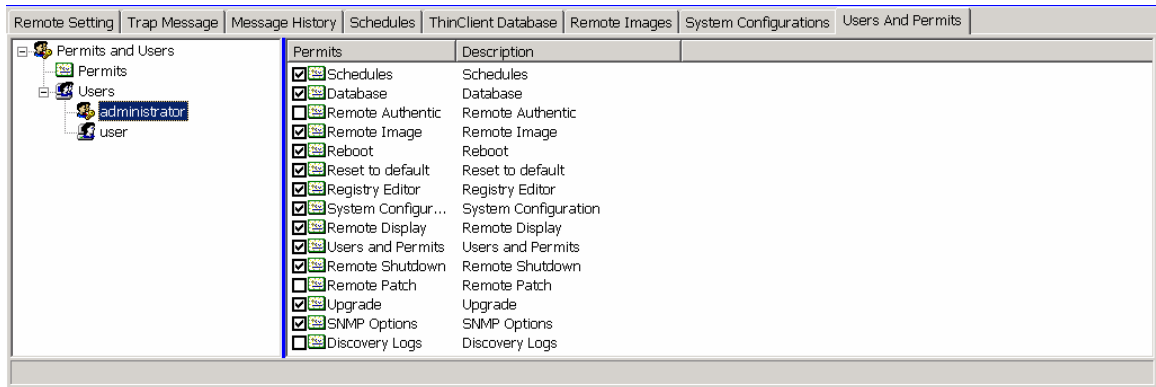


Log in with the User ID of **Administrator** with a blank password.

The *File* menu provides an option to **LogOff** that closes *SNMPAdm* and presents the LogOn panel.



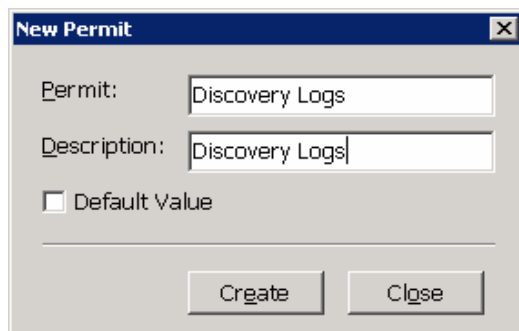
The **Users and Permits** panel allows you to configure users and restrict the functions they are allowed to access.



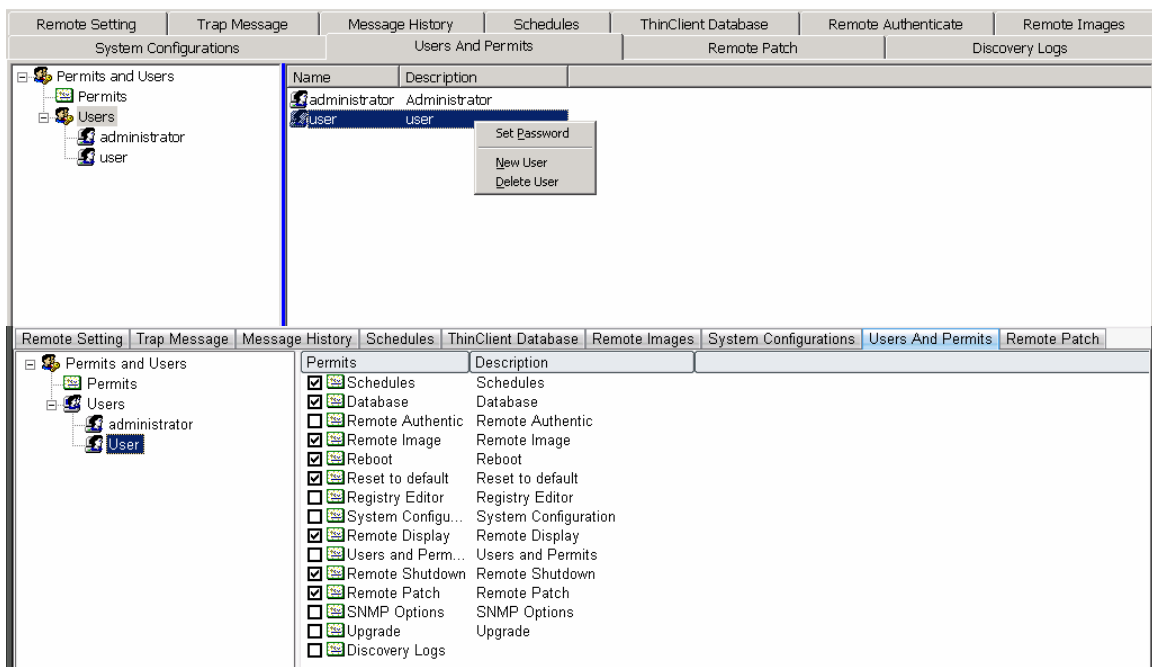
*Note: **SNMP Options** if unchecked removes access to File/Options in the setup menu.*

*Note: If **Discovery Logs** is not listed in the list of permits, it can be added by right clicking the permits area and then clicking **New Permits**. Enter the Permit name and description as shown below.*

*Click **Create**, logout and then login again to see the Discovery Logs tab and Permit.*



To add a new user, right click in the right panel (as shown) and select **New User**. After you create the new user, select the features they will be allowed access



The image shows a 'New User' dialog box with the following fields and values:

Field	Value
User Name	user1
Description	user1
Password	*****
Confirmed Password	*****

Buttons: Create, Close

Example 'User' permits:

Remote Setting

This panel displays all WBT stored configurations, allows you to create an image which can be used by the Maple TERMINAL DHCP auto-config feature and display the registry of the saved config.

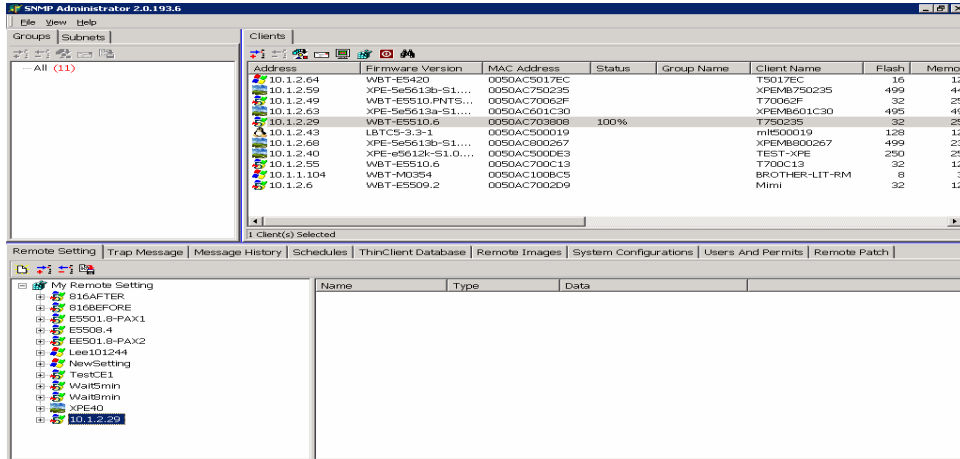
XPe clients can also be dropped into the Remote Settings panel to capture (only) their TermPro (terminal emulation) settings. These TermPro settings can be edited, if desired, and dropped back on other XPe clients. This is a fast way to setup terminal emulation sessions on such clients.

Summary of how to clone a WBT:

1. Configure a terminal to your exact requirements
2. Copy the configuration image to the Remote Settings panel (see below)
3. Edit the Registry and remove Identity and License values (see Registry Editor)
4. Save your changes
5. Drag/Drop the configuration image on to one or multiple clients (see Write Configuration to WBT client below)

Copy a template configuration to the Remote Setting Panel

1. In the Client panel click on the IP address of the device which is pre-configured and is to be used as the template. Drag the IP address to the Remote Setting panel and drop the IP address onto the words “My Remote Setting”. The image will copy to the remote settings panel and after complete, the “Status” field in the Clients





panel will show ‘100%’

2. Expand the list of saved configurations by clicking the Plus symbol to the left of “My Remote Settings”
3. Right click on the IP address and click **Save**
4. Right click on the IP address and click **Rename** to rename the saved configuration to a meaningful name. **Make sure the name you enter has no spaces or special characters.**

5. Click the **SaveAll**  icon to save your changes

Remote Settings Icons

<u>ICON</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	New setting	Create empty shell configuration image BIN file ready to be manually populated or accept import of edited registry
	Open Setting	Open existing configuration image BIN file which is not listed as an available image in

the Remote Settings window



**Delete
Setting**

Delete Image from Remote Setting window. This function does not delete it from your hard drive



**Save /
Save All**

Save changes or adds to the Remote Setting window

Edit Configuration - Registry Editor

The configuration of a WBT terminal can be modified when on-line within your network or the saved configurations in Remote Settings can be modified.

IMPORTANT NOTES:

- a. This configuration tool directly edits the registry of the Maple terminal. You must be familiar with registry editing concepts prior to using this feature. Improper use of this feature can cause the Maple terminal to be unusable and may require it to be returned to the factory to be reset.
- b. **NEVER write an image to a client with a different version than the source image.** The image MUST be derived a Maple terminal with the same version Maple terminal firmware as the target client. For example, if a configuration image derived from version "X" is written to a client on version "Y", the client may become unusable.

HKEY_LOCAL_MACHINE\Ident:Name

HKEY_LOCAL_MACHINE\Comm\RTL81391\Parms\TcpIp\DHCPsendOptions:12

HKEY_LOCAL_MACHINE\Comm\PCI\RTL81391\Parms\TcpIp\DhcpSendOptions:12

HKEY_LOCAL_MACHINE\Comm\PCI\VT30651\Parms\TcpIp\DhcpSendOptions:12

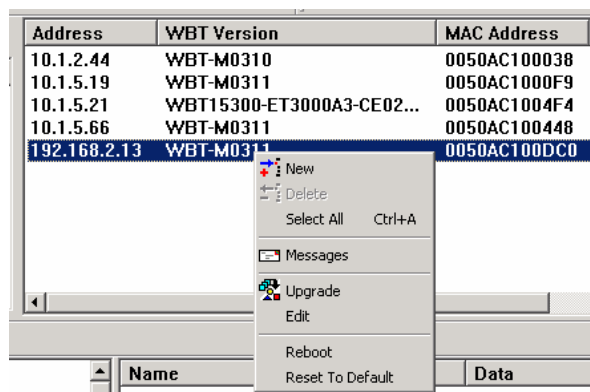
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\WBT\Clients\Registration\ICA\ICAShell\Profile:ClientName

- c. Before any image is written to a client (other than the source client), be certain to clear the registry entries indicated below.

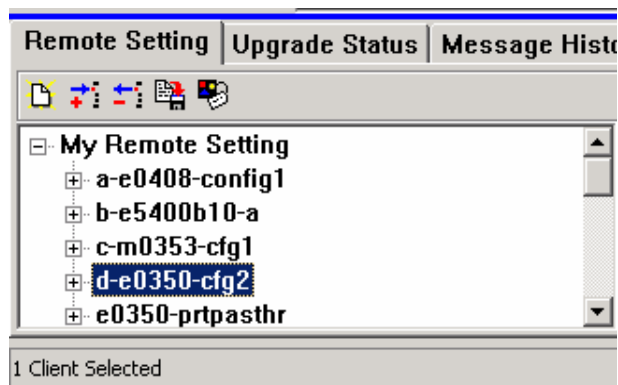
Edit the registry of a WBT terminal

The registry of a WBT terminal contains the configuration settings within specific keys. Those settings can be changed manually either remotely or locally via a "saved remote setting". It is strongly recommend that you have complete understanding of the registry before making changes.

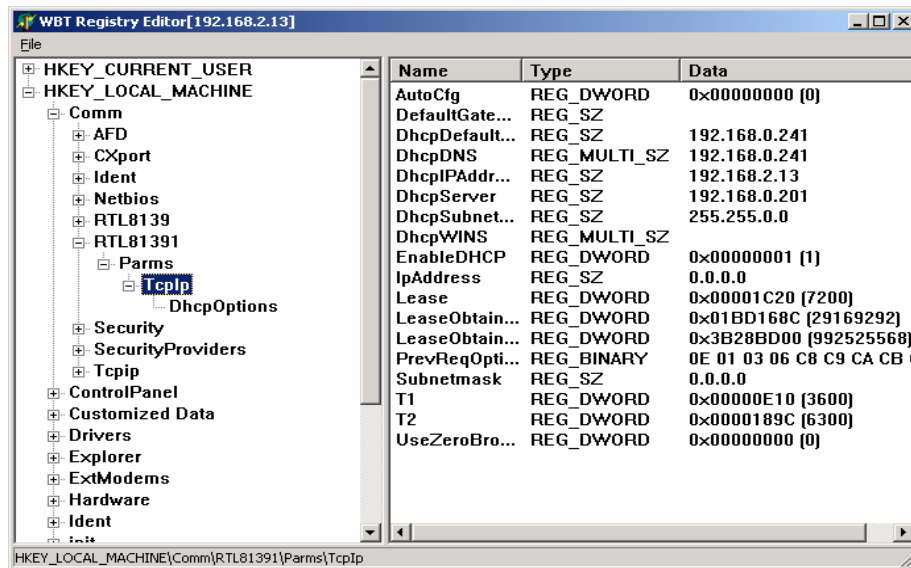
1. Right click on the IP address of the Maple terminal to edit then select the **Edit** option...



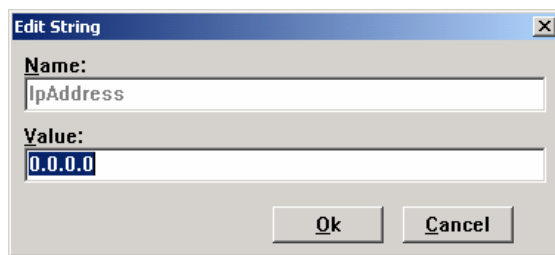
... or double-click the saved Remote Setting



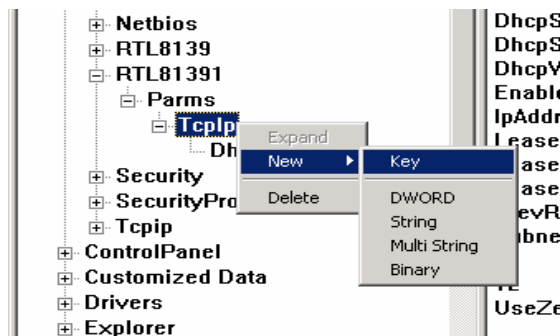
2. The following panel will be presented




3. Locate the key you wish to edit and double click that key name



4. A new Key, DWORD, String, Multi String or Binary entry can be made by right clicking on the key you wish to add an entry



5. If editing a Remote setting, click the SaveAll  icon to save your changes. If editing a live terminal, the changes are immediate and no save function are necessary.

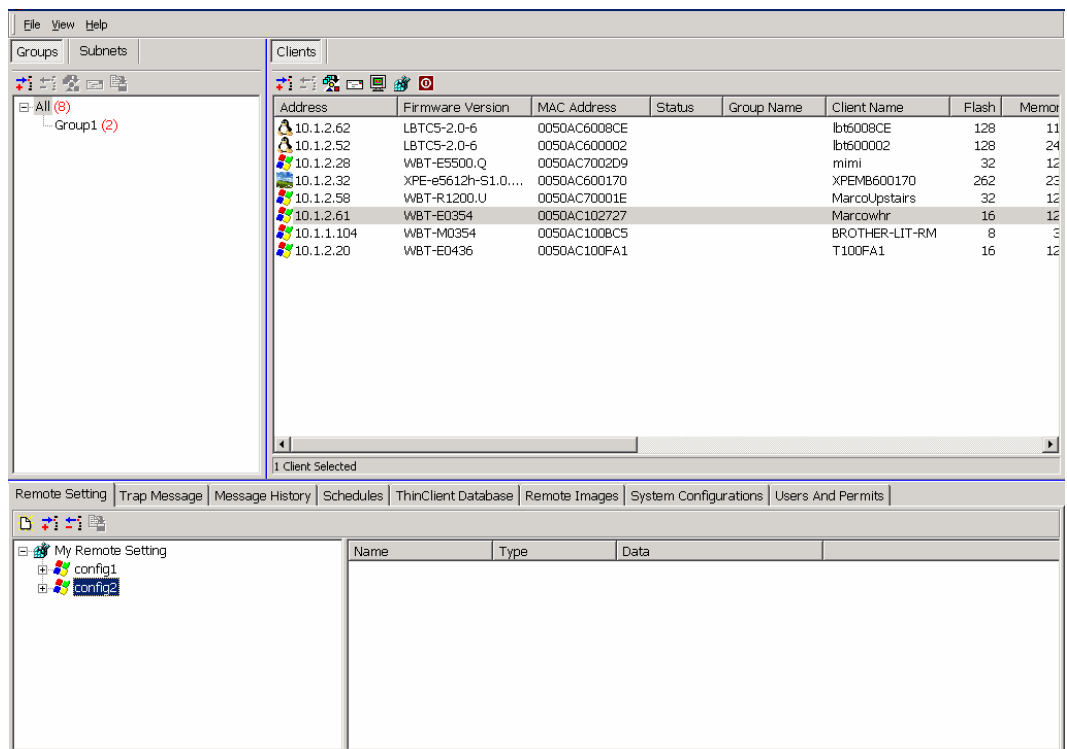
Write Configuration to WBT Client

After a template image has been created or an image has been modified, you can write that image to the client directly or via your FTP server. After you write the image to the client, the configuration will be changed and the client will reboot automatically.

IMPORTANT NOTE: NEVER write an image to a client with a different version than the source image. The image MUST be derived from a Maple terminal with the same version Maple terminal firmware as the target client.

Write Image to Client via Drag / Drop

1. Drag the image to the target IP address and release the mouse when



hovering over the target IP address

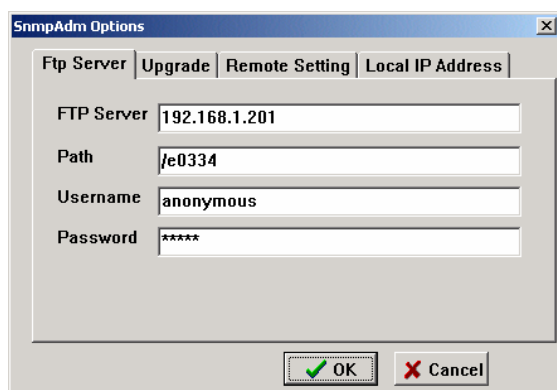
2. The Status field will increment up to 100
3. The client will reboot when the write is complete

Write Image to WBT Client via FTP

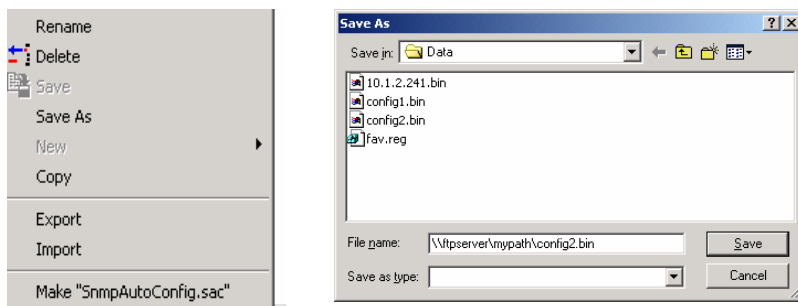
The image can be updated via FTP rather than the drag/drop method described above. The drag/drop method uses the SNMP protocol to transfer the file and is inefficient on slow WAN connections.

The transfer of the file can be accomplished via FTP and is much faster than SNMP. This method is complex to setup and should be used for customers who anticipate doing frequent image updates across slow Wide Area Networks.

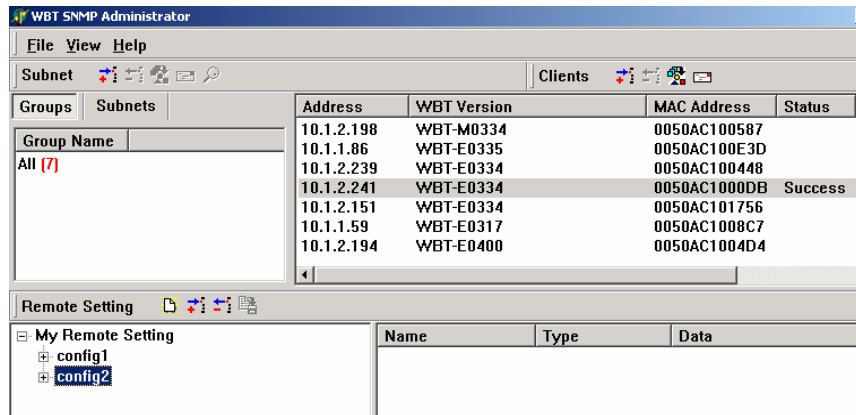
1. Make sure the path and security settings are set correctly for the proper FTP server by clicking: FILE/OPTIONS/FTP SERVER



2. Save the image (.BIN file) to the correct folder on your FTP server; the folder that corresponds with the FTP path specified in the FTP server panel shown in step-1.



3. While holding the CTRL key down, drag the configuration image to the target IP address in the Clients panel



4. The client will download the file from your FTP server then reboot when the write is complete

Create and save configuration image for DHCP auto-config

IMPORTANT NOTES:

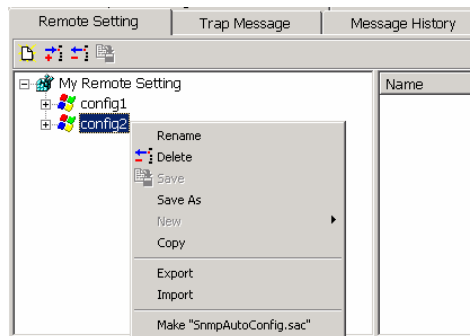
Before the image is created, edit the registry and remove the following key

```
HKEY_LOCAL_MACHINE\Ident:Name
HKEY_LOCAL_MACHINE\Comm\RTL81391\Parms\TcpIp\DHCPsendOptions:12
HKEY_LOCAL_MACHINE\Comm\PCI\RTL81391\Parms\TcpIp\DhcpSendOptions:12
HKEY_LOCAL_MACHINE\Comm\PCI\VT30651\Parms\TcpIp\DhcpSendOptions:12
-----
HKEY_LOCAL_MACHINE\Ident:Name
HKEY_LOCAL_MACHINE\Comm\RTL81391\Parms\TcpIp\DHCPsendOptions:12
HKEY_LOCAL_MACHINE\Comm\PCI\RTL81391\Parms\TcpIp\DhcpSendOptions:12
HKEY_LOCAL_MACHINE\Comm\PCI\VT30651\Parms\TcpIp\DhcpSendOptions:12
```

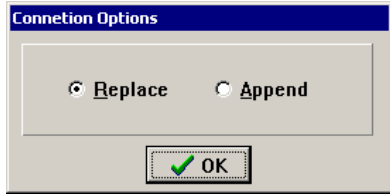
values (if they exist):

Note: Some keys may not exist in all products or configurations

1. To create an image which can be used for the DHCP auto-config feature, right click on the saved configuration and select the menu item: ***Make 'SnmAutoConfig.sac'***



2. You will be prompted to build the image to either *Replace* or *Append*. *Replace* is the default selection and will completely replace the registry of the target terminal. *Append* should not be used for most applications. *Append* will leave existing configured settings and add new configured settings.



3. If you created an image to be used with SNMP auto-config, locate the two files required for this feature. The .BIN will be located in the default **..\SNMPAdm\data** folder and the .SAC file will be located in **..\SNMPAdm** folder
 - SnmpAutoConfig.sac
 - xxxxxxxx.BIN (Where xxxxxxxx is your file name, for example "CONFIG2.BIN") Make sure the file name you select conforms to your FTP server. For example, some FTP servers do not allow spaces or special characters in the file name.
4. Copy both files to your FTP server. See **Appendix-B** of the Maple TERMINAL manual "*AutoUpdate / AutoConfiguration Setup & Use*" for instructions on how to implement the DHCP auto-config feature.

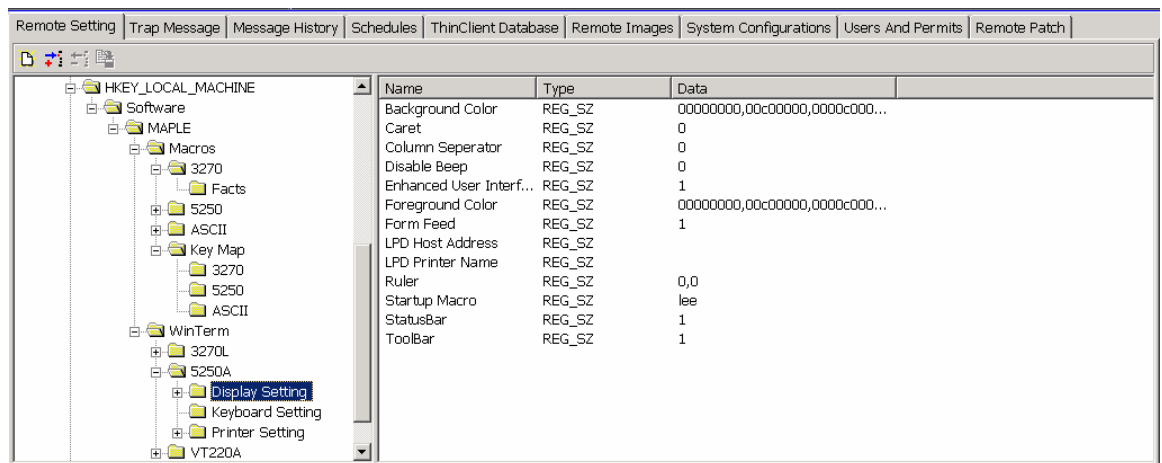
If CE4, put SNMPAUTOCONFIG.SAC on FTP.

If CE5, put SNMPAUTOCONFIG5.SAC on FTP.

Copy/Edit/Write XPe TermPro Settings

XPe clients can also be dropped into the Remote Settings panel to capture (only) their TermPro (terminal emulation) settings. These TermPro settings can be edited, if desired, and dropped back on other XPe clients. This is a fast way to setup terminal emulation sessions on such clients.

The figure below shows the result of an XPe client being dragged from the Client Area to Remote Setting and expanded.



Macros are stored by name under session type (5250/3270/ASCII) under Macros. Under Macros/Key Map/session type are the mapping of macro name to Function Key (if any).

Under WinTerm are stored the created sessions by connection name:

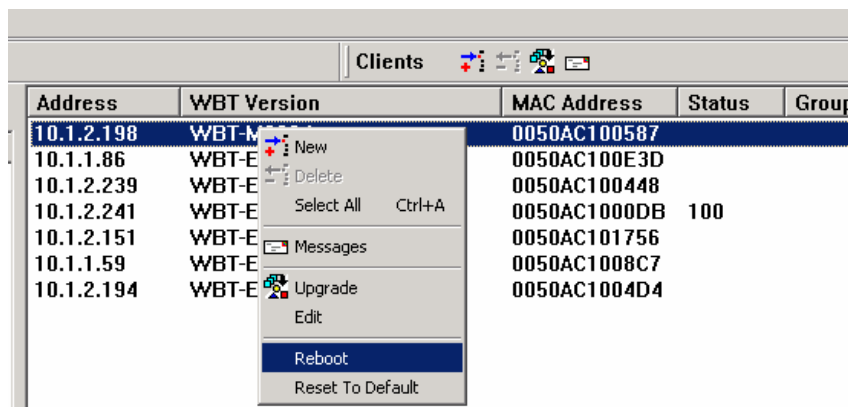
- Display Settings
- Keyboard settings (Key mappings)
- Printer Settings

Note: Device names, if used, in the emulation sessions may have to individually edited on the clients to insure uniqueness.

Trap Message (Upgrade Status)

This Tab displays status for a specific terminal during the update process. The SNMP Manager IP address must be defined in the terminal for this feature to function.

To set the address of the PC/Server running SNMPAdm, enter the value directly on the client (in Upgrade tab in Terminal Properties), or right click on the IP of the device in the Clients panel and select the menu item "reboot". This will automatically set the IP address of the PC/Server running SNMPAdm on the WBT terminal. DHCP Advanced Option 150 can also set this address (if Client firmware supports this option).



Address	WBT Version	MAC Address	Status	Group
10.1.2.198	WBT-M	0050AC100587		
10.1.1.86	WBT-E	0050AC100E3D		
10.1.2.239	WBT-E	0050AC100448		
10.1.2.241	WBT-E	0050AC1000DB	100	
10.1.2.151	WBT-E	0050AC101756		
10.1.1.59	WBT-E	0050AC1008C7		
10.1.2.194	WBT-E	0050AC1004D4		

The context menu is open over the first row (10.1.2.198) and contains the following items: New, Delete, Select All (Ctrl+A), Messages, Upgrade, Edit, Reboot, and Reset To Default.

When performing a flash update, click the IP address of the specific unit and the current status will be displayed in this panel:



Upgrade Status
Successfully changed to Remote Directory: "%e0334 Completely downloaded: "manifest.dub Identical version, no further operation ""

Message History

The Message History panel shows the messages sent from the SNMPAdm to various clients and the replies, if any, received from such clients.

A message reply from a client will only be posted if that client is configured with the IP address of the computer running SNMPadm.

Schedules

Various Client functions can be scheduled and run automatically.

Name	Job	Start time	Status	Target
reboot	Reboot Thin Client	2006/07/17 14:54:59	Stop	10.1.2.79
bios update sample	Upgrade WCE ET5000 BIOS	2006/07/18 11:41:03	Stop	


```

2006/07/18 09:23:58 reboot Start to discover clients
2006/07/18 09:23:58 reboot Start to enumerate database clients
2006/07/18 09:23:58 reboot Enumerate 0 database client on 0 group
2006/07/18 09:23:58 reboot Enumerate 0 database client on 0 subnet
2006/07/18 09:23:58 reboot Enumerate database clients end, total 1 client enumerated
2006/07/18 09:23:58 reboot Discover 1 client, 0 client not found on discover
2006/07/18 09:23:59 reboot Run schedule loop 1
2006/07/18 09:23:59 reboot Interval waiting time 1 minutes
  
```

Define a Schedule

1. Click the **Schedules** panel and click New.
2. Setup the New Schedule.

New Schedule

Name:

Select the type of task to create:

Start time:

Log File

Ping client 20 minutes after task finishes

Do task for all clients at once(for LAN links)

Task interval delay(for WAN links)

Interval time: minutes

When client not discovered, WOL from database

Interval WOL

Boot wait time: minutes

Discover at end of job(update database)

Discover wait time minutes

Schedule Loop (0 for infinity loop)

Interval time: minutes

- Select the type of task to create:
- Upgrade WCE Firmware
 - Upgrade WCE Firmware**
 - Reset to default
 - Reboot Thin Client
 - Upgrade WCE ET3000/ET1500 Bootloader
 - Upgrade WCE ET5000 BIOS
 - Put XPe/Linux Image
 - Shutdown
 - Remote Patch

Name: Enter a unique name for this schedule

Select the type of task to create:

Upgrade Firmware – Do WBT (CE) firmware update

Set the FTP Server option to point to the desired firmware folder

Reset to Default – Reset WBT terminals to initial factory conditions.

Reboot – Reboot terminals (invoke AutoConfiguration if active)

Shutdown – Shutdown WOL capable terminals

Discover Only – Discover all clients on selected subnets/groups and update/build database. Discover from DataBase will run quickly on large subnets.

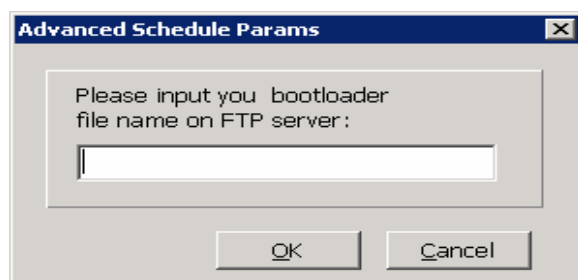
Remote Patch – Apply patch (see page 63). Click **Advanced** to enter the name of the patch.

Upgrade ET3000/ET1500 Bootloader

Upgrade ET5000/ET4000 BIOS (also MT15/35xx, ET45xx CE clients)

The Upgrade Bootloader/Bios tasks enable the **Advanced** button. Click this button and specify the file name in the specified FTP Server folder (e.g. BL040302.ROM).

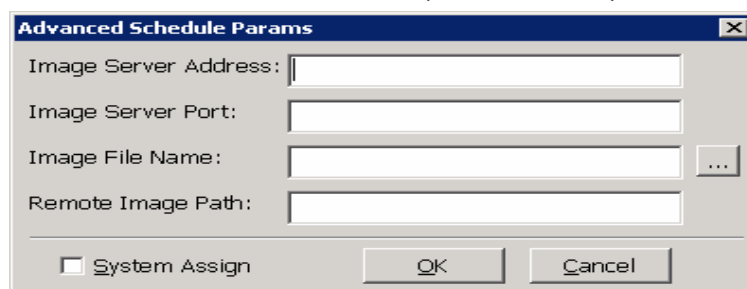
Note: Bootloader/BIOS are now automatically updated as part of Firmware



Upgrade.

Put XPe/Linux Image

Click the **Advanced** button (now enabled).



Click the **System Assign** box to populate the Image Address (Local IP), Port/ Path (Remote Setting) fields shown above from the appropriate SNMPadm Options.

Image Server Address - Local SNMPadm or Remote Image Server IP address.

Remote Image Server: A remote server can serve XPe or Linux images. These images can be large and it may be impractical to update multiple terminals on a WAN link due to bandwidth considerations. Images can be placed on any computer running SNMPadm and that computer can act as a remote server. The update transaction is controlled from your primary computer; but the image is served by the remote computer (local to the terminals to be updated).

Image Server Port – Set to 6488

Image File Name - Name of saved SMG/SMH image on the FTP server; e.g. e5612h-gold

Remote Image Path - Enter the Image Path type. See table under Remote Image (page 63) or Remote Image Option (page 24)

Start time:

Set scheduled Date and time to start. When manually started, if time has passed the task will start; otherwise it will start at specified time.

Log File:

Check if log of schedule activities is to be kept. Enter the path and name of the Log file.

Ping Client:

Ping client after task complete. The Ping results will show in the log.

Do task for all clients at once:

Select to do selected task type on all Target clients starting at the same time.

Task interval delay:

Delay a specified interval of time between doing the selected task on successive clients. This can be used to minimize the load on the network. For example, flash updates move a significant amount of data and trying to do on all clients at once can overload a WAN link, resulting in a 'Flash Crash' and possibly corrupting the image on the terminal.

WOL from database:

Check to do 'Wake on LAN' if client not discovered (powered off) but exists in the database. Attempt to 'Wake" this client (see SNMPAdmin Option Panel – WOL). If ***Interval WOL*** checked, the Boot wait time specified is the delay time for the client to reboot.

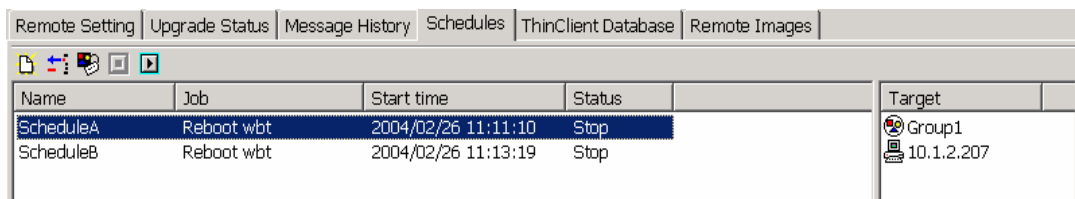
Discover at end of job:

Check to update the database. Discover clients after the specified delay time. This time should be sufficient to allow the last client to autoconfig if such is evoked.

Schedule Loop / Interval Time:

Schedule Loop instructs scheduled job to repeat (loop) multiple times, with a given Interval Time between each loop. This could be used to automatically schedule a shutdown for all terminals at say 7pm to conserve energy.

3. Click on the desired schedule, then Drag and Drop entries to be processed by this schedule to the **Target** area: Client addresses, Subnets, and/or Groups. To remove a target entry, right click that entry and click Delete. Multiple



The screenshot shows a software interface with a menu bar containing 'Remote Setting', 'Upgrade Status', 'Message History', 'Schedules', 'ThinClient Database', and 'Remote Images'. Below the menu bar is a toolbar with several icons. The main area contains a table with the following data:

Name	Job	Start time	Status	Target
ScheduleA	Reboot wbt	2004/02/26 11:11:10	Stop	Group1
ScheduleB	Reboot wbt	2004/02/26 11:13:19	Stop	10.1.2.207

schedules may be defined.

4. Select the schedule you wish to run and click Start to begin.



5. A log of the started task is displayed in the lower area of the display.

Log File Example: Reboot1a.log

```
2004/02/12 10:56:30 reboot1 Start to discover clients
2004/02/12 10:56:30 reboot1 Start to enumerate database clients
2004/02/12 10:56:30 reboot1 Enumerate 0 database client on 0 group
2004/02/12 10:56:30 reboot1 Enumerate 0 database client on 1 subnet
2004/02/12 10:56:30 reboot1 Enumerate database clients end, total 3 clients enumerated
2004/02/12 10:57:02 reboot1 Discover 2 clients, 1 client not found on discover
2004/02/12 10:57:02 reboot1 Send 3 WOL packets to 192.168.1.15
2004/02/12 10:57:04 reboot1 Wait 2 minutes on clients booting
2004/02/12 10:59:04 reboot1 Discover waiting time 2 minutes
2004/02/12 10:59:04 reboot1 Interval waiting time 2 minutes
2004/02/12 11:01:05 reboot1 Discover waiting time 2 minutes
2004/02/12 11:01:05 reboot1 Interval waiting time 2 minutes
2004/02/12 11:03:05 reboot1 Discover waiting time 2 minutes
2004/02/12 11:03:05 reboot1 Interval waiting time 2 minutes
2004/02/12 11:05:05 reboot1 Finished
2004/02/12 17:30:16 reboot1 Start to discover clients
2004/02/12 17:30:16 reboot1 Start to enumerate database clients
2004/02/12 17:30:16 reboot1 Enumerate 0 database client on 0 group
2004/02/12 17:30:16 reboot1 Enumerate 0 database client on 1 subnet
2004/02/12 17:30:16 reboot1 Enumerate database clients end, total 3 clients enumerated
2004/02/12 17:30:41 reboot1 Discover 3 clients, 0 client not found on discover
2004/02/12 17:30:41 reboot1 Discover waiting time 1 minutes
2004/02/12 17:30:42 reboot1 Interval waiting time 1 minutes
2004/02/12 17:31:43 reboot1 Discover waiting time 1 minutes
2004/02/12 17:31:43 reboot1 Interval waiting time 1 minutes
2004/02/12 17:32:43 reboot1 Discover waiting time 1 minutes
```

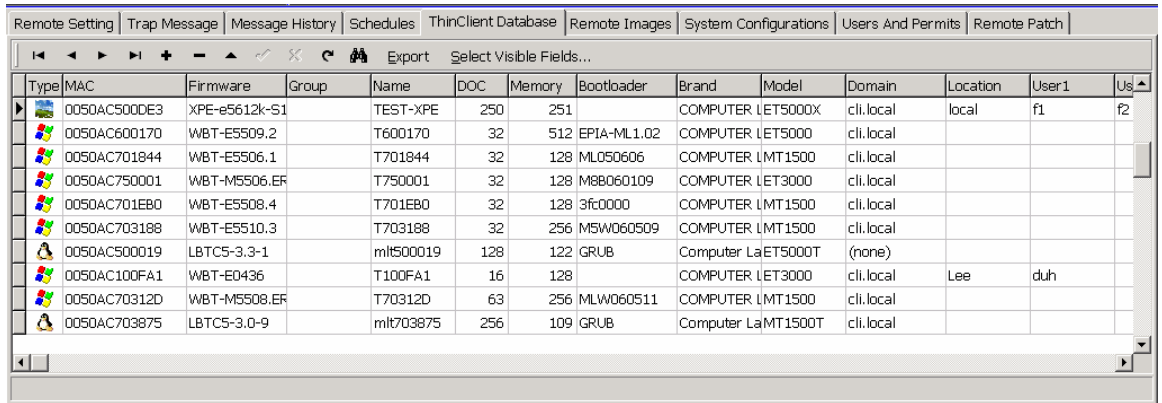
2004/02/12 17:32:43 reboot1 Interval waiting time 1 minutes

2004/02/12 17:33:43 reboot1 Finished

ThinClient Database

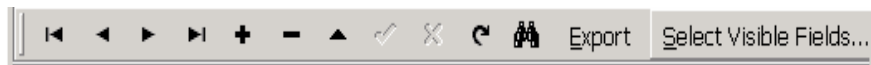
The Thin Client Database is built automatically or updated when any client is discovered or checks in. This database can be used for asset tracking information and other purposes.

Thin Client Database Panel:



Type	MAC	Firmware	Group	Name	DOC	Memory	Bootloader	Brand	Model	Domain	Location	User1	User2
	0050AC500DE3	XPE-e5612k-S1		TEST-XPE	250	251		COMPUTER	LET5000X	cli.local	local	f1	f2
	0050AC600170	WBT-E5509.2		T600170	32	512	EPIA-ML1.02	COMPUTER	LET5000	cli.local			
	0050AC701844	WBT-E5506.1		T701844	32	128	ML050606	COMPUTER	LMT1500	cli.local			
	0050AC750001	WBT-M5506.EF		T750001	32	128	M88060109	COMPUTER	LET3000	cli.local			
	0050AC701E80	WBT-E5508.4		T701E80	32	128	3fc0000	COMPUTER	LMT1500	cli.local			
	0050AC703188	WBT-E5510.3		T703188	32	256	MSW060509	COMPUTER	LMT1500	cli.local			
	0050AC500019	LBTC5-3.3-1		mlt500019	128	122	GRUB	Computer La	ET5000T	(none)			
	0050AC100FA1	WBT-E0436		T100FA1	16	128		COMPUTER	LET3000	cli.local	Lee	duh	
	0050AC70312D	WBT-M5508.EF		T70312D	63	256	MLW060511	COMPUTER	LMT1500	cli.local			
	0050AC703875	LBTC5-3.0-9		mlt703875	256	109	GRUB	Computer La	MT1500T	cli.local			

The controls are as follows:



First Record

Prior Record

Next Record

Last record

Insert Record

Delete Record

Edit Record

Post Edit (if in Edit mode)



Cancel Edit (if in Edit mode)

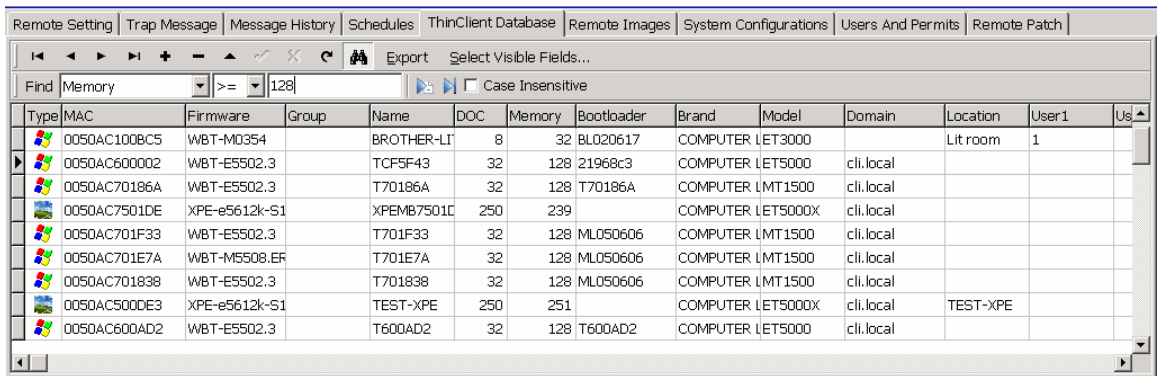
Refresh data

Search

Export database

Select Visible Fields

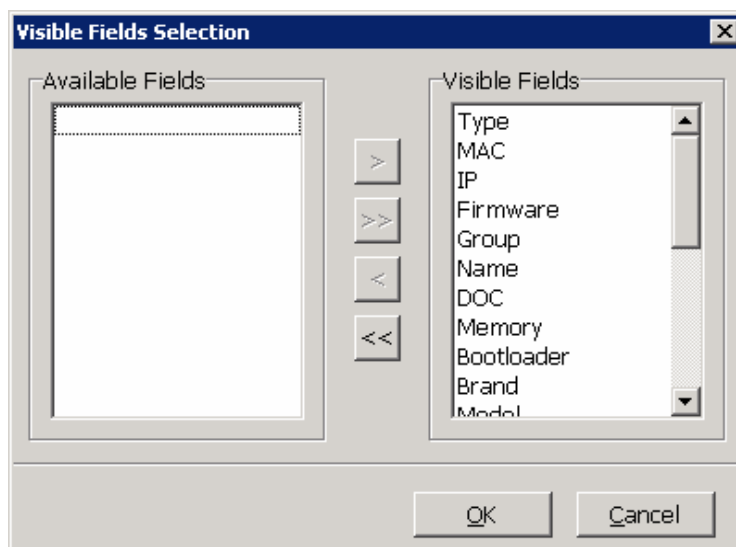
Database Search: Click  to bring up search window (click again to close window). For **Find** select field name, select the comparison operator (>, >=, <>, =, <, <=), enter a field value, check/uncheck **Case Insensitive** if text data, and press Enter to find the first occurrence of the entered value. Click  to Find Next (find next match, if



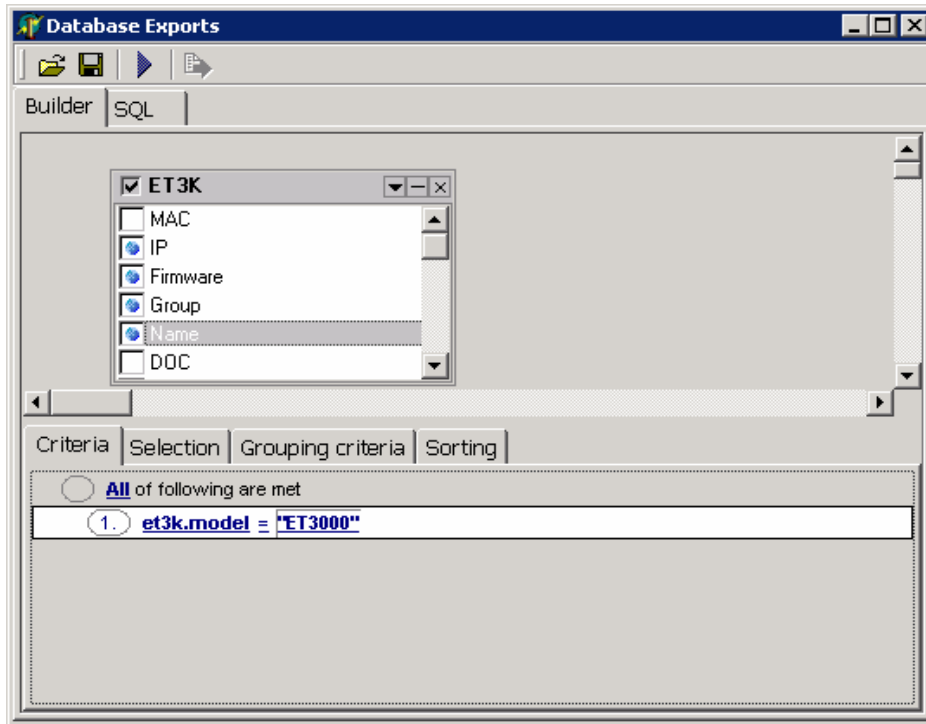
Type	MAC	Firmware	Group	Name	DOC	Memory	Bootloader	Brand	Model	Domain	Location	User1	Us
	0050AC100BC5	WBT-M0354		BROTHER-LI	8	32	BL020617	COMPUTER	LET3000		Lit room	1	
	0050AC600002	WBT-E5502.3		TCF5F43	32	128	21968c3	COMPUTER	LET5000	cli.local			
	0050AC70186A	WBT-E5502.3		T70186A	32	128	T70186A	COMPUTER	LMT1500	cli.local			
	0050AC7501DE	XPE-e5612k-S1		XPEMB7501D	250	239		COMPUTER	LET5000X	cli.local			
	0050AC701F33	WBT-E5502.3		T701F33	32	128	ML050606	COMPUTER	LMT1500	cli.local			
	0050AC701E7A	WBT-M5508.ER		T701E7A	32	128	ML050606	COMPUTER	LMT1500	cli.local			
	0050AC701838	WBT-E5502.3		T701838	32	128	ML050606	COMPUTER	LMT1500	cli.local			
	0050AC500DE3	XPE-e5612k-S1		TEST-XPE	250	251		COMPUTER	LET5000X	cli.local	TEST-XPE		
	0050AC600AD2	WBT-E5502.3		T600AD2	32	128	T600AD2	COMPUTER	LET5000	cli.local			

any) or  to Find Last match.

Select Visible Fields: Select which fields you wish to be displayed in the ThinClient Database panel view. By default all fields are visible.





Export: All or selected records with selected fields can be exported to a wide variety of formats: Excel, DPF, HTML, CSV, etc. Unique output,

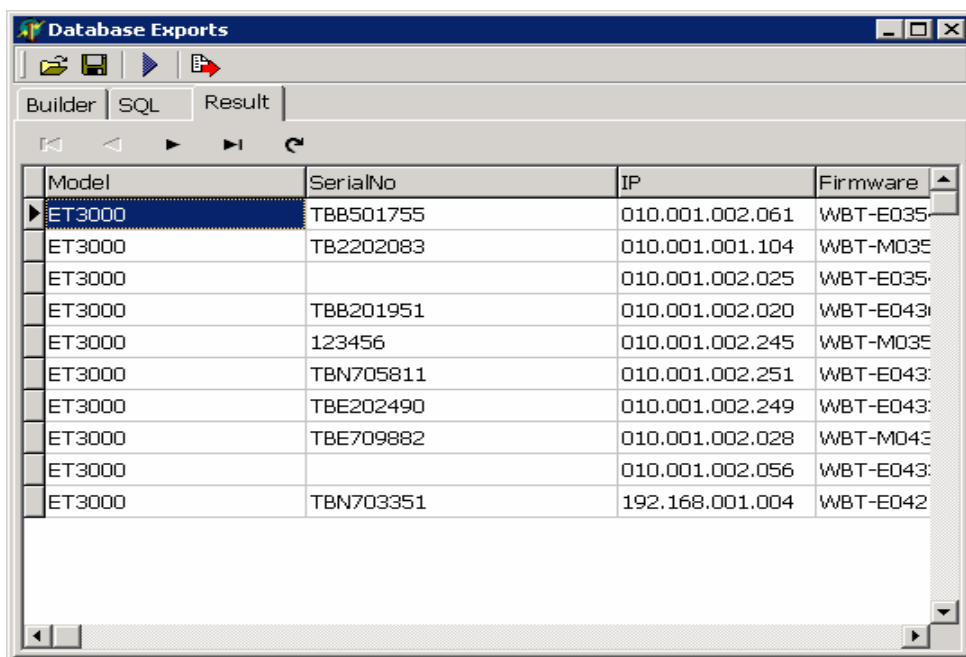
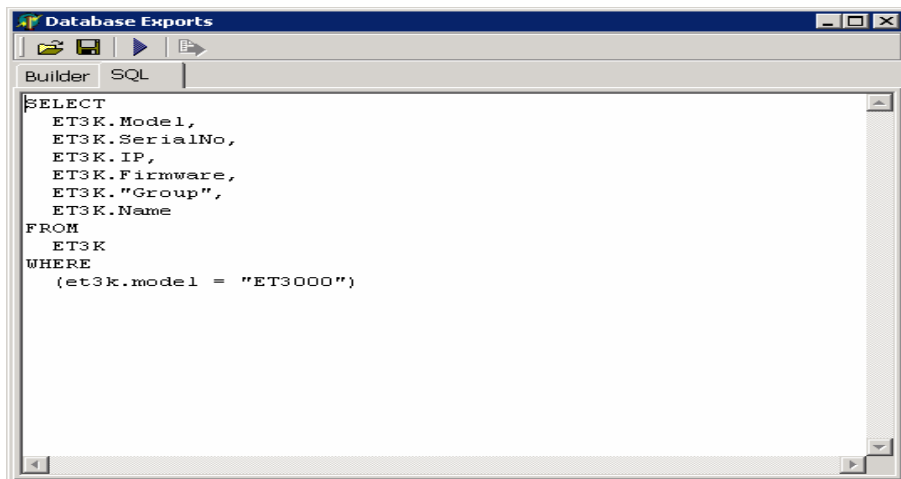



formatting and preview options are available for each output format.

The Query is written by selecting the fields you wish to display and adding selection criteria if desired.

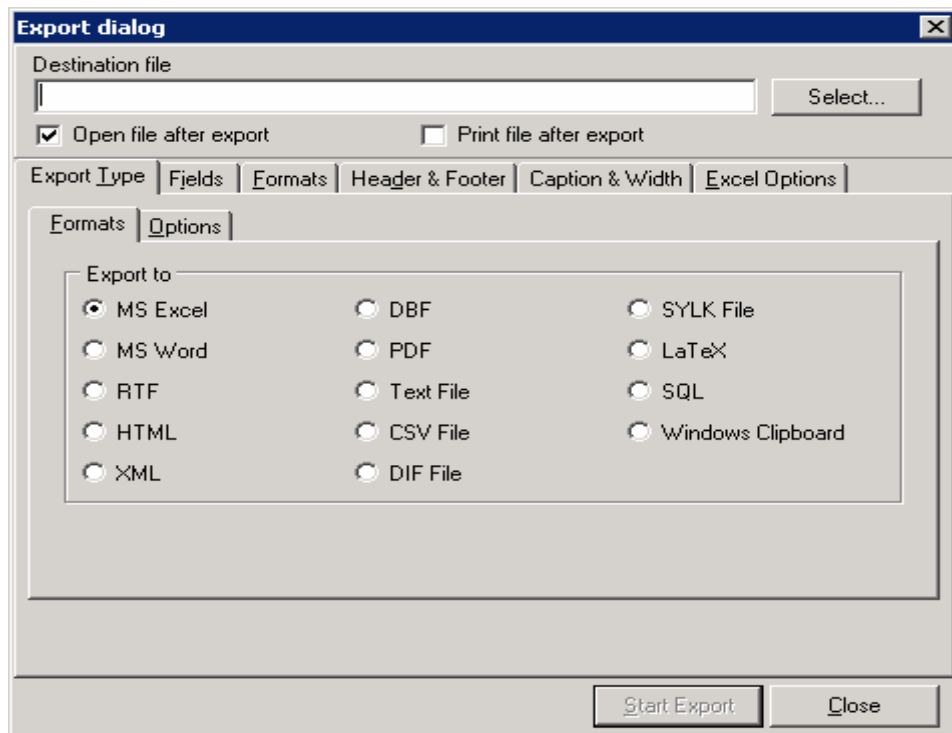
Use  to Open saved SQL file or  to Save current SQL file..

The Query can be written by using standard SQL statements.



To run the Query click the Execute SQL icon 

After the Query runs, you can export the records to a variety of file formats. Numerous formatting options are available.

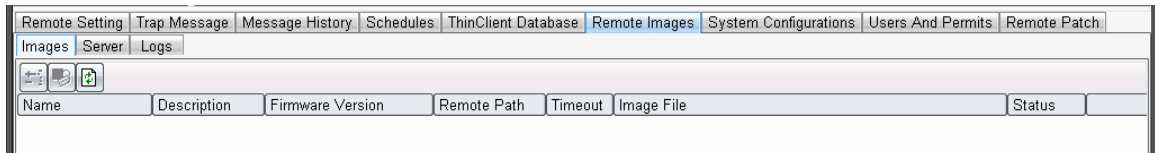


Click the Exports icon  to open the Export dialog box.

Remote Images

This panel is used to hold XP Embedded and LBT (Linux) images for updating clients running the XP or Linux embedded system.

Remote Image Panel:



List saved images (default)



Proprietary SNMP FTP server status (Default = Running). Options: Start/Stop



Display Log of server/imaging activity. Options: Save/Clear



Delete selected image / Image properties / Refresh image display

Recommendations: Image push/pull is best done using a wired connection rather than a wireless connection.

Always save the factory image for the latest version – get new version from Maple or Pull from new terminal. Customize/configure a client with the current version, then Pull and save this customized image and use it to clone other clients. See below for procedures: for XPe use **/dev/hda** image type; and for LBT use **Image** for the firmware and **Data** for the configured settings.

Update XPe or LBT clients to new Version

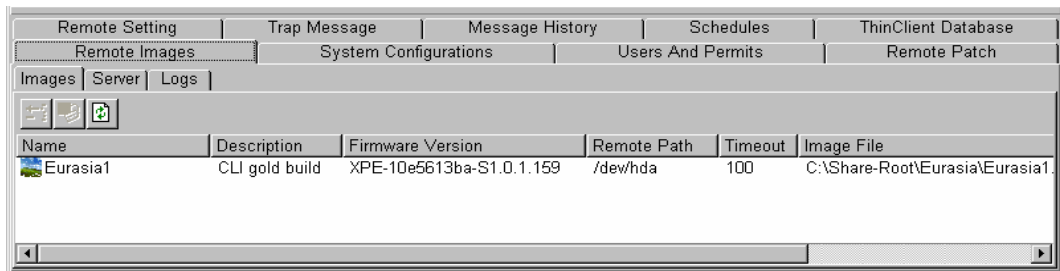
1. Obtain version image from Maple (download from FTP site) and put the two files in the data area specified in **File/Options/Remote Setting/Data Directory** (e.g. c:\program files\snmpadm\data). An image consists of a Control File (**.smh**) and an Image File (**.smg**).

2. Use ***File/Options/Remote Image*** to set the **Remote Image Path** to the selection for your particular type of terminal and desired process: **/dev/hda** for XPe; **image** for LBT). Set timeout values to 100, 100.

The list of image types follows for quick reference:

Client OS	Path (Image Type)	Description / When to Use
XPe	/dev/hda	Complete image (recommended) When to use /dev/hda -Update XPe image to another version (new or prior) -Create default. Master backup image of unmodified terminal -Pull master image from clone terminal on a different version -Push master image, default, or new version to client
XPe	/dev/hda2	XPe partition only (not recommended) When to use /dev/hda2 -Pull master image from preconfigured client with the intent to use that image to clone terminals on the <u>same version</u> -Push configured image to client on the <u>same version</u>
LBT (Linux)	all	Firmware and configuration parameters (not recommended) When to Use all -When duplicating both firmware and configuration parameters client with the same version
LBT (Linux)	image	Firmware image only, no configuration parameters When to use image -Updating the firmware version but not changing the terminal configuration
LBT (Linux)	data	Configuration parameters only (Display, RDP, Browser, etc.) When to use data -Duplicating or changing configuration parameters but not the firmware image.

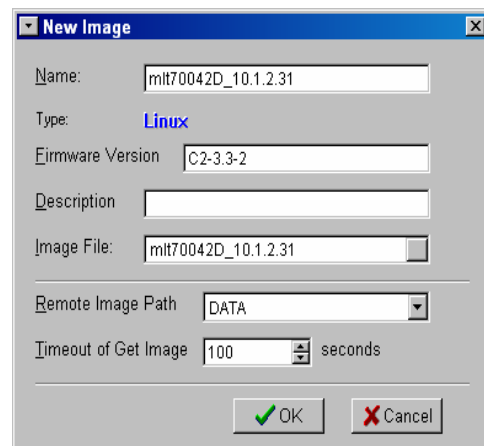
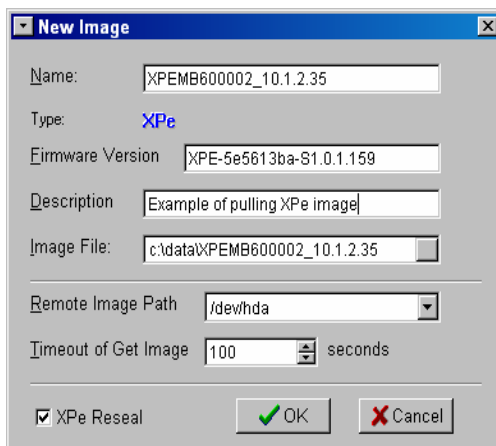
- Click the **Remote Image** panel. Click the *Refresh Image files* icon. The new image will display as shown below. To set a Name, select the entry, click *Properties* and enter a Name.



- Select the clients in the Client Panel to be updated to a new version.
- Drag & Drop master image from the Remote Image panel to the selected clients in the Client panel. The client will reboot and when complete the client will again reboot (2 times) and is then ready to use.

Capture (Pull) Images for use as master to update other clients

To build a default XPe or LBT image, or create a master template image to clone to other terminals, Drag that client image from the Client area to the Remote Images panel. A New Image dialog is displayed. For XPe use



/dev/hda; for LBT use **image**.

Note: The time to Pull an image is measured in minutes; whereas the time

to Push an image is measured in seconds. For XPe, pulling an image from a Client on a Domain will unjoin that client from the Domain; and retain unique SID (when Reseal is checked).

- **Name:** Use a meaningful name which describes the configuration of the unit.; i.e. warehouse
- **Firmware Version:** Version of client.
Recommendation: Delete any text or version information that is appended to the version number. For example, "XPE-E5609-S1.0.1.140" may be the default value when you drag/drop; change to "XPE-E5609".
- **Description:** Verbose description of the configured image, which is being saved.
- **Image File:** File name (same as **Name** above) and path; e.g. /Program Files/SnmpAdm/Data/*Name*. Can browse for path.
- **Remote Image Path:** Partition information; e.g. /dev/hda (for XPe), image (for LBT)
- **Timeout of Get Image:** Increase the default time if flash DOM is larger than 256mb. Recommend setting of 100 seconds.
- **XPe Reseal:** Check this box (recommended) to allow the cloned image to maintain a unique SID and computer name.

The XPe client will reboot into the Linux Flash Update kernel and a master image file will be transferred to the Remote Image area. The Linux client will not reboot and temporarily shows an update status window. The Client's Status will count up to 100% as the image is moved. When complete, an XPe client will automatically reboot at least one time.

Selects the clients to be updated from this master image. Drag & Drop master image to the selected clients.

Note: The clients to be updated must be of the same version as the master image unless **/dev/hda** or **image** is used.

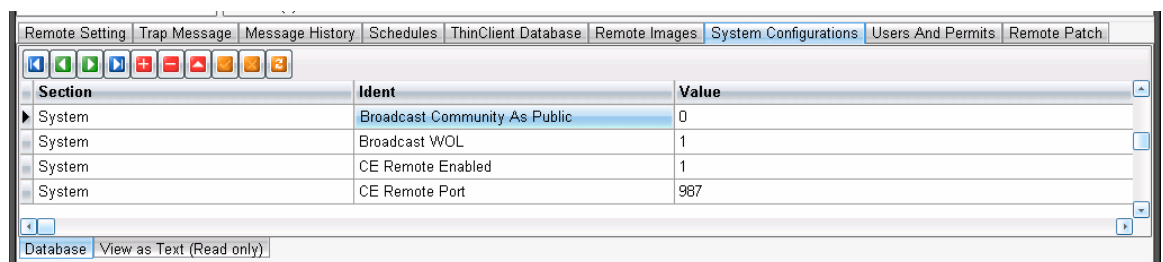
Clone a configuration

1. Pull configuration image to be cloned to other clients
 - Click File/Options/Remote Image and set *Remote Image Path* to **/dev/hda2** if XPe (XPe image only) or **Data** if LBT (Configuration settings).
 - Select the configured client in the Clients area.
 - Click the Remote Images tab and drag the selected IP address in the Clients area to this area.
 - Enter the name to indicated customized image. Enter an image file name and click OK.
 - It will take several minutes. An XPe client reboots to pull the image. When finished, the terminal will return to normal operation. If previously joined to a Domain, this join should be reestablished.
2. Push customized image to other clients
 - From the Remote Images area, click on the saved customized image and drag to Clients area and drop it on the IP address of the target client(s).
 - Note: If XPe /dev/hda2, the target client(s) must be the same version as the customized image.**
 - It will take several minutes and client reboots to download the image. When finished, the terminal will return to normal operation. If previously joined to a Domain, this join should be reestablished (XPe client only).

System Configuration

The **System Configuration** tab allows you to do detailed modifications to the *SNMPAdm* configuration. This is for advanced users who are familiar with the configuration options available in the application. Some advanced options can only be enabled through this interface (see example).

It is strongly recommended that only the Administrator have access to this panel.



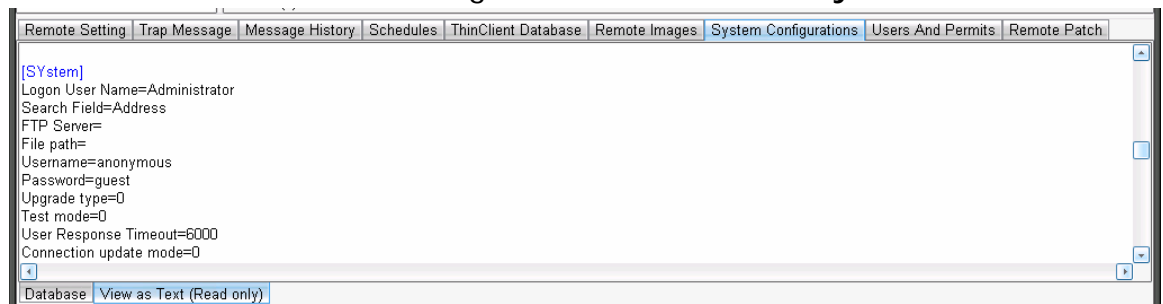
Section	Ident	Value
System	Broadcast Community As Public	0
System	Broadcast WOL	1
System	CE Remote Enabled	1
System	CE Remote Port	987

Default Database display:

View as Text (Read only):

Advanced Option Example

If the SNMP Community is not **public**, but some private name, an entry must be added to disable sending **Broadcast Community as Public**

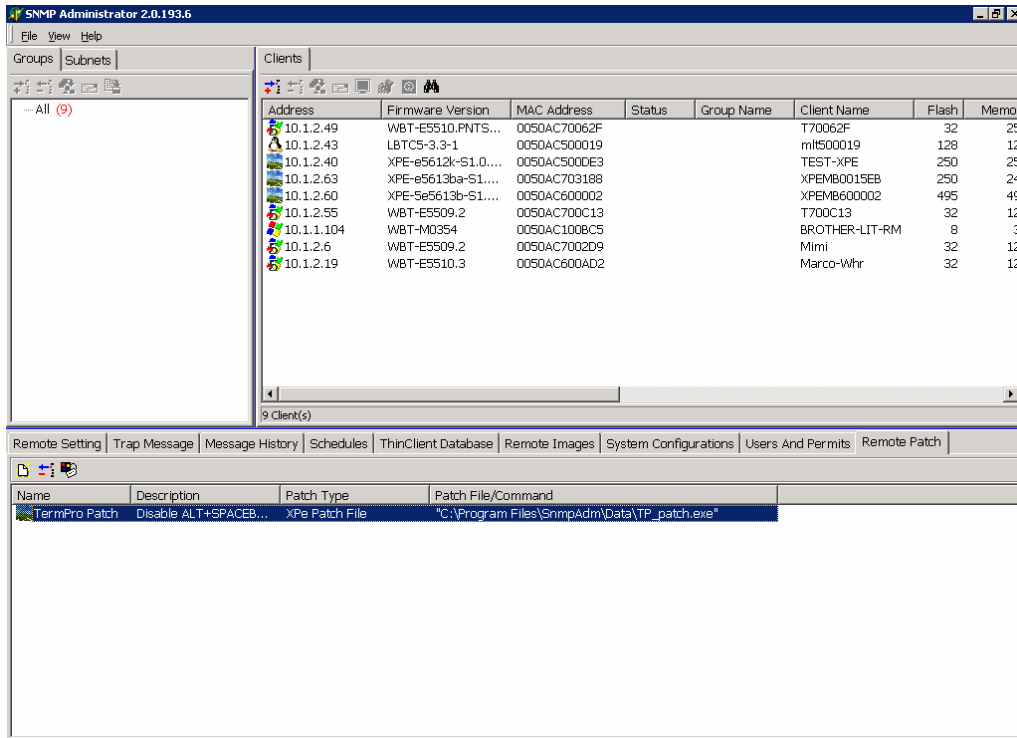


```
[System]
Logon User Name=Administrator
Search Field=Address
FTP Server=
File path=
Username=anonymous
Password=guest
Upgrade type=0
Test mode=0
User Response Timeout=6000
Connection update mode=0
```

over the LAN at startup (see Database display above). Click **+** to insert record: Section=System, Ident=Broadcast Community as Public, Value=0. Value of 0 is disable and 1 for enable.

Remote Patch

XPe and WBT (WCE) clients can be patched. Patches can be dragged/dropped from this panel to selected clients. The application of



patches can also be scheduled.

Example Patch:

Edit Remote Patch [X]

Name:

Description:

Patch Type:

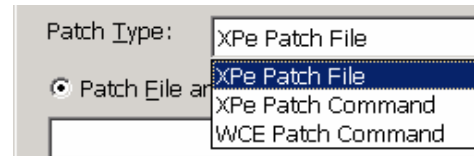
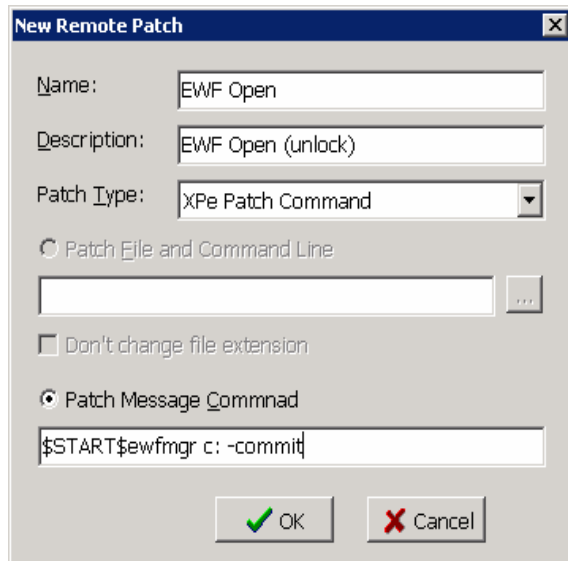
Patch File and Command Line

...

Don't change file extension

Patch Message Command

To create a "patch" click the New icon.



Name: Enter unique patch name

Description: Enter patch description

Patch Type: Select patch type:

XPe Patch File – Add/Change/Run script

XPe Patch Command – Run an executable program

WCE Patch Command -- Not yet supported

Patch File and Command Line: If Patch File selected, enter the patch file name and command line parameters.

Don't change file extension: If Script or Batch file used, check this box.

Patch Message Command: If Patch Command selected, enter the patch command.

Discovery Logs

This Tab is normally disabled. To enable, go to **Users and Permits** tab and add new permit named 'Discovery Logs' then logout/login to view this tab.

The steps in the client discovery process are listed in this panel.

The logs are temporary and are cleared on start of SNMPadm.

Remote Setting	Trap Message	Message History	Schedules	ThinClient Database	Remote Authenticate	Remote Images
System Configurations		Users And Permits		Remote Patch		Discovery Logs
[2005/09/30 10:24:11] Start to discovery devices, ip=10.1.1.212						
[2005/09/30 10:24:11] Ignore unknknow device, ip=10.1.1.212						
[2005/09/30 10:24:11] Start to discovery devices, ip=10.1.2.18						
[2005/09/30 10:24:11] Ignore unknknow device, ip=10.1.2.18						
[2005/09/30 10:24:11] Start to discovery devices, ip=10.1.1.217						
[2005/09/30 10:24:11] Ignore unknknow device, ip=10.1.1.217						
[2005/09/30 10:24:11] Start to discovery devices, ip=10.1.2.58						
[2005/09/30 10:24:11] Start to discovery devices, ip=10.1.2.28						
[2005/09/30 10:24:11] Start to discovery devices, ip=10.1.2.61						
[2005/09/30 10:24:11] Start to discovery devices, ip=10.1.1.104						

Appendix A – Special Control Messages

WBT terminals support special control messages which, when sent to the terminal, are used to evoke special configuration functions. See *WBT User's Guide – Appendix C*. Files named in these messages for use by the client must be placed in the FTP root.

Message	Description
\$INSTALL FONT\$ fontname	Install alternate font for TermPro
\$LIST INSTALL FONTS\$	List installed TermPro fonts
\$UNINSTALL FONT\$ fontname	Uninstall TermPro font
\$FLASH BOOTLOGO\$ name.bmp	Install new Boot splash screen
\$SET SERIALNO\$ serialno	Change Serial Number on client
\$FLASH BOOTLOADER\$ name.rom	Update BIOS or Bootloader: ET3000, ET1500
\$FLASH BIOS\$ name	Update BIOS on CE units: MT series, ET5000, ET4500
\$FTP PUTFILE\$ filename	Copy file from FTP to client system folder
\$PATCH CE\$ name.exe /CE_PATCH	Patch CE from named xecutable in FTP (limited patch capability)
\$PUT SCRNSAVER LOGO\$ xxx.bmp	Install new screen saver 'Floating Object'
\$START\$ program.exe	Start named program in client /Window folder