15 Modules

15.1 Module Overview

Modules are software components that can be loaded to increase or modify the functionality of the terminal. Modules include touch screen drivers, sound drivers, and special device drivers. Modules are included with ThinManager and are registered automatically during ThinManager installation. Updates to modules (primarily touch screens) are posted on the ThinManager website for download and installation.

Note: "**Installing a module**" refers to the registration of the module with the ThinManager Server, while "**Adding a module**" refers to attaching the module to a particular group or terminal.

This section includes:

- A list of available Modules.
- Instructions on installing and adding Modules.
- Details on specific modules.

Note: Certain modules, like the video modules, do not need to be added to specific terminals but will be downloaded automatically in ThinManager. These modules do have to be installed in ThinManager to be available for the download to happen.
These modules may need to be added to the terminal in older versions of ThinManager that are using new firmware.

15.1.1 Module List

ThinManager divides the modules into a number of categories or types to make navigation of the module list easier. Although details on the specific modules will follow, the types and modules include:

Note: Certain modules are used in limited, specific cases and are considered advanced modules. These are marked with a (*). See Advanced Modules for details.

ICA - See ICA Modules

- Citrix ICA UseAlternateAddress Module
- Citrix ICA wfclient.ini Extension Module
- Citrix Receiver Version 12 (Package 6 only)
- ICA Client Version 6.0 (*)
- ICA Client Version 8.0 (*)

Keyboard – See Keyboard Modules

- Key Block Module
- Key Block Single Key Module
- Keyboard Configuration Module
- Share Keyboard and Mouse Master Module
- Share Keyboard and Mouse Slave Module

Local Storage - See Local Storage Modules

- USB Flash Drive Module
- USB Memory Card Reader Module (Package 5 only)

Miscellaneous - See Miscellaneous Modules

- Add Serial Port
- Firmware Update Module (formerly the Disk On Chip / Compact Flash Update Module)
- Instant Failover Module (*) (Package 5 only)
- Local Printer Module
- MultiMonitor Module (Package 5 only)
- MultiMonitor2 Module (Package 5 only)
- Redundant Ethernet Module
- Second Network Module
- Serial to TCP Module
- TMTerm DLL Configuration Module
- Terminal Shadow Module
- TermMon ActiveX Configuration
- Time Zone Redirection Module
- User Override Module

Mouse - See Mouse Modules

- Mouse Configuration
- PS/2 Mouse Configuration (Package 5 only)
- Serial Mouse Driver
- Share Keyboard and Mouse Master Module
- Share Keyboard and Mouse Slave Module

RDP - See RDP Modules

- RDP Experience Module
- RDP Module for ThinManager v2.4 and Older (Package 5 only)
- RDP Port Module
- RDP Serial Port Redirection Module
- RDP Session IP Module

Screen Saver - See Screen Saver Modules

- MultiSession Screen Saver Module
- Screen Saver Module

Sound - See Sound Modules

- AMD cs553x Sound Driver
- Intel 8x0 Sound Driver
- Intel HDA Sound Driver
- Universal Sound Driver
- VIA 82xx Sound Driver

TermSecure - See TermSecure Modules

- RF Ideas pcProx Module
- RF Ideas pcProx USB Module
- TermMon ActiveX Configuration Module
- USB Flash Drive Module
- Wavetrend Tag Reader Module (Package 5 only)

Touch Screen - See Touch Screen Modules

- Arista ARP-16XXXAP-ACP Touch Screen Driver
- CarrollTouch Touch Screen Driver
- Contec Touch Screen Driver (Package 5 only)
- DMC TSC Series Touch Screen Driver
- DMC Touch Screen Driver (Package 5 only)
- Dynapro Touch Screen Driver
- eGalax Touch Screen Driver
- Elographics Touch Screen Driver
- Gunze AHL Touch Screen Driver
- Hampshire TSHARC Touch Screen Driver
- MicroTouch Touch Screen Driver
- Panjit TouchSet Touch Screen Driver
- PenMount Touch Screen Driver
- Ronics Touch Screen Driver (Package 5 only)
- Touch Control Touch Screen Driver
- Touch International IR Touch Screen Driver (Package 5 only)
- USB Touch Screen Driver
- Xycom 33XX Touch Screen Driver (Package 5 only)
- Zytronic Touch Screen Driver

Video Driver - See Video Driver Modules.

- Custom Video Mode Module

Video2 Driver - See Video Driver Modules.

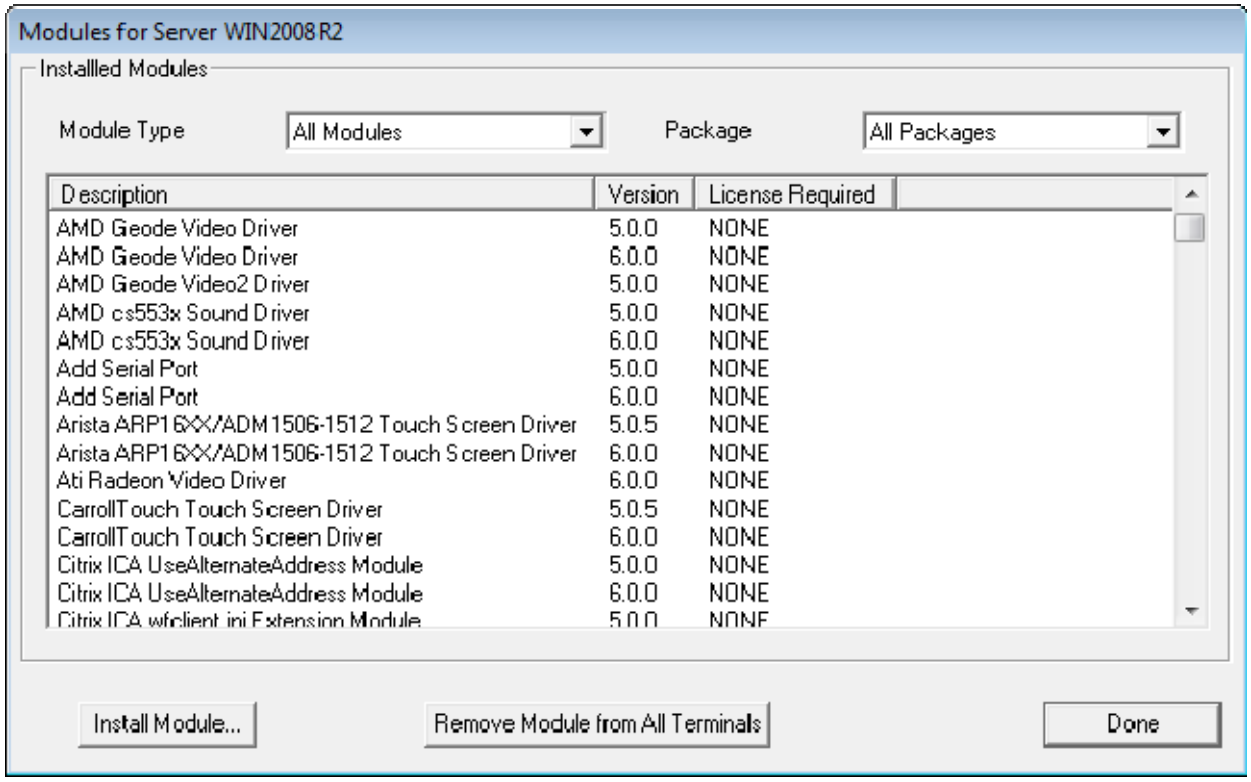
- Custom Video Mode Module

(*) Denotes an advanced module See Advanced Modules for details.

15.2 Installing a Module

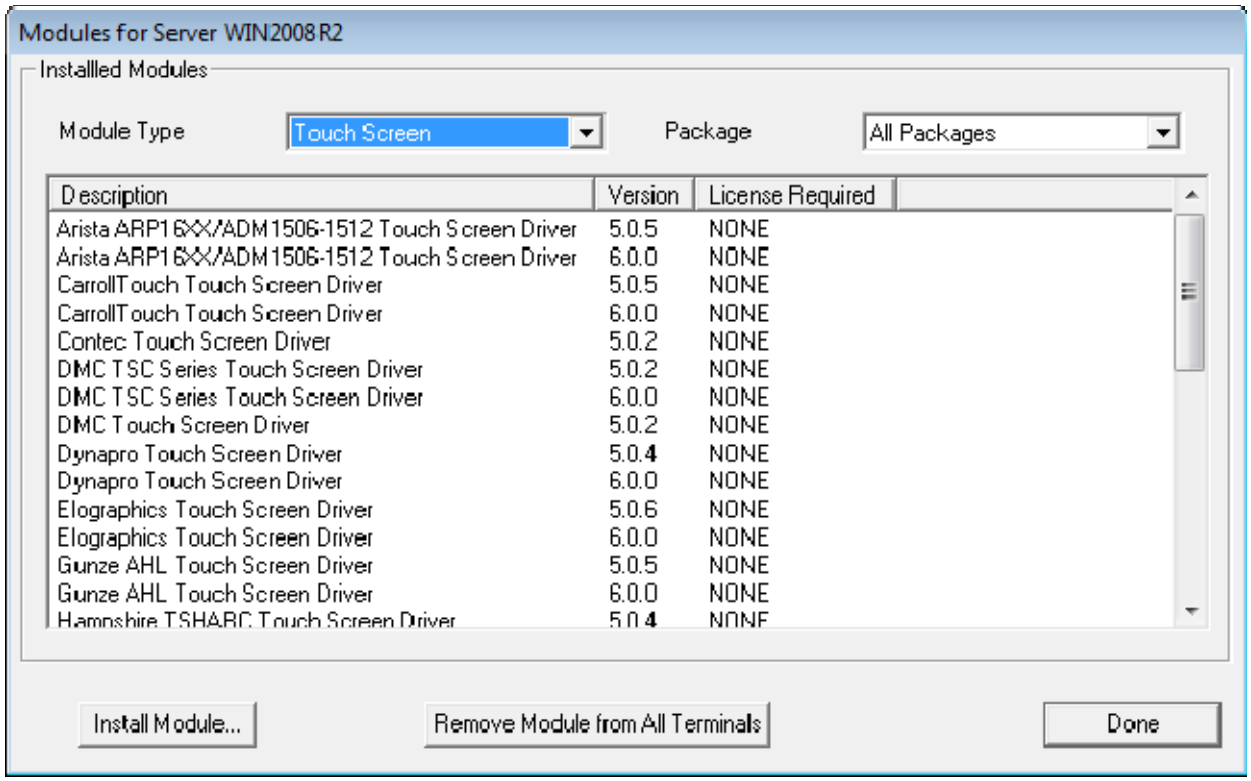
Note: Modules will generally be installed by the firmware package. This section describes the process to add or update a single module.

Installing a Module adds a new module to ThinManager so that it is available to Terminal Groups and Terminals. To install a module, open the Modules window by selecting ***Install > Modules*** from the ThinManager menu bar to launch the **Modules** window.



Modules Window

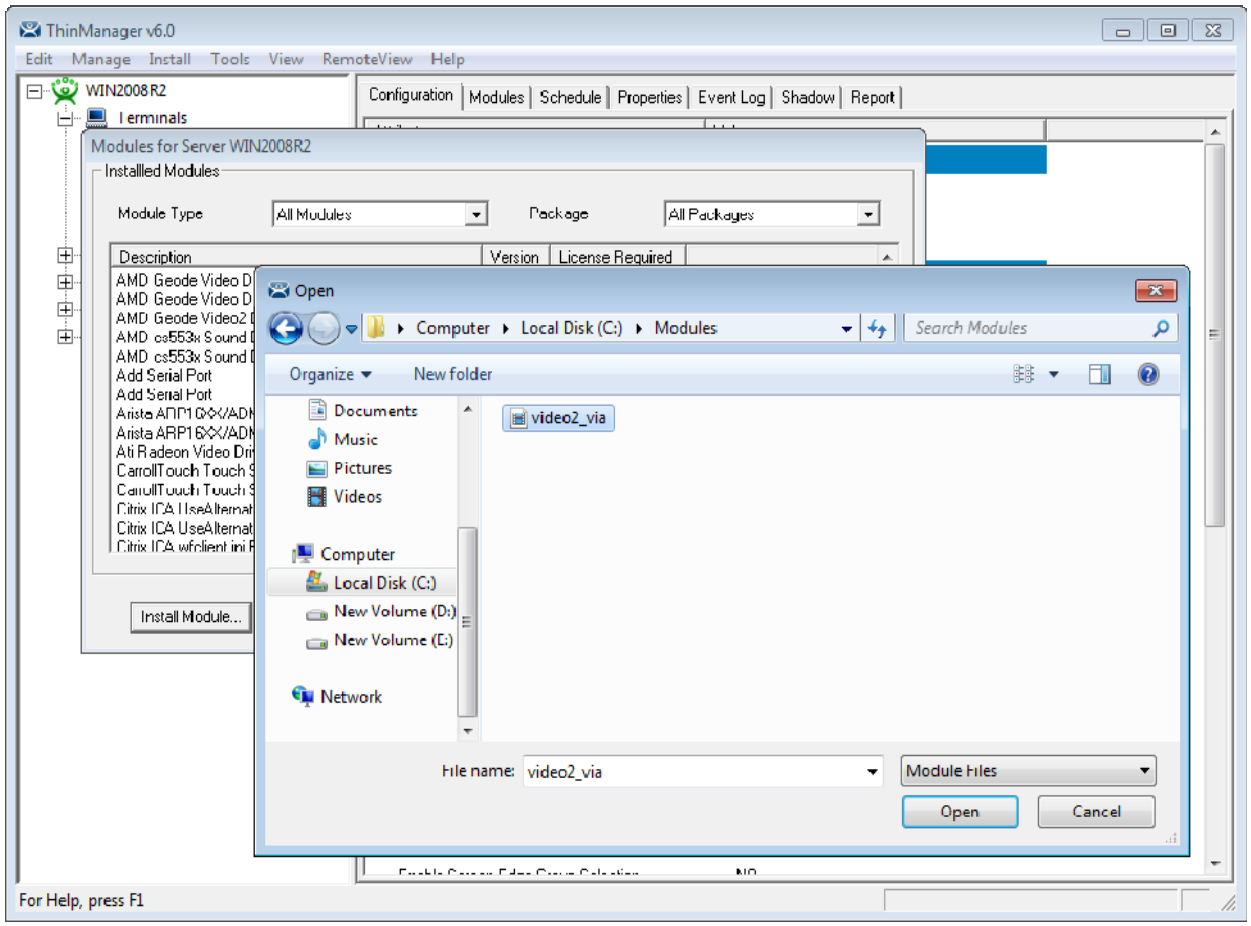
The **Module** window shows all of the modules installed on the ThinManager Server.



Sorted Modules

The installed modules can be sorted by using the ***Module Type*** and ***Package*** dropdown lists.

To install additional modules select the ***Install Module*** button. This will launch a file browser window.



Module File Browser Window

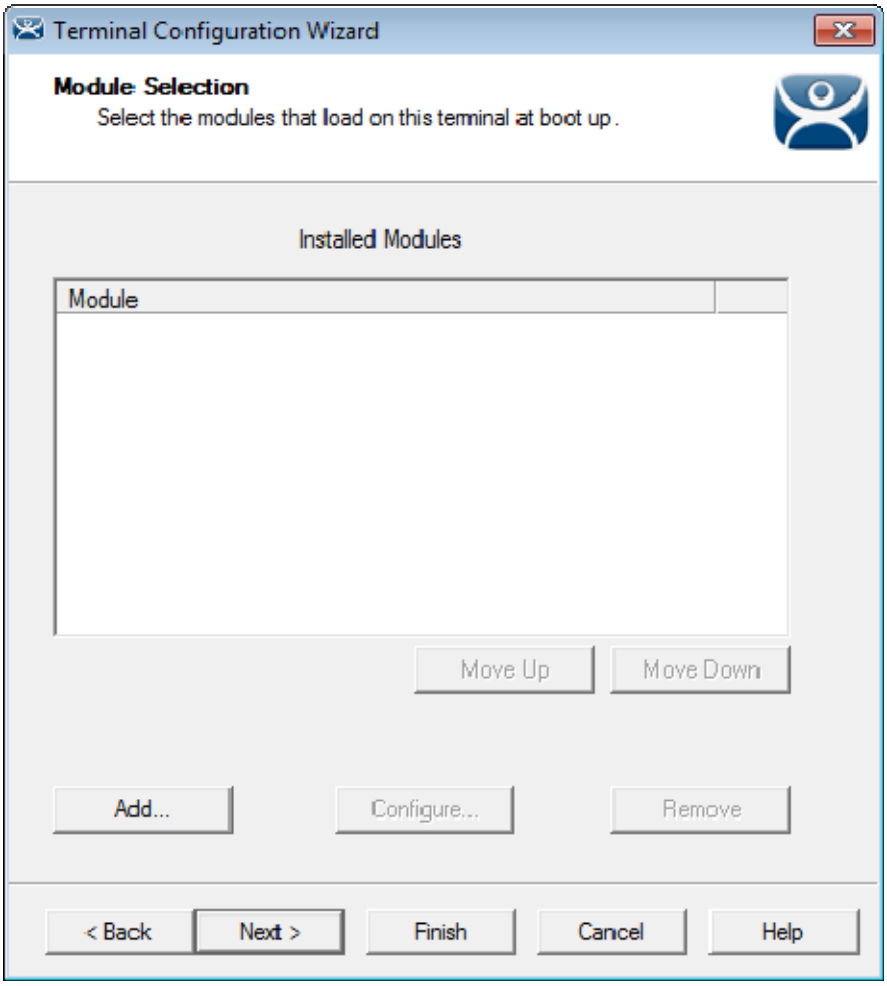
Browse to the new module, usually downloaded from the ThinManager web site (www.thinmanager.com). Highlight the new module, and select the ***Open*** button. This will add the new module to the list of modules.

Selecting the ***Remove Module from All Terminals*** button will remove the highlighted module from all terminals. It does not uninstall the module from the ThinManager Server; it just removes its use by all groups and terminals.

Select the ***Done*** button to close the **Modules** window.

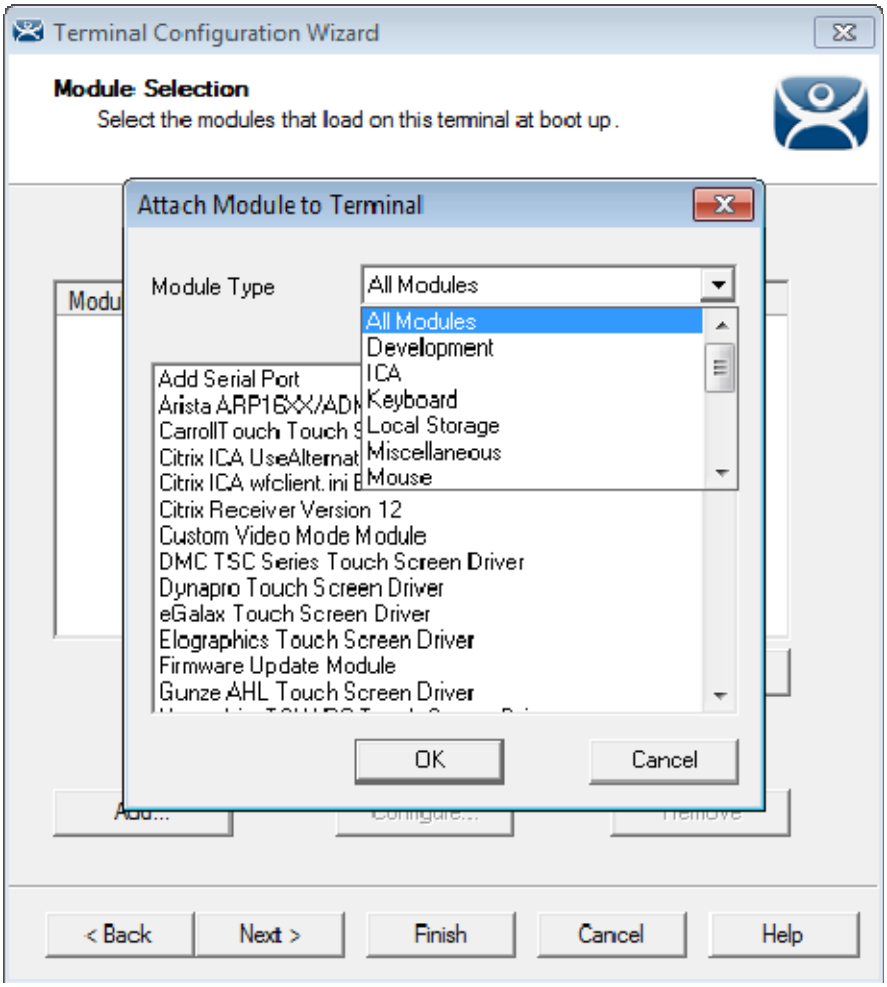
15.3 Adding a Module to a Group or Terminal

Modules are added to terminals or groups of terminals on the Module Selection page of the Terminal Configuration Wizard or the Terminal Group Configuration Wizard.



Terminal Configuration Wizard - Module Selection

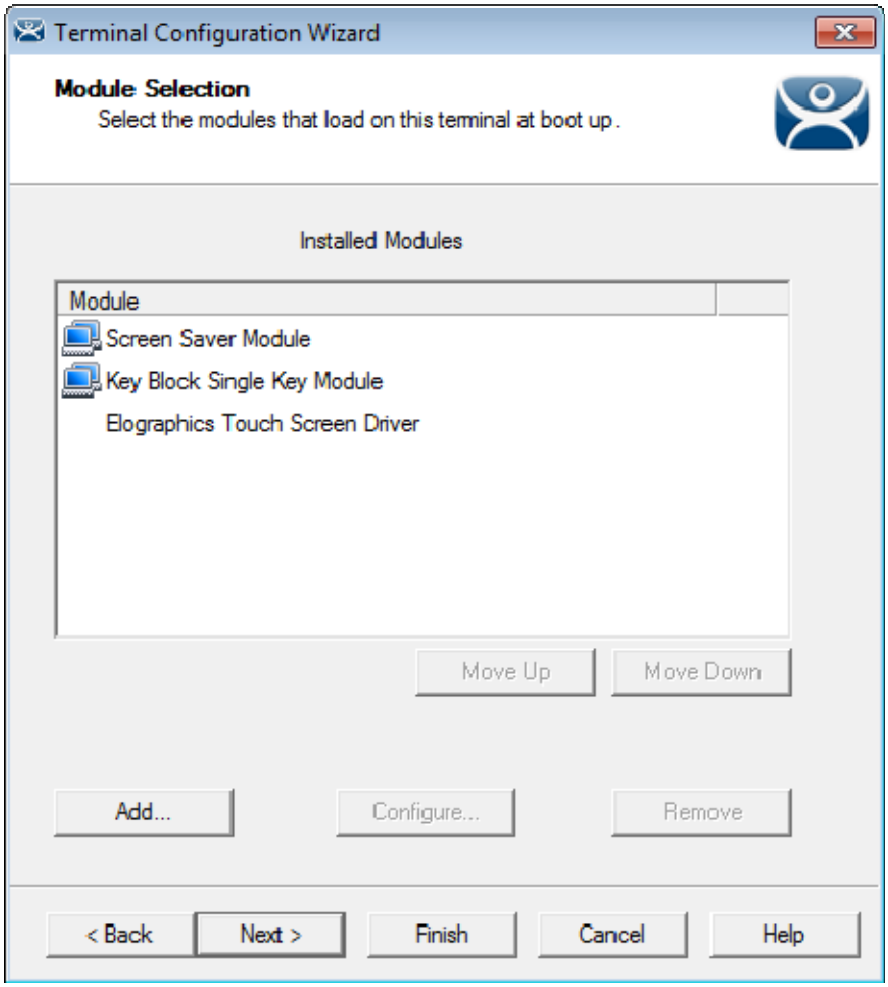
To add a Module to a Terminal, select the ***Add…*** button to launch the **Attach Module to Terminal** window.



Attach Module to Terminal

The **Attach Module to Terminal** window will show the modules that are available to the terminal. The ***Module Type*** drop-down box sorts the modules by categories to make the modules easier to find.

Highlight the desired module and select the ***OK*** button to add the module to the configuration.



Terminal Configuration Wizard - Module Selection

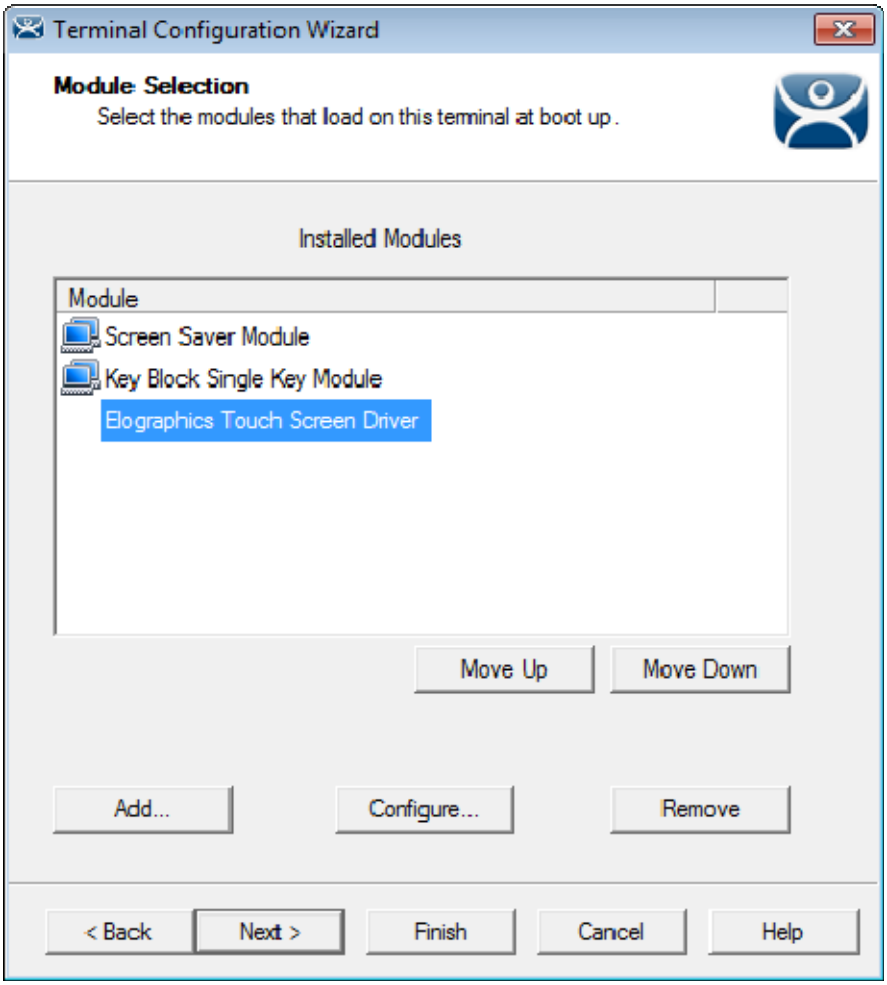
Terminals that are members of a Group may show icons to represent the properties of added modules.

- The Group icon represents modules assigned at the group level.
- The Group icon with a red slash through it indicated that the module set at the group level that will not function with the selected package.
- No icon indicates that the module was added to that particular Group or Terminal and not a parent Group.

Note: Any module with a red slash through it will prevent the terminal from starting a session.

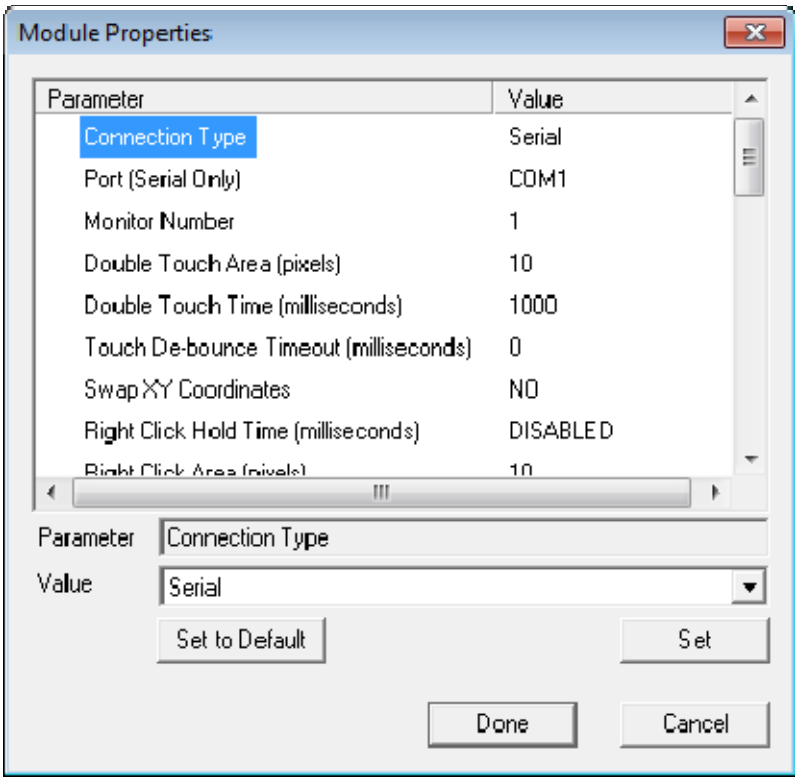
15.4 Changing Module Parameters

Many modules have parameters that can be changed. With the new inheritance rules from ThinManager 3.0 module parameters can't be changed for modules that are inherited from a parent group. Changes must be made at the level that the module was added.



Module Configuration

Highlighting a module on **the Module Selection** page and selecting the ***Configure*** button will open the **Module Properties** window and allow changes to the module configuration.



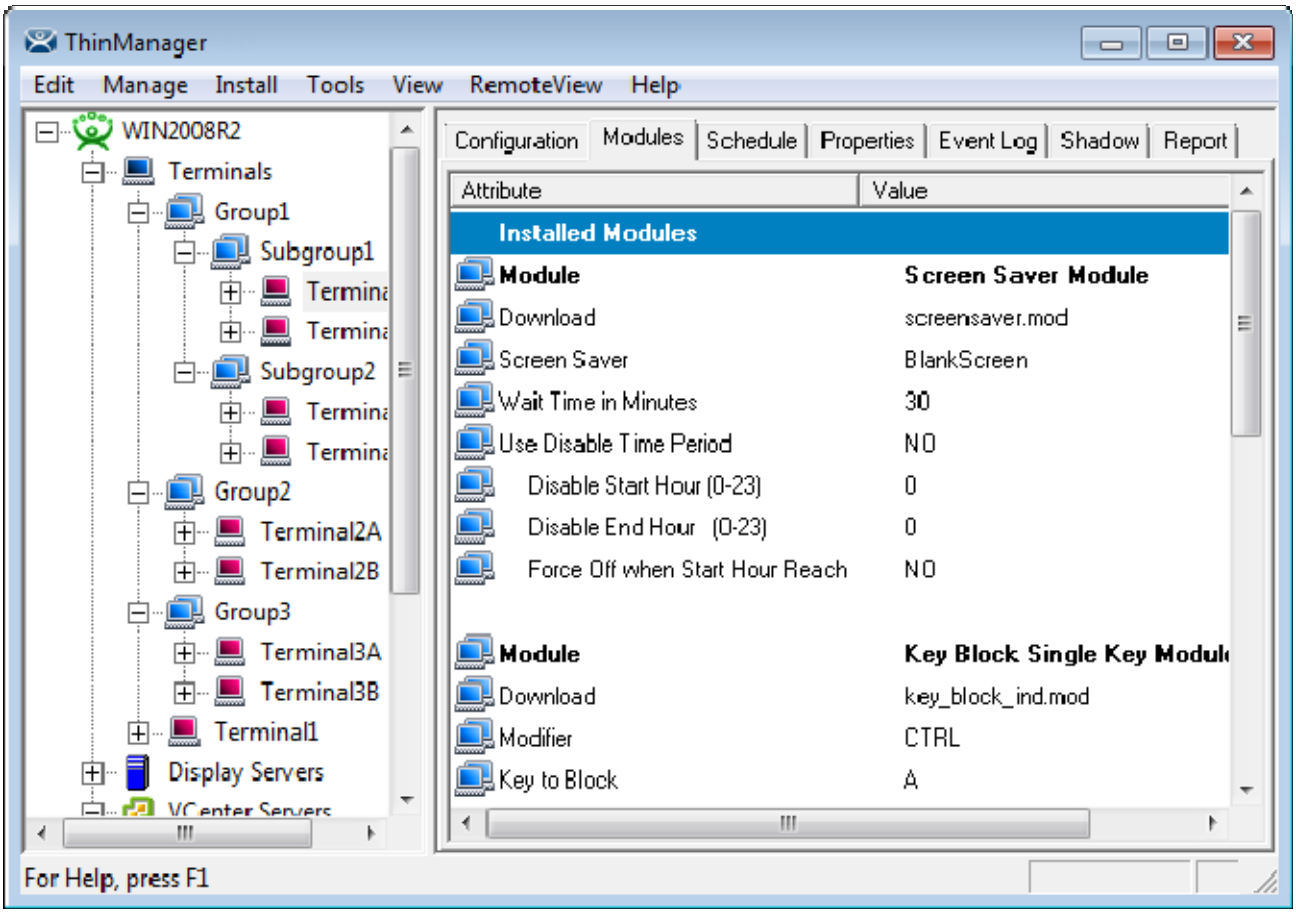
Module Properties

On the **Modules Properties** window, select the parameter to change, select the new value in the drop-down list, and click the **Set** button. This will change the setting.

The ***Set to Default*** button will restore the module to the default settings.

Note: The ***Set*** button must be selected to apply the change.

Select the ***Done*** button to close the **Module Properties** window and to return to the Group or Terminal Configuration Wizard.

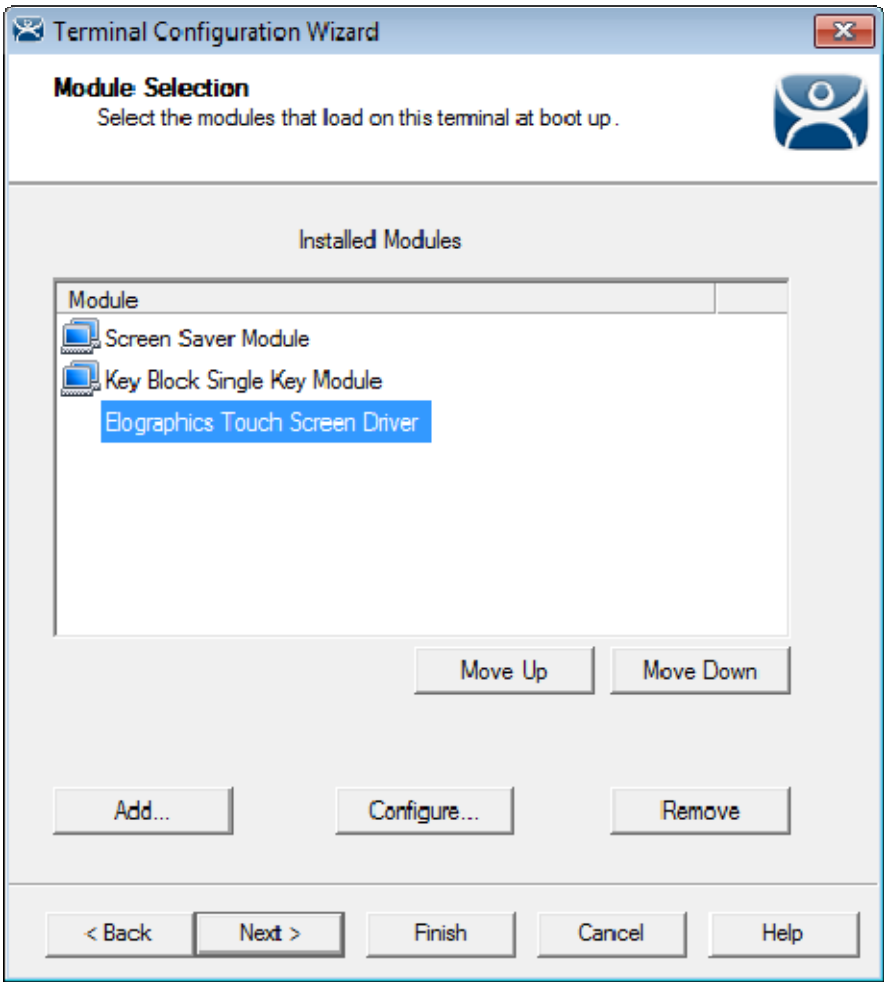


Module Icons in ThinManager

The status of the modules is displayed on the ***Modules*** tab of the **Details** pane of ThinManager.

15.4.1.1 Module Loading Order

Highlighting a module and selecting the ***Move Up*** or ***Move Down*** button can change the order that the modules load.



Module Loading Order

The loading order of modules rarely needs to be adjusted.

15.5 Individual Module Details

ThinManager divides the modules into a number of categories or types to make navigation of the module list easier. The types and modules include **ICA, Local Storage, Miscellaneous, Mouse, RDP, Screen Saver, Sound, TermSecure, Touch Screen**, and **Video.**

15.6 ICA Modules

The ICA Modules are advanced modules for advanced users of the ICA client communication protocol.

15.6.1 Citrix ICA UseAlternateAddress Module

The **Citrix ICA UseAlternateAddress Module** is used by advance Citrix users to specify connections to Citrix Servers.

Configuration includes **Use Alternate Address**, **Browser Protocol**, and **HttpBrowser Addresses**.

15.6.2 Citrix ICA wfclient.ini Extension Module

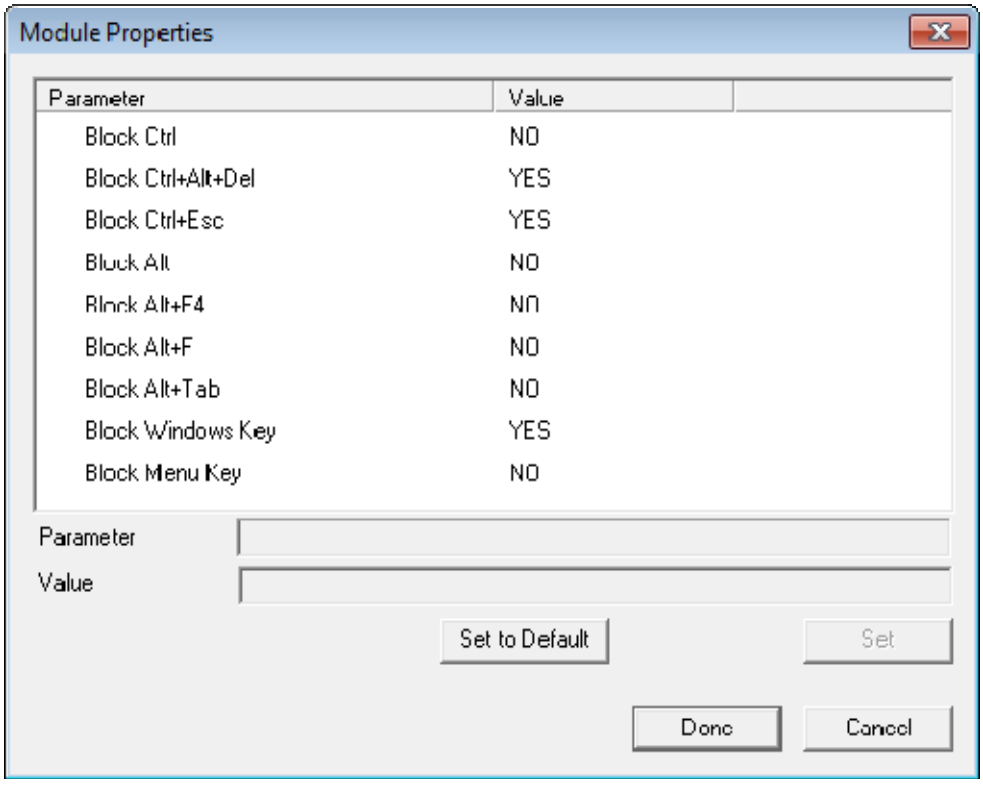
The **Citrix ICA wfclient.ini Extension Module** is used by advanced Citrix users. This module allows up to 8 strings of text to be added to the wfclient.exe for passing Citrix parameters.

15.7 Keyboard Modules

The Keyboard Modules are modules used to control or alter keyboard behavior.

15.7.1 Key Block Module

The Key Block module traps certain keystrokes and prevents them from being sent to the terminal server for processing.



Key Block Module

The key combinations to be blocked can be configured by in the Module Properties. To launch this, highlight the module on the Module Selection page and select the ***Configure*** button. A **Module Properties** dialog box will be displayed. Select the parameter to change in the Module Properties window, select the ***Value*** in the dropdown box and click the ***Set*** button.

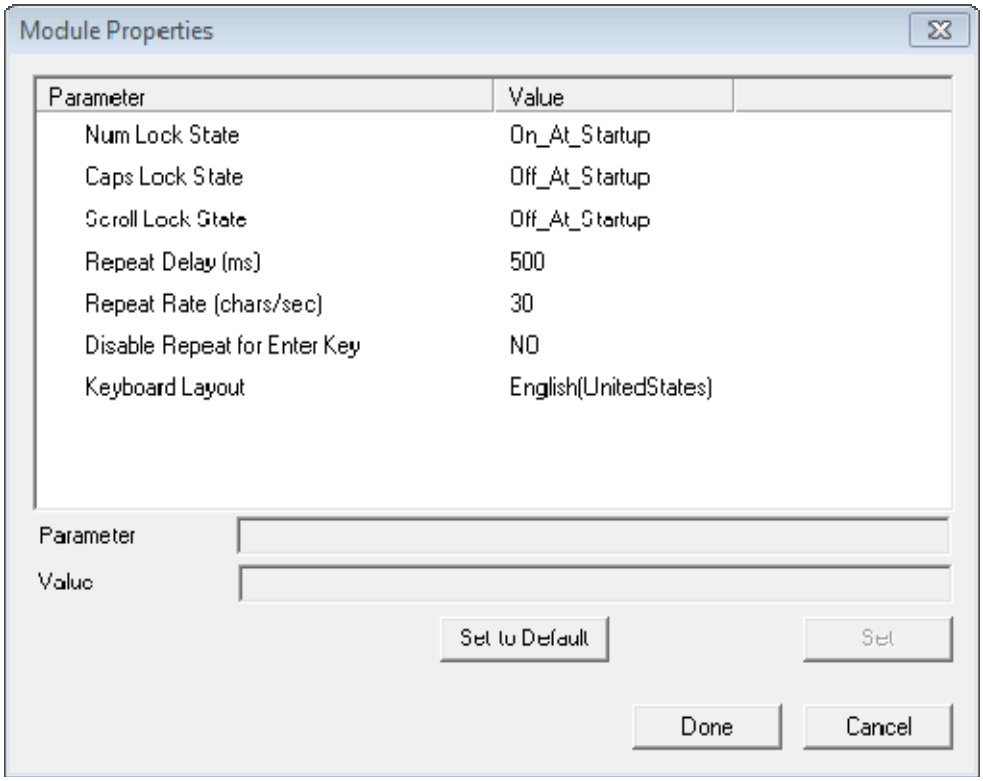
The key combinations that have a value of ***YES*** will be blocked from reaching the terminal server.

15.7.2 Key Block Single Key Module

The Key Block Single Key module traps specific individual keystrokes and prevents them from being sent to the terminal server for processing.

15.7.3 Keyboard Configuration Module

The Keyboard Configuration Module allows key settings on a keyboard attached to a thin client to be set.



Keyboard Configuration Module Parameters

The Keyboard Configuration parameters include:

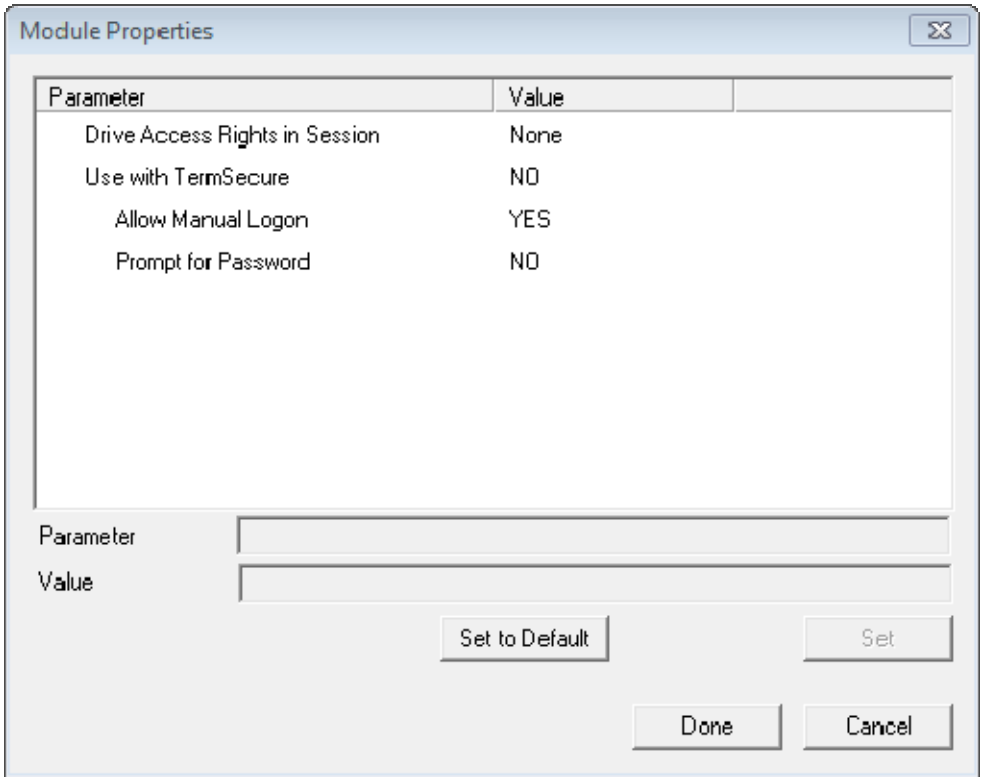
- ***Num Lock State*** – This allows the Number Lock to be set to **On** at startup, **Off** at startup, always **On**, or always **Off**.
- ***Cap Lock State*** – This allows the Caps Lock to be set to **On** at startup, **Off** at startup, always **On**, or always **Off**.
- ***Scroll Lock State*** – This allows the Scroll Lock to be set to **On** at startup, **Off** at startup, always **On**, or always **Off**.
- ***Repeat Delay (ms)*** – This parameter sets the amount of time that a key needs to be held down before it starts repeating the keystroke. If this parameter is set to ***Disable*** a key will only send one keystroke even if the key is held down.
- ***Repeat Rate (char/sec)*** – This parameter sets the number of characters per second that a held down key will send.
- ***Disable Repeat for Enter Key*** – This parameter, when set to ***Yes***, will prevent the **Enter** key from repeating if it is held down.
- ***Keyboard Layout*** – This parameter allows the thin client to use keyboards other than the default English (United States) keyboard map.

15.8 Local Storage Modules

The Local Storage modules allow the use of USB ports on thin clients. The USB ports are not active by default for security.

15.8.1 USB Flash Drive Module

The USB Flash Drive Module allows USB flash drives to connect to a terminal. The parameters include:



USB Flash Drive Module Properties

The **USB Flash Drive Module** has several parameters.

- ***Drive Access Rights in Session*** - ***ReadWrite*** allows the user to read and write to the flash drive. ***ReadOnly*** allows the user to read data but not write data, and ***None*** sets the flash drive to access only the unique serial number to make it usable as a TermSecure ID device.
- ***Use with TermSecure*** - This needs to be set to ***YES*** to allow the device to be a TermSecure identifier. A ***NO*** setting, in conjunction with a ***ReadWrite*** **Access Rights** setting, will allow the device to be used as a remote storage drive
- ***Allow Manual Login*** - This value, when set to ***Yes***, will allow a TermSecure user to log into a terminal without a TermSecure ID device. If set to No, TermSecure users must use a TermSecure ID device to log in.
- ***Prompt for Password*** - This value, when set to ***Yes***, will require a TermSecure User to enter their password for access, even if the password is configured in ThinManager.

15.8.2 USB Memory Card Reader Module

The **USB Memory Card Reader Module** allows USB card readers to connect to a terminal. The parameters include:

- Number of Slots in Reader - This value sets the number of slots that the card reader uses.
- Read Only Access - This value, when set to Yes, will limit the user to reading the card. This value, when set to No, will allow the user to read and write to the card.

15.9 Miscellaneous Modules

These are modules that don't fit in other categories.

15.9.1 Add Serial Port

The **Add Serial Port Module** is only used to configure the serial ports of daughter boards that add additional serial ports to terminals. Add a module for each additional serial port. Each module will let the user configure one additional port.

- Port Number - This value is to be set to the port number of the new port.
- Port Address - This value is to be set to the port address of the new port.
- IRQ - This value is to be set to the IRQ of the new port.
- UART- This value is set to the chipset type for the new port.

15.9.2 Firmware Update (Disk On Chip / Compact Flash) Update Module

The **Firmware Update** is the new name for the **Disk On Chip/Compact Flash Update** module in ThinManager 3.1.

ACP enables some models of terminals to store the firmware with Disk On Chip or Compact Flash storage so that the unit doesn't have to download the entire firmware at boot but can boot locally and download just the configuration to save bandwidth. This is most commonly used with units that will connect over low bandwidth networks, like wireless networks or WANs. These units can use the Firmware Update module to download and flash new firmware when the firmware is updated in ThinManager.

The ability to update stored firmware terminals eliminates the need to send the terminal back to the manufacturer to update the firmware.

Note: The firmware download can vary, depending on the bandwidth of the connection and the size of the firmware update.
It is recommended that updates be done over a wired LAN instead of over a wireless connection, when possible.

The **Firmware Update** module has two configurable parameters.

- ***Confirm at Terminal*** - This setting, if set to ***Yes***, will prompt the operator to choose between immediately updating firmware or waiting until the next boot up. If ***Confirm at Terminal*** is set to ***No***, the firmware download will take place immediately.
- ***Force Update*** - Normally a stored firmware terminal with the Firmware Update module will check firmware version numbers at boot and only download a new firmware if the versions are different. This setting, if set to ***Yes***, will force the terminal to always download the firmware for re-flashing.

Note: The module will download firmware when it detects a different firmware. Since this will only happen at the first reboot after updating the ThinManager firmware, it is safe to leave this module added to terminals permanently when ***Force Update*** is set to ***No***. It does not need to be added and removed each time the firmware is updated. However, since it will update when the firmware is different, it will try to update the firmware if you boot it from a ThinManager server with older firmware.

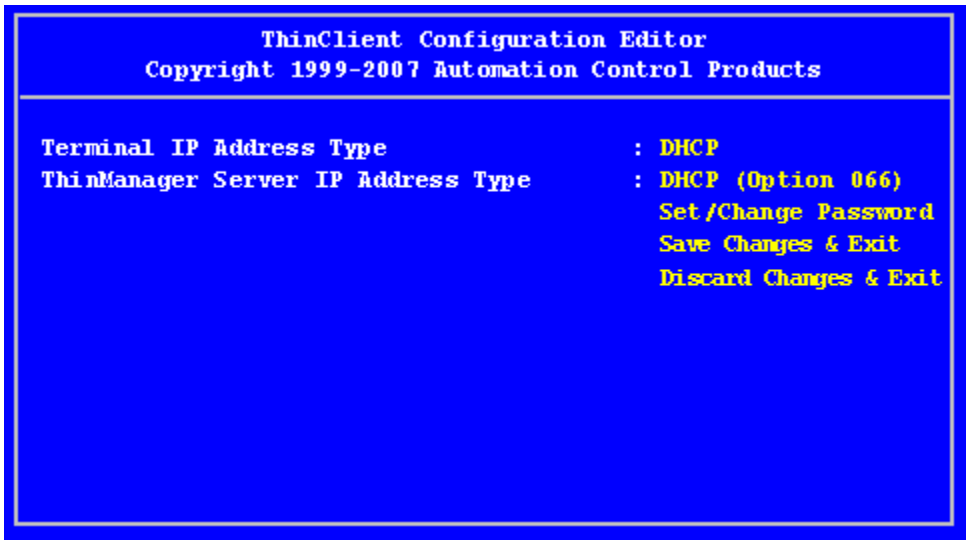
15.9.2.1 Firmware Update Program

Once the new firmware has downloaded, an update program will run on the terminal to rewrite the new firmware to the storage. The program will display a warning stating that the terminal must not be reset or powered off during the process, usually around 30 seconds. Ignoring the warning can corrupt the stored firmware, so it is important to leave the terminal alone for that period of time.

Note: Heed the warning. The terminal must not be reset or powered off during the brief period that the update program is writing the firmware to the firmware storage device.
It is recommended that updates be done over a wired LAN instead of over a wireless connection, when possible.

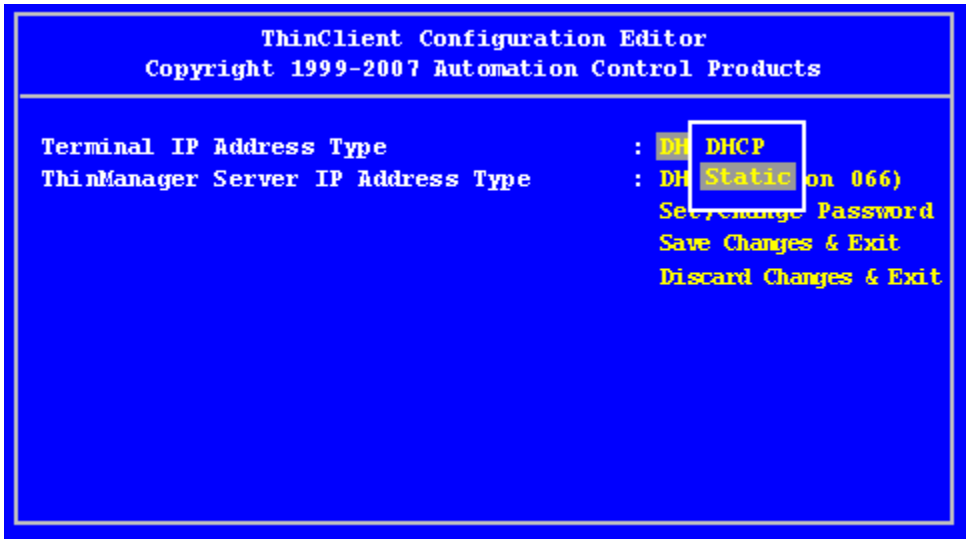
15.9.2.2 Stored Firmware Terminal Configuration

A stored firmware terminal loads the firmware locally before connecting to the ThinManager server. The stored firmware terminals have a setup program that allows configuration of the connection. Enter the program by selecting any key when ***Select any key*** to configure is displayed during the boot process. A setup screen will be displayed.



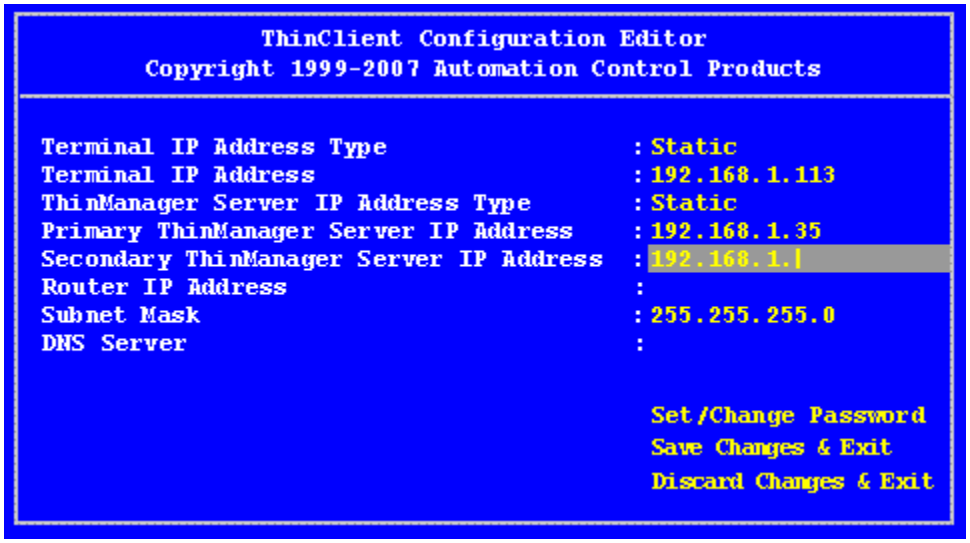
Thin Client Configuration Editor – Default Values

The IP Addressing method is set to **DHCP by default**.



Thin Client Configuration Editor – Changing Values

To change a value, navigate with arrow keys to the desired property. Pressing the ***Enter*** key will allow the input and acceptance of new values.



Thin Client Configuration Editor – Static IP Addresses

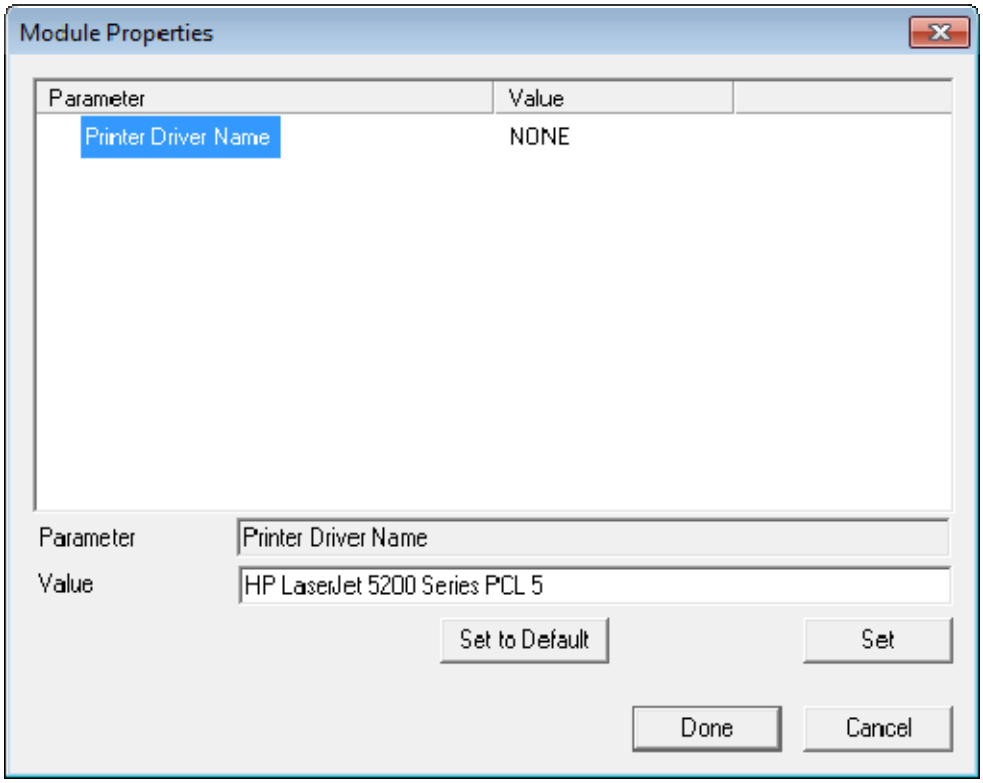
The changes may be saved or discarded before the boot process is resumed.

15.9.3 Local Print Module

The Local Print Module simplifies printing through the parallel port on thin clients.

There are three steps:

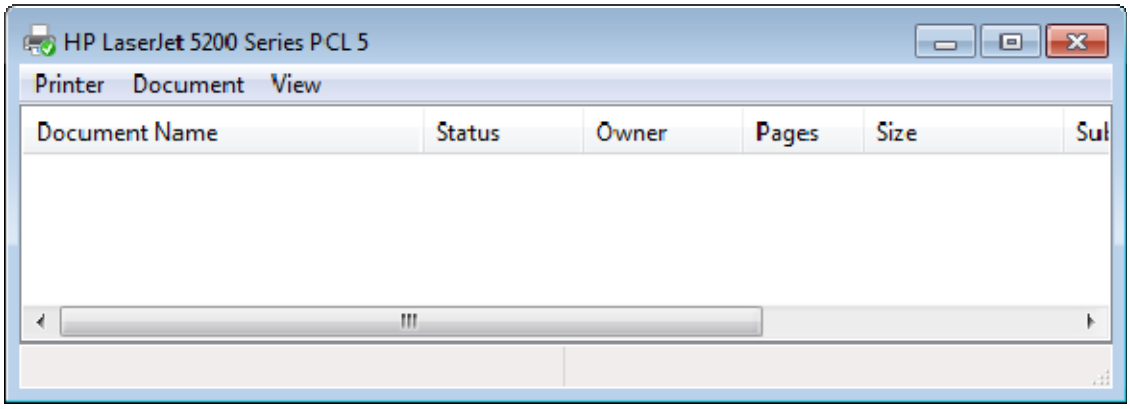
1. Install the print driver on the terminal servers that the client will connect to.
2. Add the **Local Print Module** to the thin client as described in Adding a Module to a Group or Terminal.
3. Configure the ***Print Driver Name*** parameter in the module to contain the print driver's name.



Local Print Module Properties

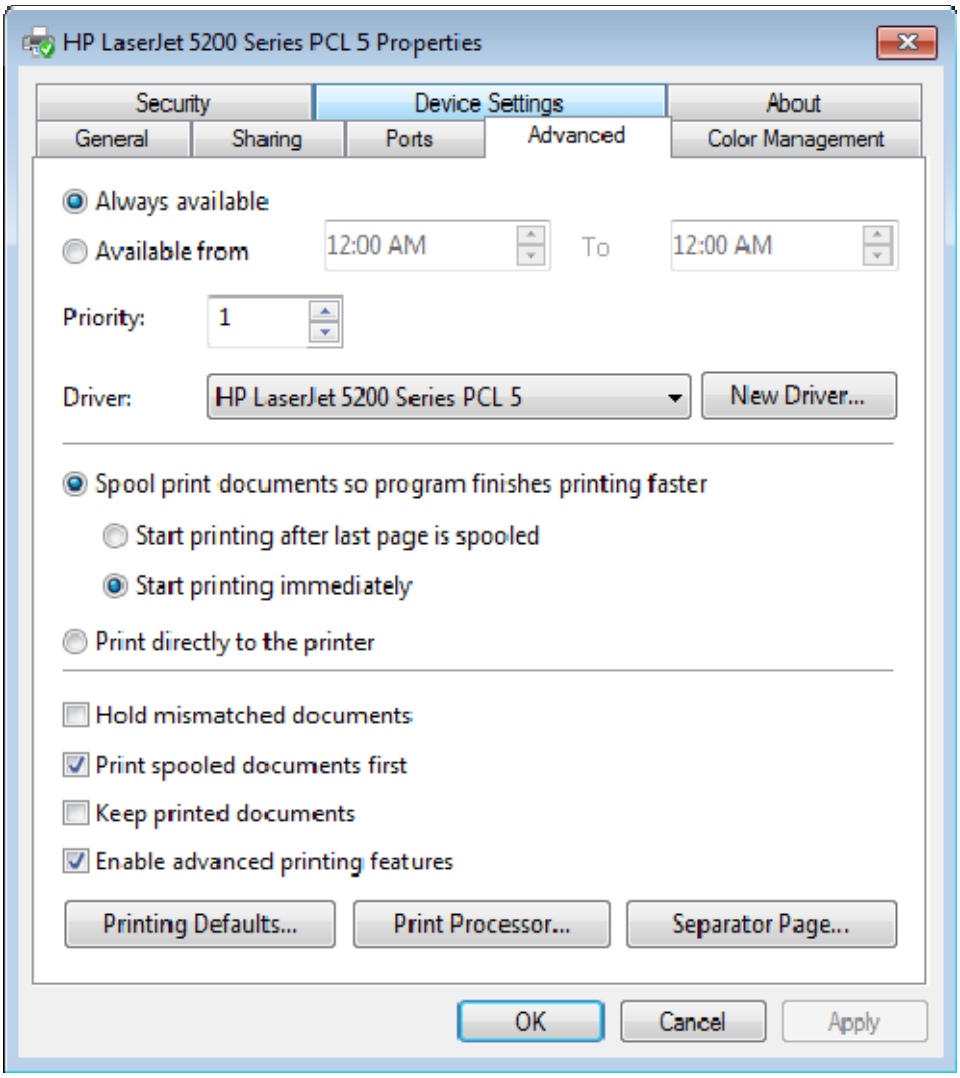
- Printer Driver Name - The Local Print module works when the name of the print driver is entered in the Value field for the Printer Driver Name. The Print Driver name is provided by the properties page for the printer.

The **Printer Property** page for a printer can be launched by selecting ***Start > Settings > Printers*** and selecting the appropriate printer. This will launch the **Printer Queue** window.



Printer Queue window

Select ***Printer > Properties*** to launch the **Printer Properties** page.

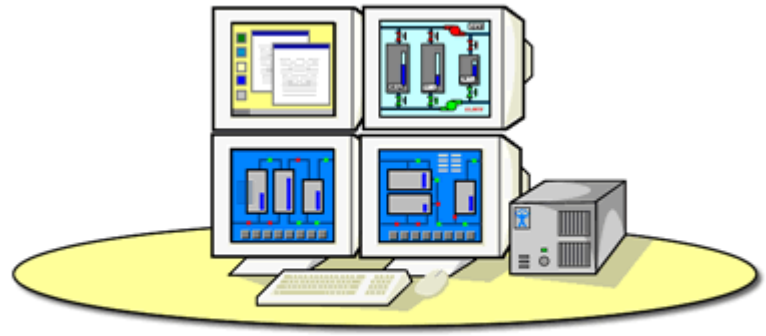


Advanced Printer Properties

The **Printer Property** page shows the Print Driver name on the ***Advanced*** tab. This is the name that needs to be entered into the Local Print Module.

Note: When printing from the client, the printer will be displayed as **Printer/username/session number**.

15.9.4 MultiMonitor Module



MultiMonitor

The **MultiMonitor Module** was introduced to allow MultiMonitor capable thin clients to be configured for use with MultiMonitor before MultiMonitor was integrated into ThinManager 3.1.

Note: This module provides primitive functionality compared to the integrated settings of ThinManager 3.1+ and is no longer used.

See MultiMonitor for details.

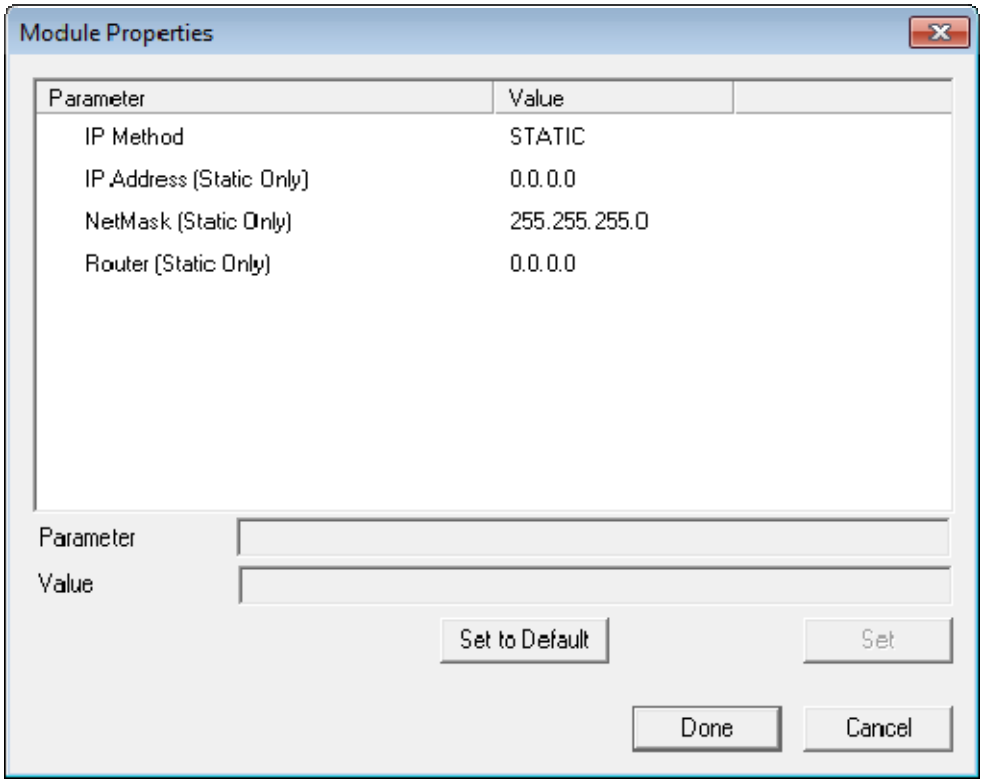
15.9.5 Redundant Ethernet Module

Some thin clients have two network ports. The Redundant Ethernet module allows the thin client to use both ports with a single IP address and a single MAC address.

The thin client will use the primary (LAN1) port under normal conditions. If this port, cable, or switch fails, the Redundant Ethernet module will allow the thin client to activate and switch to the backup (LAN2) port in a seamless fashion.

15.9.6 Second Network Module

Some thin clients have two network ports. The Second Network module allows the thin client to use both ports on different networks.



Second Network Module

- **IP Method** – This allows the second port to use DHCP or a static IP.
- **IP Address (Static Only)** – This allows the second port to be assigned a static IP address.
- **NetMask (Static Only)** – This allows the second port to be assigned a subnet mask.
- **Router (Static Only)** - This allows the second port to be assigned a router.

15.9.7 Terminal Shadow Module

This module needs to be installed in ThinManager but is not applied to a terminal. A terminal will automatically download this module if it is needed.

15.9.8 TermMon ActiveX Configuration Module

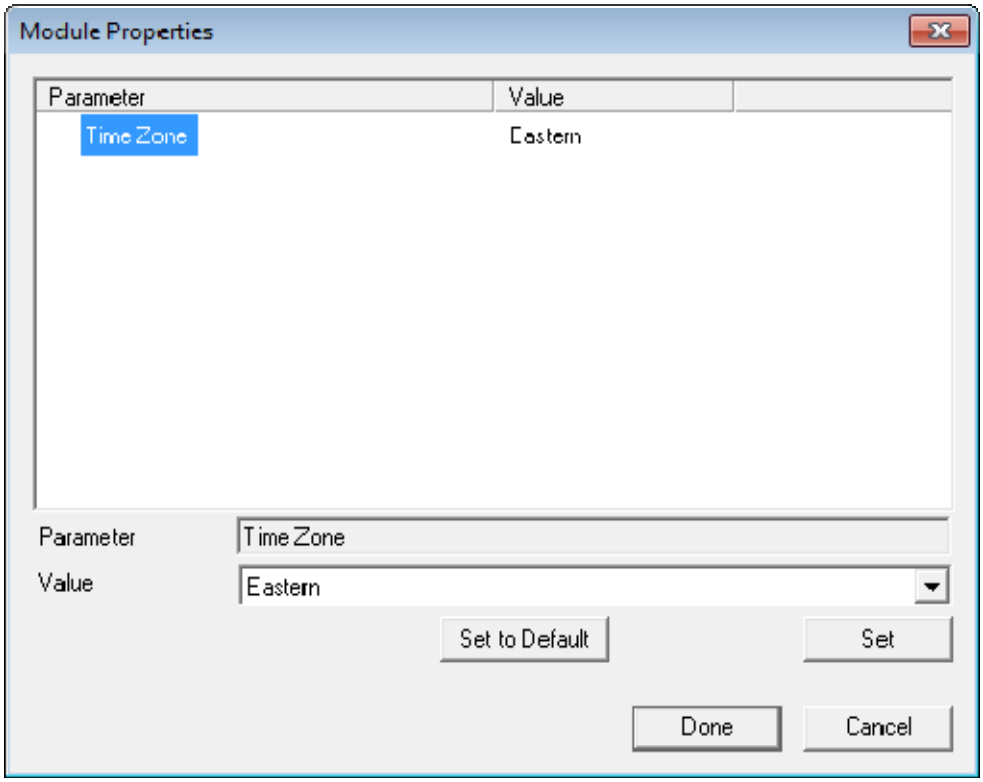
This configures the TermMon ActiveX control that collects terminal information and can perform terminal functions. It is listed as both a Miscellaneous Module and a TermSecure Module but is described in the TermSecure section.
See TermMon ActiveX Control for details.

15.9.9 Terminal Shadow Module

The Terminal Shadow module enables the Terminal-to-Terminal shadowing feature that was added in ThinManager 3.2. This module isn't added to a terminal but is automatically downloaded to terminals using terminal-to-terminal shadowing. This terminal needs to be available on ThinManager and is installed automatically to ThinManager when ThinManager 3.2+ is installed or ThinManager is updated to v3.2+.

15.9.10 Time Zone Redirection Module

The Time Zone Redirection Module allows a terminal to display local time when it is connected to a terminal server in another time zone.



Time Zone Module Properties

- ***Time Zone*** - This parameter can be highlighted to activate the ***Value*** drop-down that contains time zones. Select the ***Set*** button to accept the changes.

Windows terminal servers need to have time zone redirection allowed in the Group Policy Console.

The Allow Time Zone Redirection policy is found under **Local Computer Policy\Computer Configuration\Administrative Templates\Windows Components\Terminal Services\Client\Server data redirection folder** for Server 2003 or **Local Computer Policy\Computer Configuration\Administrative Templates\Windows Components\Terminal Services\Terminal Server\Device and Resource Redirection** for Server 2008 of the Group Policy.

Please see Microsoft documentation for information on Group Policy.

15.9.11 User Override Module

The User Override Module is a temporary module that allowed users of ThinManager 3.1 to use the User Override function in Display Clients It is no longer needed in ThinManager 3.2+.

See Display Client Override for the current method of User Override.

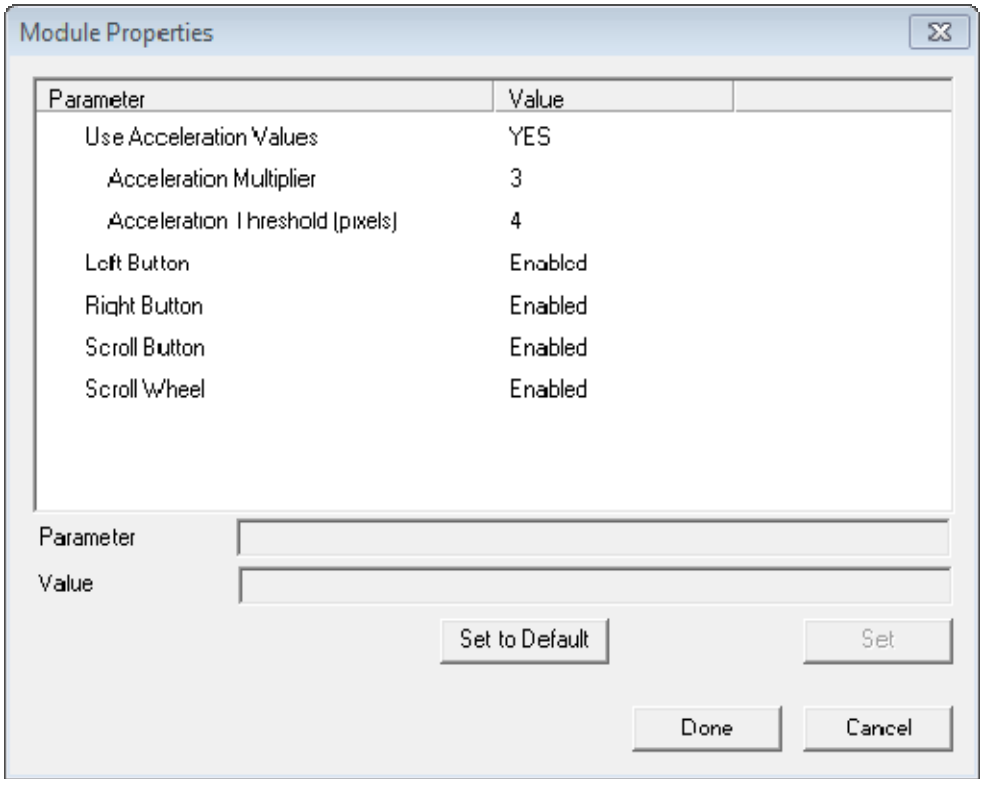
15.10 Mouse Modules

15.10.1 Mouse Configuration Module

The Mouse Configuration Module allows USB or PS/2 mice to be configured and allows the use of two mice. Configuration of mouse settings include:

- **Primary Mouse Type** -This setting allows both a PS/2 mouse and USB mouse to be used on a terminal. This setting will define which mouse is considered the primary mouse.
- **Mouse Protocol** - This value allows the selection of different protocols used by the mouse.
- **Scroll Mouse** - The value, when set to Yes, allows a scroll mouse to function on a terminal.
- **Acceleration Multiplier** - This value allows the mouse movement to be slowed down or sped up.
- **Acceleration Threshold (pixels)** - This value is the number of pixels a mouse must move before the acceleration multiplier takes effect.
- **Left Button** – This will disable the left mouse button when set to ***Disabled***.
- **Right Button** – This will disable the right mouse button when set to ***Disabled***.
- **Scroll Button** – This will disable the scroll button when set to ***Disabled***.
- **Scroll Wheel** – This will disable the scroll wheel when set to ***Disabled***.

These parameters can be changed by highlighting the parameter and choosing a new value in the ***Value*** dropdown box. Use the ***Set*** button to accept the new parameter value.



Mouse Configuration Module

ThinManager supports USB mice. The **Mouse Configuration Module** allows configuration of USB mice.

A thin client can have both a USB and a PS/2 mouse installed. This module allows the selection of the primary mouse when using two mice.

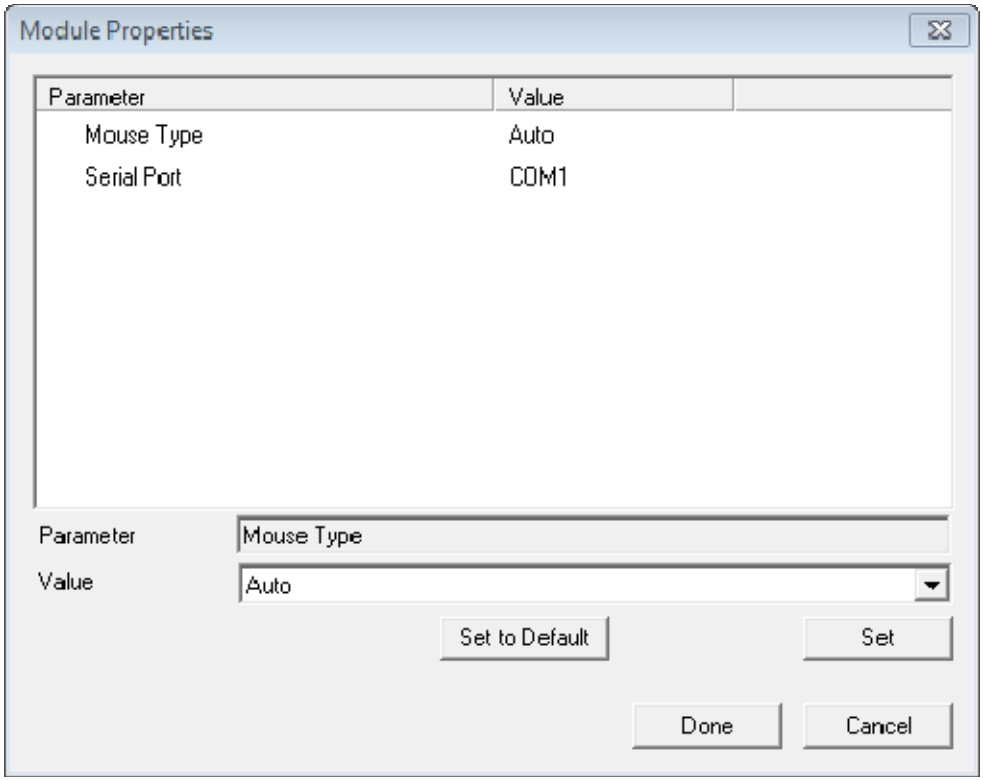
15.10.2 PS/2 Mouse Module

The PS/2 Mouse Module is the forerunner of the Mouse Configuration Module. It allows the changing of PS/2 settings like mouse type, acceleration and threshold. All of these features are now available in the Mouse Configuration Module.

- ***Mouse Type*** -This value allows the selection of PS/2 or USB mouse type.
- ***Scroll Mouse*** - The value, when set to ***Yes***, allows a scroll mouse to function on a terminal.
- ***Acceleration Multiplier*** - This value allows the mouse movement to be slowed down or sped up.
- ***Acceleration Threshold (pixels)*** - This value is the number of pixels a mouse must move before the acceleration multiplier takes effect.

15.10.3 Serial Mouse Driver

The Serial Mouse Driver allows a serial mouse to be used with thin clients.



Serial Mouse Module

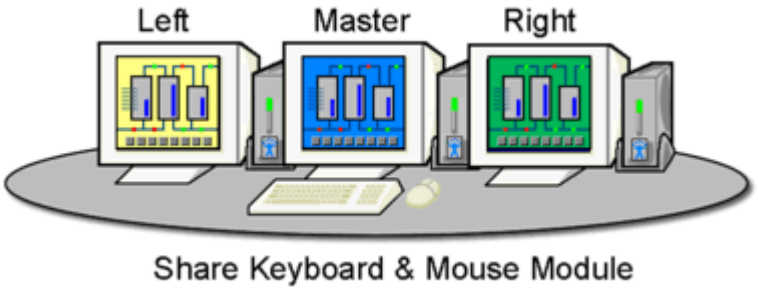
Mouse Type - This value defines what type of mouse is used.

Serial Port – Set this value to the serial port number used for the mouse.

15.10.4 Share Keyboard and Mouse Modules

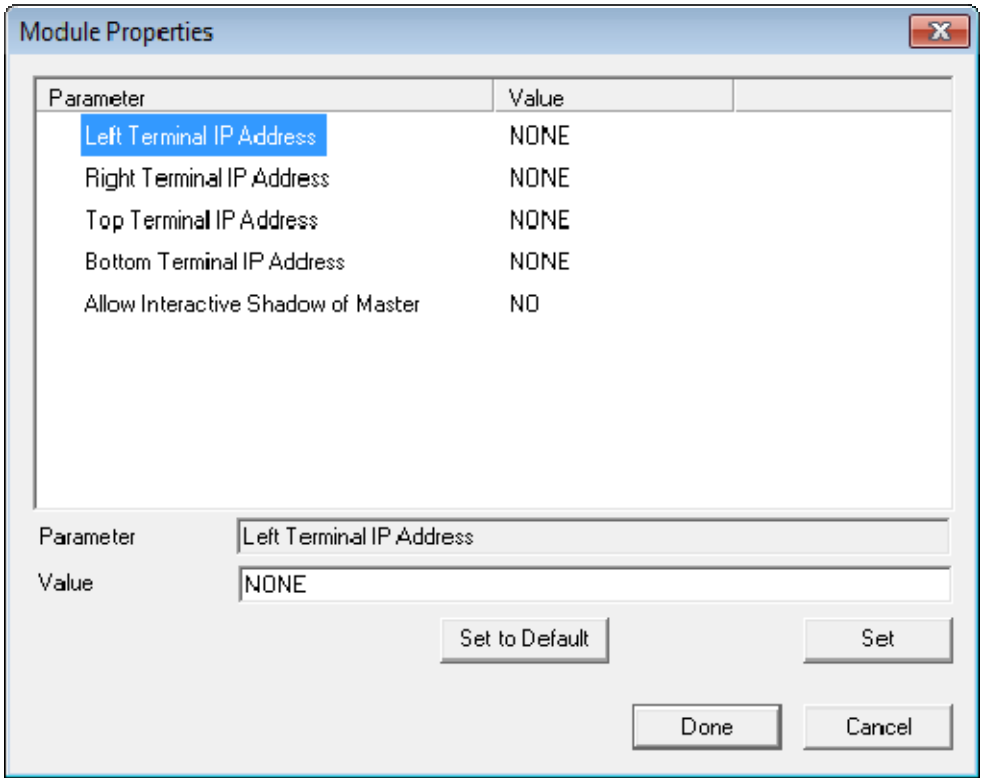
The **Share Keyboard and Mouse** module allows several thin clients to be controlled with a single keyboard and mouse without the need of a KVM switch (Keyboard/Video/Mouse).

The **Share Keyboard and Mouse** has a **Master** module that is added to the controlling terminal, and a **Slave** module that is added to the dependent terminals.



Shared Keyboard and Mouse Layout

The Share Keyboard and Mouse can be used by placing several monitors connected to thin clients, side-by-side or top-to-bottom. The ***Share Keyboard and Mouse Master module*** is loaded on the center thin client. This module is configured by adding the IP addresses of the secondary slave thin clients. The other terminals receive the ***Share Keyboard and Mouse Slave module***. Once the ***Share Keyboard and Mouse Master Module*** is added to a terminal, it can be configured by highlighting it in the ***Installed Module*** window and selecting the ***Configure*** button.

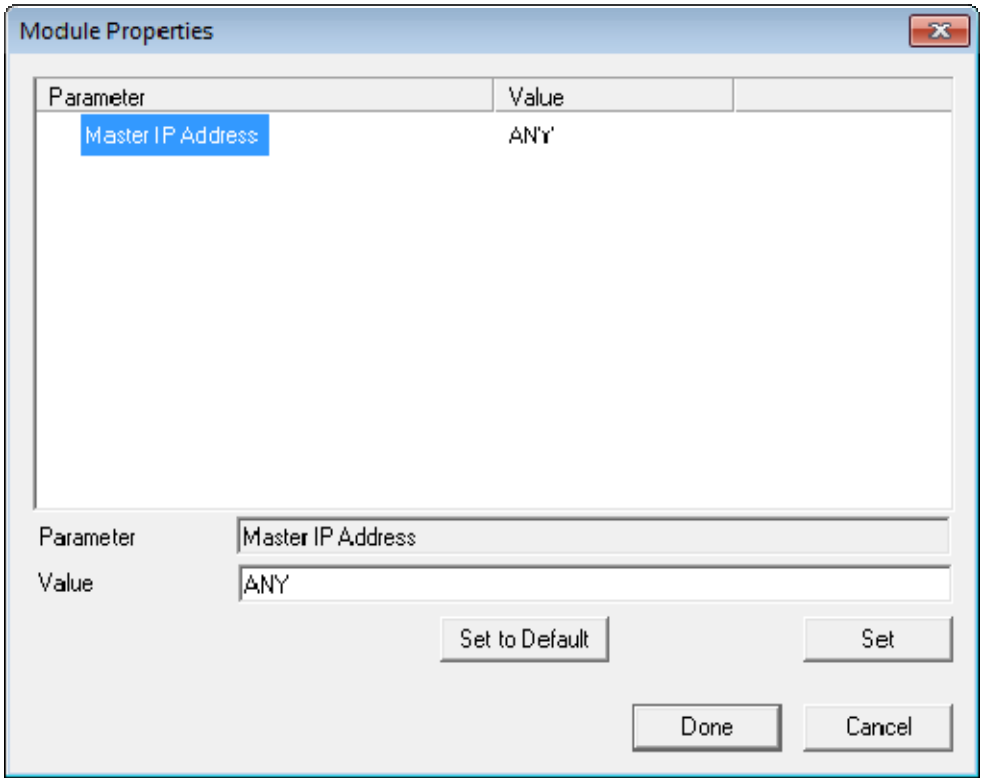


Share Keyboard and Mouse Master Module Properties

- ***Left Terminal IP Address*** - Enter the correct IP address for the Slave terminal on the left of the master terminal, if used, and select the ***Set*** button.
- ***Right Terminal IP Address*** - Enter the correct IP address for the Slave terminal on the right of the master terminal, if used, and select the ***Set*** button.
- ***Top Terminal IP Address*** - Enter the correct IP address for the Slave terminal on the top of the master terminal, if used, and select the ***Set*** button.

- ***Bottom Terminal IP Address*** - Enter the correct IP address for the Slave terminal on the bottom of the master terminal, if used, and select the ***Set*** button.
- ***Allow Interactive Shadow of Master*** - Normally a terminal with the master module loaded is blocked from interactive shadow. If you want to allow interactive shadowing on the master, highlight the ***Allow Interactive Shadow of Master*** parameter, select ***Yes*** from the ***Value*** drop-down, and select the ***Set*** button.

The **Share Keyboard and Mouse Slave module** is loaded on the secondary thin clients using the same methods as other modules are loaded.



Share Keyboard and Mouse Slave Module Properties

- **Master IP Address** - This setting allows the slave module to be configured to connect to a specified master by entering the IP address of the master terminal and selecting the Set button.

Select the ***Done*** button when finished.

Once the ACP Enabled thin clients are booted, the mouse on the master thin client can be moved seamlessly into the other desktops. The keyboard will be active in whatever screen the mouse pointer is on.

This allows an operator to have control of several displays with only one keyboard and mouse. The mouse movement is seamless, allowing access to displays without switching.

Note: A Master Share Keyboard and Mouse session cannot be interactively shadowed in ThinManager unless it is configured to allow it.

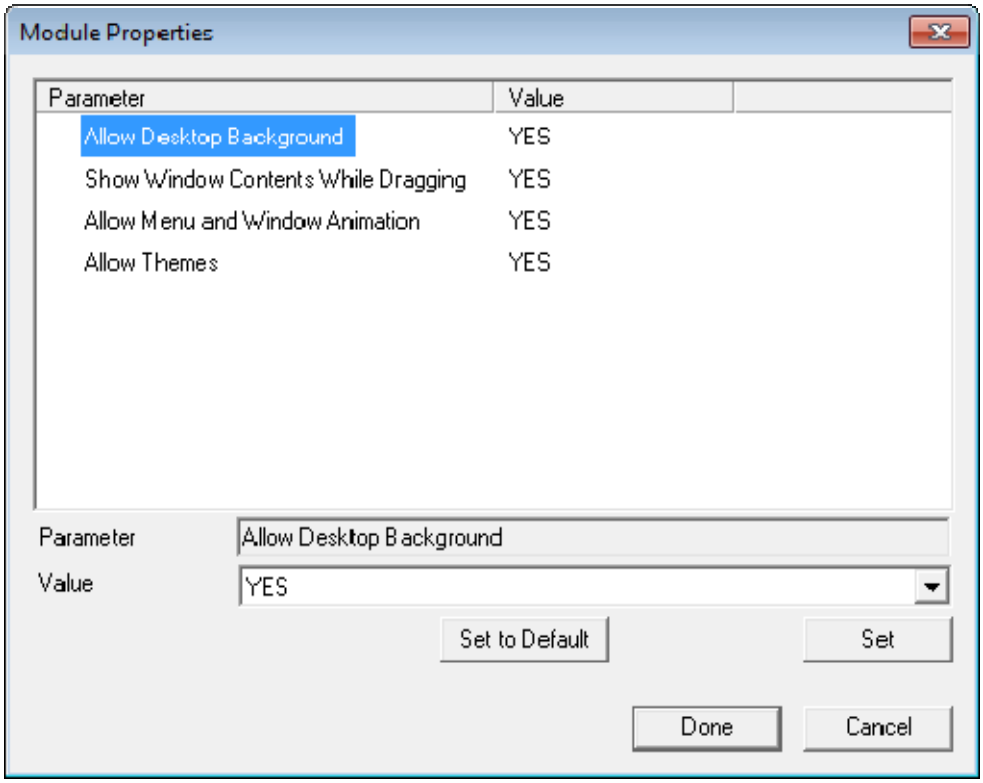
The keyboards and mice for the slave thin clients can be left attached but stowed away until a multi-user configuration is needed.

The ***Share Keyboard and Mouse Master module*** is licensed for each master thin client. The ***Share Keyboard and Mouse Slave module*** is free. Each master module can have 1 to 4 slave units. Future releases will expand the number of slaves that the master can control.

15.11 RDP Modules

15.11.1 RDP Experience Module

The RDP Experience Module allows a session connected to a Windows 2003 terminal server with RDP to add features to the session.



RDP Experience Module Parameters

The **RDP Experience Module** parameters are:

- ***Allow Desktop Background*** - This setting, if set to ***Yes***, will allow a terminal to show a desktop background.
- ***Show Window Contents While Dragging*** - This setting, if set to ***Yes***, will allow a terminal to show window contents while dragging.
- ***Allow Menu and Window Animation*** - This setting, if set to ***Yes***, will allow a terminal to show window and menu animations.
- ***Allow Themes*** - This setting, if set to ***Yes***, will allow a terminal to show a desktop Theme.

In order to use these features, they must be enabled by using the **Windows Group Policy Editor**. See Microsoft documentation for details.

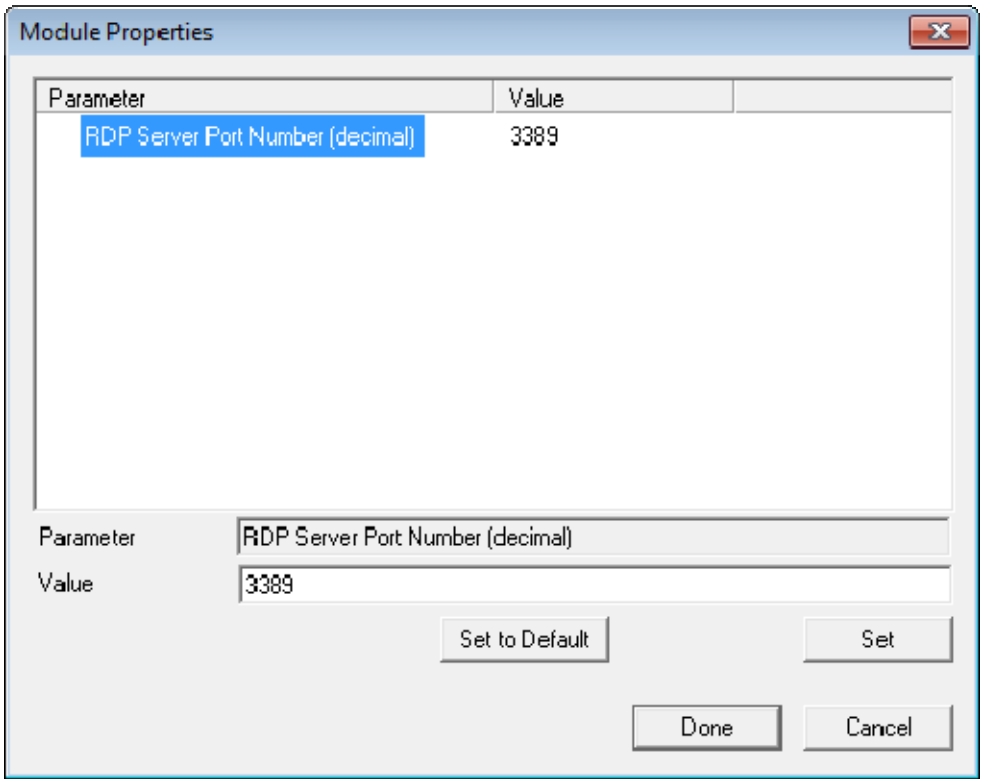
15.11.2 RDP Module for ThinManager v2.4 and Older

The **RDP Module for ThinManager v2.4 and Older** module is used to allow older versions of ThinManager to use RDP.

ThinManager didn't support RDP until the v2.4.1 release. Users with older versions of ThinManager can use the RDP client communication protocol with older versions of ThinManager by adding the RDP Module for ThinManager v2.4 and Older to the terminal and installing a ThinManager firmware that is v02.05.00 or later.

15.11.3 RDP Port Module

The **RDP Port Module** allows that port that RDP communicates to the terminal server to be changed from the default 3389 to another port.



RDP Port Module Parameters

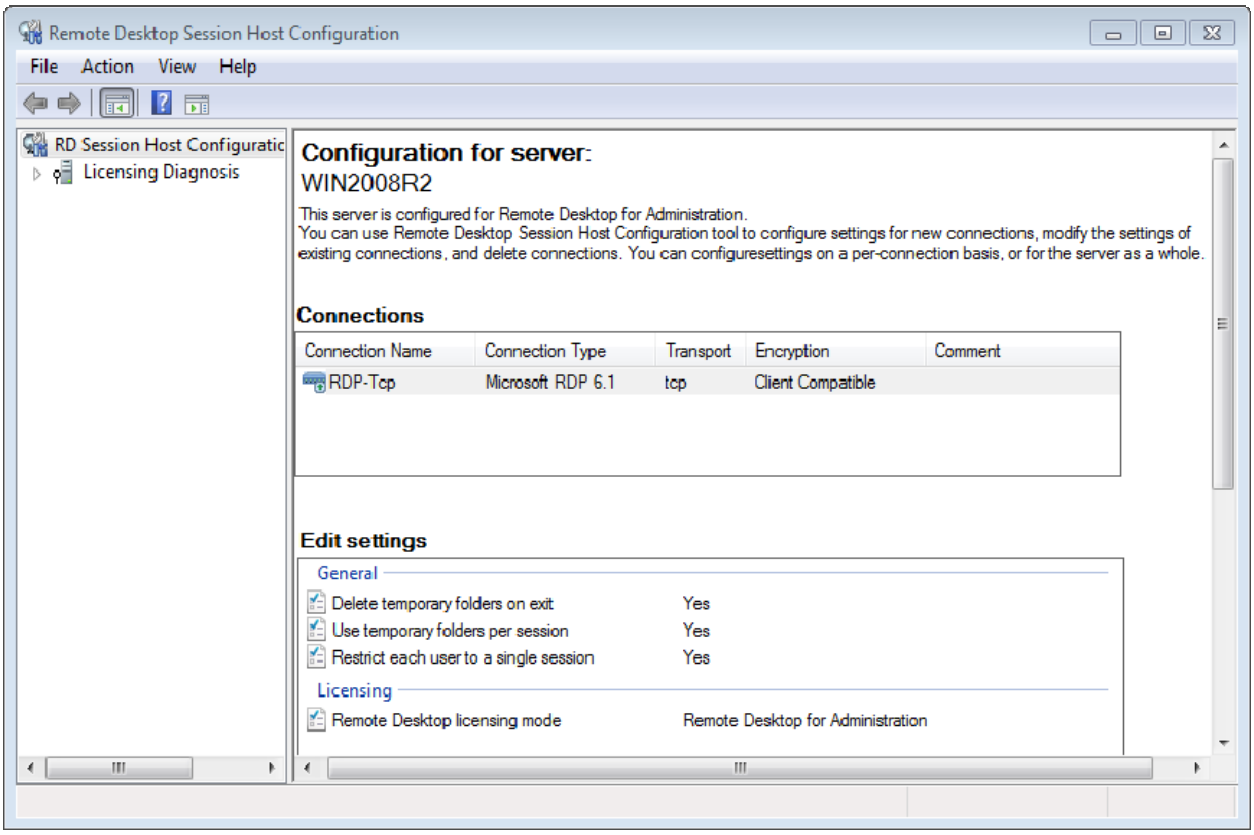
The RDP Port Module allows the port that RDP uses to be changed from the default 3389.

- ***RDP Server Port Number (decimal)*** - Enter the new port number for RDP in this value.

15.11.4 RDP Serial Port Redirection Module

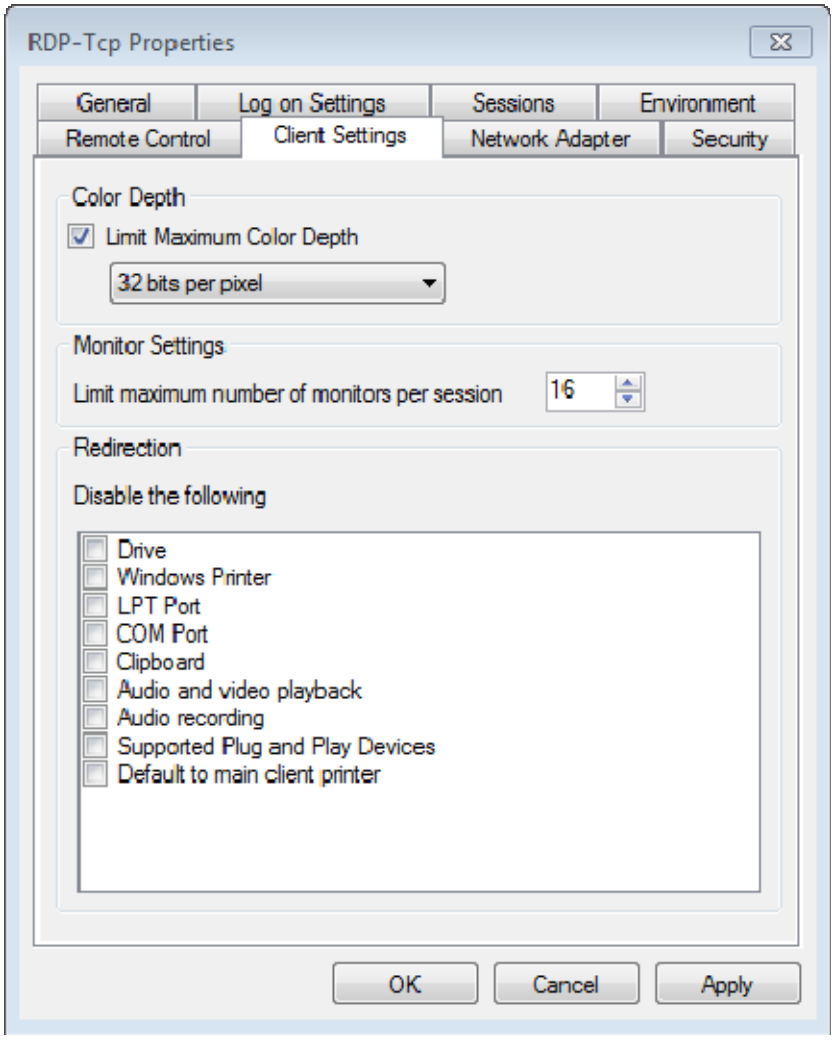
The serial ports on a thin client can be remapped by adding the **RDP Serial Port Redirection module** to the thin client without additional configuration. Once the thin client is booted, the COM1 in the session will refer to the COM1 on the terminal, while the COM2 in the session will refer to the COM2 on the terminal. This function requires Windows 2003 to work.

Additionally the **COM Port Mapping** needs to be allowed. This is done on the **Terminal Services Configuration Console**. To open the Terminal Services Configuration Console in Windows 2003 select ***Start > Administrative Tools > Terminal Services Configuration***.



Terminal Services Configuration Console

Launch the **RDP-tcp Properties** page by highlighting the ***Connections*** folder in the tree pane and double-clicking the ***RDP-tcp*** in the right pane. This will launch the **RDP-tcp Properties** page.

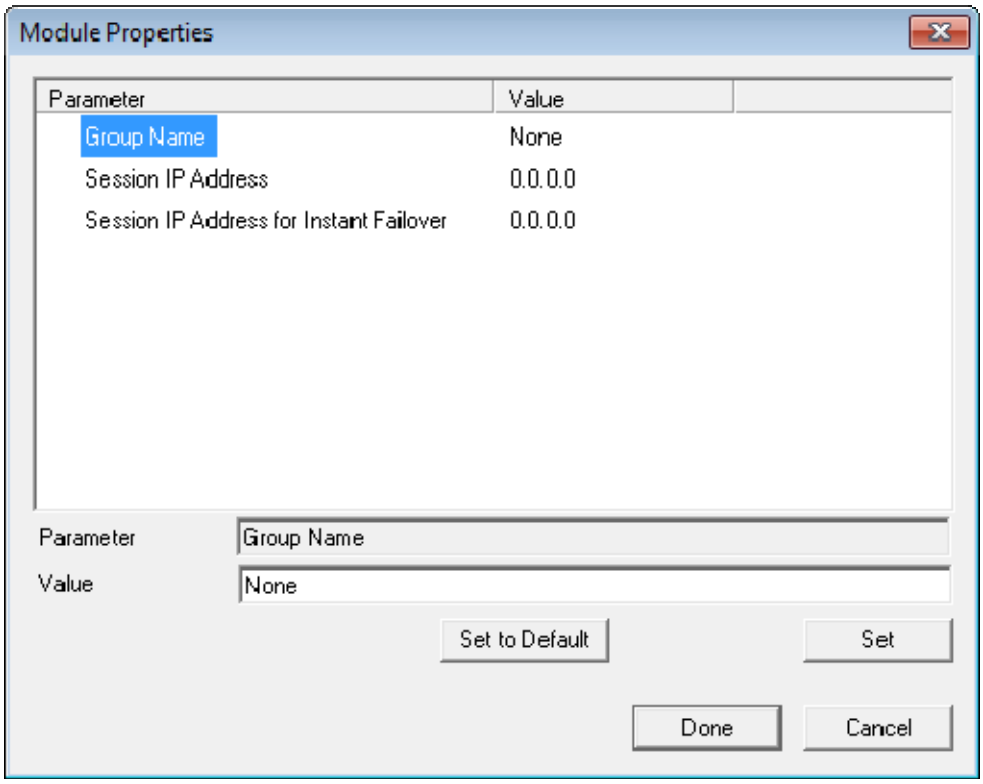


COM Port Mapping Allowed

The ***Com port mapping*** checkbox must be unselected to allow the **RDP Serial Port module** to function on the Windows 2003 terminal server.

15.11.5 RDP Session IP Module

The **RDP Session IP Module** allows a terminal to use an alias IP address for a specific Display Client session.



RDP Session IP Module

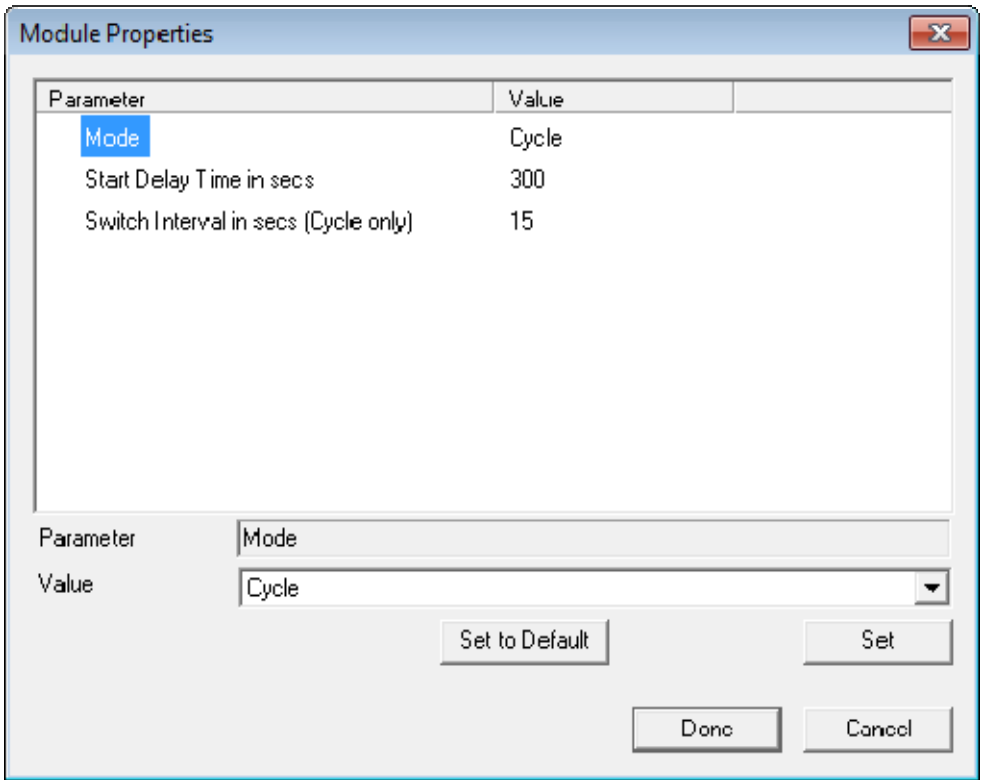
The RDP Session IP module has three settings:

- ***Group Name*** – This specifies the Display Client to use.
- ***Session IP Address*** – This is the IP address to use as the alias.
- ***Session IP Address for Instant Failover*** – This is the IP address to use for a backup session it the Display Client is configured to use Instant Failover.

15.12 Screen Saver Modules

15.12.1 MultiSession Screen Saver Module

The **MultiSession Screen Saver Module** is a screen saver for use on terminals configured with MultiSession. See MultiSession Overview for details.



MultiSession Screen Saver Module Parameters

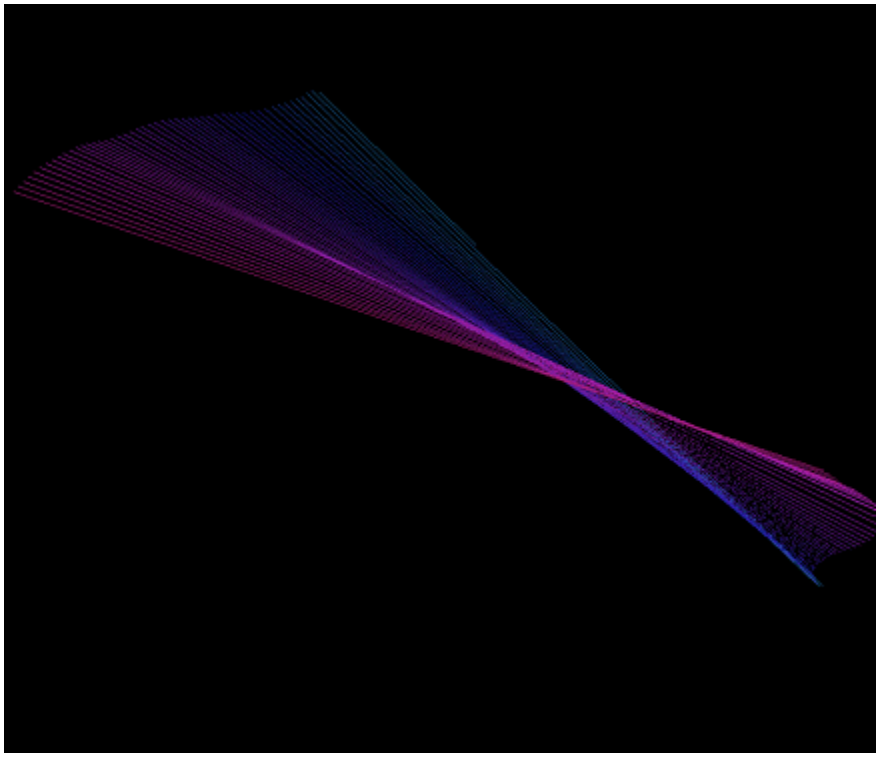
The **MultiSession Screen Saver Module** has two modes. It can be set to cycle through the MultiSession windows when the terminal is inactive, or it can be set to return to the main MultiSession screen when the terminal is inactive.

The parameters are:

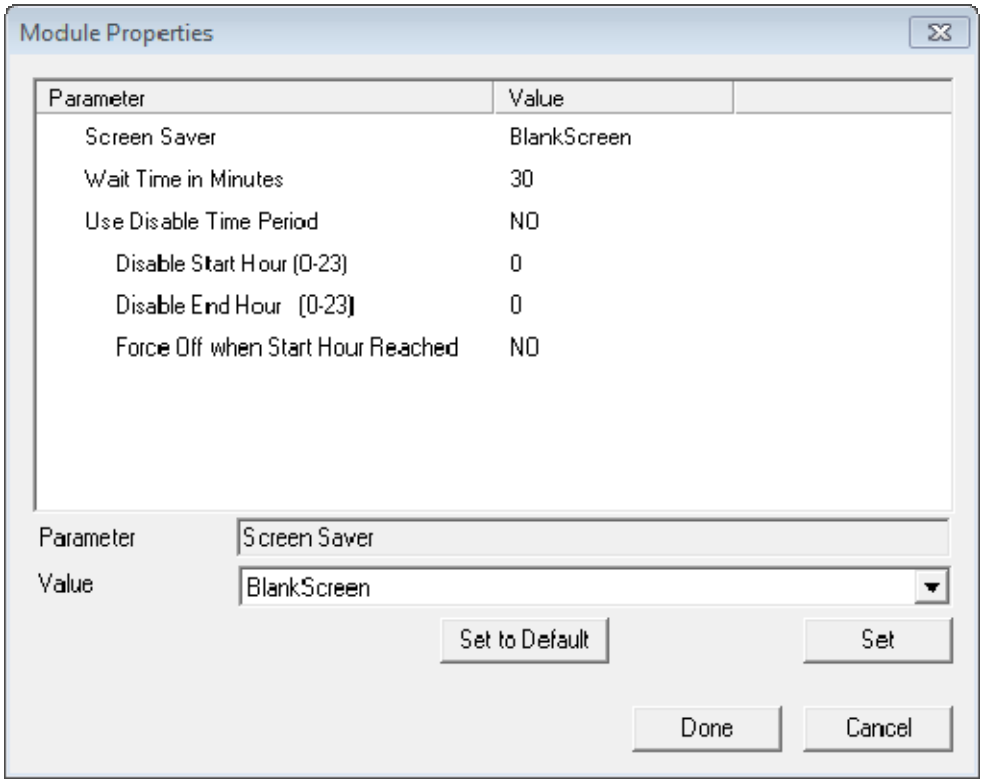
- **Mode** - The **Cyclic** mode will switch between all active sessions on the terminal. The **GotoFirstGroup** mode will switch the terminal to the main session when it is inactive.
- **Start Delay Time in secs** - This is the number of seconds of inactivity that the terminal will allow before starting the screen saver.
- **Switch Interval in secs (Cyclic only)** - This is the number of seconds that the terminal will display each session when using the Cyclic mode.

15.12.2 Screen Saver Module

Screen Saver Module is a module that loads a screen saver on the client. The screen saver will run when the terminal is idle to protect the monitor. Since the screen saver runs on the client, it saves CPU resources on the terminal server.



Screen Saver on Thin Client



Screen Saver Module Parameters

The Screen Saver Module configuration includes:

- ***Screen Saver*** - the graphic that is displayed when the screen saver is active.
- ***Wait Time in Minutes*** - the length of time that the terminal needs to be idle before the screen saver starts.
- ***Use Disable Time Period*** - the screen saver can be set to be disabled or unavailable during a time block. This could be used to prevent the screen saver from running during normal business hours.
    - ***Disable Start Time (0-23)*** - This sets the start of the disabled time block. 0 is Midnight and 23 is 11:00 p.m.
    - ***Disable End Time (0-23)*** - This sets the end of the disabled time block. 0 is Midnight and 23 is 11:00 p.m.
    - ***Force Off when Start Hour is Reached*** - If set to ***Yes***, this will turn the screen saver off when the ***Disable End Time*** is reached.

15.13 Sound Modules

The use of sound from a thin client requires four things:

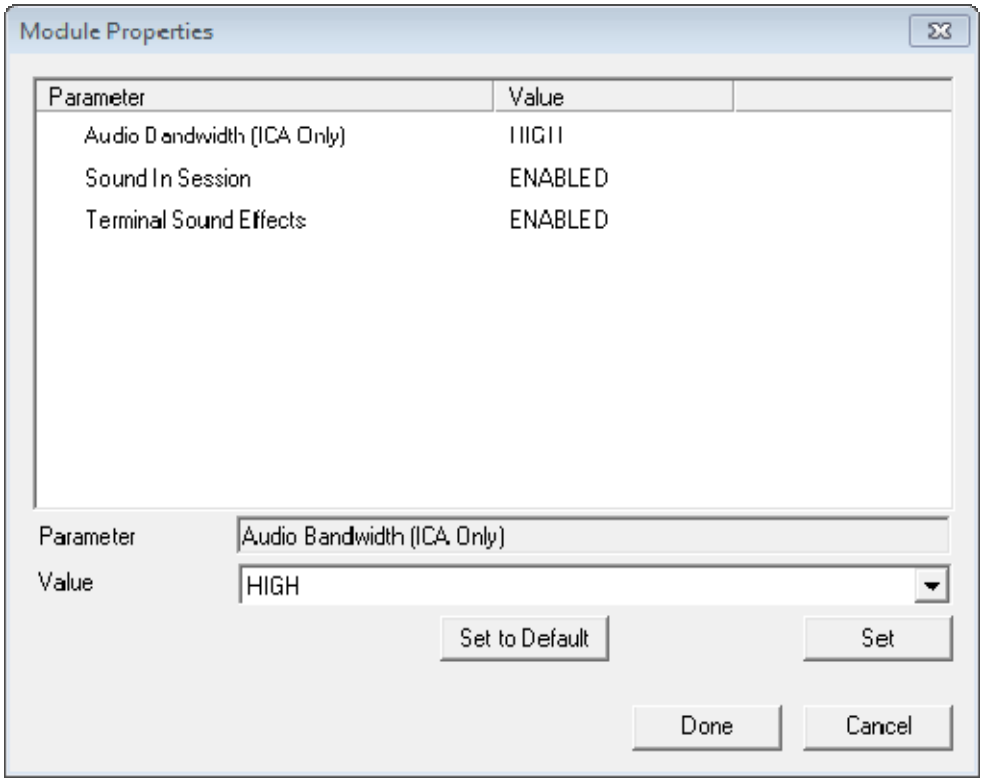
- Hardware with a Line Out/Speaker plug
- Amplified speaker(s)
- The Universal Sound Driver Module

- Either Windows RDP Session or Citrix server-side software.

Plug the speaker(s) into the Line Out plug on the terminal, add the module, and connect to the terminal server.

ThinManager 4.1 simplifies sound by providing a **Universal Sound Driver Module**. This module can be added to any thin client that has an audio jack to enable sound.

Note: Some thin clients, like the Advantech PCM-5820, may require that a sound harness be plugged into the motherboard.



Universal Sound Driver Parameters

These Sound modules have several settings:

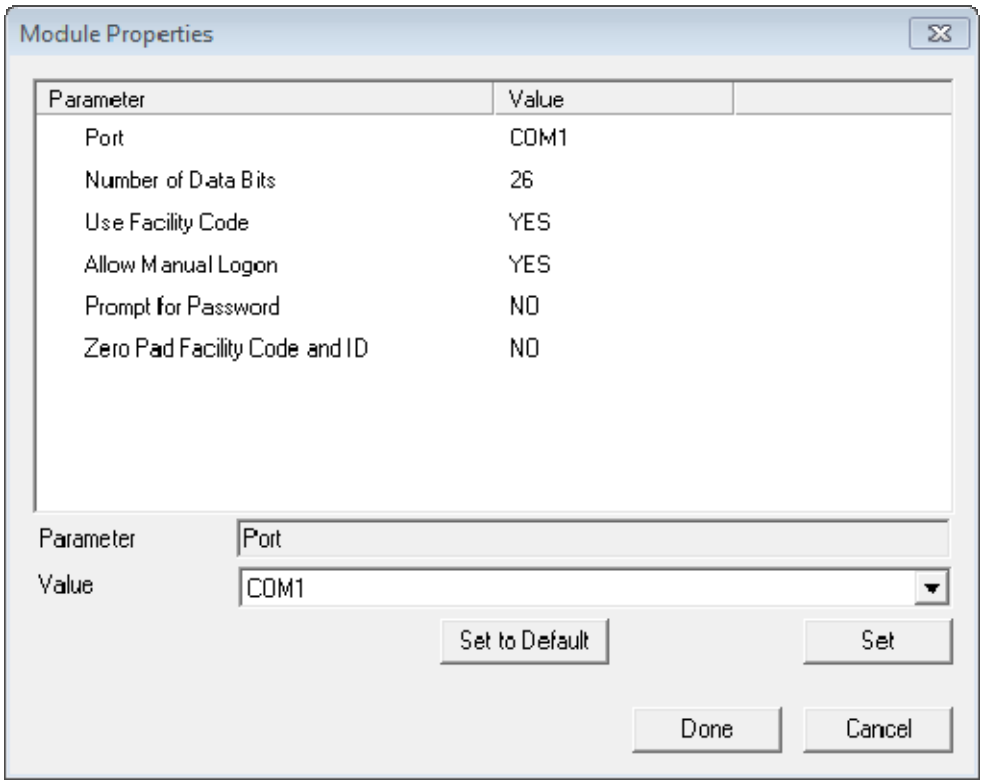
- ***Audio Bandwidth (ICA Only)*** - This parameter can be set to *Low*, *Medium*, or *High* bandwidth when using Citrix ICA.
- ***Sound in Session*** - This setting, when set to ***Enabled***, will allow sound generated within the session to be played through the terminal. When this is set to ***Disabled*** the session sounds will be turned off but system sounds will still be generated during TermSecure login for audio feedback during the login process.
- ***Terminal Sound Effects*** - This setting, when set to ***Enabled***, will allow terminal sound effects like TermSecure login sounds on the terminal.

15.14 TermSecure Modules

15.14.1 RF Ideas pcProx Module

Note: ThinManager supports the RFIdeas pcProx Enroll Series 81 readers (Serial: RDR-xx81AKx).

The **RF Ideas pcProx Module** uses a serial device that allows a terminal to use RF Ideas pcProx cards as TermSecure ID cards



RF Ideas pcProx Module Parameters

. The parameters are:

- **Port -** This selects the port that the RF Ideas pcProx card reader is installed.
- **Number of Data Bits –** Different cards use different numbers of data bits in their format. This sets the number of data bits to match that used by the card as an identifier. The choices are ***26***, ***37***, or ***Raw***.
- **Use Facility Code -** This value, when set to ***Yes***, will require the addition of the card's Facility Code to the Card / Badge ID number.
- **Allow Manual Login** - This, when set to ***Yes***, will allow a TermSecure user to log into a terminal without a TermSecure ID device. If set to ***No***, TermSecure users must use a TermSecure ID device to log in.
- **Prompt for Password** - This, when set to Yes, will require a TermSecure to enter their password for access, even if the password is configured in ThinManager.

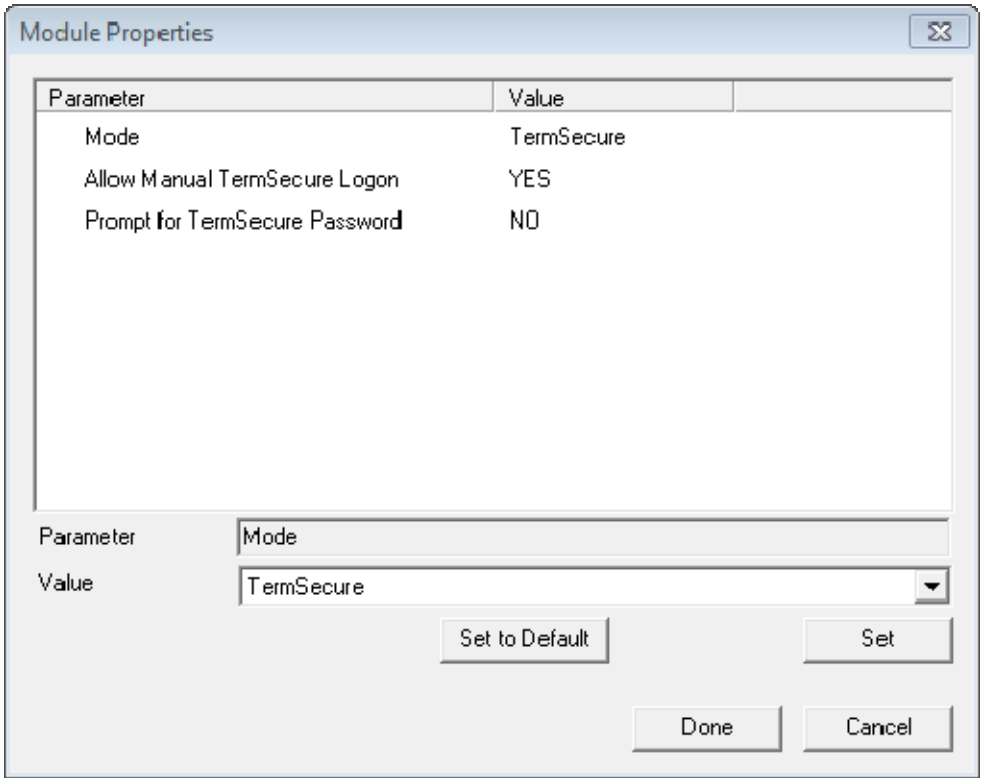
- **Zero Pad Facility Code and ID** – This will add a zero to the number string. This is rarely needed.

See Card and Badge Configuration for a TermSecure User for details.

15.14.2 RF Ideas pcProx USB Module

Note: ThinManager supports the RFIdeas pcProx Enroll Series 81 readers (USB: RDR-xx81AKU).

The **RF Ideas pcProx USB Module** uses a USB device that allows a terminal to use RF Ideas pcProx cards as TermSecure ID cards



RF Ideas pcProx USB Module Parameters

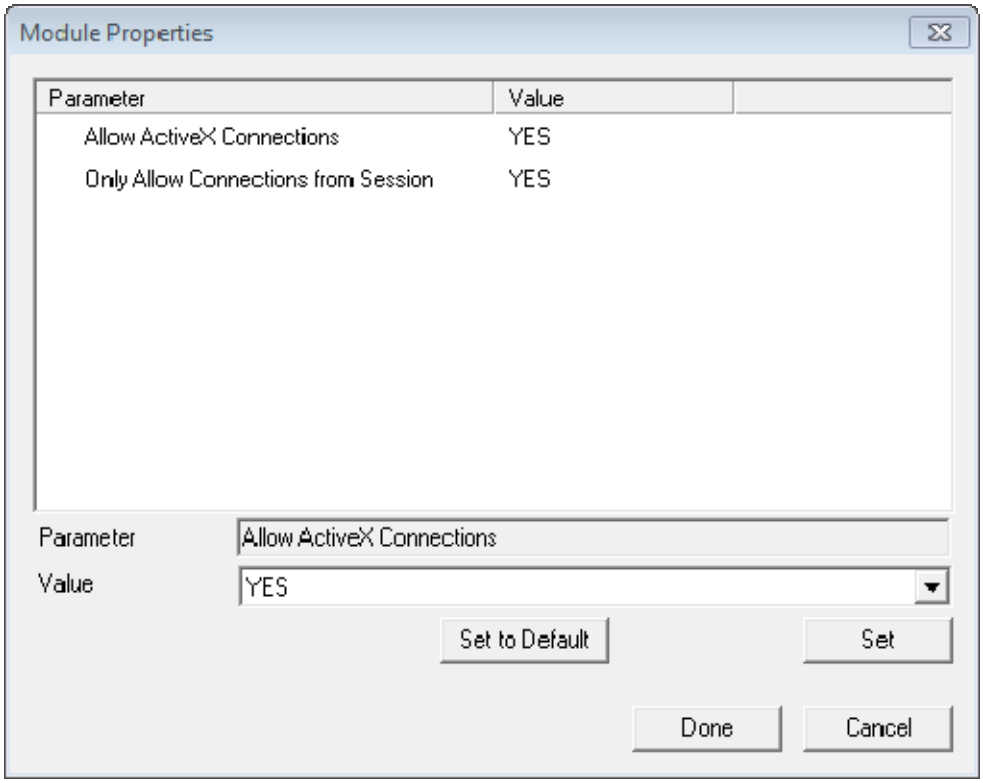
. The parameters are:

- **Mode –** This allows the device to be used in TermSecure Mode or Wedge mode. The Wedge mode sends data straight to the session as a keyboard wedge.
- **Allow Manual TermSecure Login** - This, when set to ***Yes***, will allow a TermSecure user to log into a terminal without a TermSecure ID device. If set to ***No***, TermSecure users must use a TermSecure ID device to log in.
- **Prompt for TermSecure Password** - This, when set to Yes, will require a TermSecure to enter their password for access, even if the password is configured in ThinManager.

See Card and Badge Configuration for a TermSecure User for details.

15.14.3 TermMon ActiveX Configuration

This configures the TermMon ActiveX control that collects terminal information and can perform terminal functions.



TermMon ActiveX Module Parameters

Normally the TermMon ActiveX, when registered on a terminal server, allows a terminal server session to communicate with its terminal and act upon it without the need of the TermMon ActiveX module. The TermMon ActiveX module can be added to the terminal configuration to either deny the default terminal server to terminal access or to allow access to other sessions and PCs.

- ***Allow ActiveX Connections*** - This value, when set to ***Yes***, will allow the ActiveX control to function. Setting this value to ***No*** will prevent any ActiveX communication to the terminal, including the default terminal server to terminal access.
- ***Only Allow Connections from Session*** - This value, when set to ***Yes***, will allow other terminal server sessions and PCs to communicate to the terminal with the ActiveX functions. If set to ***No,*** the only communication allowed is between the terminal and a session on the terminal server belonging to the terminal, providing that the ***Allow ActiveX Connections*** is set to ***Yes***.

See TermMon ActiveX Control for details.

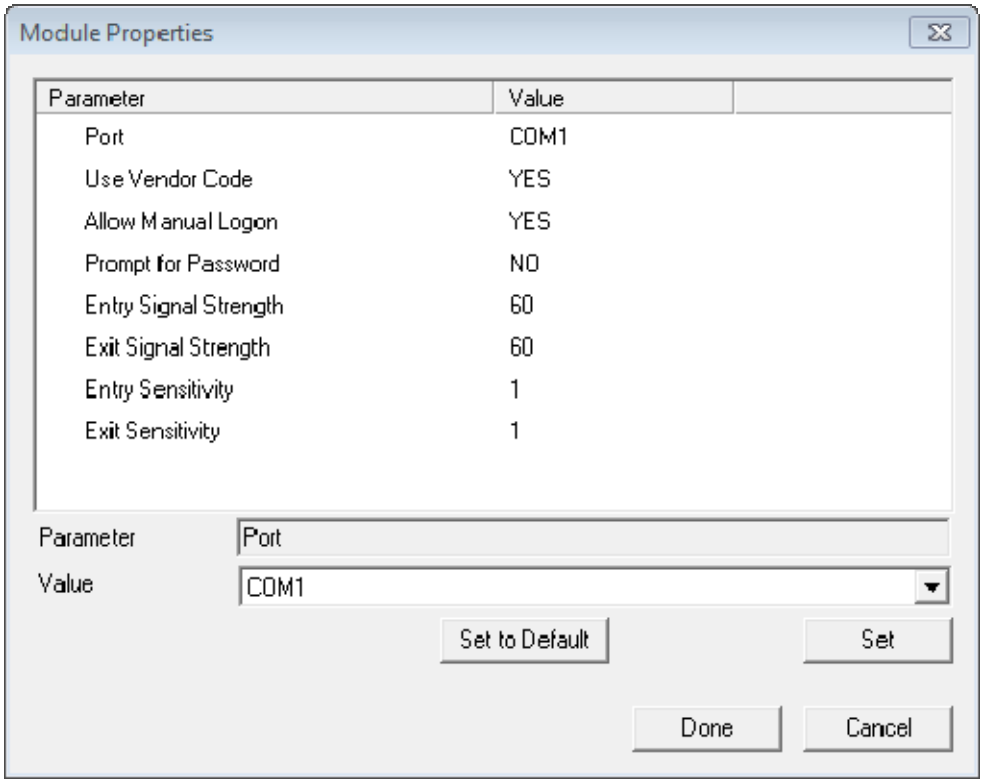
15.14.4 USB Flash Drive Module

The USB Flash Drive Module can be used to allow USB flash drives to be used as TermSecure ID devices. It is also listed under Local Storage modules.

See USB Flash Drive Module in the Local Storage Modules for details.

15.14.5 Wavetrend Tag Reader

The **Wavetrend Tag Reader Module** allows a terminal to use Wavetrend RFID cards as TermSecure ID cards. This allows a user to login through TermSecure when they approach the terminal and logs them out when they leave the area. The distance required to login and log out are configurable in the module.



Wavetrend Tag Reader Module Parameters

The parameters are:

Port - The WaveTrend Tag Reader Module connects to a thin client through the serial port. The ***Port*** setting specifies which COM Port the reader is attached to.

Use Vendor Code - This, if set to ***YES***, includes the vendor code as part of the identifier number.

Allow Manual Login - If set to ***YES***, this allows a TermSecure User to use the hotkey to initiate logins, or the device. If set to ***NO***, it will force a TermSecure User to use a device to login.

Prompt for Password - ***NO*** allows the device to login without a password. ***YES*** forces every TermSecure User to enter a password after using the device.

Entry Signal Strength - The signal strength required to register the card as in range.

Exit Signal Strength - The signal strength required to register the card as out of range.

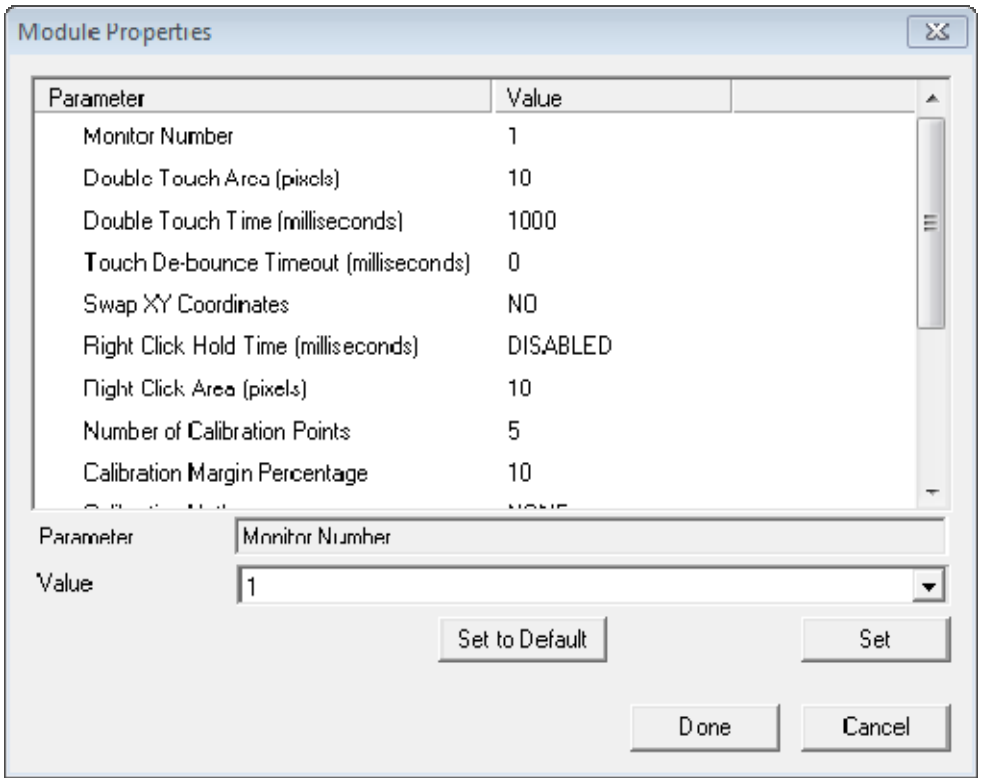
Entry Sensitivity - The number of reads above the Entry Signal Strength reads that are required to register as “Entered”.

Exit Sensitivity - The number of reads below the Exit Signal Strength that are required to register as “Exited”.

15.15 Touch Screen Modules

- Arista ARP-16XXXAP-ACP Touch Screen Driver
- CarrollTouch Touch Screen Driver
- Contec Touch Screen Driver
- DMC TSC Series Touch Screen Driver

- DMC Touch Screen Driver
- Dynapro Touch Screen Driver
- Elographics Touch Screen Driver
- Gunze AHL Touch Screen Driver
- Hampshire TSHARC Touch Screen Driver
- MicroTouch Touch Screen Driver
- Panjit TouchSet Touch Screen Driver
- PenMount Touch Screen Driver
- Ronics Touch Screen Driver
- Touch Control Touch Screen Driver
- Touch International IR Touch Screen Driver
- USB Touch Screen Driver
- Xycom 33XX Touch Screen Driver



Touch Screen Parameters

Some, but not all, touch screen modules have parameters that can be modified. These may include:

Connection

- ***Connection Type*** – Sets whether the touch screen uses Serial or USB to connect.
- ***Port*** or ***Port (Serial Only)*** – Sets the COM port that a serial touch screen is connected to.
- ***Baud Rate*** - Sets the speed used for communication between the terminal and the touch screen on some serial touch screens.

- ***Monitor Number*** – Used to specify which monitor in a MultiMonitor scheme will use for the touch screen. MultiMonitor thin clients with multiple touch screens will need a module loaded for each touch screen used.
- ***Controller Type*** - Sets the model of touch screen controller on some touch screens.

Calibration

- ***Number of Calibration Points*** – This sets the number of calibration points that the calibration program uses during the calibration process.
- ***Calibration Margin Percentage*** – This sets the distance from the edge of the screen that the calibration points are displayed.
- ***Calibration Hotkey*** – This allows a function key to be set as a hotkey so that the calibration can be launched from a keyboard.
- ***Calibration Hotkey Modifier***– This setting adds ***CTL or ALT*** to the hotkey to launch the calibration from the keyboard, if desired.
- ***Calibration Touch Down Time (seconds)*** – This setting, when enabled, will launch the calibration program when the screen is touched and held for the assigned number of seconds. This cannot be used with the ***Right Click Hold Time***.
- ***Calibration (entered automatically)*** – This is set automatically by machine. These are the values set during the calibration process.
- ***Orientation (entered automatically)*** - This is set automatically by machine. Used at the direction of Tech Support in error correction.
- ***Swap XY Coordinates*** – If X and Y are reversed, this setting will correct the orientation.

Touch Settings

- ***Double Touch Area (pixels)*** – This sets the size of the area that a second touch will register as a double touch.
- ***Double Touch Time (milliseconds)*** - The amount of time between touches that qualifies as a double touch.
- ***Touch De-Bounce Timeout*** - a time interval used to prevent a single touch from being registered as multiple touches.

Right Click

- ***Right Click Hold Time (milliseconds)*** - This setting, when enabled, will treat a touch that is held for the assigned number of seconds as a **Right Click** of the mouse. This cannot be used with the ***Calibration Touch Down Time***.
- ***Right Click Area (pixels)*** - This sets the size of the area that a second touch will register as a right click.

15.15.1 USB Touch Screen Driver Module

The USB Touch Screen Driver Module is designed to be used by any touch screen that uses a USB connection to the thin client.

15.16 Video Driver Modules

The method of downloading video drivers was changed in ThinManager 3.0. In previous versions all of the video drivers were contained in the firmware and were downloaded at boot. In v3.0 the video was split out of the firmware and each thin client will only download the video driver that it needs.

One does not need to add the video module to the terminal but only needs to have the video module installed in ThinManager to make it available. As each terminal connects to ThinManager it will download the correct module.

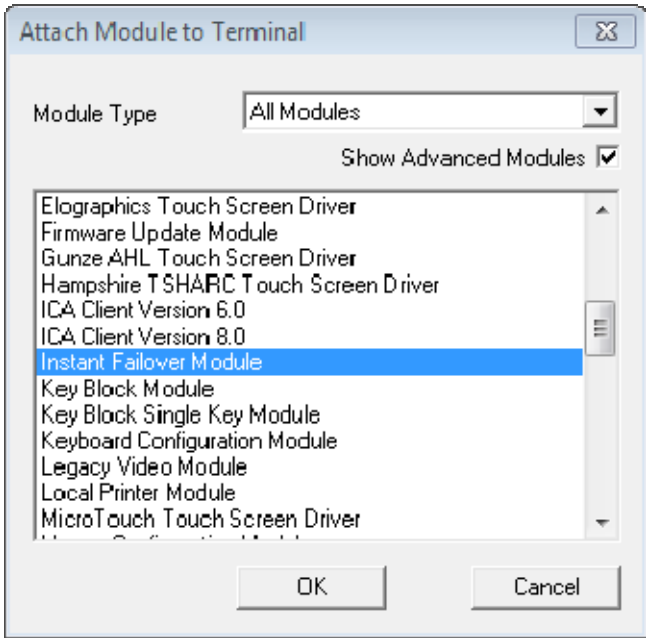
These modules are normally installed with ThinManager. See Installing a Module to see how to update or add new modules.

Note: Users with ThinManager 2.6 and earlier may need to add the individual video module to the terminal if using certain models of thin clients. This doesn't apply to ThinManager 3.0 and later. See http://www.thinmanager.com/support/downloads.shtml for details.

15.17 Advanced Modules

Advanced Modules are modules that are rarely used because they address a limited specific issue and are not needed in normal configurations. These include the Core Video Modules, Legacy Video Module, ICA Client Modules, and Instant Failover Module.

These modules are hidden unless the ***Show Advanced Module*** checkbox is selected on the **Attach Modules to Terminals** window.



Advanced Module -Instant Failover

15.17.1 ICA Client Version 6.0/8.0/Citrix Receiver Version 12

The **ICA Client Module Client Version 8.0** is a module is not added to terminals but needs to be installed in ThinManager for terminals using the ICA protocol. If a terminal is configured to use the ICA client communication protocol on the **Terminal Server Specification** page of the **Terminal Configuration Wizard**, the terminal will automatically download the v8.0 module to enable ICA functionality.

If a user wants to use the 6.0 version of the ICA protocol they will need to add the **ICA Client Module Client Version 6.0 t**o the terminal.

15.17.2 Instant Failover Module

The **Instant Failover Module** is to be used only with terminal configurations that use the legacy "Individual Terminal Servers" method instead of the preferred Display Clients method.

Since the use of Display Clients is a preferred method of getting terminal services sessions over using the legacy "Individual Terminal Servers" the module is hidden from view unless the Show Advanced Modules checkbox is selected.

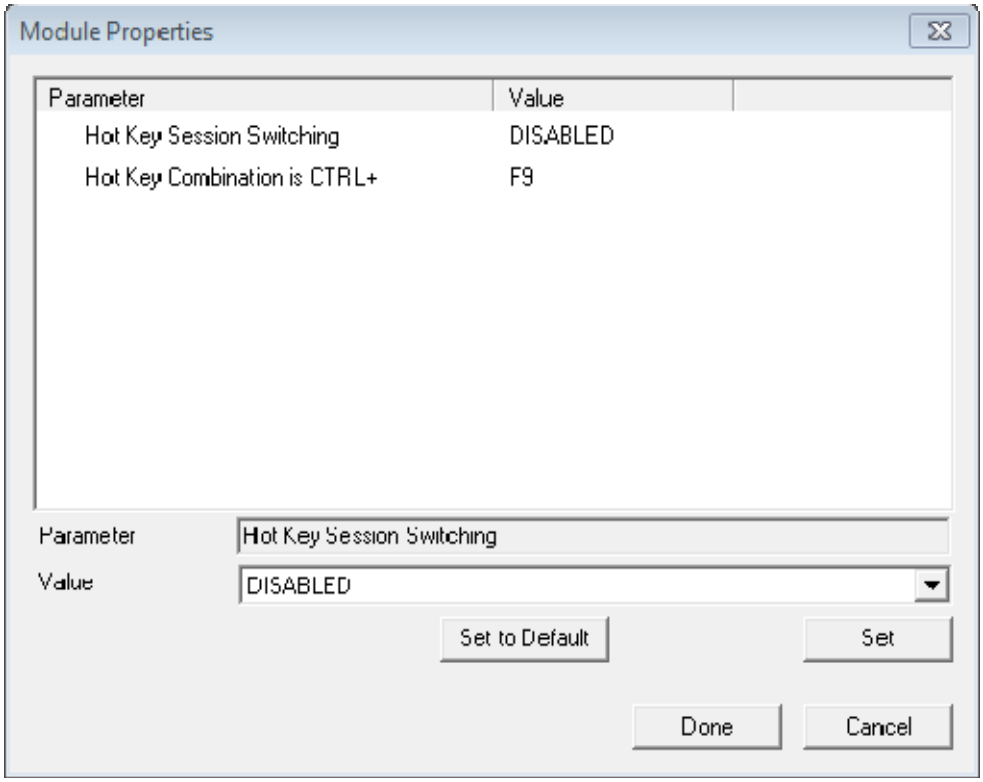
Instant Failover allows a terminal to connect to a session on two terminal servers. Both sessions are active but only one is displayed. If the first terminal server fails, the second session is immediately displayed, eliminating any downtime due to terminal server failure. See Instant Failover for details.

Note: The Instant Failover Module is only used with terminals using Individual Terminal Servers. (See Terminal Server Specification Page).
Terminals using Display Clients use a checkbox to enable Instant Failover. (See Instant Failover with Terminal Services Display Clients).
Do not use this module while using Display Clients.

The Instant Failover function requires an Instant Failover license for each terminal that uses it.

15.17.2.1 Instant Failover Configuration When Using Individual Terminal Servers

The thin client cascades both sessions, with the primary in front. You cannot see the secondary session as it is hidden in back. There is an option that allows one to switch between sessions with a hot key.



Instant Failover Module Properties

- ***Hot Key Session Switching*** - If this parameter is set to ***Enabled***, the hot key combination will allow the toggling between sessions.
- **Hotkey Combination is CTRL+** - The value of the hot key is defaulted to ***CTRL+F9*** but can be assigned to any function key.

15.17.2.2 Advanced Video Modules

The Core Video Module, Core Video2 Module, and Legacy Video Module do not need to be added to a terminal but need to be installed in ThinManager. The terminal will download it if needed. These modules are installed during ThinManager installation so should not be a concern.