



Simply Better Connections

ATEN Altusen™

RCMMS

RCM Management Software

User Manual

About this Manual

This manual is provided to help you get the most out of your RCMMS system. It covers all aspects of the software, including installation, configuration and operation.

An overview of the information covered in each chapter is provided below.

Overview

Chapter 1, Introduction, introduces you to the RCMMS system, its purpose, features and benefits, along with its front and back panel components.

Chapter 2, Installation and Licensing, provides step-by-step instructions for installing the RCMMS.

Chapter 3, Interface and Operation, explains the user interface of the RCMMS and goes over its basic operations.


Chapter 4, Settings, explains system setting features of the RCMMS.

Chapter 5, The WinClient Viewer, explains how to use the control panel of the WinClient viewer.

Appendix,, provides the technical support information.

Conventions

This manual uses the following conventions:

- | | |
|---|--|
| Monospaced | Indicates text that you should key in. |
| [] | Indicates keys you should press. For example, [Enter] means to press the Enter key. If keys need to be chorded, they appear together in the same bracket with a plus sign between them: [Ctrl+Alt]. |
| 1. | Numbered lists represent procedures with sequential steps. |
| ◆ | Bullet lists provide information, but do not involve sequential steps. |
| > | Indicates selecting consecutive options (such as on a menu or dialog box). For example, Start > Run means to open the <i>Start</i> menu, and then select <i>Run</i> . |
|  | Indicates critical information. |

Product Information

For information about all Altusen products and how they can help you connect without limits, visit Altusen on the Web or contact an Altusen Authorized Reseller. Visit Altusen on the Web for a list of locations and telephone numbers:

International	http://www.aten.com
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User Information

Online Registration

Be sure to register your product at our online support center:

International	http://eservice.aten.com
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Telephone Support

For telephone support, call this number:

International	886-2-8692-6959
China	86-400-810-0-810
Japan	81-3-5615-5811
Korea	82-2-467-6789
North America	1-888-999-ATEN ext 4988 1-949-428-1111

User Notice

All information, documentation, and specifications contained in this manual are subject to change without prior notification by the manufacturer. The manufacturer makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties as to merchantability or fitness for any particular purpose. Any of the manufacturer's software described in this manual is sold or licensed *as is*. Should the programs prove defective following their purchase, the buyer (and not the manufacturer, its distributor, or its dealer), assumes the entire cost of all necessary servicing, repair and any incidental or consequential damages resulting from any defect in the software.

The manufacturer is not responsible for any damage incurred in the operation of this system if the correct operational voltage setting was not selected prior to operation. **PLEASE VERIFY THAT THE VOLTAGE SETTING IS CORRECT BEFORE USE.**

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Chapter 1

Introduction

Overview

The ATEN RCMMS is a Windows-based management software that provides convenient single-point access, monitor, and customizable control to multiple RCM devices within a network.

By consolidating all types of RCM devices, such as KVM over IP extenders and single- and multi-port KVM over IP switches, RCMMS fulfills the administrators' need of centralized management of IT infrastructures in production lines even across isolated, secured environments.

Featuring Panel Array and WinClient viewer, it allows operators to easily monitor up to 25 device ports simultaneously in a single 5 x 5 view and instantaneous remote access to any specific PC / workstation as needed.

With the help of RCMMS, operators, in varying industries, can promptly respond to and fix any issues and problems arose at a production line efficiently, putting them in complete control.

Features

- ◆ Single sign-on to consolidate the management of all ATEN RCM devices
- ◆ Device and Panel Array Grouping for easy, convenient management
- ◆ Customizable Panel Array layout for up to 25 (5x5) simultaneous port monitoring
- ◆ Instantaneous remote access to RCM device ports via WinClient viewer
- ◆ Flexible image setting for various, all-encompassing applications
- ◆ Event notification and Access Control Box pushbutton alert

Requirements

Server Requirements

Systems that the RCMMS server will be installed on should meet the following requirements:

- ◆ PC Requirements

	Recommended	Minimum
CPU	Intel Core i5 3+ GHz or above	Intel Core i3 2+ GHz or above
OS	Windows 7 / 10	
Memory	4 GB or above	
Hard Drive	32 GB or above (with the program taking up 250 ~ 300 MB)	
Ethernet	At least 1 Ethernet adapter (100 Mbps or above) — Giga LAN recommended	

Licenses

The RCMMS license controls the total number of KVM ports permitted on the installation, which must be purchased from and activated by your local dealer.

The number of ports and types of licenses that can be purchased are described in the table below.

License		Number of Ports
Base License		50 ports
Add-on License	Increment	1 ports
Max. License		200 ports

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Chapter 2

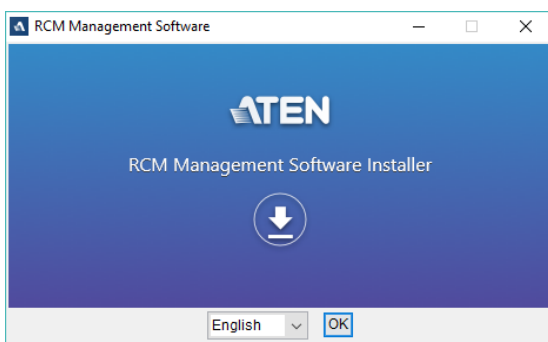
Installation and Licensing

Overview

This chapter describes how to install the RCM Management Software (RCMMS) on a Windows computer, for centrally managing and monitoring multiple RCM devices simultaneously.

Installing RCM Management Software

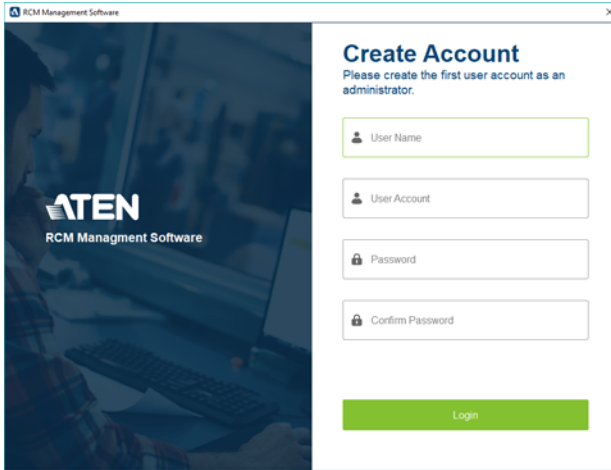
1. Execute the *RCMMS_Setup.exe* application provided by your local dealer. The installer appears.



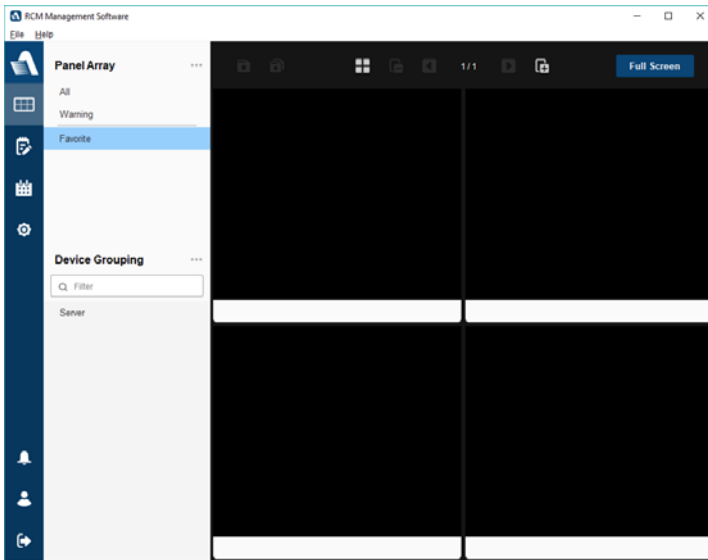
2. Select a desired language from the drop-down list and click **OK** to start installing. Then follow the on-screen instructions to install the RCMMS.

Note: On the *License Agreement* page, thoroughly read through and accept the terms of the license agreement before proceeding.

3. Once finished, and upon first-time running of the RCMMS, users are prompted to create an administrator account that has full access and configuration rights to the system.



4. Define a user name, account name, and password for the administrator account and click **Login**. The RCMMS main screen appears.



For an overview of the features and layout of the RCMMS user interface, see *Interface and Operation*, page 9.

Uninstalling RCMMS

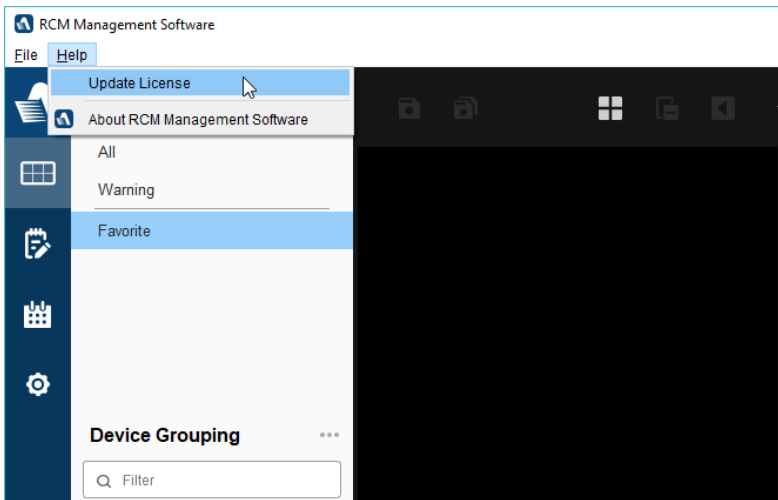
From the *Start* menu, navigate to ATEN and select **Uninstall RCM Management Software**.

Note: Uninstalling RCMMS may not remove all of its files and folders that were created during operation.

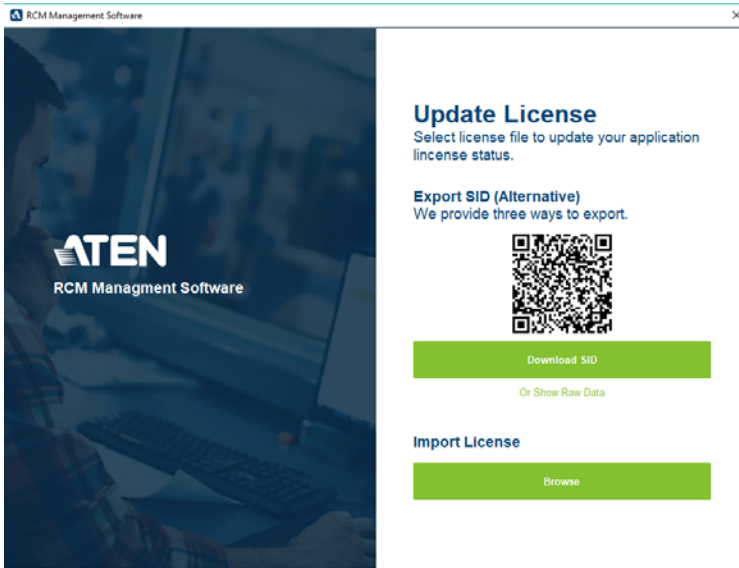
Licensing

To apply for and activate an RCMMS license, do the following:

1. On the RCMMS, click **Help > Update License**. The Update License dialog box appears.



2. On the Update license dialog box, export the server information of the RCMMS by using one of the three following methods:



- ◆ Scan the QR code to display the *.sid raw data on a mobile device.
 - ◆ Click **Download SID** to save an *.sid file onto the PC.
 - ◆ Copy the *.sid raw data by clicking **Show Raw Data > Copy Data**.
3. Provide the *.sid file or raw data to your local dealer to apply for and purchase an RCMMS license, with the number of ports desired.
 4. After receiving the *.lic license file from the local dealer, save it onto your PC and import it into the RCMMS by selecting it via **Browse** under *Import License*.

Once the license is successfully activated, users are able to add, manage, monitor, and access the number of RCM KVM ports as permitted by the license purchased.

Chapter 3

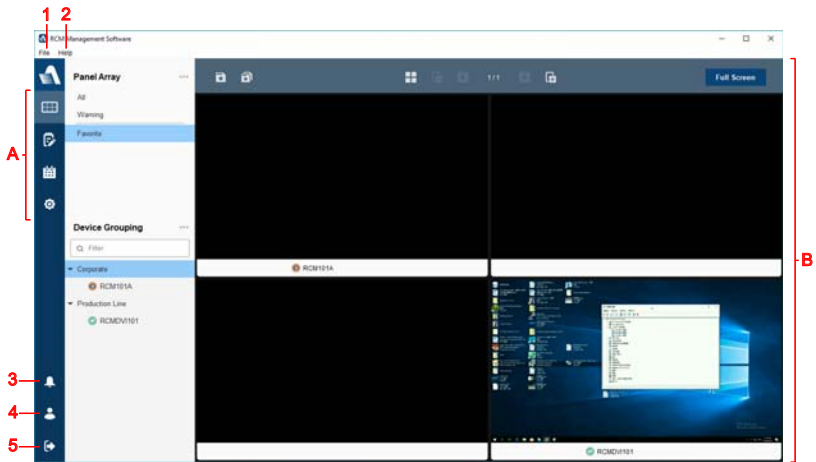
Interface and Operation

Overview

By default, the Panel Array page is displayed upon login, where users can monitor all of the RCM devices / ports added simultaneously, as well as add, delete, and group RCM devices.

The Interface

The general interface of RCMMS and its components (sections and items) are shown below.



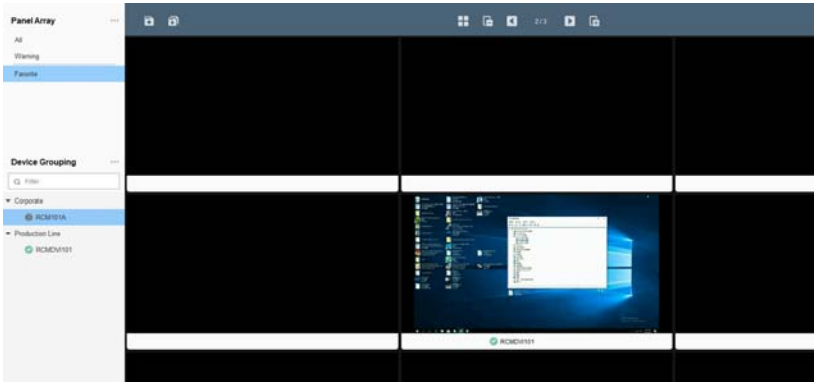
Screen Components

The screen components are described in the table below

No.	Item	Description
A	Sidebar Menu	<p>The main selection menu for switching views between the following:</p> <ul style="list-style-type: none"> ◆ Panel Array: Manages and monitors all RCM devices added. ◆ Settings: Contains the various system settings of the RCMMS, such as user, panel array, and system settings, and its logs. <p>Note: The Script Profile and Script Scheduling functions are currently nonfunctional.</p>
B	Interactive Display	This section is your main work area, which reflects the item of sidebar menu selected.
1	File	<p>Contains the following:</p> <ul style="list-style-type: none"> ◆ New: Clears the current database. ◆ Open: Relaunches RCMMS with a previously-saved database. ◆ Save as: Saves the current settings as a database file. ◆ Exit: Exits and closes RCMMS.
2	Help	<p>Contains the following:</p> <ul style="list-style-type: none"> ◆ Update License: See <i>Licensing</i>, page 7. ◆ About: Displays the information of the RCMMS
3	Notification	<p>If there are notifications, the bell icon is displayed with a red dot.</p> <p>The information displayed here depends on the user's permission.</p> <p>Clicking this icon displays the notifications, from oldest to newest.</p> <p>Click on a notification to jump to the <i>Warning</i> panel.</p> <p>Click <i>Remove all</i> to clear all notifications.</p>
4	User Information	Displays the name and account type of the user currently logged in and the login time.
5	Logout	Logs out of the RCMMS.

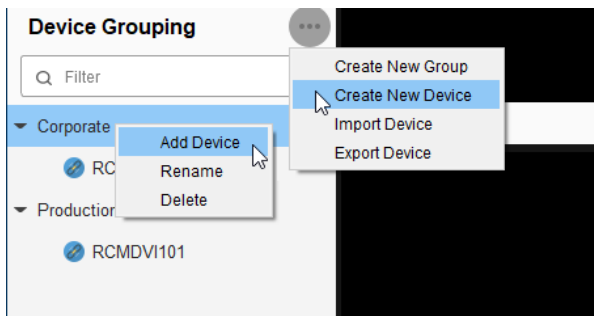
Panel Array

The *Panel Array* page allows users to add and organize RCM devices, as well as monitor up to 25 RCM device ports simultaneously.



Adding RCM Devices

1. To start adding an RCM device, either click **...** > **Create New Device** next to *Device Grouping* or right-click any Group and select **Add Device**.



2. On the dialog box that appears, enter the necessary information of the RCM device to be added.










The screenshot shows the 'Edit Device' window with the following details:

- Name:** RCMDV1101
- Group:** Production Line
- IP:** 192.168.0.60
- Port:** 9000
- User Account:** ATEN
- Password:** Masked with dots
- Device Port Setting:**
 - Multi-port Device
 - Table with 2 columns: Port, Port Name
 - Row 1: Port: 1, Port Name: Default

- ◆ **Name:** Type a desired name for the RCM device.
 - ◆ **Group:** Select a desired Group for the RCM device to be categorized under. For creating Groups, see *Adding Groups, page 14*.
 - ◆ **IP, Port, Account & Password:** Type the IP address, communication port, and account and password of the RCM device.
 - ◆ **Device Port Setting:** For RCM devices with multiple ports only, select **Multi-port Device**, click the + button to add additional ports, and type a desired name for each port.
3. Once all information has been entered, click **Save**. The RCM device is added to the RCMMS.

Device / Port Status

The status of each RCM device / port is indicated by icons, as described below

Device Icon	Description	Port Icon
	Represents online with active video display.	
	Represents online but without active video display.	
	Represents online but no video signal.	
	Represents online but unable to initiate session.	
	Represents offline.	

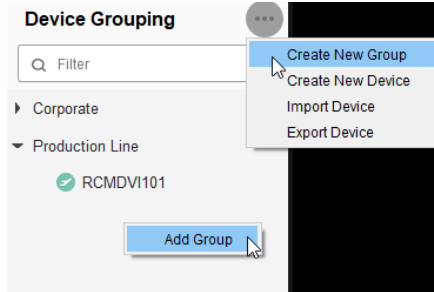
Device / Port Options

Users can right-click on an RCM device / port for the various options available, as described below.

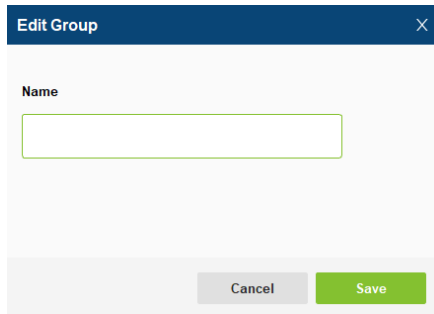
Item	Description
Edit / Delete	Edits / deletes the RCM device / port.
Add to Panel Array	Adds the device / port to a Panel Array. See <i>Panel Array View</i> , page 15.
Jump to Viewer	Selects to view a Panel Array containing the device / port.
Launch WinClient	Launches WinClient to access the device port remotely. See <i>The WinClient Viewer</i> , page 23.
Move to another Group	Selects to move the device to another Group.

Adding Groups

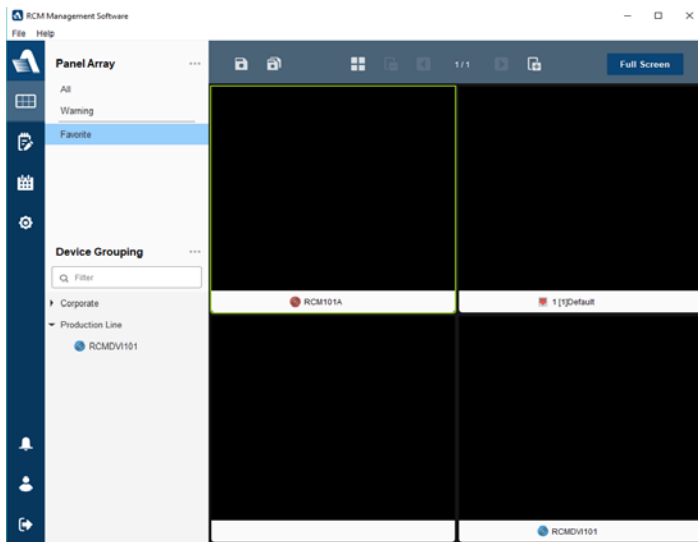
1. To add a Group for managing RCM devices, either click **...** > **Create New Group** next to *Device Grouping* or right-click on the *Device Grouping* panel and click **Add Group**.



2. On the dialog box that appears, enter a desired name for the RCM Group and click **Save**.



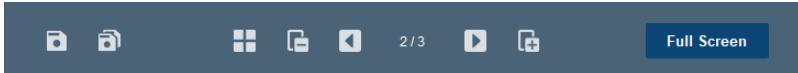
Panel Array View










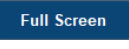
There are three types of Panel Array views, as described below.

Item	Description
All	Monitors all RCM devices / ports added to the RCMMS.
Warning	Contains any RCM device / port where a warning event occurs.
Custom (e.g. Favorite)	Click and drag the desired RCM devices / ports into any customized panel array view for convenient, simultaneous monitoring.

Panel Array Functions



The Panel Array functions are described in the table below.

Icon	Function
	For custom panel arrays only, saves the current panel array.
	For custom panel arrays only, saves as a new panel array.
	Sets the panel array's layout view, for monitoring up to 5 x 5 RCM devices / ports simultaneously.
	Adds a new layout page for the panel array. Up to 10 pages can be added.
	Deletes a layout page of the panel array.
	Goes to previous page.
	Goes to next page.
	Displays in full screen.

Chapter 4 Settings

Overview

The *Settings* page contains the following info / settings of the RCMMS:

Item	Description
User	Administrator accounts only, manages user accounts and privileges.
Panel Array	Sets the image quality, streaming speed, and aspect ratio of the Panel Array, and the default window size of WinClient viewers.
System	Administrator accounts only, sets the language of the RCMMS.
Logs	Displays all the logs of the RCMMS.
Others	Enables / disables alerts for notifying users of pushbutton pressing of a KVM Access Control Box connected to an RCM device.

User

The screenshot shows the 'User' management interface. At the top, there are tabs for 'User', 'Panel Array', 'System', 'Logs', and 'Others'. Below the tabs, there are buttons for 'Create New', 'Delete', 'Export', and 'Import'. A search bar labeled 'Search UserName' is on the right. The main area contains a table with the following data:


	User Name	User Account	Privilege	Verification
1	<input type="checkbox"/> ATEN	administrator	Administrator	Local
2	<input type="checkbox"/> user	user	Normal User	Local

There are two types of user accounts that can be configured:


Account Type	Description
Administrator	Administrators have full access and configuration rights to the RCMMS and all RCM devices / ports added.
Normal User	Normal users have access and configuration rights only to the RCM devices / ports they are authorized for.

Adding User Accounts

1. To add new user accounts, click **Create New**.
2. On the dialog box that appears, enter the necessary information for the account to be created.

- ◆ **User Name, Account, Password:** Define the desired user (display) name, account name and password for the account to be created.
 - ◆ **Privileges:** Select between *Normal User* and *Administrator*.
 - ◆ **Select Target Devices:** For Normal User only, select the RCM devices the account is able to access.
 - ◆ **View only:** Optionally turn on the view only toggle  to deny configuration rights of certain RCM devices.
3. Once finished, click **Save**. The RCMMS user account is created.

Edit User Accounts

To edit an user account, select it and click the **Edit** button  .

Export / Import User Accounts

The **Export / Import** functions allow administrators to export all user accounts, into a user list in **.xlsx* format, for user accounts backup and importing into another RCMMS.

Editing Exported User List

When a User List is exported, every user account is displayed within the *Encrypt_User_Table* tab of the excel file, with their passwords encrypted for security protection.

	A	B	C	D
1	AD	Account	Password	Username
2		0 administrator	5f4dcc3b5aa765d61d8327deb882cf99	ATEN
3				
4				

To create new users to be batch added to the RCMMS, upon importing the User List, select the *Text_User_Table* tab, and fill in the required fields, as described below.

	A	B	C	D
1	AD	Account	Password	Username
2		0 User	Test1	User
3		0 Guest	Test2	VIP
4				

AD	Account	Password	Username
Always type '0' Note: Currently non-functional	Define the login name of the user account.	Define the login password of the user account.	Type the display name of the account.

Once all of the required fields of each new user have been entered, save and import the User List into the RCMMS to add.

Panel Array

Panel Array

Image quality Please select a suitable image quality based on the CPU performance of your system.

High Quality (100% native resolution)
 Standard Quality (100% non-native resolution)
 Low quality (60% non-native resolution)

Streaming speed Standard Speed v

Aspect ratio Real aspect ratio v

WinClient

Default window size Execute Winclient in maximized size.

The settings that can be configured in the Panel Array tab are described below

Function	Item	Description
Panel Array	Image Quality	Selects the image quality of the video of RCM devices / ports, between <i>High</i> , <i>Standard</i> , and <i>Low Quality</i> .
	Streaming Speed	Selects the streaming speed of the video of the RCM devices / ports, from <i>Low</i> , <i>Standard</i> , and <i>High Speed</i> , or <i>Real-Time</i> .
	Aspect Ratio	Selects to keep or ignore the original aspect ratio of the video of the RCM devices / ports, by respectively selecting <i>Real aspect ratio</i> or <i>Ignore aspect ratio</i> .
WinClient	Default Window Size	Checks <i>Execute WinClient in maximized size</i> to automatically display the WinClient window is maximized window upon launching.

Click **Save** for any changes made to take effect.

System

The System tab contains the language settings of the RCMMS.

Select **System Locale** to use the same language settings as that of the PC. Otherwise select a desired language from the drop-down list.

Logs

The Logs tab can store up to 200 RCMMS system log records.

	Time	Severity	Event	Category	User	Device	Message
Filter							
1	17:26:15	Informati...	None	General	administrator	RCM101A	Run Winclient.
2	17:30:23	Informati...	None	General	administrator	RCM101A	Run Winclient.
3	18:19:45	Informati...	None	General	administrator	RCMDV101	Run Winclient.

The Logs tab provides the following functions:

Function	Description
Export	Exports system log records as a *.log file.
Search	Searches for specific logs using keywords.

Others



On the Others tab, users can enable alerts for notifying of pushbutton pressing on a KVM Access Control Box connected to an RCM device.

Chapter 5

The WinClient Viewer

Overview

The WinClient (Windows Client) viewer allows users to remotely access the KVM ports of the connected RCM devices.

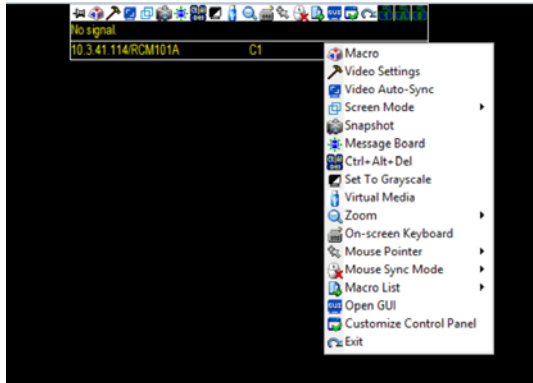
The WinClient Control Panel

The control panel may be hidden at the upper center of the screen. It becomes visible when you move the mouse pointer over it:










- Note:**
1. The above image shows the complete Control Panel. The icons that appear can be customized. See *Control Panel Configuration*, page 48, for details.
 2. To move the Control Panel to a different location on the screen, place the mouse pointer over the text bar area, then click and drag.
-












- ♦ By default, the upper text row shows the video resolution of the remote display. As the mouse pointer moves over the icons, the information in the upper text row changes to describe the icon's function. Also, if another user has typed a message in the Message Board, it will be displayed in the upper text row.
- ♦ The lower text row shows the IP address of the device (on the left) and the bus (centered, before the slash) you are accessing, as well as the number of users on the same bus (centered, behind the slash).
- ♦ Right-clicking the text row area brings up the same menu options, with the function name next to each icon. These functions are discussed in the sections that follow.




Control Panel Functions

The Control Panel functions are described in the table below.

Icon	Function
	Toggles to always display the Control Panel or only display it when the mouse hovers over it.
	Click to bring up the Macros dialog box. (See <i>Video Settings</i> , page 35, for details).
	Click to bring up the Video Options dialog box. Right-click to perform a quick Auto Sync (see <i>Video Settings</i> , page 35, for details).
	Performs video and mouse autosync. It is the same as clicking the Auto-sync button in the <i>Video Options</i> dialog box (see <i>Video Settings</i> , page 35).
	Toggles the display between <i>Full Screen</i> and <i>Windowed Mode</i> .
	Takes a snapshot (screen capture) of the remote display. To configure the Snapshot parameters, refer to <i>Snapshot</i> on page 49.
	Brings up the Message Board (see <i>The Message Board</i> , page 39).

Icon	Function
	Sends a [Ctrl] + [Alt] + [Del] signal to the remote system.
	Toggles the remote display between color and grayscale.
	Brings up the <i>Virtual Media</i> dialog box. The icon changes when a virtual media device is mounted on the port. See <i>Virtual Media</i> , page 41, for specific details. Note: This icon is displayed in gray when the function is disabled or not available to the user.
	Click to zoom the remote display window. Note: This feature is only available in windowed mode (Full Screen Mode is off). See <i>Zoom</i> , page 44, for details.
	Brings up the on-screen keyboard (see <i>The On-Screen Keyboard</i> , page 45).
	Selects the mouse pointer type. Note: This icon changes depending on which mouse pointer type is selected (see <i>Mouse Pointer Type</i> , page 46).
	Toggles between <i>Automatic</i> or <i>Manual</i> mouse sync. ♦ When the selection is <i>Automatic</i> , a green mark appears on the icon. ♦ When the selection is <i>Manual</i> , an <i>I</i> appears over the icon. See <i>Mouse DynaSync Mode</i> , page 47.
	Displays a drop-down Macro List of <i>User</i> macros (see <i>Macros</i> , page 27 for details).
	Accesses a viewer-based GUI for device configuration(see <i>Open GUI</i> , page 50).
	Brings up the <i>Customize Control Panel</i> dialog box (see <i>Control Panel Configuration</i> on page 48, for details).
	Exits the Viewer and goes back to RCMMS.

Icon	Function
	<p>These icons show the Num Lock, Caps Lock, and Scroll Lock status of the remote computer.</p> <ul style="list-style-type: none">◆ When the lock state is <i>On</i>, the icon is highlighted in blue.◆ When the lock state is <i>Off</i>, the icon is not highlighted. <p>Click on the icon to toggle the status.</p> <p>Note: These icons and your local keyboard icons are in sync. Clicking an icon causes the corresponding LED on your keyboard to change accordingly. Likewise, pressing a Lock key on your keyboard causes the icon's color to change accordingly.</p>

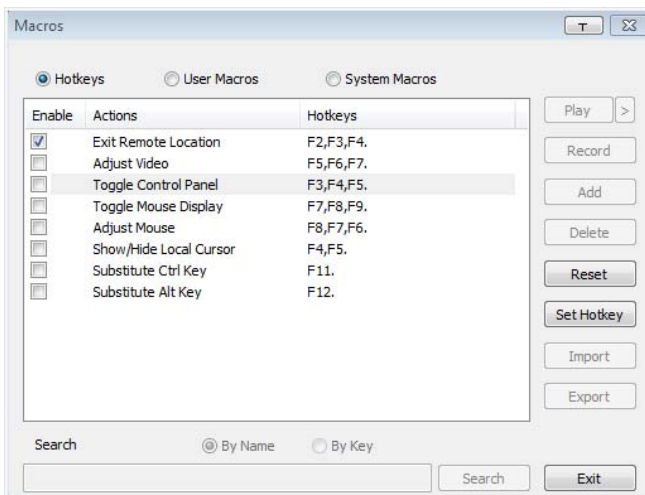


Macros

The Macros icon provides access to three functions found in the Macros dialog box: Hotkeys, User Macros, and System Macros. Each of these functions is described in the following sections.

Hotkeys

Various actions, corresponding to clicking the Control Panel icons, can be accomplished directly from the keyboard with hotkeys. Selecting the Hotkeys radio button lets you configure which hotkeys perform the actions. The actions are listed to the left; their hotkeys are shown to the right. Use the checkbox to the left of an action's name to enable or disable its hotkey.



If you find the default Hotkey combinations inconvenient, you can reconfigure them as follows:

1. Highlight an *Action*, then click **Set Hotkey**.
2. Press your selected Function keys (one at a time). The key names appear in the **Hotkeys** field as you press them.
 - ◆ You can use the same function keys for more than one action, as long as the key sequence is not the same.
 - ◆ To cancel setting a hotkey value, click **Cancel**; to clear an action's Hotkeys field, click **Clear**.
3. When you have finished keying in your sequence, click **Save**.

To reset all the hotkeys to their default values, click **Reset**.

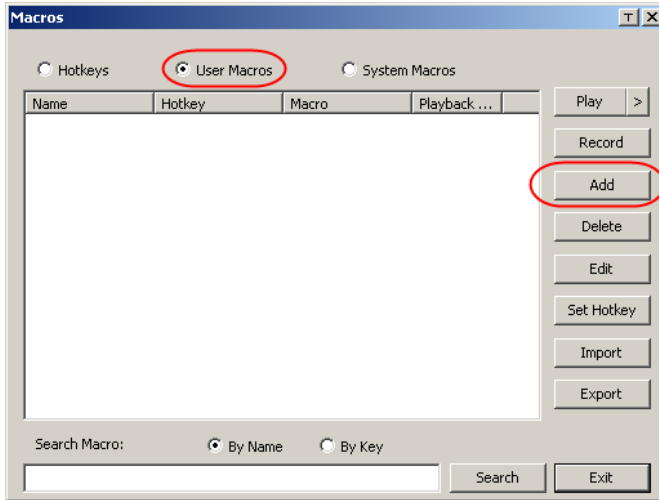
An explanation of the Hotkey actions is given in the table below

Action	Explanation
Exit remote location	Exits the remote view. This is equivalent to clicking the <i>Exit</i> icon on the Control Panel. The default keys are F2, F3, F4.
Adjust Video	Brings up the <i>Video Settings</i> dialog box. This is equivalent to clicking the <i>Video Settings</i> icon on the Control Panel. The default keys are F5, F6, F7.
Toggle Control Panel	Toggles the Control Panel Off and On . The default keys are F3, F4, F5.
Toggle Mouse Display	If you find the display of the two mouse pointers (local and remote) to be confusing or annoying, you can use this function to shrink the non-functioning pointer down to a barely noticeable tiny circle, which can be ignored. Since this function is a toggle, use the hotkeys again to bring the mouse display back to its original configuration. This is equivalent to selecting the <i>Dot</i> pointer type from the <i>Mouse Pointer</i> icon on the Control Panel. The default keys are F7, F8, F9. Note: The Java Control Panel does not have this feature.
Adjust mouse	This synchronizes the local and remote mouse movements. The default keys are F8, F7, F6.
Video Auto-sync	This combination performs an auto-sync operation. It is equivalent to clicking the <i>Video Autosync</i> icon on the Control Panel. The default keys are F6, F7, F8.
Show/Hide Local Cursor	Toggles the display of your local mouse pointer off and on. This is equivalent to selecting the <i>Null</i> pointer type from the <i>Mouse Pointer</i> icon on the Control Panel. The default keys are F4,F5.
Substitute Ctrl key	If your local computer captures Ctrl key combinations, preventing them from being sent to the remote system, you can implement their effects on the remote system by specifying a function key to substitute for the Ctrl key. If you substitute the F11 key, for example, pressing [F11 + 5] would appear to the remote system as [Ctrl + 5]. The default key is F11.
Substitute Alt key	Although all other keyboard input is captured and sent to the remote system, [Alt + Tab] and [Ctrl + Alt + Del] work on your local computer. In order to implement their effects on the remote system, another key may be substituted for the Alt key. If you substitute the F12 key, for example, you would use [F12 + Tab] and [Ctrl + F12 + Del]. The default key is F12.

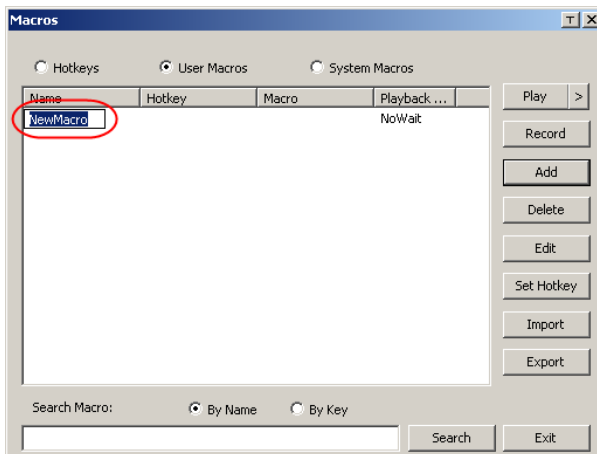
User Macros

User Macros are used to perform specific actions on the remote server. To create the macro, do the following:

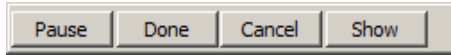
1. Select the *User Macros* radio button, then click **Add**.



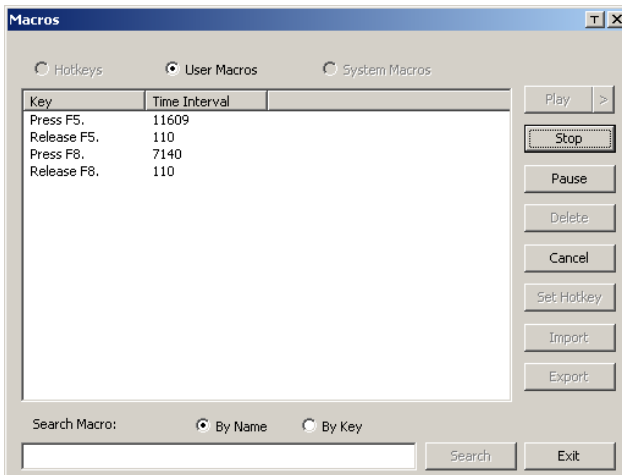
2. In the dialog box that comes up, replace the “New Macro” text with a name of your choice for the macro:



- Click **Record**. The dialog box disappears, and a small panel appears at the top left of the screen:



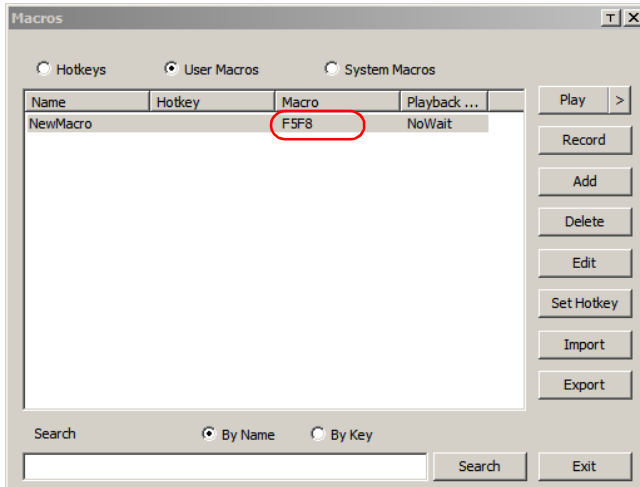
- Press the keys for the macro.
 - To pause macro recording, click **Pause**. To resume, click **Pause** again.
 - Clicking **Show** brings up a dialog box that lists each keystroke that you make, together with the amount of time each one takes:



- Clicking **Cancel** cancels all keystrokes.
- When you have finished, click **Stop**. This is the equivalent of clicking *Done* in Step 5.

-
- Note:**
- Case is not considered – typing **A** or **a** has the same effect.
 - When recording the macro the focus must be on the remote screen. It cannot be in the macro dialog box.
 - Only the default keyboard characters may be used. Alternate characters cannot be used. For example, if the keyboard is Traditional Chinese and default character is **A** the alternate Chinese character obtained via keyboard switching is not recorded.
-

- If you haven't brought up the Show dialog, click **Done** when you have finished recording your macro. You return to the **Macros** dialog box with the macro keys that you pressed displayed in the Macro column:



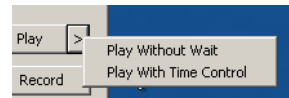
- If you want to change any of the keystrokes, select the macro and click **Edit**. This brings up a dialog box similar to the one for Show. You can change the content and order of your keystrokes, etc.
- Repeat the procedure for any other macros you wish to create.

Running Macros

After creating your macros, you can run them in any of three ways:

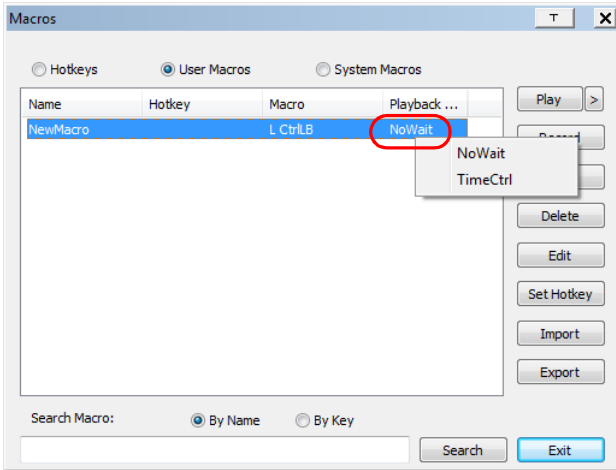
- By using the hotkey (if one was assigned).
- By opening the Macro List on the Control Panel and clicking the one you want
- By opening this dialog box and clicking **Play**.

If you run the macro from this dialog box, you have the option of specifying how the macro runs.



- If you choose *Play Without Wait*, the macro runs the keypresses one after another with no time delay between them.
- If you choose *Play With Time Control*, the macro waits for the amount of time between key presses that you took when you created it. Click on the arrow next to *Play* to make your choice.

- ♦ If you click *Play* without opening the list, the macro runs with the default choice. The default choice (*NoWait* or *TimeCtrl*), is shown in the *Playback* column.



You can change the default choice by clicking on the current choice (*NoWait* in the screenshot above), and selecting the alternative choice.

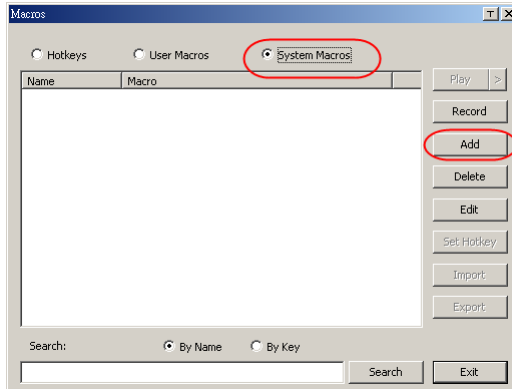
Note: User Macros are stored on the Local Client computer of each user. Therefore there is no limitation on the of number of macros, the size of the macro names, or makeup of the hotkey combinations that invoke them

Search lets you filter the list of macros that appear in the large upper panel for you to play or edit. Click a radio button to choose whether you want to search by name or by key, enter a string for the search and click **Search**. All instances that match your search string appear in the upper panel.

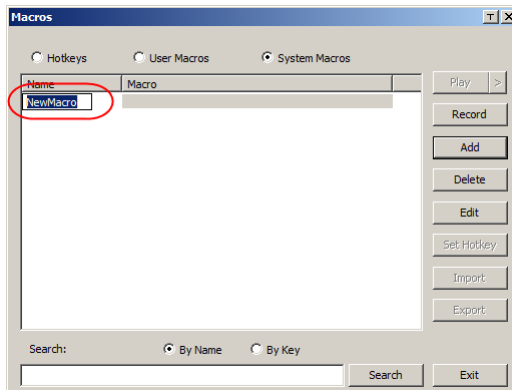
System Macros

System Macros are used to create exit macros for when you close a session. For example, as an added measure of security, you could create a macro that sends the Winkey-L combination which would cause the remote device's log in page to come up the next time the device was accessed. To create the macro, do the following:

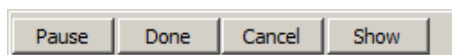
1. Select *System Macros*, then click **Add**.



2. In the dialog box that comes up, replace the “New Macro” text with a name of your choice for the macro:



3. Click **Record**. The dialog box disappears, and a small panel appears at the top left of the screen:

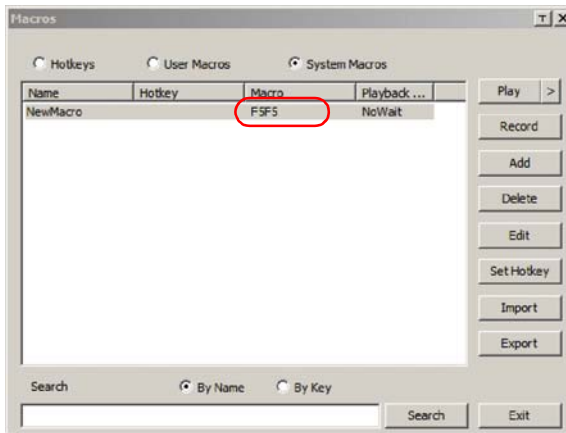


4. Press the keys for the macro.
 - ♦ To pause macro recording, click **Pause**. To resume, click **Pause** again.
 - ♦ Clicking **Show** brings up a dialog box that lists each keystroke that you make, together with the amount of time each one takes (see page 34).

Note:

- ♦ Case is not considered – typing **A** or **a** has the same effect.
- ♦ When recording the macro the focus must be on the remote screen. It cannot be in the macro dialog box.
- ♦ Only the default keyboard characters may be used. Alternate characters cannot be used. For example, if the keyboard is Traditional Chinese and default character is **A** the alternate Chinese character obtained via keyboard switching is not recorded.

5. If you haven't brought up the **Show** dialog, click **Done** when you have finished recording your macro. You return to the Macros dialog box with your system macro key presses displayed in the Macro column:



6. If you want to change any of the keystrokes, select the macro and click **Edit**. This brings up a dialog box similar to the one for Show. You can change the content of your keystrokes, change their order, etc.
7. Repeat the procedure for any other macros you wish to create.

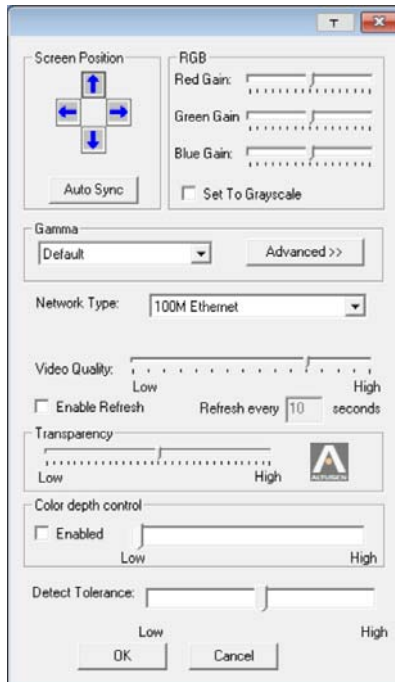
Once the system macros have been created, you can choose to run any one of them upon logging out of the RCM device (refer to the RCM device user manual).

- Note:** 1. Information about the Search function is given on page 32.
2. Systems macros are stored on the RCM device, therefore macro names may not exceed 64 English alphanumeric character, and hotkey combinations may not exceed 256 Bytes (each key usually takes 3–5 Bytes).




Video Settings

The *Video Settings* dialog box allows you to adjust the placement and picture quality of the remote screen display on your monitor.



The adjustment options are as follows:

Option	Usage
	Click this to control the transparency of the Video Settings dialog box.
Screen Position	Adjust the horizontal and vertical position of the remote computer window by clicking the arrow buttons.

Option	Usage
Auto-Sync	<p>Click Auto-Sync to have the vertical and horizontal offset values of the remote screen detected and automatically synchronized with the local screen.</p> <p>Note: 1. If the local and remote mouse pointers are out of sync, in most cases, performing this function will bring them back into sync.</p> <p>2. This function works best with a bright screen.</p> <p>3. If you are not satisfied with the results, use the Screen Position arrows to position the remote display manually.</p>
RGB	<p>Drag the slider bars to adjust the RGB (Red, Green, Blue) values. When an RGB value is increased, the RGB component of the image is correspondingly increased.</p> <p>If you enable <i>Set to Grayscale</i>, the remote video display is changed to grayscale.</p>
Gamma	<p>This section allows you to adjust the video display's gamma level.</p> <p>If default gamma level is not ideal, you can click the drop-down menu for a list of preset gamma levels and select from it. There are ten preset and four user-defined levels to choose from. To define the user-defined levels, click the Advanced button. This function is discussed in detail in the next section.</p>
Performance	<p>Select the type of Internet connection that exists between the Local Client computer and the RCM device. The RCM device will use that selection to automatically adjust the <i>Video Quality</i> and <i>Detect Tolerance</i> settings to optimize the quality of the video display.</p> <p>Since network conditions vary, if none of the pre-set choices seem to work well, you can select <i>Customize</i> and use the Video Quality and Detect Tolerance slider bars to adjust the settings to suit your conditions.</p>
Video Quality	<p>Drag the slider bar to adjust the overall Video Quality. The larger the value, the clearer the picture and the more video data goes through the network. Depending on the network bandwidth, a high value may adversely effect response time.</p>

Option	Usage
Enable Refresh	<p>The RCMMS can redraw the screen every 1 to 99 seconds, eliminating unwanted artifacts from the screen. Select Enable Refresh and enter a number from 1 through 99. The RCMMS will redraw the screen at the interval you specify. This feature is disabled by default. Click to put a check mark in the box next to <i>Enable Refresh</i> to enable this feature.</p> <p>Note:</p> <ol style="list-style-type: none"> 1. The switch starts counting the time interval when mouse movement stops. 2. Enabling this feature increases the volume of video data transmitted over the network. The lower the number specified, the more often the video data is transmitted. Setting too low a value may adversely affect overall operating responsiveness.
Transparency	<p>Adjusts the transparency of the toolbar that comes up when the GUI hotkey ([Scroll Lock][Scroll Lock], for example) is invoked. Slide the bar until the display in the example window is to your liking.</p>
Color Depth Control	<p>This setting determines the richness of the video display by adjusting the amount of color information.</p>
Detect Tolerance	<p>This setting also relates to video quality. It governs detecting or ignoring pixel changes. A high setting can result in a lower quality display due to less data transfer. A lower setting will result in better video quality, but setting the threshold too low may allow too much data to be transferred, negatively impacting network performance.</p>

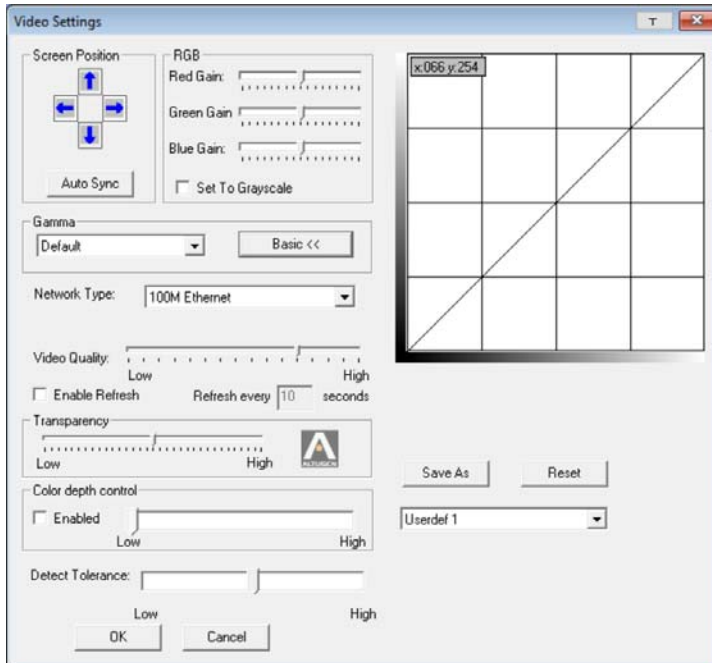
Click **OK** to save your changes and close the dialog box.

Click **Cancel** to abandon your changes and close the dialog box.

Gamma Adjustment

If it is necessary to correct the gamma level for the remote video display, use the Gamma function of the Video Adjustment dialog box.

For greater control, clicking the **Advanced** button brings up the following dialog box.



This section allows you to adjust the video display's gamma level.

Click and drag the diagonal line at as many points as you wish to achieve the display output you desire.

If a gamma level is desirable, click **Save As** to save the current configuration as one of the four user-defined configurations. Saved configurations can be recalled from the list box at a future time.

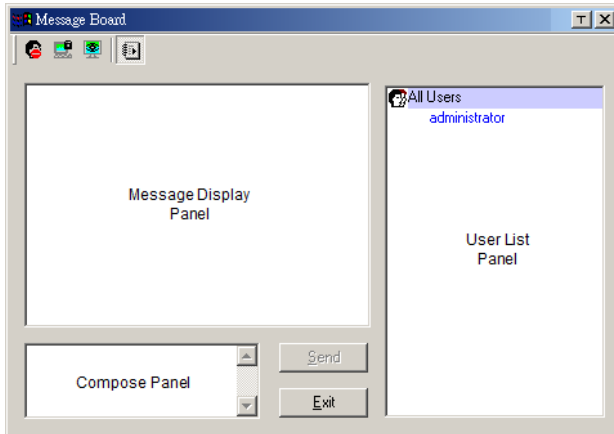
Click **Reset** to abandon any changes and return the gamma line to its original diagonal position.

Note: For best results, change the gamma while viewing a remote computer.







The Message Board

To alleviate the possibility of access conflicts resulting from multiple user logins, the RCM device provides a message board that allows users to communicate with each other



The Button Bar

The buttons on the top are toggles. Their actions are described in the table below:

Button	Action
	Enable/Disable Chat. When disabled, messages posted to the board are not displayed. The button is shadowed when Chat is disabled. The icon displays next to the user's name in the User List panel when the user has disabled Chat.
	Occupy/Release Keyboard/Video/Mouse. You can use this button to occupy the KVM. When you Occupy the KVM, other users cannot see the video, and cannot input keyboard or mouse data. The button is shadowed when the KVM is occupied. The icon displays next to the user's name in the User List panel when the user has occupied the KVM.
	Occupy/Release Keyboard/Mouse. When a port is set to <i>Share</i> mode (refer to the RCM device user manual), you can use this button to occupy the KM. When you Occupy the KM, other users can see the video, but cannot input keyboard or mouse data. The button is shadowed when the KM is occupied. The icon displays next to the user's name in the User List panel when the user has occupied the KM.
	Show/Hide User List. When you Hide the User List, the User List panel closes. The button is shadowed when the User List is open.

Message Display Panel

Messages that users post to the board - as well as system messages - display in this panel. If you disable Chat, however, messages that get posted to the board will not appear.

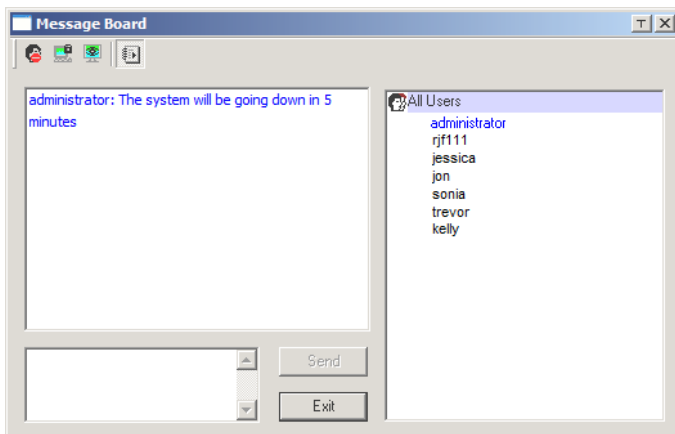
Compose Panel

Key in the messages that you want to post to the board in this panel. Click **Send**, or press **[Enter]** to post the message to the board.

User List Panel

The names of all the logged in users are listed in this panel.

- ◆ Your name appears in blue while other users' names appear in black.
- ◆ By default, messages are posted to all users. To post a message to one individual user, select the user's name before sending your message.
- ◆ If a user's name is selected, and you want to post a message to all users, select **All Users** before sending your message.
- ◆ If a user has disabled Chat, the Disable icon displays before the user's name to indicate so.
- ◆ If a user has occupied the KVM or the KM, the Occupy icon displays before the user's name to indicate so.








Virtual Media

The *Virtual Media* feature allows a drive, folder, image file, or removable disk on a local client computer to appear and act as if it were installed on the remote server. Virtual Media also supports a smart card reader function that allows a reader plugged into a local client computer to appear as if it were plugged into the remote server.

Virtual Media Icons

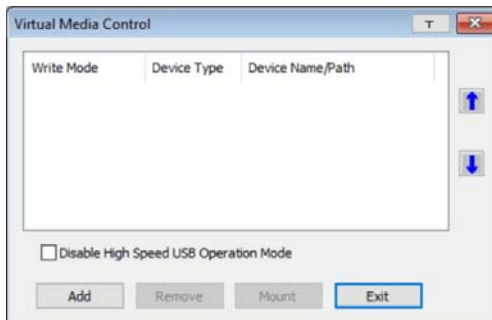
The *Virtual Media* icon on the **Control Panel** changes to indicate whether the virtual media function is available, or if a virtual media device has already been mounted on the remote server, as shown in the table below

Icon	Function
	The icon displays in gray to indicate that the virtual media function is disabled or not available.
	The icon displays in blue to indicate that the virtual media function is available. Click the icon to bring up the virtual media dialog box.
	The icon displays in blue with a / to indicate that a virtual media device has been mounted on the remote server. Click the icon to unmount all redirected devices.

Virtual Media Redirection

To implement the virtual media redirection feature, do the following:

1. Click the Virtual Media icon to bring up the *Virtual Media* dialog box:



- Click **Add** and select the media source.

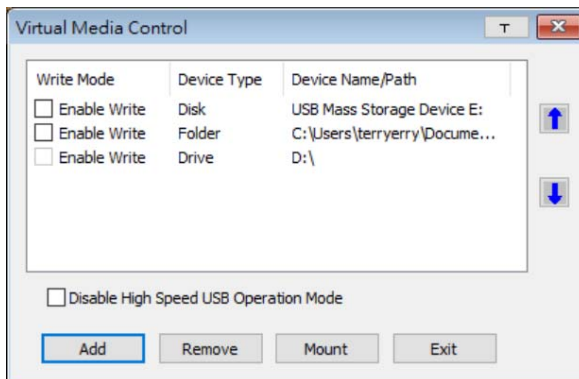


Depending on your selection, additional dialog boxes appear enabling you to select the drive, file, folder, or removable disk you desire. refer to the RCM device user manual for details about mounting these media types.

- To add additional media sources, click **Add**, and select the source as many times as you require.

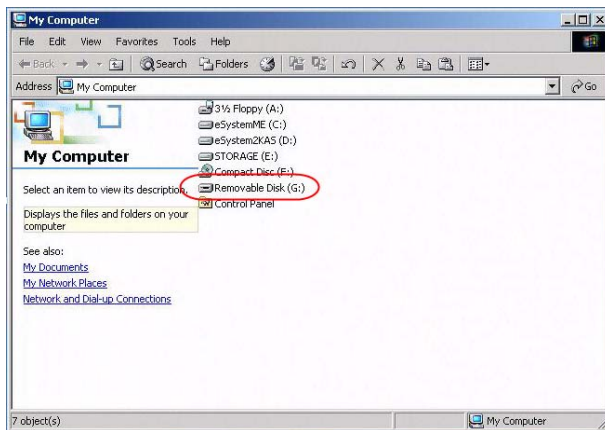
Up to three virtual media choices can be mounted. The top three in the list are the ones that are selected. To rearrange the selection order, highlight the device you want to move, then click the **Up** or **Down** Arrow button to promote or demote it in the list.

- Read* refers to the redirected device being able to send data to the remote server. *Write* refers to the redirected device being able to have data from the remote server written to it. The default is for **Write** to not be enabled (Read only). If you want the redirected device to be writable as well as readable, check the *Enable Write* checkbox:



-
- Note:** 1. If a redirected device cannot be written to, or if a user does not have write permissions, it appears in gray and cannot be selected.
2. Refer to the RCM device user manual for a list of supported virtual media types.
-

5. To remove an entry from the list, highlight it and click **Remove**.
6. After you have made your media source selections, click **Mount**. The dialog box closes. The virtual media devices that you have selected are redirected to the remote system, where they show up as drives, files and folders on the remote system's file system.



Once mounted, you can treat the virtual media as if they were really on the remote server – drag and drop files to/from them; open files on the remote system for editing and save them to the redirected media, etc.

Files that you save to the redirected media, will actually be saved on your local system. Files that you drag from the redirected media will actually come from your local system.

7. To end the redirection, bring up the *Control Panel* and click on the *Virtual Media* icon. All mounted devices are automatically unmounted.

Smart Card Reader

Note: This feature is only available when using the *WinClient Viewer* or the *Windows Client AP*.

The smart card reader function allows a reader plugged into a local client computer's USB port to be redirected, and appear as if it were plugged into the remote server. One purpose of smart cards (Common Access Cards, for example), is to allow authentication to the remote server from the local client.

When a smart card reader is connected to the local client computer, an entry for it appears when you bring up the **Virtual Media** dialog box and click **Add**:

Make your selection and click **Mount** to complete the redirection.

Note: If you mount a smart card reader, you cannot mount any other virtual media device. If any virtual media devices are already mounted, you must unmount them before you can mount the smart card reader.



Zoom

The *Zoom* icon controls the zoom factor for the remote view window. Settings are as follows:

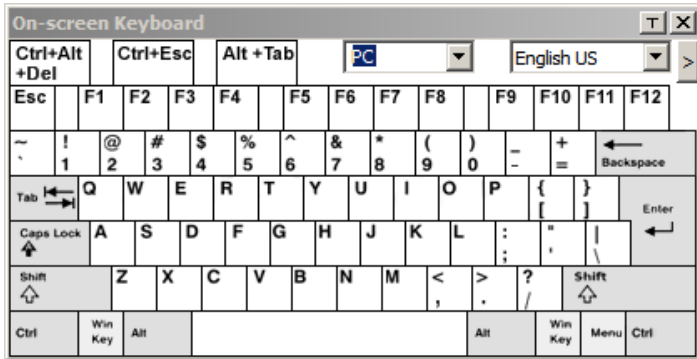
Setting	Description
100%	Sizes and displays the remote view window at 100%.
75%	Sizes and displays the remote view window at 75%.
50%	Sizes and displays the remote view window at 50%.
25%	Sizes and displays the remote view window at 25%.
1:1	Sizes and displays the remote view window at 100%. The difference between this setting and the 100% setting is that when the remote view window is resized, its contents don't resize – they remain at the size they were. To see any objects that are outside of the viewing area move the mouse to the window edge, to have the screen scroll.



The On-Screen Keyboard

The RCM device supports an on-screen keyboard, available in multiple languages, with all the standard keys for each supported language.

Click this icon to pop up the on-screen keyboard:

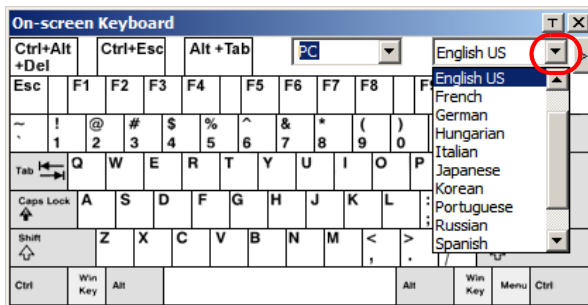


One of the major advantages of the on-screen keyboard is that if the keyboard languages of the remote and local systems are not the same, you do not have to change the configuration settings for either system. The user just has to bring up the on-screen keyboard; select the language used by the computer on the port he is accessing; and use the on-screen keyboard to communicate with it.

Note: You must use your mouse to click on the keys. You cannot use your actual keyboard.

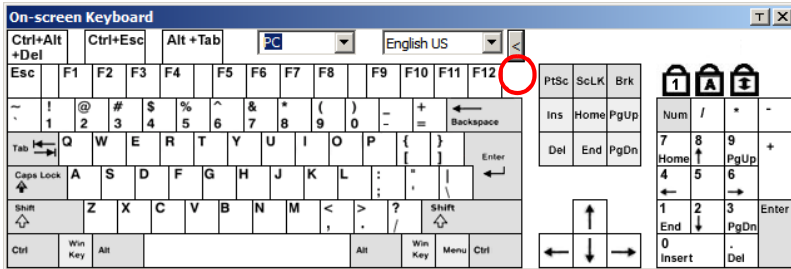
To change languages, do the following:

1. Click the down arrow next to the currently selected language to drop down the language list.



2. Select the new language from the list.

To display/hide the expanded keyboard keys, click the arrow to the right of the language list arrow.



Mouse Pointer Type

The RCM device offers a number of mouse pointer options when working in the remote display. Click this icon to select the type that you would like to work with:



Note: The icon on the Control Panel changes to match your choice.





Mouse DynaSync Mode

Clicking this icon selects whether synchronization of the local and remote mouse pointers is accomplished either automatically or manually.

Automatic Mouse Synchronization (DynaSync)

Mouse DynaSync provides automatic locked-in syncing of the remote and local mouse pointers – eliminating the need to constantly resync the two movements.

The icon on the toolbar indicates the synchronization mode status as follows:

Icon	Function
	This icon indicates that Mouse DynaSync is available and is enabled . This is the default setting when Mouse DynaSync is available.
	The <i>I</i> over this icon indicates that Mouse DynaSync is available but is not enabled .

When *Mouse DynaSync is available*, clicking the icon toggles between enabled and disabled. If you choose to disable Mouse DynaSync mode, you must use the manual syncing procedures described in the next section.

Manual Mouse Synchronization

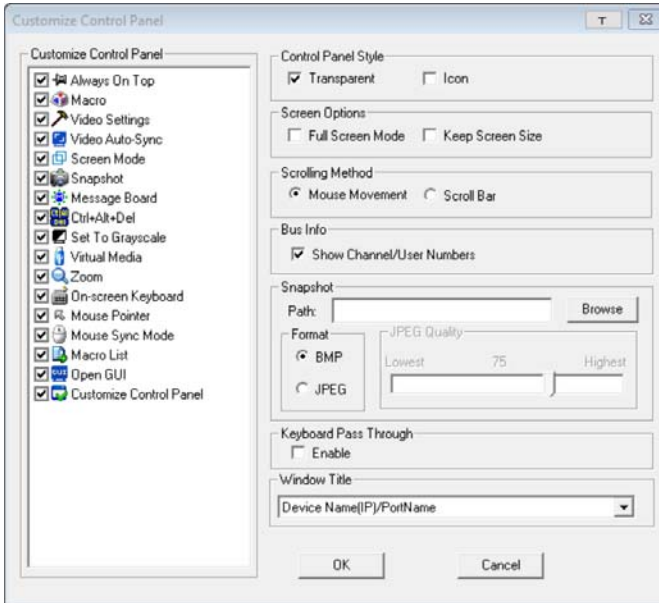
If you are using Manual mouse synchronization instead of automatic DynaSync and the local mouse pointer goes out of sync with the remote system's mouse pointer, there are a number of methods to bring them back into sync:

1. Perform a video and mouse auto sync by clicking the *Video Settings* icon on the Control Panel (see page 35).
2. Perform an *Auto Sync* with the Video Adjustment function (see *Video Settings*, page 35, for details).
3. Invoke the *Adjust Mouse* function with the *Adjust Mouse* hotkeys (see *Adjust mouse*, page 28, for details).
4. Move the pointer into all 4 corners of the screen (in any order).
5. Drag the Control Panel to a different position on the screen.
6. Set the mouse speed and acceleration for each problematic computer attached to the switch. See the RCM device user manual for details.



Control Panel Configuration

Clicking the *Customize Control Panel* icon brings up a dialog box that allows you to configure the items that appear on the Control Panel, as well as its graphical settings:



The dialog box is organized into six main sections as described in the table below

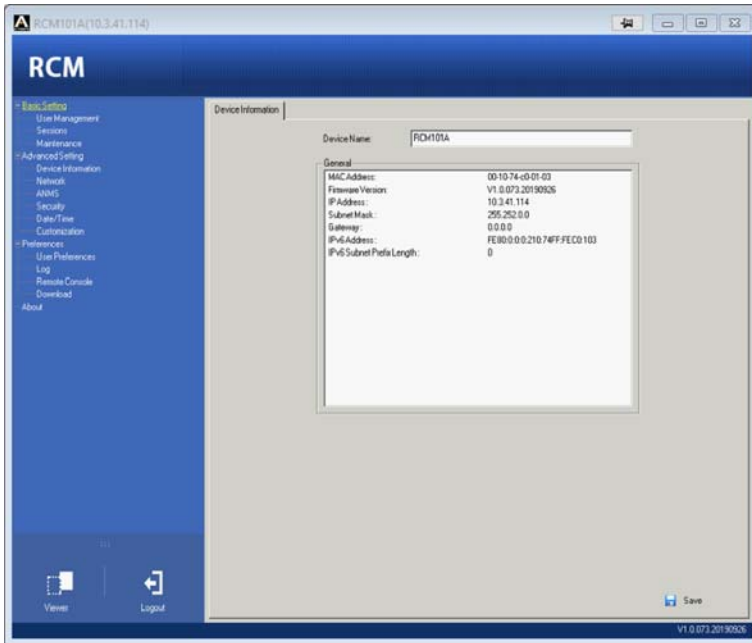
Item	Description
Customize Control Panel	Allows you to select which icons are displayed in the Control Panel.
Control Panel Style	<ul style="list-style-type: none"> Enabling Transparent makes the Control Panel semi-transparent, so that you can see through it to the display underneath. Enabling Icon causes the Control Panel to display as an icon until you mouse over it. When you mouse over the icon, the full panel comes up.

Item	Description
Screen Options	<ul style="list-style-type: none"> ◆ If Full Screen Mode is enabled, the remote display fills the entire screen. ◆ If Full Screen Mode is not enabled, the remote display appears as a window on the client desktop. If the remote screen is larger than what is able to fit in the window, scroll bars will appear. ◆ If Keep Screen Size is enabled, the remote screen is not resized. <ul style="list-style-type: none"> ◆ If the remote resolution is smaller than that of the client monitor, its display appears like a window centered on the screen. ◆ If the remote resolution is larger than that of the client monitor, its display is scaled to the client monitor size. ◆ If Keep Screen Size is not enabled, the remote screen is resized to fit the client monitor's resolution.
Scrolling Method	<p>In cases where the remote screen display is larger than your monitor, you can choose how to scroll to the areas that are off-screen.</p> <ul style="list-style-type: none"> ◆ If you select <i>Mouse Movement</i>, the screen will scroll when you move the mouse pointer to your screen border. ◆ If you select <i>Scroll Bars</i>, scroll bars appear around the screen borders that you can use to scroll to the off-screen areas.
Bus Info	<p>If <i>Bus Info</i> is enabled, the number of the bus you are on, as well as the total number of users on the bus, displays on the bottom row center of the Control Panel as follows: Bus No./Total Users (see the <i>Control Panel</i> diagram on page 23 for an example).</p>
Snapshot	<p>These settings let the user configure the RCM device's screen capture parameters (see the <i>Snapshot</i> description under <i>The WinClient Control Panel</i>, page 23):</p> <ul style="list-style-type: none"> ◆ Path lets you select a directory that the captured screens automatically get saved to. Click Browse; navigate to the directory of your choice; then click OK. If you don't specify a directory here, the snapshot is saved to your desktop. ◆ Click a radio button to choose whether you want the captured screen to be saved as a BMP or a JPEG (JPG) file. ◆ If you choose JPEG, you can select the quality of the captured file with the slider bar. The higher the quality, the better looking the image, but the larger the file size.
Keyboard Pass Through	<p>When this is enabled, the Alt-Tab key press is passed to the remote server and affects that server. If it is not enabled, Alt-Tab acts on your local client computer.</p>
Window Title	<p>Use the drop-down menu to select which remote server information is displayed on the window title.</p>



Open GUI

Clicking the *Open GUI* icon brings up a window that allows you to configure the RCM device via its viewer-based GUI.



The sidebar menu items available on this page are based on the user's permissions. For information on how to use these functions, refer to the RCM device user manual.

Technical Support

International

- ◆ For online technical support – including troubleshooting, documentation, and software updates: <http://support.aten.com>
- ◆ For telephone support, see *Telephone Support*, page iii.

North America

Email Support		support@aten-usa.com
Online Technical Support	Troubleshooting Documentation Software Updates	http://www.support.aten.com
Telephone Support		1-888-999-ATEN ext 4988 1-949-428-1111

When you contact us, please have the following information ready beforehand:

- ◆ Product model number, serial number, and date of purchase.
- ◆ Your computer configuration, including operating system, revision level, expansion cards, and software.
- ◆ Any error messages displayed at the time the error occurred.
- ◆ The sequence of operations that led up to the error.
- ◆ Any other information you feel may be of help.

Compatible Products

Refer to the RCMMS product page for a list of supported products.

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