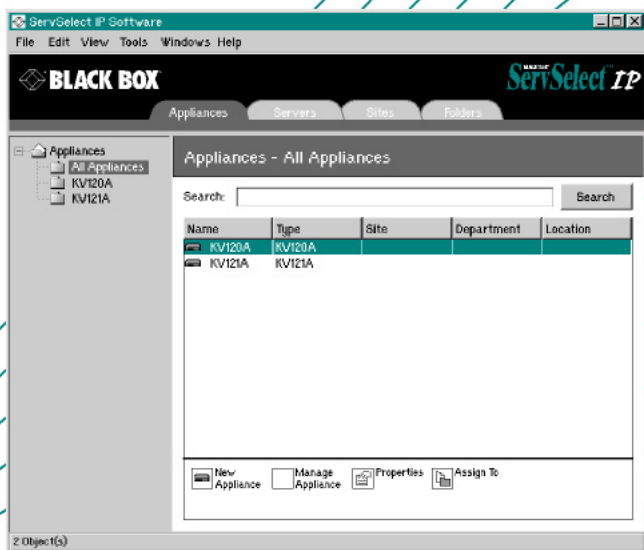


BLACK BOX[®] *ServSelect*[™] IP Software



KV120A
KV120E
KV121A
KV121E

Welcome to the ServSwitch™ Family!

Thank you for purchasing a BLACK BOX® ServSelect IP! We appreciate your business, and we think you'll appreciate the many ways that your new ServSelect IP will save you money, time, and effort.

That's because our ServSwitch family is all about breaking away from the traditional, expensive model of computer management. You know, the one-size-fits-all-even-if-it-doesn't model that says, "One computer gets one user station, no more, no less." Why not a single user station (monitor, keyboard, and mouse) for multiple computers—even computers of different platforms? Why not a pair of user stations, each of which can control multiple computers? Why not multiple user stations for the same computer?

With our ServSwitch products, there's no reason why not. We carry a broad line of robust solutions for all these applications. Do you have just two PCs, and need an economical alternative to keeping two monitors, keyboards, and mice on your desk? Or do you need to share dozens of computers, including a mix of IBM® PC, RS/6000®, Apple® Macintosh®, Sun Microsystems®, and SGI™ compatibles among multiple users with different access levels? Does your switch have to sit solidly on a worktable and use regular everyday cables? Or does it have to be mounted in an equipment rack and use convenient many-to-one cables? No matter how large or small your setup is, no matter how simple or how complex, we're confident we have a ServSwitch system that's just right for you.


The ServSwitch™ family from Black Box—the one-stop answer for all your KVM switching needs!

*

This manual will tell you all about your new ServSelect IP software, including how to install, operate, and troubleshoot it. For an introduction to the ServSelect IP software, see Chapter 1. The ServSelect IP product codes covered in this manual are:

KV120 KV121

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1. Introduction

1.1 About ServSelect IP Software

ServSelect IP Software is a cross-platform management application that allows you to view and control the ServSelect IP appliance and all its target servers. The cross-platform design ensures compatibility with most popular operating systems and hardware platforms. ServSelect IP provides secure switch-based authentication, data transfers and username/password storage. Each appliance handles authentication and access control individually, placing system control at the point of need.

ServSelect IP Software utilizes browser-like navigation with an intuitive split-screen interface, providing you with a single point of access for all your servers. Using ServSelect IP Software, you can manage your existing appliances, install a new switch or launch a video session to a target server. Built-in groupings such as Servers, Sites and Folders provide an easy way to select the units to view. Powerful search and sort capabilities allow you to easily find any unit.

NOTE:

Throughout the documentation and ServSelect IP Software user interface, you will see the word “appliance” used generically to describe the ServSelect IP switch.

1.2 Features and Benefits

Easy to install and configure

ServSelect IP Software is designed for easy installation and operation. Auto-discovery of managed appliances enables you to deploy new units in minutes. Wizard-based installation and online help simplify initial system configuration. The intuitive graphical interface makes managing and updating appliances simple and straightforward.

Powerful customization capabilities

Tailor ServSelect IP Software to fit your specific system needs. Take advantage of built-in groups or create your own. Customize unit and field names, icons and macros for maximum flexibility and convenience. Using names that are meaningful to you makes it easy to quickly find any target server.

Extensive ServSelect IP management

ServSelect IP Software allows you to add and manage multiple appliances in one system. Once a new appliance is installed, you can configure switch parameters, control and preempt user video sessions and execute numerous control functions, such as rebooting and upgrading your appliance. From the intuitive Appliance Management Panel (AMP), you can enable Simple Network Management Protocol (SNMP) traps, configure target servers and cascade switches as well as manage user databases.

2. Installation

2.1 Getting Started

Before installing your ServSelect IP Software, refer to the following lists to ensure that you have all the items that shipped with your software as well as all other items necessary for proper installation.

Supplied with ServSelect IP Software

Your ServSelect IP Software package contains the following items:

- ServSelect IP Software CD
- ServSelect IP Software Installer/User Guide

Supported operating systems

ServSelect IP Software is supported on the following operating systems:

- Microsoft® Windows® 2000 Workstation - Service Pack 2
- Microsoft Windows 2000 Server - Service Pack 2
- Microsoft Windows NT® 4.0 Workstation - Service Pack 6a
- Microsoft Windows NT 4.0 Server - Service Pack 6a
- Microsoft Windows XP® (Home and Professional)
- Red Hat® Linux® 7.1 (2.7 Kernel)
- Red Hat Linux 7.2 (2.7 Kernel)

PC hardware configuration requirements

The following list contains the PC hardware configuration requirements for running ServSelect IP Software on the supported operating systems. Configurations with less than the recommended requirements are not supported.

- 500 MHz Pentium® III
- 128 MB RAM
- 10 or 100BASE-T NIC
- VGA or XGA video with graphics accelerator
- Desktop size must be a minimum of 800 x 600
- Color palette must be a minimum of 256 colors

2.2 Installing ServSelect IP Software

ServSelect IP Software can be installed on Microsoft Windows NT, Windows 2000, Windows XP and Linux platforms. Follow these instructions to install ServSelect IP Software on the desired platform.

To install on Microsoft Windows NT, 2000 or XP:

1. Insert the ServSelect IP Software CD-ROM into your CD-ROM drive. If AutoPlay is supported and enabled, the setup program will start automatically.

-or-

If your system does not support AutoPlay, set the default drive to your CD-ROM drive letter and execute the following command to start the install program (replace **drive** with your CD-ROM drive letter):

```
drive:\WIN32\SETUP.EXE
```

2. Follow the on-screen instructions.

To install on Red Hat Linux:

1. Insert the ServSelect IP Software CD-ROM into your CD-ROM drive. If AutoPlay is supported and enabled, the setup program will start automatically.

-or-

If your system does not support AutoPlay:

- a. Mount the CD-ROM volume by executing the following command:

```
mount -t iso9660 -ro mode=0555 <unit> <mount point>
```

Replace **<unit>** with the name of the CD-ROM on your machine and **<mount point>** with the name of the desired mount point. For example, to mount a CD-ROM which is the second IDE unit on /mnt, execute the command:

```
mount -t iso9660 -ro mode=0555 /dev/hdb /mnt
```

- b. Execute the following command to change the working directory to the mount point:

```
cd /mnt
```

- c. Execute the following command to start the install program:

```
sh./linux/setup.bin
```

2. Follow the on-screen instructions.

3. Basic Operations

3.1 Launching ServSelect IP Software

To launch the software on all Microsoft Windows operating systems:

Select *Start - Programs - Black Box ServSelect IP Software*.

-or-

Double-click the ServSelect IP Software icon. ServSelect IP Software will launch.

To launch the software on Red Hat Linux (7.1 and 7.2):

From the application folder (/usr/lib/Black_Box_ServSelect_IP_Software/), execute the following command:

```
./Black_Box_ServSelect_IP_Software
```

-or-

From (/user/bin), execute the following link:

```
./Black_Box_ServSelect_IP_Software
```

-or-

If a desktop shortcut was created on installation, double-click the shortcut and then select *Run*. ServSelect IP Software will launch.

3.2 Navigating ServSelect IP Software

ServSelect IP Software consists of several components: the ServSelect IP Software Explorer, the Video Session Viewer (Viewer) and the Appliance Management Panel (AMP). Once you launch the ServSelect IP Software, the main ServSelect IP Software Explorer window appears. The Explorer window allows you to view, access, manage and create custom groupings for all of the supported units in your data center.

When you select a target server, you can click the *Connect Video* task button in the ServSelect IP Software Explorer to launch the Viewer. This component allows you to control the keyboard, monitor and mouse functions of individual servers. For more information, see *Accessing and Managing Your Servers* in this chapter.

When you select an appliance, you can click the *Manage appliance* task button in the ServSelect IP Software Explorer to launch the AMP. This component enables you to configure and control your appliance. For more information, see Chapter 4.

Viewing your system in the ServSelect IP Software Explorer

The ServSelect IP Software Explorer is divided into several panes: the View Selector tabs, the Group Selector pane and the Unit Selector pane. The content of these panes will change based on the type of unit selected or the task to be completed. Figure 3-1 highlights these navigation features.

Click one of the View Selector tabs to view your system organized by categories: Appliances, Servers, Sites or Folders. The Explorer's default display is user-configurable. For more information, see *Customizing the ServSelect IP Software Explorer Window* in this chapter. The ServSelect IP Software Explorer default display is set for the Server view once you have added your first appliance.

NOTE:

The Group Selector pane does not appear under the Appliances or Servers tab unless you have more than one type of appliance or server.

ServSelect IP Software Explorer Window Features

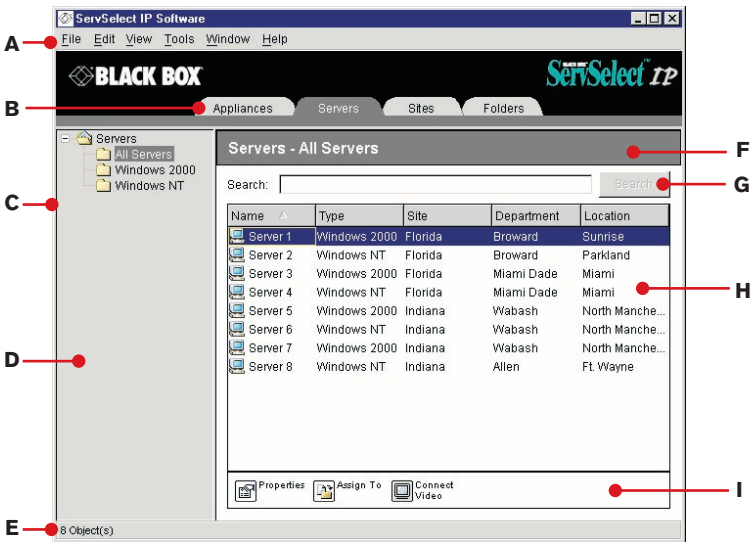


Figure 3-1. ServSelect IP Software Explorer Window

- A. **Menu bar:** Allows you to access many of the features in ServSelect IP Software.
- B. **View Selector tabs:** Used for choosing the ServSelect IP Software Explorer view.
- C. **Root node:** Each tree consists of a root node and branches.
- D. **Group Selector pane:** Contains a tree view representing the groups that are available for the current View Selector tab. The selected group controls what is displayed in the Unit Selector pane when the Appliances, Servers, Sites or Folder tabs are selected.
- E. **Status bar:** Displays the number of units shown in the Unit list.
- F. **Unit Selector pane:** Contains the Search bar, Unit list and Task buttons appropriate for the selected view or group.
- G. **Search bar:** Allows you to search the database for the text entered in the search box.

- H. Unit list:** Displays a list of appliances and selectable servers contained in the currently selected group, or the results of the search executed from the Search bar.
-
- I. Task buttons:** Contains buttons representing tasks that can be executed. Some buttons are dynamic based on the type of unit(s) selected in the Unit list while other buttons are fixed and always present.
-

3.3 Quick Setup Checklist

The following list is an overview of the steps you will follow to set up and configure your ServSelect IP system. Each of these steps is explained in detail in separate topics throughout this manual and the ServSelect IP Installer/User Guide.

To set up the ServSelect IP (see the ServSelect IP Installer/User Guide):

1. Adjust mouse acceleration on each server to *Slow* or *None*.
2. Install the ServSelect IP hardware, connect the SAM adapters and connect the keyboard, monitor and mouse to the analog port.
3. Connect a terminal to the configuration port (labelled “1010”) on the back panel of the ServSelect IP and set up network configuration (set network speed and address type). The IP address can be set from ServSelect IP Software.
4. Using the local analog workstation, input all server names via the On-Screen Display (OSD).

To set up ServSelect IP Software:

1. Install ServSelect IP Software on each ServSelect IP Software client.
2. From one ServSelect IP Software client, launch ServSelect IP Software.
3. Click the *New Appliance* task button to add the new switch to the ServSelect IP Software database. The New Appliance Wizard appears. If you configured the IP address as described above, select *Yes, the product already has an IP address*, otherwise select *No, the product does not have an IP address*. ServSelect IP Software will find the appliance and all SAM adapters attached to it. These names will display in the ServSelect IP Software Explorer.
4. Set properties and group servers as desired into locations, sites or folders through the ServSelect IP Software Explorer.
5. Create user accounts through the AMP.
6. Once one ServSelect IP Software client is set up, select *File - Database - Save* to save a copy of the database with all the settings.
7. From the second ServSelect IP Software client, click *File - Database - Load* and browse to find the file you have saved. Select the file and click *Load*.

8. If the local analog workstation (via the OSD) adds, deletes or renames any SAM adapters after you have loaded this file, you can resynchronize your local database with the OSD by clicking the *Manage Appliance* task button and clicking the *Resync* button under *Settings - Servers*.
9. To access a server attached to your ServSelect IP, select the desired server in the ServSelect IP Software Explorer and click the *Connect Video* task button to launch a server session in the Video Session Viewer.
10. Adjust the resolution (select *View - Auto Scale*) and quality (select *Tools - Automatic Video Adjust*) of the server video in the Video Session Viewer.

3.4 Adding an Appliance

Before you can access your appliance through ServSelect IP Software, you must add it to the ServSelect IP Software database. Once an appliance is added, it appears in the Unit list. You may either manually add or discover an appliance.

To manually add an appliance that already has an assigned IP address:

1. Select *File - New - Appliance* from the ServSelect IP Software Explorer menu.
-or-
Click the *New Appliance* task button. The New Appliance Wizard appears. Click *Next* to continue.
2. Select the type of appliance you are adding. Click *Next*.
3. You are prompted to indicate whether the appliance has an assigned IP address or not. Click *Yes* and then click *Next*.
4. The Find ServSelect IP window appears. Type the IP address and click *Next*.

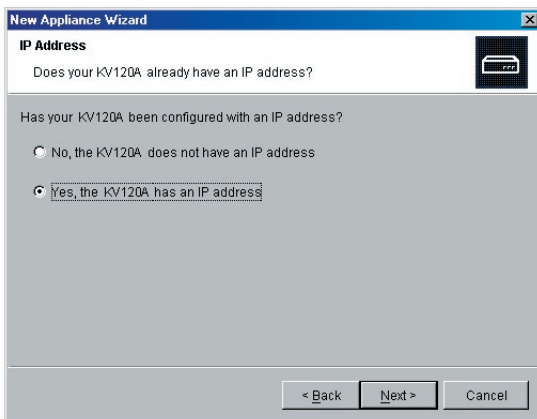


Figure 3-2. Find ServSelect IP Dialog Box

5. The ServSelect IP Software will search for the indicated unit as well as all the powered SAMs and server names you associated with it in the OSD, if any. If you

want to search for unpowered SAMs, you can access the Resync feature under the Servers category in the AMP and click the *Include Offline SAM adapters* checkbox. For more information, see *Viewing server connections* in Chapter 4. Click *Next*.

6. The Configure Cascade Switches dialog box appears if the ServSelect IP Software detects an attached ServSwitch Multi Z8. This box contains a list of all SAM adapter EIDs (Electronic Identification Numbers) retrieved from the appliance and the Z8s to which they are connected, if any. When this dialog box first displays, all the switches will be set to *None*. Switches detected will have an icon next to the pulldown menu.
 - a. The Existing Cascade Switches field contains all the current Z8s defined in the database. Click *Add*, *Delete* or *Modify* to alter the list.
 - b. Associate the appropriate Z8 from the pulldown menus for each SAM that has a Z8 attached.

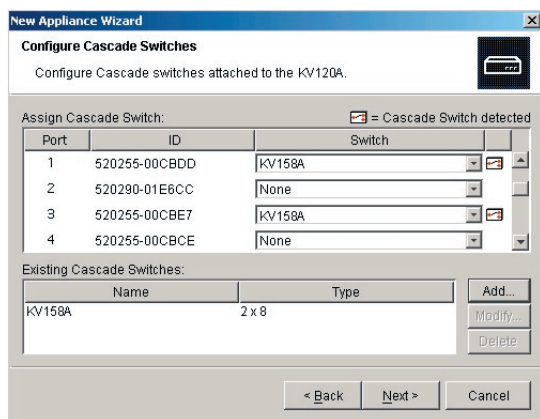


Figure 3-3. Configure Cascade Switches Dialog Box

7. When you reach the final page of the Wizard, click *Finish* to exit the Wizard and return to the main window. Your appliance should now appear in the Unit Selector pane.

To manually install an appliance with no currently assigned IP address:

1. Select *File - New - ServSelect IP* from the ServSelect IP Software Explorer menu.
-or-
Click the *New Appliance* task button. The New Appliance Wizard appears.
Click *Next* to continue.
2. You are prompted to indicate if the ServSelect IP has an assigned IP address.
Click *No* and then click *Next*.
3. The Network Address window appears. Type the IP address, subnet mask and gateway that you want to assign to the unit and click *Next*.

4. The Select ServSelect IP window appears, prompting you to select the unit to add from the list of appliances that were found. Select the unit and then click *Next*.
5. The Configuring ServSelect IP window indicates whether the IP information was successfully configured. If the configuration was successful, the ServSelect IP Software will search for the new appliance as well as all SAMs and server names associated with it. Click *Next*.
6. The Configure Cascade Switches dialog box appears if the ServSelect IP Software detects an attached Z8. This box contains a list of all SAM adapter EIDs retrieved from the appliance and the Z8s to which they are connected, if any.
 - a. The Existing Cascade Switches field contains a list of all the current Z8s defined in the database. You may add, delete or modify the list.
 - b. Associate the appropriate Z8 from the pulldown menus for each SAM that has a Z8 attached.

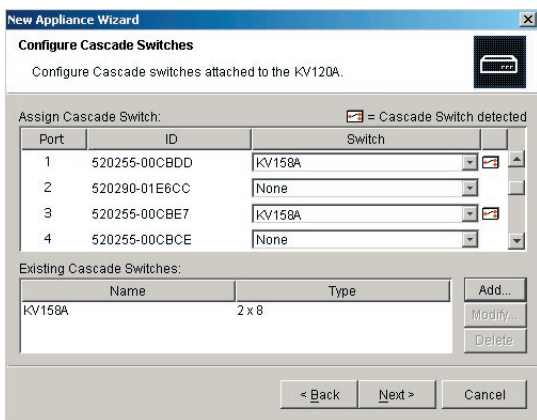


Figure 3-4. Configure Cascade Switches Dialog Box

7. When complete, click *Finish* to exit the Wizard and return to the main window. Your appliance should now appear in the Unit Selector pane.

To discover an appliance by IP address:

1. Select *Tools - Discover* from the ServSelect IP Software Explorer menu. The Discover Wizard appears. Click *Next* to continue.
2. The Address Range page appears. Type the range of IP addresses to search on the network in the To and From boxes. Use the IP address dot notation xxx.xxx.xxx.xxx. Click *Next* to continue.

(continued on the next page)

3. The Searching Network progress bar appears. If one or more new appliances are discovered, the Wizard shows the Select Appliances to Add page. From this page, you can choose the appliances to add to the local database.
-or-
If no new appliances were found (or if you clicked *Stop*), the Wizard will show the No New Appliances Found page and you will need to add the switch manually. For more information, see the previous procedures.
4. Click on an appliance to add and click the *Add (>)* icon to move the selection to the Appliances to Add list.
5. Repeat step 4 for all appliances you wish to add. Click *Next* to continue.
6. The Adding Appliances progress bar appears while the new switches are being added. Once all of the switches have been added to the local database, the Discover Wizard Completed page appears. Click *Finish* to exit the Wizard and return to the main window. Your new switch should now be in the Unit Selector pane.

The Discover Wizard will not automatically find servers attached to the appliance. After running the Discover Wizard, you must click the *Resync* button in the AMP to find servers attached to the appliance. For more information, see *Resynchronizing the server listing* in Chapter 4.

-or-

If one or more appliances could not be added to the local database for any reason (including if you clicked *Stop* during the add process), the Discover Wizard Not All Appliances Added page appears. This page will list all of the appliances that you selected and the status for each. The status will indicate whether an appliance was added to the local database and if not, why the process failed. Click *Done* when you are finished reviewing the list.

NOTE:

If an appliance already exists in the database with the same IP address as a discovered unit, then the discovered unit will be ignored and will not display on the next Wizard page.

3.5 Accessing an Appliance

When you click the *Appliances* button, you will see a list of the appliances currently defined in the local database. To access an appliance, you must first log into it by typing in a username and password. Once you have logged into an appliance, ServSelect IP Software will cache the username and password in memory for the duration of the ServSelect IP Software session.

NOTE:

You can clear the login credentials by selecting *Tools - Clear Login Credentials*.

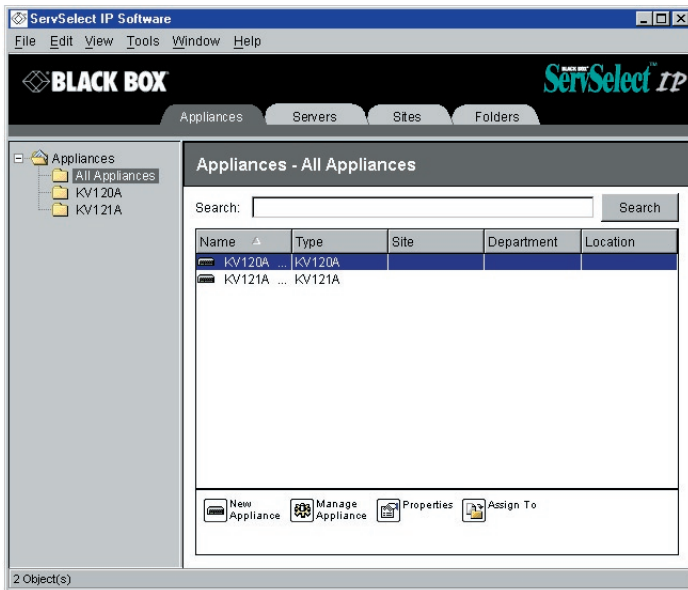


Figure 3-5. Appliance View Tab Selected

To log into an appliance:

1. Click the *Appliances* button in the ServSelect IP Software Explorer.
2. Double-click on an appliance from the Unit Selector pane.
 - or-
 - Select an appliance, and then click the *Manage appliance* task button.
 - or-
 - Right-click an appliance. A pop-up menu appears. Select *Manage appliance*.
 - or-
 - Click an appliance in the Unit Selector pane and press **Enter**.
3. A password prompt appears. Type in your username and password. The default username is **Admin** with no password.

NOTE:

If you previously logged into the appliance during the same ServSelect IP Software session, the password prompt will not appear.

4. Click *OK* to access the appliance. This launches the AMP. For more information about the AMP, see Chapter 4.
 - or-
 - Click *Cancel* to exit without logging in.

3.6 Accessing and Managing Your Servers

The Servers tab displays a list of servers defined in the database. The Group Selector pane appears if two or more server types are defined. Click *All Servers* or click on a folder to view all servers of a particular type. When you select a server and click the *Connect Video* task button, the Viewer launches. The Viewer allows you full keyboard, monitor and mouse control over a server.

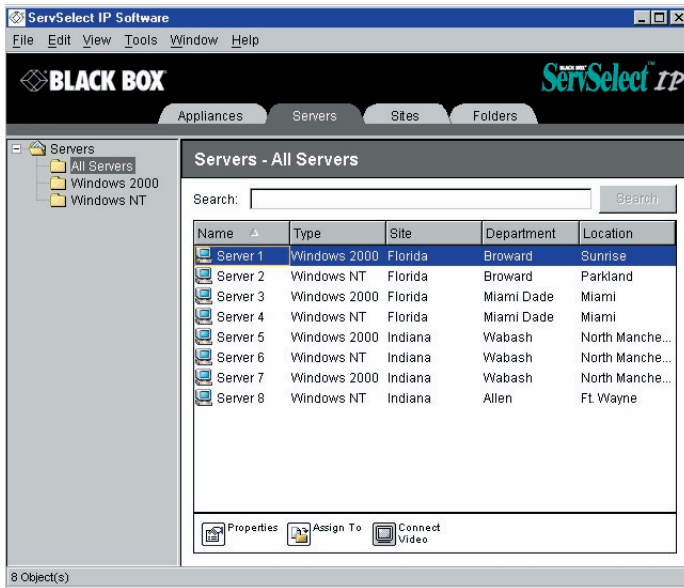


Figure 3-6. Servers View Tab Selected

To access a server:

1. Click the *Servers* tab in the ServSelect IP Software Explorer.
2. Double-click on the server from the Unit Selector pane.
 - or-
 - Select a server, and then click the *Connect Video* task button.
 - or-
 - Right-click on the server. A pop-up menu appears. Select *Connect Video*.
 - or-
 - Click a server in the Unit Selector pane and press **Enter**. The Viewer launches in a new window.

To search for a server in the local database:

1. Click the *Servers* tab and insert your cursor in the Search text box.
2. Type the search information. This can be a server name or property (type, site, location or folder).

3. Click the *Search* button. The results appear in the Unit list.
4. Review the results of your search. Click the *Clear Results* button if you want to display the entire list again.

To auto search by typing in the Unit list:

1. Click the *Servers* tab, then click on any item in the Unit list.
2. Type the first few characters of a server name. The highlight moves to the first server name beginning with those characters. To reset the search to find another server, pause for a few seconds and then type the first few characters of that name.

Interacting with the server being viewed

Once you have connected to a server, the server's desktop appears in a separate window called the Video Session Viewer. You see two cursors, the local system's as well the server's cursor. You may need to align these if they do not move together. See *Aligning the mouse or resetting the PS/2 connection* in this chapter.

From this window, you will be able to access all the normal functions of this server as if you were sitting in front of it. You may also perform Viewer-specific tasks such as sending special Macro commands to the server.

Viewer Window Features

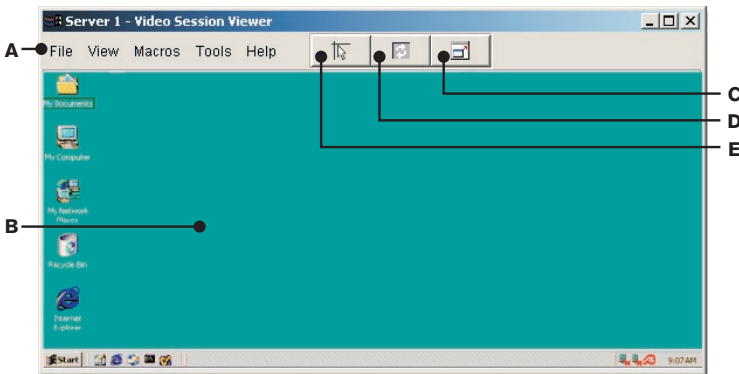


Figure 3-7. Video Viewer Window

- A. **Menu bar:** Access many of the features in the Viewer.
- B. **Accessed server desktop:** Interact with your server through this window.
- C. **Full Screen button:** Expand the accessed server desktop to fill the entire screen.
- D. **Refresh Video button:** Regenerate the digitized video image of the server desktop.
- E. **Align Local Cursor button:** Re-establish proper tracking of the local cursor to the remote server cursor.

Expanding and refreshing your Video Viewer

You can adjust your view using the three buttons at the top of the Video Viewer window. The first button allows you to align the mouse cursors, the second is to refresh the video and the third allows you to expand the Video Viewer window to encompass the entire screen. If you choose to expand the Video Viewer window, the menu bar will disappear, but you will still see a small floating palette with these three buttons and the Macros pulldown menu.



Figure 3-8. Full Screen Toolbar

To align the mouse cursors:

Click the *Align Local Cursor* button on the Viewer toolbar. The local cursor will align with the cursor on the remote server.

To refresh the screen:

Click the *Refresh Image* button on the Viewer toolbar.

-or-

From the Viewer menu, select *View - Refresh*. The digitized video image will be completely regenerated.

To enter full screen mode:

Click the *Full Screen Mode* button.

-or-

From the Viewer menu, select *View - Full Screen*. The desktop window will disappear and only the accessed server desktop will be visible. The screen will be resized up to a maximum of 1024 x 768. If the desktop has a higher resolution, then a black background will surround the full screen image. The floating toolbar will appear.

To exit full screen mode:

Click the *Full Screen Mode* button on the floating toolbar to exit full screen mode and return to the desktop window.

Adjusting the Video Viewer window

You can adjust both the resolution and quality of the Video Viewer. You can also expand your session to fit the entire screen or refresh the view at any time.

Adjusting the window size

The Video Viewer allows you to set up automatic or manual scaling of the session image. When *Auto Scale* is selected, the desktop window remains fixed and the server image is scaled to fit the window. When *Manual Scale* is selected, a drop-down menu of supported image scaling resolutions is displayed.

To adjust the size of the Video Viewer window:

From the menu, select *View - Auto Scale* to scale the server image automatically.

-or-

From the menu, select *View - Manual Scale*, then choose the dimension to scale the window.

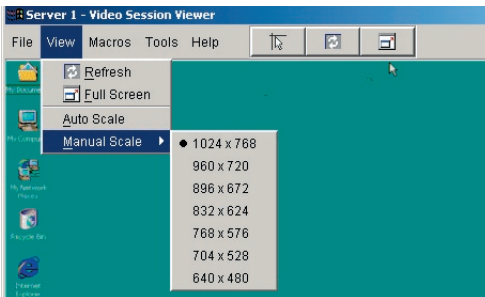


Figure 3-9. Viewer Manual Scale

Adjusting the video quality

The Video Viewer offers both automatic and manual video adjustment capability. Generally, the Automatic Video Adjustment will optimize the video for the best possible view. However, you may fine tune the video with the aid of Black Box technical support. See *Appendix D: Troubleshooting*. Video adjustment is a global setting and applies to each target server you access.

Adjusting mouse settings

The Video Viewer allows you to select among five different mouse cursor options, set up mouse scaling and resynchronize your mouse should it no longer track properly. Mouse settings are target-server-specific and can be set differently for each server. These settings are placed into the local client database and applied each time you launch a session to a specific server.

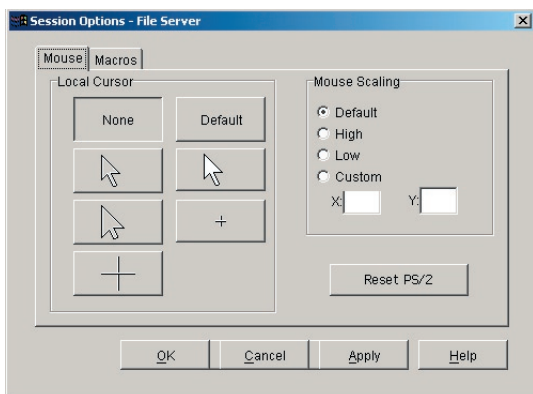


Figure 3-10. Viewer Mouse Session Options Dialog Box

Setting mouse scaling

You can choose among three preconfigured mouse scaling options or set your own custom scaling. The preconfigured settings are: Default (1:1), High (2:1) or Low (1:2). In a 1:1 scaling ratio, every mouse movement on the desktop window will send an equivalent mouse movement to the server. In a 2:1 scaling, the same mouse movement will send a 2X mouse movement. In a 1:2 scaling, the value will be 1/2X.

To set custom mouse scaling:

1. Select *Tools - Session Options*. The Session Options dialog box appears.
2. Click the *Mouse* tab.
3. Click the *Custom* radio button. The X and Y fields become enabled.
4. Type a mouse scaling value in the X and Y fields. For every mouse input, the mouse movements are multiplied by the respective X and Y scaling factors. Valid input ranges are 0.25 to 3.00.

Aligning the mouse or resetting the PS/2 connection

If you find that your mouse or keyboard no longer responds properly, you can align the mouse to re-establish proper tracking or reset the PS/2 connection (if you are controlling a server with PS/2 keyboard and mouse ports). Resetting the PS/2 connection causes the appliance to simulate a mouse and keyboard reconnect at the server as if you had disconnected and then reconnected them. Alignment causes the local cursor to be aligned with the cursor on the remote server.

NOTE:

If the server does not support the ability to disconnect and reconnect the mouse (almost all newer PCs do), then the mouse will become disabled and the server will have to be rebooted.

To realign the mouse:

Click the *Align Local Cursor* button on the Viewer toolbar.

To reset the PS/2 connection:

1. Select *Tools - Session Options* in the Viewer. The Session Options dialog box appears.
2. Click the *Mouse* tab.
3. Click the *Reset PS/2* button. A dialog box appears prompting you to confirm.
4. Click the *Reset PS/2 Connection at the Server* checkbox and click *OK*.

Using macros to send keystrokes to a server

The Macros menu in the Video Viewer allows you an easy way to send multiple keystrokes to the server or to send keystrokes that you cannot generate without affecting your local system, such as **Control-Alt-Delete**. The Viewer provides a list of default keystroke selections; however, you may set up your own macros, as well as change the set that displays by default, by selecting the *Configure* option at the bottom of the Macros pulldown menu.

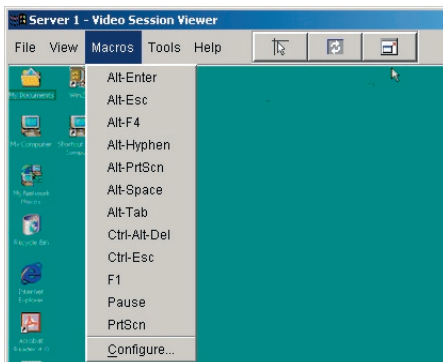


Figure 3-11. Viewer Macro Menu Expanded

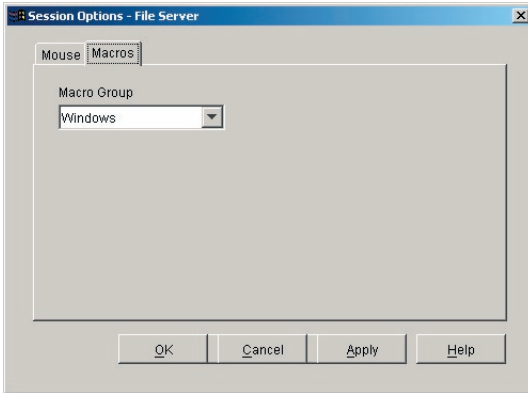
Sending keystrokes to a server

Select the *Macros* menu in the Viewer and choose the macro to send to the server. Figure 3-11 shows the default macros that ship with ServSelect IP Software. If you do not see the keystroke you need, select *Configure* to access the Macros dialog box. Here you can create, modify, delete and group macros.

Macro Groups settings are specific to each target server and, therefore, can be set differently for each server. These settings are placed into the local client database and applied each time you launch a session to a specific server.

To change the default Macro group:

1. Select *Tools - Session Options* in the Viewer. The Session Options dialog box appears.
2. Click the *Macros* tab.

**Figure 3-12. Viewer Session Options Dialog Box - Macro Tab**

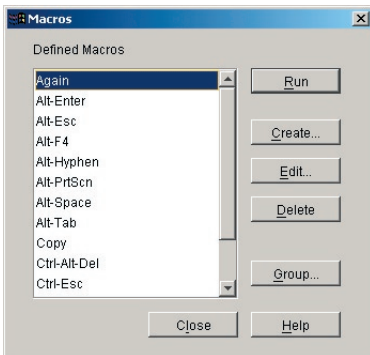
3. Select a macro group from the pulldown list to appear in the Macro menu and click *OK*.

Creating new macros

You can create custom macro keystrokes as well as modify and delete existing macros through the Macros dialog box.

To create a new macro:

1. Select *Macros - Configure* from the Viewer. The Macros dialog box appears.

**Figure 3-13. Viewer Macro Dialog Box**

2. Click *Create*. The Create/Edit Macros dialog box appears.

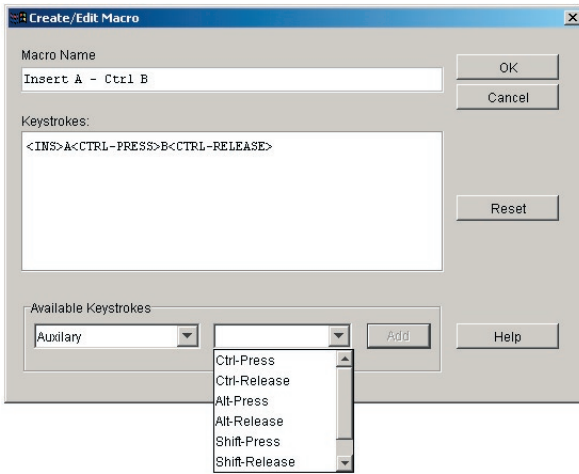


Figure 3-14. Viewer Create/Edit Macro Dialog Box

3. Type the name of the macro in the Macro Name field.
4. Select the desired category and keystrokes from the list of Available Keystrokes and click *Add*.
-or-
Type the keystrokes to send in the Keystrokes field.
5. Click *OK* to accept the macro and return to the Macros dialog box.
-or-
Click *Reset* to erase all the keystrokes entered in the Keystrokes field.

Grouping macros

The Macro Groups dialog box allows you to arrange macros into logical groups. Macro groups for Windows and Sun are already predefined; you can alter either of these two groups or create an entirely new group. You can also rename and delete groups that have been previously created.

To create a macro group:

1. Select *Macros - Configure* from the Viewer. The Macros dialog box appears.
2. Click *Group*. The Macro Groups dialog box appears. The Macros Available box contains macros that are not currently in use by this group.

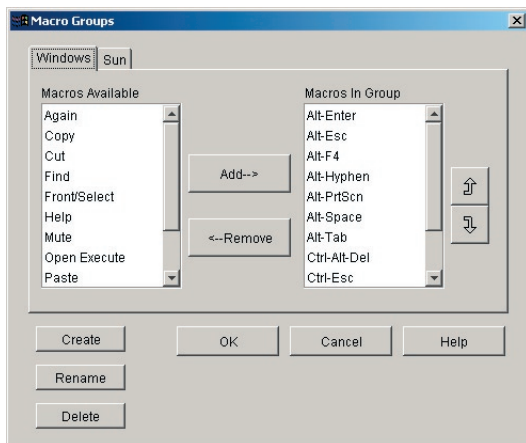


Figure 3-15. Viewer Macro Groups Dialog Box

3. Click *Create*. A dialog box appears prompting you to name the new macro group.
4. Type in a name. Click *OK* to save the name and return to the Macro Groups dialog box. A tab with the new name appears.

To add macros to an existing group:

1. Select *Macros - Configure* from the Viewer. The Macros dialog box appears.
2. Click *Group*. The Macro Groups dialog box appears.
3. Click the macro group tab to alter. Windows and Sun are the default tabs. If you have created a new group, you will see a tab for this group as well.
4. Click on the macro to add from the Macros Available pane on the left side of the dialog box. Click the *Add* button. The macro appears in the Macros in Group box. Use the *Move Up* and *Move Down* buttons (on the right-hand side of the screen, labeled with arrows pointing up or down) to move the macro up or down in relation to the other macros.
5. Repeat step 4 until all the macros to be grouped appear in the Macros in Group box.
6. Click *OK* to accept the macro group and return to the Macros dialog box.
-or-
Click *Cancel* to leave this dialog box without saving changes.

To remove macros from an existing group:

1. Select *Macros - Configure* from the Viewer. The Macros dialog box appears.
2. Click *Group*. The Macro Groups dialog box appears.
3. Click the macro group tab to alter. Windows and Sun are the default tabs. If you

have created a new group, you will see a tab for this group as well.

4. Click on the macro to remove from the Macros in Group pane on the right side of the dialog box. Click the *Remove* button. The macro appears in the Macros Available box.
5. Repeat step 4 until all the macros to be removed appear in the Macros Available box.
6. Click *OK* to accept the macro group and return to the Macros dialog box.
-or-
Click *Cancel* to leave this dialog box without saving changes.

3.7 Changing ServSelect IP Software Server Properties

You can alter server properties from the ServSelect IP Software Explorer Properties dialog box including General, Network, Information and Connections. The General tab allows you to change the server name, server type and the icon that will be used to display the server in ServSelect IP Software. You may also assign the server to a site, location or folder. The Network tab lets you set a browser URL for that server if you want to view it in a browser window instead of through a session Viewer. The Information tab allows you to enter information about the server including a server description, contact information and any comments you would like to add. Lastly, the Connections tab displays the connection that will be used for a specific server.

NOTE:

You can also change the properties of your appliance. For more information, see Chapter 4.

To change server properties:

1. Select an individual server in the Unit Selector list.
2. Select *View - Properties* from the ServSelect IP Software Explorer menu.
-or-
Click the *Properties* task button. The Properties dialog box appears.

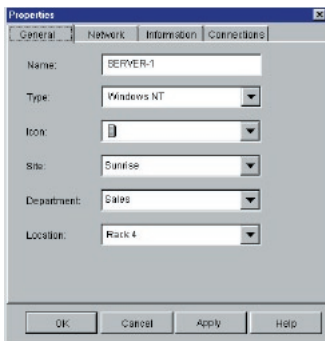


Figure 3-16. Server General Properties Tab

3. Type in the name of the server. A warning will display if you enter a duplicate name.
4. (Optional) Select the server type. If the selection is not in the pulldown, type the name of the new server type in the text field. Once entered, the option becomes available in the pulldown for future assignment.
5. (Optional) Select the icon to display for the unit.
6. (Optional) Assign a server to a site, department or location. (These categories are customizable. See *Modifying custom field names* in this chapter.) If an option is not in the pulldown, type the name of the new assignment in the text field. Once entered, the option becomes available in the pulldown for future assignment.
7. (Optional) Click the *Network* tab and type in the URL to use when establishing a browser connection to the server. If the field contains a value, then the *Browser* button appears in the task bar allowing you to launch the browser to that specified URL.

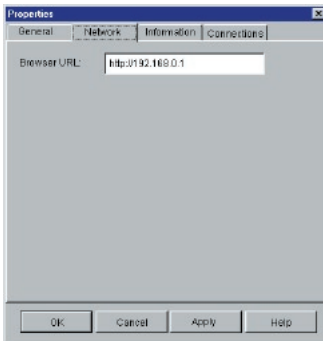


Figure 3-17. Server Network Properties Tab

8. (Optional) Click the *Information* tab and type in a description of the unit. There are no rules for the type of information that you may enter here.

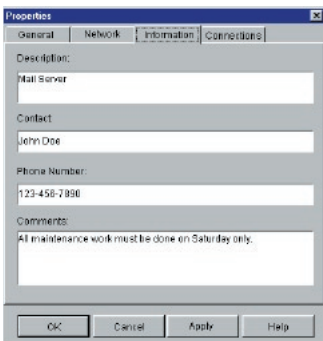


Figure 3-18. Server Information Tab

9. (Optional) Click the *Connections* tab to view the physical connection path that will be used to access this server. This feature is useful for troubleshooting. Figure 3-19 shows a connection to a server. Figure 3-20 shows a server connected to Channel 1 of a legacy switch.



Figure 3-19. Server Connection

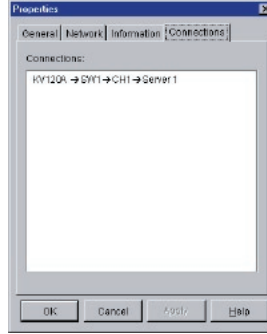


Figure 3-20. Switch Connection

10. When finished, click *OK* to save the new settings.
-or-
Click *Cancel* to exit without saving the new settings.

Accessing a server via a browser window

You can configure your system to open a server connection in a browser window. You must first select a server and define a URL in the Properties dialog box. Then, when you select the server, the *Browse* task button appears. You can select the browser to use in the ServSelect IP Software Explorer's Options dialog box.

To launch the server URL in a browser window:

1. Select a server in the Unit Selector pane.
2. If you have defined a URL for this server in the Properties dialog box, the *Browse* task button appears. Click the *Browse* task button. The URL you identified will launch in a browser window.

3.8 Organizing Units with the Local Client Database

The local client database provides persistent storage for unit names, properties, network addresses and custom session settings. Server attributes such as type, site and department allow you to create and store logical groups for your servers. Custom folders allow you to group units within the local client database. View tabs, sort bars and search functions use these attributes to find specific units within the database.

Site organization is based on where your servers are located and refers to the column headings Site and Department, which can be customized to suit your needs. See *Modifying custom field names* in this chapter. Folders provide a way to create a customized organizational system for individual servers. For example, you might want to create a folder for critical servers or for remote servers.

You may change the order and sorting of the Unit Selector list by clicking the sort bar above the column. An upward-pointing arrow in a column header indicates that the list is sorted by that field name in ascending order. A downward-pointing arrow indicates the list is sorted by that field name in descending order.

The sort bar properties are customizable. Figures 3.21 and 3.22 show examples of how you might use the default field name values. You may change them to fit your own organization. Figure 3-23 features customized field names.

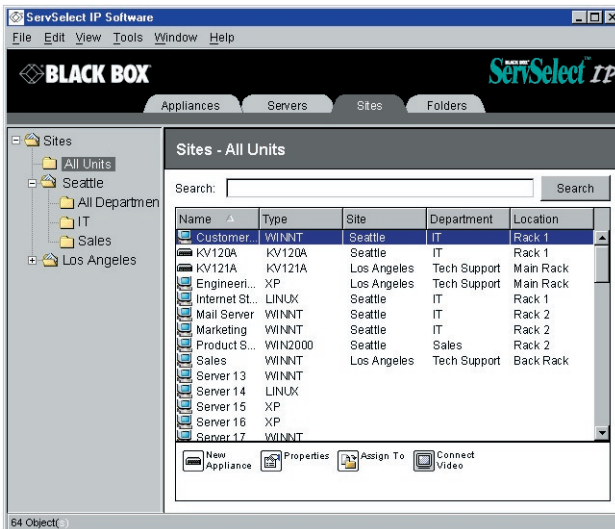


Figure 3-21. Sites View Tab Selected

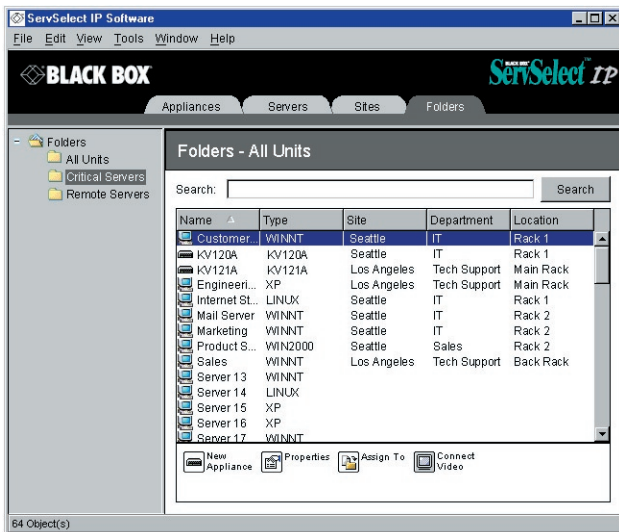


Figure 3-22. Folders View Tab Selected

Modifying custom field names

Custom field names allow you to change the Site, Department and Location column heading names that appear in the Group and Unit Selector panes. This allows you to group appliances and servers in ways that are meaningful to you. The Department field is a subset of Site. If you customize these field names, you should keep this hierarchy in mind.

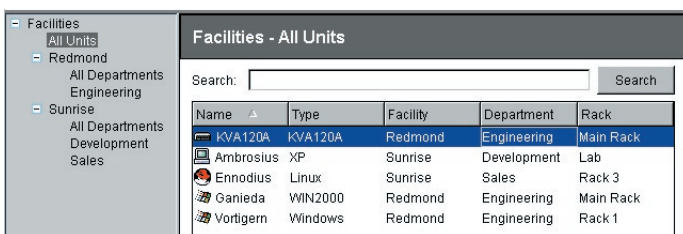


Figure 3-23. Example of Modified Custom Fields

To modify a custom field label:

1. Select *Tools - Options* from the ServSelect IP Software Explorer menu. The Options dialog box appears.

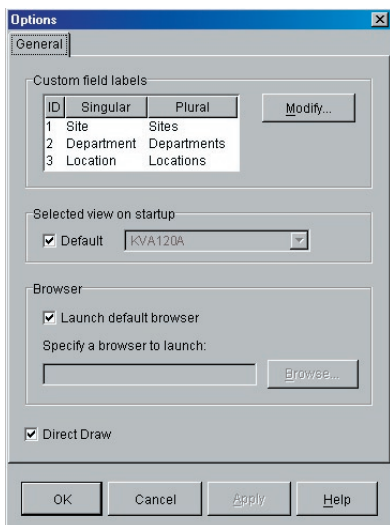


Figure 3-24. Options Dialog Box - Custom Field Labels

2. Select a field label to modify and click the *Modify* button. The Modify Custom Field Label dialog box appears.
3. Type the singular and plural versions of the field label. The length can be from 1 to 32 characters. A blank value is not allowed. Spaces are permitted in the middle but leading and trailing spaces are not allowed.
4. Click *OK* to save the new field label.
-or-
Click *Cancel* to exit without saving changes.

Creating new sites, departments, locations or folders

You can organize units within your local database into sites, departments locations or folders by assigning a unit to that structure. Sites, departments and locations all appear under the Sites tab. These default headings can be changed. See *Modifying custom field names* in this chapter. Folders appear under the Folders tab and provide as many organizational options as you can imagine folder names.

To create a new site, department or location:

1. Select *View - Properties* from the ServSelect IP Software Explorer menu.
-or-
Click the *Properties* task button. The Properties dialog box appears.
2. Click the *General* tab and select the pulldown menu for Site, Department or Location. If a name is not in the pulldown menu, type the name you want in the

text field. The name can be from 1 to 32 characters long. Names are not case sensitive and can consist of any combination of characters entered from the keyboard. Spaces are permitted in the middle but leading and trailing spaces are not allowed. Duplicate names are not allowed.

3. Click *OK*. The new site, department or location appears in the Group Selector pane.

To create a new folder:

1. Select the *Folders View* tab.
2. Click on the top-level *Folders* node and select *File - New - Folder*.
-or-
Right-click on the *Folders* node and select *New Folder*. The New Folder dialog box appears.
-or-
Click on an existing folder and select *File - New - Folder* to create a nested folder.
3. Type in a name for the folder from 1 to 32 characters long. Folder names are not case sensitive and can consist of any combination of characters entered from the keyboard. Spaces are permitted in the middle but leading and trailing spaces are not allowed. Duplicate folder names are not allowed at the same level but are allowed across different levels.
4. Click *OK*. The new folder appears in the Group Selector pane.

Assigning a unit to a site, location or folder

Once you have created a new site, location or folder, you can assign an appliance or server to that category. The *Assign* menu item is only enabled when a single appliance or server is selected in the Unit Selector pane. These custom targets are defined in the General Properties dialog box.

To assign a unit to a site, location or folder:

1. Select a unit in the Unit Selector pane.
2. Select *Edit - Assign* from the ServSelect IP Software Explorer menu.
-or-
Click the *Assign To* task button.
-or-
Right-click on a unit and select *Assign To*. The Assign To dialog box appears.

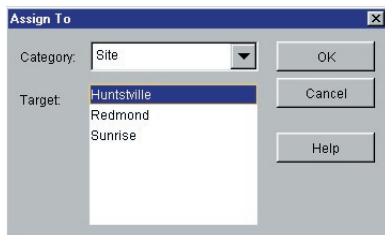


Figure 3-25. Assign To Dialog Box

3. Select the site, location or folder category from the pulldown menu.
4. Select the target from the list of available targets to which the unit can be assigned within the chosen category. This could be empty if no site, location or folder has been defined in the local database.
5. Click *OK* to save the assignment.
-or-
Click *Cancel* to exit without saving changes.

To drag and drop a unit into a site, location or folder:

Click and hold on a unit in the Unit list. Drag the item on top of a folder icon (node) in the tree view of the Group Selector pane. Release the mouse button. The item now appears in the Unit list when you click that node.

NOTE:

A unit cannot be moved to All Departments, All Units or the root Sites node. Units can only be moved one at a time.

3.9 Deleting and Renaming

The delete function works based on what is currently selected in the Group and Unit Selector panes. When you select and delete a unit in the Unit list, the unit is removed from the local database. This will not affect the configurations in the OSD. When you select and delete an item in the tree view of the Group Selector pane, you will delete Server Types, Sites, Departments or Folders; however, none of the actions result in units being deleted from the local database.

The rename function is also dependant on what is currently selected. You can select and rename an appliance or a server from the Unit list. You can select and rename server types, sites, departments and folder names in the tree view of the Group Selector pane.

NOTE:

If you delete or rename a server through the ServSelect IP Software, the OSD server list at the local analog station becomes outdated. Resynching won't download server names into the OSD. Servers should be deleted or renamed from the OSD and then resynchronized in ServSelect IP Software.

To delete an appliance or server:

1. Select the unit(s) to delete from the Unit Selector pane.
2. Select *Edit - Delete*.
-or-
Press the **Delete** key on your keyboard. A dialog box appears confirming the number of units to be deleted. If you are deleting an appliance, the dialog box includes a Delete Associated Servers checkbox. Enable/disable the checkbox as desired.
3. Click *Yes* to confirm the deletion. Additional message prompts may appear depending on your configuration. Respond as appropriate. The appliance or server is deleted.
-or-
Click *No* to cancel.

To delete a server type, site, department or folder:

1. Select the server type, site, department or folder to delete from the Group Selector pane.
2. Select *Edit - Delete*.
-or-
Press the **Delete** key on your keyboard. A dialog box appears confirming the number of units that will be affected by this deletion.
3. Click *Yes* to confirm the deletion. Additional message prompts may appear depending on your configuration. Respond as appropriate. The element is deleted.
-or-
Click *No* to cancel.

To rename a server type, site, department or folder:

1. In the Group Selector pane, click on the server type, site, department or folder to rename.
2. Select *Edit - Rename*. The Rename dialog box appears.
3. Type in a name from 1 to 32 characters long. Names can consist of any combination of characters. Spaces are permitted in the middle but leading and trailing spaces are not allowed. Duplicate names are not allowed, including the same name with different cases, with two exceptions: department names can be duplicated across different sites and folder names can be duplicated across different levels.
4. Click *OK* to save the new name.
-or-
Click *Cancel* to exit without saving changes.

3.10 Customizing the Explorer Window

The ServSelect IP Software Explorer window can be resized at any time. Each time you launch the application, the ServSelect IP Software Explorer window opens to its default size and location.

A split-pane divider that runs from top to bottom separates the Group Selector pane and the Unit Selector pane. You can move the divider left and right to change the viewing area of the Group Selector pane and the Unit Selector pane. Each time ServSelect IP Software Explorer is started, the divider will appear in its default location. See *Appendix B* for mouse and keyboard shortcuts that control the divider, panes and tree view.

Modifying the selected view on startup

When *Default* is checked under the selected view on the startup option, the ServSelect IP Software Explorer will determine which view to display. If you have one or more servers defined, the Servers display will appear by default. If you do not, the Appliances display will appear.

When *Default* is unchecked, the ServSelect IP Software Explorer will display the view selected in the pulldown menu shown below the checkbox. The pulldown menu contains the following values: Appliances, Servers, Sites and Folders. The pulldown menu is only enabled when the checkbox is unchecked.

To modify the selected view on startup:

1. Select *Tools - Options* from the ServSelect IP Software Explorer menu. The Options dialog box appears.
2. Select *Appliances*, *Servers*, *Sites* or *Folders* from the pulldown menu.
3. Click *OK* to save the new startup view.
-or-
Click *Cancel* to exit without saving changes.

Changing the default browser

You can specify which browser launches when viewing a server URL in a browser window. You have the option of using the default browser for your system, or you can select a specific browser to launch for that server.

To change the default browser:

1. Select *Tools - Options* from ServSelect IP Software Explorer. The Options dialog box appears.
2. Deselect the *Launch Default Browser* checkbox. The Browse button is enabled.

3. Click the *Browse* button and navigate to the browser.
 4. Click *OK* to save the new browser selection.
- or-
- Click *Cancel* to exit without saving changes.

3.11 Managing Your Local Databases

Each workstation running ServSelect IP Software contains a local database that records the information that you enter about your units. If you have multiple workstations, you may configure one station and then save a copy of this database and load it into the other stations to avoid unnecessarily reconfiguring each station. You may also export the database for use in another application.

Saving a database

ServSelect IP Software allows you to save a copy of the local database for later use. The saved database can then be loaded back to the same computer where it was created, or it can be loaded onto another ServSelect IP Software client. The saved database is compressed into a single Zip file.

While the database is being saved, no other activity is allowed. All other windows including Video Session windows and AMP windows must be closed. If other windows are open, a message will appear prompting you to either continue and close all open windows or quit and cancel the database save process.

To save a database:

1. Select *File - Database - Save*. The Database Save dialog box appears.

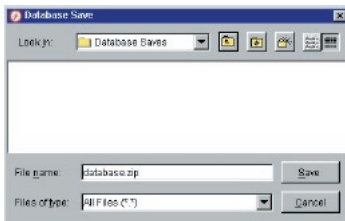


Figure 3-26. Database Save Dialog Box

2. Type in a file name and choose a location to save the file.
3. Click *Save*. A progress bar appears. When finished, a message appears indicating that the save was successful and you are returned to the main window.

Exporting a database

This function allows you to export fields from the local database to an ASCII Comma Separated Value file (CSV) or Tab Separated Value file (TSV). The following database fields will be exported.

Exported Database Fields

ServSelect IP Flag
 Type
 Name
 Address
 Custom Field 1
 Custom Field 2
 Custom Field 3
 Description
 Contact Name
 Contact Phone #
 Comments
 Browser URL

NOTE:

The Address field only applies to appliances and the Browser URL field only applies to servers. In the exported file, the Address field data will be empty for servers and the Browser URL field data will be empty for appliances.

The first line of the exported file contains the column names for the field data. Each additional line contains the field data for an appliance or server. The file will contain one line for each appliance and server defined in the local database.

To export a database:

1. Select *File - Database - Export* from the ServSelect IP Software Explorer menu. The Database Export dialog box appears.
2. Select a database to export.
3. Type in a file name and browse to the location to save the exported file.
4. Click *Export*. A progress bar appears during the export. When it's finished, a message appears indicating that the export was successful and you are returned to the main window.

Loading a database

This function allows you to load a database that was previously saved. While the database is being loaded, no other activity is allowed. All other windows including Video Session windows and AMP windows must be closed. If other windows are open, a message appears prompting you to either continue and close all open windows or quit and cancel the database save process.

To load a database:

1. Select *File - Database - Load* from the ServSelect IP Software Explorer menu. The Database Load dialog box appears.
2. Browse to select a database to load.
3. Click *Load*. A progress bar appears. When finished, a message appears indicating that the load was successful and you are returned to the main window.

3.12 Changing Appliance Properties

You can alter individual appliance properties whether you are logged into the ServSelect IP or not. The Properties dialog box contains several tabs: General, Network and Information. The General tab allows you not only to change the name and display icon for an appliance, but also to assign the ServSelect IP to a site, location or department. The Network tab allows you to establish an IP address for that ServSelect IP. The Information tab allows you to enter information about the appliance including a description, contact information and any comments you would like to add.

To change appliance properties:

1. Select an individual appliance in the Unit Selector list.
2. Select *View - Properties* from the ServSelect IP Software Explorer menu bar.
-or-
Click the *Properties* button.
-or-
Right-click on the switch and select *Properties* from the pop-up list. The Properties dialog box appears.

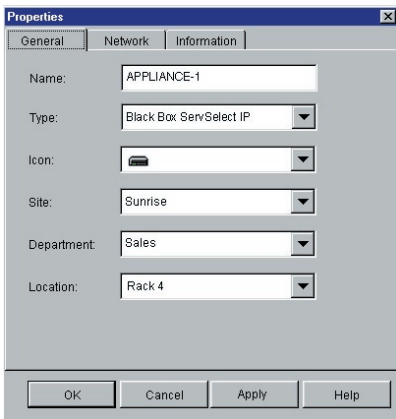


Figure 3-27. Appliance General Properties

3. Type in the name of the appliance. A warning displays if you enter a duplicate name.
4. Skip the Type field. This is read-only for appliances.
5. Select the icon to display for the unit.
6. (Optional) Select the site, department and location to which you would like the appliance assigned. If a selection is not in the pulldown, type the name of the new assignment in the text field. Once entered, the option becomes available in the pulldown for future assignment.
7. Click the *Network* tab and type in the address of the appliance. This field can contain an IP dot notation or a domain name. Duplicate addresses are not allowed and the field cannot be left blank. You can enter up to 128 characters.
8. (Optional) Click the *Information* tab and type in the description of the unit. You are free to enter any information into these fields.
9. When finished, click *OK* to save the new settings.
-or-
Click *Cancel* to exit without saving.

3.13 Changing DirectDraw® support

ServSelect IP Software supports DirectDraw, a Microsoft® protocol that allows direct manipulation of video display memory, hardware blitting, hardware overlays and page flipping without the intervention of the Graphical Device Interface (GDI). A GDI is a part of the graphical user interface that provides programmers with consistent style control. This can result in smoother animation and improvement in the performance of display-intensive software.

However, if your machine has a software cursor or pointer shadow enabled, or if your video driver does not support DirectDraw, you may experience a flicker in your mouse cursor when it's over the title bar of the Viewer.

You can either disable the software cursor or pointer shadow, load a new driver for your video card or disable DirectDraw.

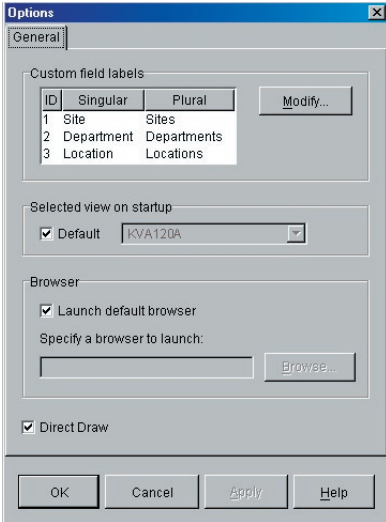


Figure 3-28. Options Dialog Box - DirectDraw

To disable DirectDraw:

1. Select *Tools-Options*. The Options dialog box appears.
2. Deselect the *DirectDraw* checkbox.
3. Click *OK*.

4. Managing Your Appliance (Admin Only)

Administrators can use the Appliance Management Panel (AMP) to manage and install the ServSelect IP. You may view and configure its parameters, view and control currently active video sessions and execute a variety of control functions such as rebooting and upgrading your appliance.

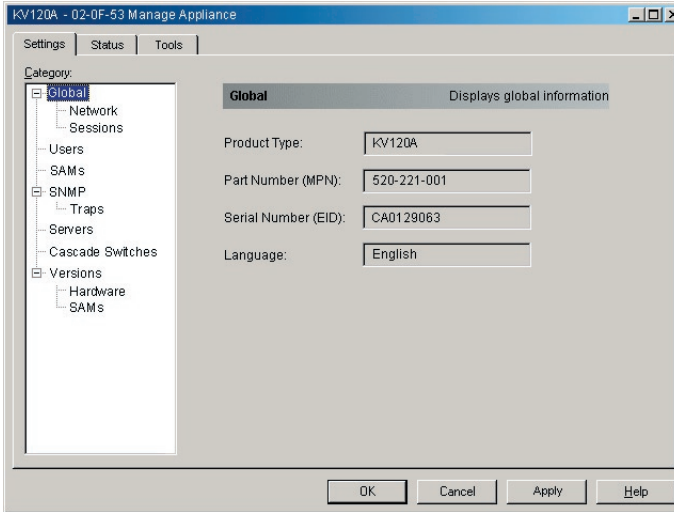


Figure 4-1. AMP Dialog Box

To access the AMP:

1. Click the *Appliances* button in the ServSelect IP Software Explorer.
2. Double-click on an appliance from the Unit Selector pane.
 - or-
 - Select an appliance from the Unit Selector pane, then click the *Manage appliance* task button.
 - or-
 - Right-click on an appliance in the Unit Selector pane. A pop-up menu appears. Select *Manage appliance*.
 - or-
 - Click an appliance in the Unit Selector pane and press **Enter**.
3. A password prompt appears. Type in your username and password and click *OK*. The default username is **Admin** with no password.

NOTE:

ServSelect IP Software caches your user credentials until the application is closed. You do not need to re-enter your credentials for each session.

4. The AMP dialog box appears.

4.1 Viewing and Configuring Appliance Parameters

The Settings tab allows you to display an expandable list of categories covering a wide range of parameters for your appliance. When a category is selected from the list, the parameters associated with the category will first be read from the unit, the local database or both. You will then be able to modify those parameters and send the changes securely back to the appliance.

Changing global network and session parameters

The Global category allows you to view the product type, product code, serial number and language setting for the appliance. If you select the *Network* sub-category, you will be able to change the network settings including the IP address, subnet mask, gateway, LAN speed and BootP setting. If you select the *Sessions* sub-category, you can enable the session time-out to allow the appliance to close an inactive video session after a specified number of minutes.

Setting up user accounts

When you select the Users category for the first time, the AMP will retrieve and display a list of usernames and current access levels from the appliance. You can add, modify or delete users in this listing. You can assign three access levels: User, User Administrator and Appliance Administrator. Only accounts defined as the User access level can be assigned server access rights on an individual basis.

User Access Level Rights

Operations	Appliance Admin	User Admin	User
Preemption	All	Equal and lesser	Equal and Lesser
Configure network & global settings (security mode, time-out, SNMP)	Yes	No	No
Reboot	Yes	No	No
FLASH upgrade	Yes	No	No
Administer user accounts	Yes	Yes	No
Configure port settings	Yes	Yes	No
Monitor server status	Yes	Yes	No
Break	Yes	Yes	Yes
Target Server Access	Yes	Yes	Assigned by Admin

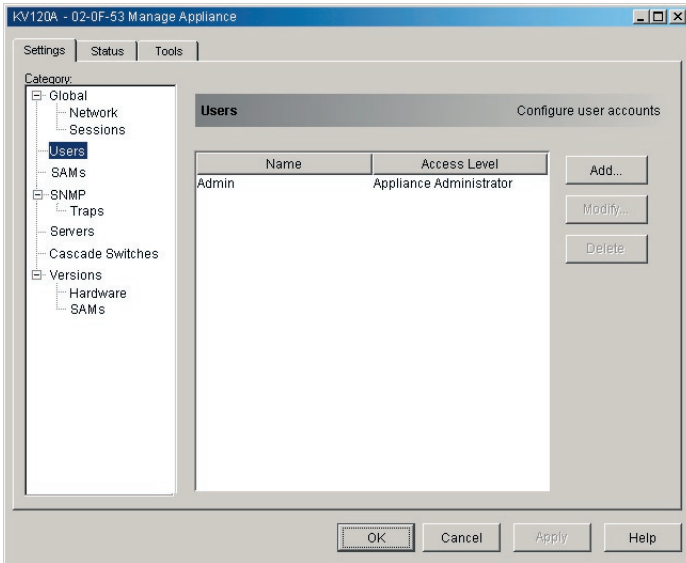


Figure 4-2. Users Dialog Box

To add or modify a user:

1. Click the *Users* category in the left column in the AMP.
2. Click the *Add* button on the right side of the window to add a new user. The Add User dialog box appears.
-or-
Select a user and click the *Modify* button to modify a current user. The Modify User dialog box appears.

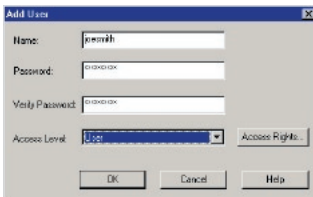


Figure 4-3. Add User Dialog Box

3. Enter the username and password to assign to the user and then verify the password by typing it into the Verify Password field.
4. Select the appropriate access level for this user from the pulldown menu. If you select the *User* option, the Access Rights button becomes selectable.
 - a. Click the *Access Rights* button to select individual servers for that user. The User Access Rights dialog box appears.

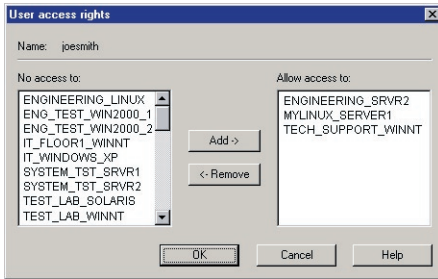


Figure 4-4. User Access Rights Dialog Box

- b. Select a server in the left column for which this user should have access rights. Select the *Add* button.
 - c. Select a server in the right column from which to remove a user's access rights. Click the *Remove* button.
 - d. Repeat steps a and b until the right column represents the appropriate server access for this user, and then click *OK*.
5. Click *OK* to save the settings and return to the main AMP window.

To delete a user:

1. Click the *Users* category in the left column in the AMP and then select the user(s) to delete.
2. Click the *Delete* button on the right side of the AMP Users window. A confirmation window appears.
3. Click *Yes* to confirm the deletion.
-or-
Click *No* to exit the window without deleting the user.

Viewing the SAM adapters

The SAMs category lets you view the SAM adapters in your system, their port and EID numbers as well as the computer type and keyboard language. You can also view the SAM status. A green circle indicates that the SAM is online. A yellow circle means the SAM is being upgraded and a red X indicates that the SAM is offline.

Enabling and configuring SNMP

SNMP (Simple Network Management Protocol) is a protocol used to communicate management information between network management applications and appliances. Other SNMP managers (such as Tivoli and HP OpenView) can communicate with your appliance by accessing MIB-II (Management Information Base) and the public portion of the enterprise MIB. MIB-II is a standard MIB that many SNMP servers support. When you select the *SNMP* category for the first time, the AMP will retrieve the SNMP parameters from the unit.

In this dialog box, you can enter system information and community strings. You may also designate which stations can manage the appliance as well as receive SNMP traps from the switch. For more information on traps, see *Enabling individual SNMP traps* in this chapter. If you check *Enable SNMP*, the unit will respond to SNMP requests over UDP (User Datagram Protocol) port 161. Port 161 is the standard UDP port used to send and receive SNMP messages.

If you enter the IP addresses of one or more allowable managers, only those IP addresses will be able to manage the appliance via SNMP. If you do not enter any IP addresses, then the appliance can be managed via SNMP from any IP address.

NOTE:

The AMP uses SNMP within a secure tunnel to manage appliances. For this reason, UDP Port 161 need not be exposed on firewalls. You will need to expose UDP Port 161 to monitor Black Box appliance via third-party SNMP-based management software.

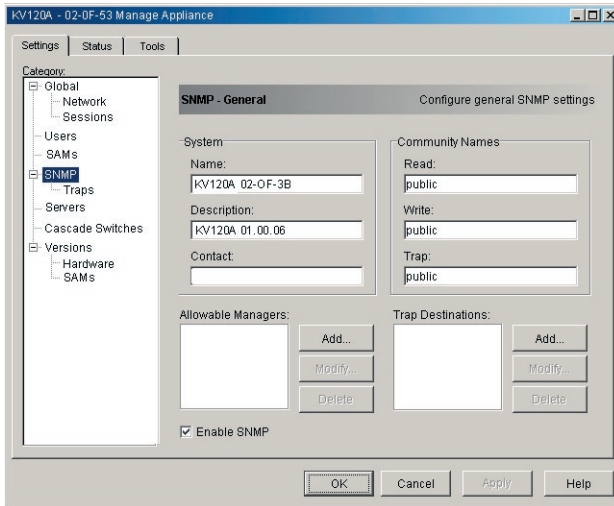


Figure 4-5. SNMP Configuration Dialog Box

To configure general SNMP settings:

1. Click the *SNMP* category in the left column in the AMP.
2. Click the *Enable SNMP* checkbox to allow the appliance to respond to SNMP requests over UDP port 161.
3. Enter the system's fully qualified domain name in the Name field, as well as a description and node contact person in the System section.
4. Enter the Read, Write and Trap community names. These specify the community strings that must be used in SNMP actions. The Read and Write

strings only apply to SNMP over UDP port 161 and act as passwords that protect access to the appliance. The values can be up to 64 characters in length.

5. Add up to four SNMP management entities to monitor this appliance or leave this blank to allow any station to monitor the appliance.
 - a. Click the *Add* button to define an allowable manager. The Allowable Manager dialog box appears.
 - b. Type in the IP address of the management station to add.
 - c. Click *OK* to add a management station.
6. Add up to four SNMP trap destinations to which this appliance will send traps in the Trap Destination field.
 - a. Click the *Add* button to define a trap destination. The Trap Destination dialog box appears.
 - b. Type in the IP address of the trap destination to add.
 - c. Click *OK* to add a trap destination.
7. Click *OK* to save the settings and close the window.
-or-
Click *Apply* to save the settings and remain in the open window.
-or-
Click *Cancel* to exit the window without saving.

Enabling individual SNMP traps

An SNMP trap is a notification sent by the appliance to a management station indicating that an event has occurred in the appliance that may require further attention. You can specify what SNMP traps are sent to the management stations by simply clicking the appropriate checkboxes in the list. When you select the *Traps* category for the first time, the AMP will retrieve and display a list of SNMP traps from the appliance. You may select *Enable All* or *Disable All* to easily select or deselect the entire list.

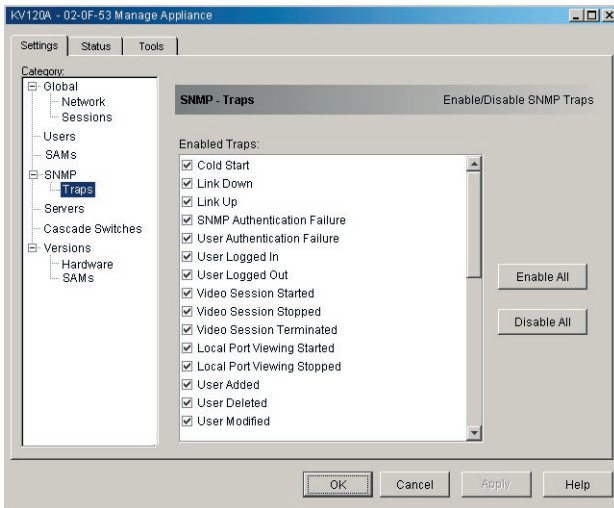


Figure 4-6. Traps Dialog Box

Viewing server connections

When you select the *Servers* category for the first time, the AMP will retrieve the servers that exist in the ServSelect IP Software database as well as information on how the servers are connected to the selected appliance.

The Connection column displays the current server connection. This can be to either a SAM adapter or a ServSwitch Multi Z8. If the ServSelect IP is connected to a SAM adapter, the SAM's EID will display in the Connection column. If the ServSwitch IP is connected to a Z8, the Z8 and all of its channels will be displayed. If no unit is currently connected to the path, then this field will display as *None*. If you click either a SAM or Z8 in the Connection column, the Viewer will launch.

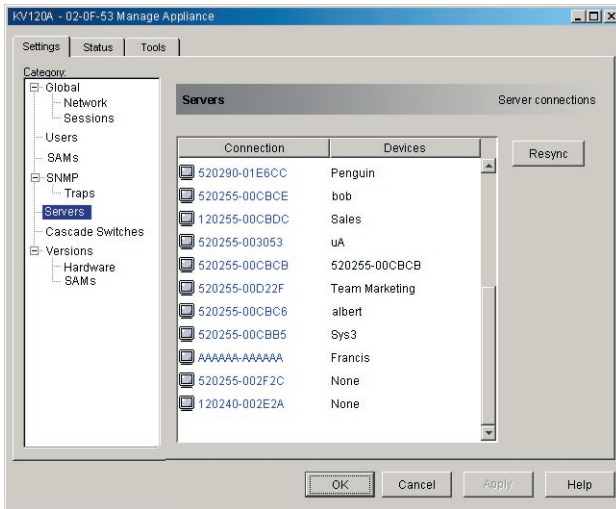


Figure 4-7. Servers Dialog Box

Resynchronizing the server listing

You may choose to periodically resynchronize the database on your ServSelect IP Software client with the database stored in the appliance. Do this if the local analog workstation has changed server names or if SAM adapters have been added or moved.

NOTE:

This procedure only resynchronizes your own ServSelect IP Software client. If you have multiple ServSelect IP Software clients, save your resynchronized local database and load it into the other ServSelect IP Software clients to ensure consistency.

To resynchronize the server listing:

1. Click the *Resync* button in the Server category of the AMP. The Resync Wizard launches. Click *Next*.
2. A warning message displays indicating that the database will be updated to match the current configuration in the appliance. Your current local database names will be overridden with the appliance names. Click *Next*.
3. A polling appliance message box appears with a progress bar indicating that the appliance information is being retrieved.
4. If no changes were detected in the appliance, a completion dialog box appears with this information. Click *Finish* to exit.

-or-

If changes were detected in the appliance, the Detected Changes dialog box appears. Click *Next*.

- a. If a ServSwitch Multi Z8 was detected, the Enter Cascade Switch Information dialog box appears. For more information, see *Viewing cascade switch connections* in this chapter.

-or-

- If no cascade switch was detected, then the Detected Changes dialog box will be displayed.
- b. Click *Next* to update the database.
- c. When the update is finished, a completion dialog box appears. Click *Finish* to exit.

Viewing cascade switch connections

The Cascade Switches category lets you view the cascade switches in your system and the SAM adapter EID numbers, as well as the port to which it is connected. At the time of this writing, the KV158A 2 x 8 ServSwitch Multi Z8 is the only available cascade switch; do not attempt to select or add other switch types.

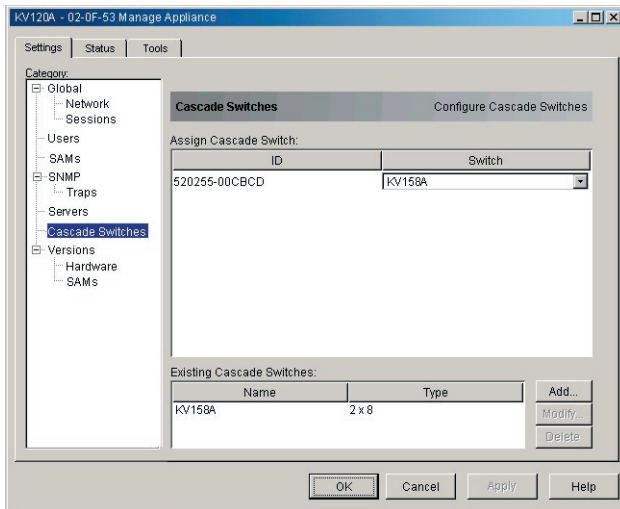


Figure 4-8. Configure Cascade Switches Dialog Box

4.2 Upgrading Firmware

You can upgrade the firmware for either the appliance or the SAM adapters. The SAM adapters can be upgraded individually or simultaneously. When an upgrade is initiated, a message will display the current status. As long as an upgrade is in progress, you cannot initiate another.

Viewing appliance Version information

When you select the Version category for the first time, the AMP will retrieve the firmware versions from the selected appliance. The Hardware sub-category displays the version information for the unit itself. The SAMs sub-category allows you to view and upgrade all of the SAM adapters in the system.

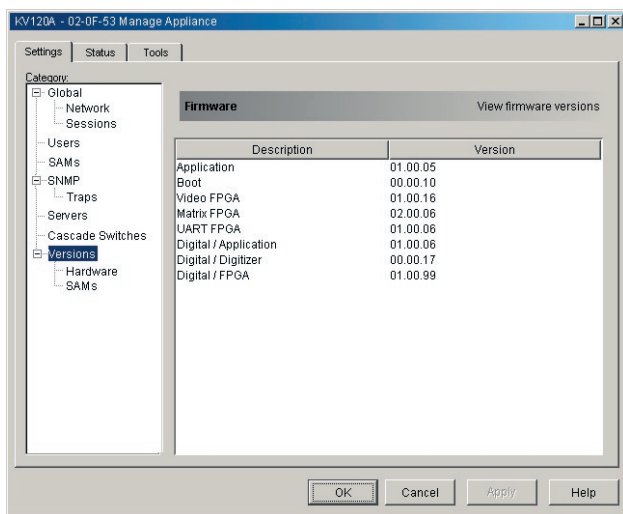


Figure 4-9. Firmware Version Dialog Box

To upgrade appliance firmware:

1. Click the *Tools* tab in the AMP. The Tools dialog box appears.
2. Click the *Upgrade ServSelect IP Firmware* button. The Firmware Upgrade dialog box appears. Type in the TFTP (Trivial File Transfer Protocol) server IP address where the firmware is located as well as the firmware filename (the full pathname).

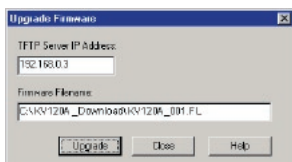


Figure 4-10. Upgrade Firmware Dialog Box

3. Click the *Upgrade* button. The Upgrade button dims and a progress message appears.
4. When the upgrade is complete, a message appears, prompting you to confirm a reboot. The new firmware will not be used until the switch reboots. Click *Yes* to reboot the appliance. The Upgrade Firmware dialog box will display a progress message including a message that the reboot is complete.
-or-
Click *No* to reboot at a later time. You must reboot to use the new firmware.
5. Click *Close* to exit the Upgrade Firmware window.

CAUTION:

Do not turn off the ServSelect IP while it is rebooting. We recommend that you keep the ServSelect IP on an uninterruptible power supply; if it loses power while rebooting with new firmware, you might need to return it.

To simultaneously upgrade multiple SAM adapters:

1. Click the *Tools* tab in the AMP. The Tools dialog box appears.
2. Click the *Upgrade SAM Firmware* button. The Upgrade SAM Firmware dialog box appears.
3. Click the checkboxes in front of each type of SAM adapter to upgrade.
4. Click *Upgrade*. The Upgrade button dims. The Status column will display either *In Progress* or *Succeeded*, depending on the status of each SAM upgrade. A *Firmware upgrade currently in progress* message displays until all of the selected SAM adapter types are upgraded.
5. When complete, a message appears prompting you to confirm the upgrade completion. Once confirmed, the Upgrade button is again enabled.
6. Click *Close* to exit the Upgrade Firmware window.

To upgrade SAM firmware individually:

1. Click the *Settings* tab in the AMP.
2. Click the *SAM* sub-category under Versions in the left column in the AMP.
3. Select the *EID* pulldown menu and choose the SAM adapter for which you would like to view firmware information. The IDs displayed in the pulldown are a combination of the EID and either the server name or switch name, depending on what is attached to the SAM adapter. If the SAM is not attached to anything, the pulldown will display *None*. Once selected, the firmware information appears in the Information box.

(continued on the next page)

- Compare it to the Firmware Available box to see the firmware upgrade available to the SAM adapter. If the SAM adapter requires upgrading, click the *Load Firmware* button.
- The firmware upgrade begins. During the upgrade, a progress message displays below the Firmware Available box and the Load Firmware button dims. When the upgrade is finished, a message appears indicating that the upgrade was successful.
- Repeat steps 2-5 for each SAM to upgrade.
- When you're finished, click *OK*.

4.3 Managing User Sessions

You may view and disconnect the current active user connections using the Status tab in the AMP. You can view the length of time the users have been connected, the server name or SAM to which they are connected and their system address.

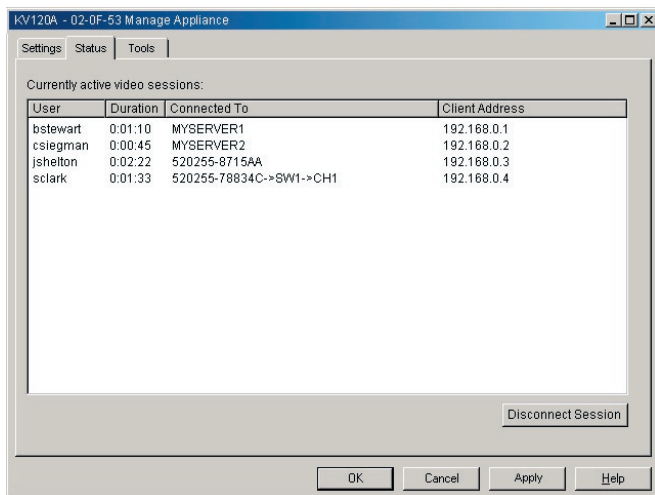


Figure 4-11. User Status Dialog Box

To disconnect a user session:

- Click the *Status* tab in the AMP. The User Status dialog box appears.
- Click one or more users to disconnect.
- Click the *Disconnect Session* button. A message appears prompting you to confirm the disconnect command.
- Click *Yes* to disconnect the user.
-or-
Click *No* to exit without completing the disconnect command.

4.4 Rebooting Your Appliance

You can reboot the ServSelect IP through the Tools tab in the AMP. When clicked, *Reboot* will broadcast a disconnect message to any active users, then log out the current users and immediately reboot the appliance.

To reboot your appliance:

1. Click the *Tools* tab in the AMP. The Tools dialog box appears.
2. Click the *Reboot* button. A message prompting you to confirm this reboot appears. Click *Yes* to confirm the request. The appliance will now reboot.

4.5 Managing Appliance Configuration Databases

An on-board database contains all of the settings for an appliance. This includes network settings, SAM configurations, SNMP settings and attached servers. You may save this configuration information to a client-based file and, should you ever need to replace your ServSelect IP, restore the configuration file to the new appliance and avoid manually configuring it.

NOTE:

User account information is stored in the user database, not in the configuration file. For more information, see *Managing User Databases* in this chapter.

To read and save a configuration to a file from an appliance:

1. Click the *Tools* tab in the AMP. The Tools dialog box appears.
2. Click the *Save Appliance Configuration* button. The Save Appliance Configuration dialog box appears.
3. Click *Browse* and navigate to a location to save the Configuration file. The location appears in the Save To field.
4. Click *Save*. The configuration file is read from the appliance and saved to the desired location. A progress window displays.
5. When complete, a message appears prompting you to confirm the read completion. Click *OK* to return to the main window.

To restore a configuration file to an appliance:

1. Click the *Tools* tab in the AMP. The Tools dialog box appears.
2. Click the *Restore Appliance Configuration* button. The Restore Appliance Configuration File dialog box appears.
3. Click *Browse* and navigate to the location where you stored the saved configuration file. The file name and location appears in the File name field.

4. Click *Restore*. The configuration file is written to the appliance. A progress window displays.
5. When complete, a message appears prompting you to confirm the write completion. Click *OK* to return to the main window.

4.6 Managing User Databases

An on-board user database contains all the user accounts and access rights assigned in an appliance. You can save this database to a client-based file and use it to configure users on other appliances by loading the user account file into the other appliances.

NOTE:

The user account file is encrypted and you will be prompted to create a password when you save the file. You will need to enter this password when you write the file to a new unit.

To save a user database from an appliance:

1. Click the *Tools* tab in the AMP. The Tools dialog box appears.
2. Click the *Save Appliance User Database* button. The Save Appliance User Database dialog box appears.
3. Click *Browse* and navigate to a location to save the user database file. The location appears in the Save To field.
4. Click *Save*. The user database file is read from the appliance and saved to a location. A progress window displays.
5. When complete, a message appears prompting you to confirm the read completion. Once confirmed, the Save Appliance User Database dialog box will close and you are returned to the Tools window.

To load a user database file into an appliance:

1. Click the *Tools* tab in the AMP. The Tools dialog box appears.
2. Click the *Restore Appliance User Database* button. The Restore Appliance User Database dialog box appears.
3. Click *Browse* and navigate to the location where you stored the saved user database file. The file name and location appears in the File name field.
4. Click *Restore*. The user database file is written to the appliance. A progress window displays.
5. When complete, a message appears prompting you to confirm the write completion. Once confirmed, the Restore Appliance User Database dialog box will close and you are returned to the Tools window.

Appendices

Appendix A: Updating ServSelect IP Software

For optimal performance, ensure that you have the latest version of ServSelect IP Software available from the Black Box web site.

To update ServSelect IP Software:

1. Contact Black Box technical support and follow their instructions for downloading the update file.
2. Double-click on the installer. The installer will check to see if a previous version of ServSelect IP Software resides on your system.
3. If no previous version has been detected and a dialog box appears to confirm the upgrade, click *Continue*.
-or-
If a previous version is detected and a dialog box appears alerting you to another version of the product, click *Overwrite* to confirm the upgrade.
-or-
Click *Cancel* to exit without upgrading the software.
4. Installation begins. The Program Files, Shortcuts, Environment Variables and the Registry Entries (on 32-bit Windows systems), will be installed or will be overwritten with the new files and settings of the current version.

NOTE:

In order for the upgrade detection process to work, you must first either reboot or log out. Environment Variables set by the installer are not permanent on 32-bit Windows platforms or Linux until you have logged out or rebooted the system.

Appendix B: Keyboard and Mouse Shortcuts

Keyboard and Mouse Shortcuts for the Divider and Panes

Operation	Description
F6	Navigates between the screen panes and activates the element in each pane that was active when the pane was previously selected.
F8	Selects and activates the divider.
Left or Up Arrow	Moves the divider left if the divider is active.
Right or Down Arrow	Moves the divider right if the divider is active.
Home	Gives the screen's right-hand pane all of the screen area (the left-hand pane disappears) if the divider is active.
End	Gives the screen's left-hand pane all of the screen area (the right-hand pane disappears) if the divider is active.
Click +Mouse Drag	Moves the divider left or right.

Keyboard and Mouse Shortcuts for Tree-View Control

Operation	Description
Mouse Single-Click	Deselects the currently active node (folder, appliance, group, etc. icon) and selects the node that the mouse pointer is on..
Mouse Double-Click	Alternately expands and collapses nodes that contain other nodes. Has no effect on nodes that don't contain other nodes.
Up Arrow	Deselects the currently active node and selects the node above it.
Down Arrow	Deselects the currently active node and selects the node below it.
Spacebar	Alternately selects and deselects the currently active node.
Enter	Alternately expands and collapses the currently active node if it contains other nodes. Has no effect if the node doesn't contain other nodes.
Home	Deselects the currently active node and selects the root node.
End	Deselects the currently active node and selects the last node displayed in the tree.

Keyboard and Mouse Operations for the Unit List

Operation	Description
Enter or Return	Launches the default action for the selected unit.
Up Arrow	Deselects any currently selected units and selects the unit in the row above the topmost previously selected unit.
Down Arrow	Deselects any currently selected units and selects the unit in the row below the bottommost previously selected unit.
Page Up	Deselects any currently selected units and scrolls up one page from the topmost previously selected unit, then selects the first unit on the page.
Page Down	Deselects any currently selected units and scrolls down one page from the bottommost previously selected unit, then selects the last unit on the page.
Delete	Performs the Delete function. Works the same as the Edit>Delete menu function.
Ctrl +Home	Deselects any currently selected units and selects the unit in the first row of the table.
Ctrl +End	Deselects any currently selected units and selects the unit in the last row of the table.
Shift +Up Arrow	In addition to any previously selected units, selects the unit in the row above the topmost of those units.
Shift +Down Arrow	In addition to any previously selected units, selects the unit in the row below the bottommost of those units.
Shift +Page Up	In addition to any previously selected units, selects all of the units in the page above the topmost of those units.
Shift +Page Down	In addition to any previously selected units, selects all of the units in the page below the bottommost of those units.
Shift +Mouse Click	Deselects any currently selected units and selects all of the units in the rows between the previously selected unit(s) and the row that the mouse pointer is on when the mouse is clicked.
Ctrl +Mouse Click	Alternately selects and deselects the unit in the row that the mouse pointer is on without selecting or deselecting any other units.
Mouse Double-Click	Launches the default action for the selected unit.

Appendix C: TCP Ports

The Video Session Viewer communicates with the KV120/121A over TCP ports 8192 and 2068. Digitized video data is sent over port 8192. Encrypted keyboard and mouse data is sent over port 2068. The AMP communications with the KV120/121A over TCP port 3211. All data on ports 2068 and 3211 is encrypted using the Secure Socket Layer (SSL) protocol.

The KV120/121A retains the database of user accounts and permissions. The Video Session Viewer performs user authentication over encrypted port 2068. The AMP performs user authentication over encrypted port 3211.

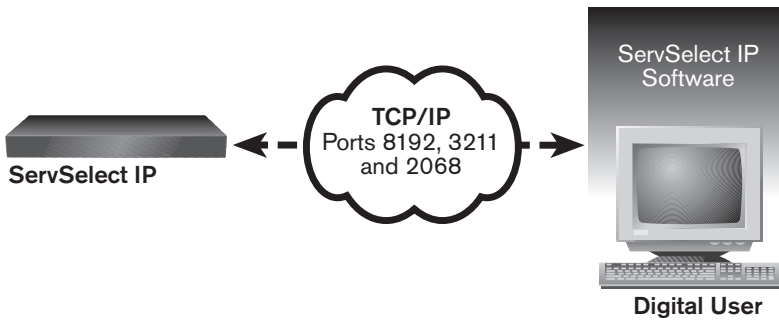


Figure C.1. TCP Port Communication

Appendix D: Troubleshooting

Adjusting the video quality

The Video Viewer offers both automatic and manual video adjustment capability. Generally, the Automatic Video Adjustment will optimize the video for the best possible view. However, you may fine tune the video with the aid of Black Box technical support.

Dialog Box Options for Manual Video Adjustment

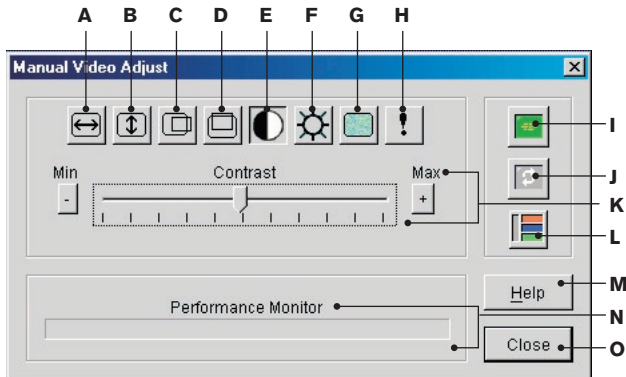


Figure D.1. Dialog Box for Manual Video Adjustment

A. Image Capture Width button	I. Automatic Video Adjustment button
B. Image Capture Height button	J. Refresh Image button
C. Image Capture Horizontal Position button	K. Adjustment bar
D. Image Capture Vertical Position button	L. Video Test Pattern button
E. Contrast button	M. Help button
F. Brightness button	N. Performance Monitor area
G. Noise Threshold button	O. Close box
H. Priority Threshold button	

To manually adjust the video quality of the Video Viewer window:

1. Select *Tools - Manual Video Adjust*. The Manual Video Adjust dialog box appears.
2. Click the icon for a feature to adjust.
3. Move the slider bar and then fine tune the setting by clicking the *Minus (-)* or *Plus (+)* buttons to adjust the parameter for each icon pressed. The adjustments will display immediately in the Video Viewer window.
4. When finished, click *Close* to exit the Manual Video Adjust dialog box.

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Doc. No. 590-297-001A

Customer Support Information:

For FREE Technical Support 24 hours a day, 7 days a week, call **724-746-5500** or fax **725-746-0745**

Mailing address: **Black Box Corporation**, 1000 Park Dr., Lawrence, PA 15055-1018

World-Wide Web: www.blackbox.com • Email: info@blackbox.com

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