
Quick KVM 1.1

User's Guide

ClearCube Technology, Inc.



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Contents

- Contents i
- Figures ii
- Introduction 1
 - Packaging 2
 - About This Manual 2
- Administrator Tasks 3
 - Installing Quick KVM 3
 - Uninstalling Quick KVM 6
 - Launching Quick KVM 7
 - Configuring Quick KVM 9
 - Managing Quick KVM on your Network 13
 - Closing Quick KVM 14
- User Tasks 15
 - Launching Quick KVM 15
 - Performing A Switch 16
 - Refreshing the Quick KVM Blade List 19
 - About Quick KVM 19
 - Quick KVM Help 20
 - Closing Quick KVM 20
- Contacting Support 21
 - ClearCube 21
 - Active Perl 21

Figures

- Figure 1 Quick KVM One-Step Installer 4
- Figure 2 Quick KVM Login 7
- Figure 3 Permissions Error Dialog Box. 7
- Figure 4 Entering the Switch Manager Server Name 7
- Figure 5 ClearCube Icon in System Tray 8
- Figure 6 Error Dialog. 8
- Figure 7 Configuration Menu Option. 9
- Figure 8 Quick KVM Configuration Screen. 9
- Figure 9 Invalid TCP/IP Port 10
- Figure 10 Quick KVM Blade Assignment Screen 11
- Figure 11 Closing Quick KVM. 14
- Figure 12 Entering the Switch Manager Server Name 15
- Figure 13 ClearCube Icon in System Tray 15
- Figure 14 Quick KVM Login 15
- Figure 15 Switching to a Different Blade. 16
- Figure 16 Confirming a Switch 16
- Figure 17 Switch and Log Off Dialog 17
- Figure 18 Switch Prevented by Quick KVM 17
- Figure 19 Cannot Switch to a Blade 17
- Figure 20 Powered-Off Blade Message 17
- Figure 21 Reset Button on Universal C/Port. 18
- Figure 22 Reset Button on Fiber C/Port 18
- Figure 23 Refreshing the Quick KVM Blade List. 19
- Figure 24 About Quick KVM 19
- Figure 25 About Quick KVM Window 20
- Figure 26 Getting Help 20

Introduction

ClearCube Quick KVM 1.1 provides a simple software user interface that enables end users to switch between multiple Blades within a single Cage. This is accomplished with the Blade Switching BackPack, providing the functionality of a hardware keyboard-video-mouse (KVM) switch. Quick KVM performs the same administrative function of 8x8 Switching available in ClearCube's Switch Manager software, but delivers that capability to the end user through a simple software interface. This allows ClearCube users to have one C/Port at the desktop, with access to multiple Blades in a Cage.

Quick KVM Features:

- Allows end users to switch between multiple Blades in a single Cage without having access to administrative software.
- Provides authentication integration with Active Directory.
- Notifies the user if a switch is attempted to a Blade that is powered off.
- Notifies the user if another C/Port is already connected to a Blade.

Quick KVM Key Benefits:

- Eliminates the requirement for hardware KVM switches, thus reducing cost and the number of components at the desk.
- Reduces the need for an Administrator to be involved in Blade switching.
- Leverages the proven 8x8 switching technology of ClearCube Switch Manager.

System Requirements:

- Server side
 - ClearCube Switch Manager 4.0 or later.
 - Blade Switching BackPack with Remote Management Card (RMC).
- Client side
 - ClearCube PC Blades running Windows 2000 Professional or Windows XP.
 - C/Ports at the users' desktops.

Understanding Quick KVM requires a basic understanding of ClearCube's Blade Switching BackPack and of ClearCube Switch Manager software, both of which are required to run Quick KVM. Quick KVM functions only on Blades connected to a Blade Switching BackPack. Switch Manager serves as a proxy for Quick KVM commands destined for the Remote Management Card (RMC) controlling a Blade

Switching BackPack. Thus, Quick KVM cannot function without a Switch Manager server installed on the network.

Note: Switch Manager is not included on the Quick KVM Installation CD. Switch Manager must be purchased separately from ClearCube Technology.

Packaging

Quick KVM 1.1 is shipped with a one-step installer application (see page 4) that automates the correct installation of the necessary software components (see page 3). Additionally, all these components are provided on the Quick KVM 1.1 Installation CD as independently installable applications. Quick KVM requires that these components be installed in a specific order prior to installing the application.

This manual is the most current version as of the initial release ship date for Quick KVM 1.1. For free updated manual versions, please visit the Tech Docs section at <http://support.clearcube.com>.

About This Manual

This manual is divided into two sections, **Administrator Tasks** and **User Tasks**. Security features built into Quick KVM provide two levels of functionality, controlled by password access. The user features represent a subset of the complete functionality of Quick KVM, which can be accessed from any system running Quick KVM, and is always available to the Administrator at the Switch Manager console.

Screenshots are taken from both the Windows 2000 Professional and Windows XP Professional installations of Quick KVM 1.1. Minor differences in appearance from your installation may be visible. Functionality is unchanged except as noted.

Administrator Tasks

Installing Quick KVM

Windows Administrator access is required to install Quick KVM on the Blade, and to start Quick KVM the first time it is run. Once installed, Quick KVM requires a Switch Manager server that is active on the network to work properly. However, Quick KVM can safely be installed when no Switch Manager server is available. The first time Quick KVM is started, it requests the identity of an active Switch Manager server, and then connects to it. Without a Switch Manager server present at the first startup and active on the network, Quick KVM cannot switch Blades.

Note: Quick KVM requires a Switch Manager server on the network to function. Switch Manager must be purchased separately from ClearCube Technology. It is not provided on the Quick KVM 1.1 Installation CD.

Software Modules

Quick KVM 1.1 can be installed on client Blades running Windows 2000 or Windows XP. For Quick KVM to function properly, install the following software modules in the order listed. Each of these modules is provided on the Quick KVM 1.1 Installation CD. If your Blades have Blade Manager installed, these modules should already be installed. The installer on the Quick KVM 1.1 Installation CD checks for the correct versions of these modules and installs them in the correct order, if necessary.

- **Java Runtime Environment (JRE) version 1.4.2** – Quick KVM 1.1 requires JRE version 1.4.2_03 or later. The correct Java version is provided on the Quick KVM 1.1 Installation CD shipped from ClearCube. The version of a previously installed Java package can be checked in **Add or Remove Programs** from the Control Panel, or by running the `Java -version` command at the DOS prompt, which returns the installed Java version. Versions previous to 1.4.2_03 should be removed.

Version 1.4.2_03 or later of the Java 2 Enterprise Edition 1.4 Software Development Kit (SDK), which adds support for EJBs, JSPs, XML, and Web Services APIs, can also be used.

- **ActiveState Perl 5.6.1** – Quick KVM 1.1 requires ActiveState Perl 5.6.1. The correct version of ActiveState Perl is provided on the Quick KVM 1.1 Installation CD shipped from ClearCube. The version of a previously installed ActiveState Perl can be checked in **Add or Remove Programs** from the Control Panel, or by running the `Perl -version` command at the DOS prompt to display the version

of the currently installed Perl. Versions previous to 5.6.1 should be removed.

The ActiveState Repository has a large collection of modules and extensions in binary packages that are easy to install and use. To view and install these packages, use the Perl Package Manager (PPM) which is included with ActivePerl.

- **ClearCube Perl Plugin**—Quick KVM 1.1 requires ClearCube Perl PlugIn version 1.1. The correct version is provided on the Quick KVM 1.1 Installation CD. The installed Perl PlugIn version can be verified through **Add or Remove Programs** in the Control Panel. Version 1.0 of the Perl PlugIn should be removed.

Installing Quick KVM

The Quick KVM 1.1 Installation CD provides a one-step installer for the Administration Console that simplifies the task of installation. See *Figure 1*.

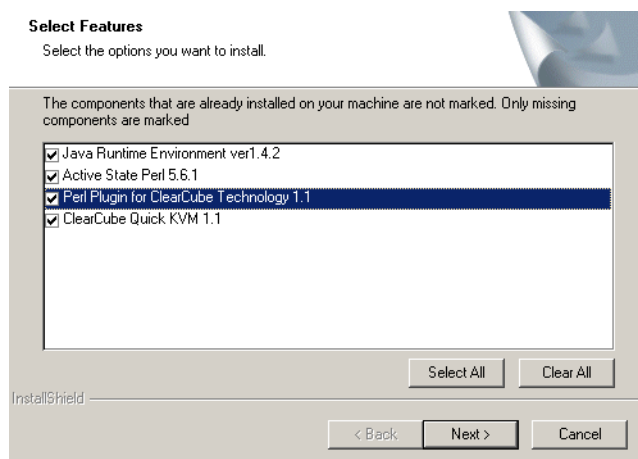


Figure 1 Quick KVM One-Step Installer

The installer displays all the required components for the Quick KVM installation. If a component needs to be installed, a check box is placed by its name. If it has already been installed, the box next to its name is empty. The installer then installs each component selected in the correct order. It is strongly recommended to use the one-step installer to determine the necessary components and their installation order, and to accept the settings of the installer.

Note: Verify the versions of your installed components, and uninstall outdated versions before beginning to install Quick KVM. Unchecking a component check box in the installer does not uninstall the component. Uninstalls must be performed using **Add/Remove Programs** in the Control Panel.

To install Quick KVM, do the following:

1. Log in as a Windows administrator.
2. Double-click the `Setup.exe` icon on the Quick KVM 1.1 Installation CD.
3. Choose the components to be installed from the Select Features window (see *Figure 1*). Press **Next**.

4. Accept the default settings as the InstallShield Wizard runs. Press **Next** when necessary. When multiple components are installed, multiple Install Shield instances are run, one after another.
5. When the Quick KVM application Install Shield wizard has finished, restart your system.

Note: If the installer prompts you to restart your system before the Quick KVM application installer starts, restart your system and then restart the `setup.exe` application after the system has rebooted.

Because Quick KVM 1.1 runs as a service and not as a standalone application, you may see a dialog box asking for the Switch Manager server name before you have a chance to restart your system. You can enter this information now, or ignore the dialog and safely restart. If you do not enter the Switch Manager server name, you will be prompted for it the first time you start Quick KVM on this system.

Quick KVM needs to be installed on every Blade to which users can switch. Quick KVM should never be installed on the Switch Manager server.

For users to be able to log into Quick KVM 1.1, the permissions on the ClearCube Management Suite folder need to include **Modify** for all users that use Quick KVM 1.1 on that Blade. To make this change, do the following immediately after installing Quick KVM 1.1:

1. Login as a user with local or domain administrator privileges.
2. Go to `C:\Program Files\`
3. Right-click the `ClearCube Management Suite` folder.
4. Select **Sharing and Security** from the pop-up menu.
5. Select the **Security** tab.
6. Select a group or user to receive **Modify** permissions.
7. In the **Permissions** list, click the check box for **Modify**.
8. Click the **Apply** button.
9. Repeat as needed for all users and groups on this system that will be using Quick KVM 1.1.
10. When finished, click **OK**.

A system restart is not needed.

Note: Other methods exist to provide these permissions, and can easily be scripted.

Enabling the Switch Manager Server

To enable Quick KVM 1.1, the Switch Manager server needs a number of new files installed. Both Switch Manager 4.0 and 4.5 need server-side files, and updaters that installs the correct files for both versions of Switch Manager are provided on the Quick KVM 1.1 Installation CD.

Follow these steps to install the required files on the Switch Manager server:

1. Verify your Switch Manager version.
2. At the Switch Manager server, double-click the correct version of the updater application for your Switch Manager version. These updaters are found in the `QuickKVM Server-side installer` folder on the Quick KVM Installation CD.
3. After the installer has completed running, restart Apache Tomcat on the Switch Manager server. If Tomcat was installed as a service, right-click on **My Computer** and choose **Manage**. Then choose **Services** and right-click on **Apache Tomcat 4.1**. Choose **Restart**. If Tomcat was installed as an application, go to **Program Files** from the Start Menu. Under Apache Tomcat, choose **Stop Tomcat**, then choose **Start Tomcat**.

After Tomcat restarts on the Switch Manager server, Quick KVM is ready to use.

Uninstalling Quick KVM

To uninstall Quick KVM from a Blade, do the following:

1. Log in as a Windows administrator.
2. Go to **Start→Control Panel→Add or Remove Programs**.
3. Select Quick KVM 1.1 from the list of programs. Click the **Change or Remove** button.
4. Select the radio button for **Remove**, then click the **Next** button.
5. When the uninstaller completes the removal, click **Finish**.

For a complete uninstall, the Java, Perl, and the Perl Plugin components can be removed individually from **Add or Remove Programs**.

Note: Uninstall these components in the following order, and restart your system when prompted to do so, and after completing your uninstallations.

1. Quick KVM
2. Perl Plugin
3. ActiveState Perl
4. Java

Do not uninstall the Switch Manager server-side files for Quick KVM. The additional files required by the Switch Manager server for Quick KVM can safely be left on the server.

Launching Quick KVM

Launch Quick KVM by selecting **Programs→ClearCube Management Suite→ Quick KVM→Quick KVM 1.1** from the Start menu. A login box is displayed (*Figure 2*).

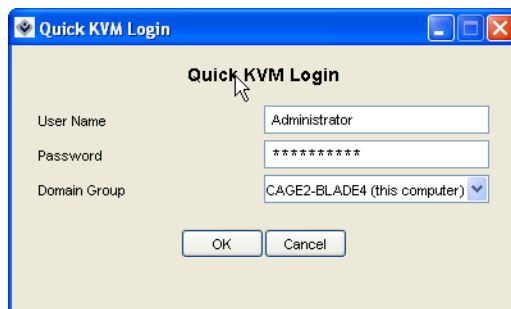


Figure 2 Quick KVM Login

The first time Quick KVM is started after the initial installation, Administrator privileges are required to log in (or Domain User privileges, if on a domain). These requirements can be changed by the Administrator after logging in.

Note: If you see the Permissions Error dialog box in *Figure 3*, the Modify permissions for your user or group have not been correctly set. To resolve this problem, repeat the procedure found at the end of the installation procedure on page 5.

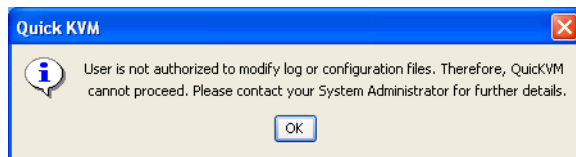


Figure 3 Permissions Error Dialog Box

The default account for Administrator access is named Administrator. Since Administrator access is required to set up user access for each user on each workstation using Quick KVM, users cannot enable access on their own unless they have the Administrator password.

Next, the Administrator must provide the name of the Switch Manager server. Quick KVM prompts for the Switch Manager server name. After entering the appropriate credentials, the Switch Manager server name dialog box is displayed. Enter the appropriate server name, as shown in *Figure 4*.

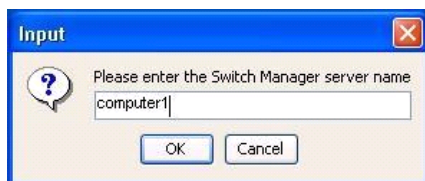


Figure 4 Entering the Switch Manager Server Name

This prompt also is shown any time the Switch Manager server is not configured properly, or if the Switch Manager server is not reachable on the network at user login.

After the Switch Manager server name is entered, Quick KVM presents a login screen when it is started. When a user name and password are entered and authenticated, Quick KVM polls the Switch Manager server for the most recent configuration data. This may take several seconds. Once the most current data is loaded, Quick KVM places the ClearCube logo icon in the system tray, indicating that Quick KVM is running (see *Figure 5*). Right-click on this icon to access the Quick KVM functions.

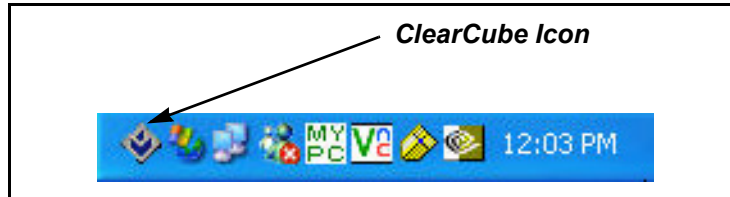


Figure 5 ClearCube Icon in System Tray

If you attempt to restart Quick KVM before it has completely loaded, or before it has been completely shut down, an error dialog is displayed (shows in *Figure 6*), requesting to quit Quick KVM from the Task Manager.

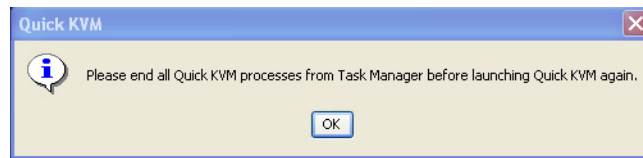


Figure 6 Error Dialog

Open Task Manager and kill the `javaw.exe` process, which also kills the `QuickKVM.exe` process. After this, Quick KVM can be restarted normally.

Configuring Quick KVM

This subsection provides information on configuring Quick KVM 1.1. The first time Quick KVM is started, it requires the administrator to define a number of parameters for the Cage being configured. These include:

- Switch Manager server name
- TCP port
- Update delay
- Session takeover
- Local and domain security settings
- C/Port assignment to Blades

Choose the **Configuration** menu option (*Figure 7*) to set or change this information.

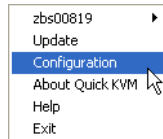


Figure 7 Configuration Menu Option

When **Configuration** is chosen, a login is required. Following a successful login, the screen shown in *Figure 8* is displayed.

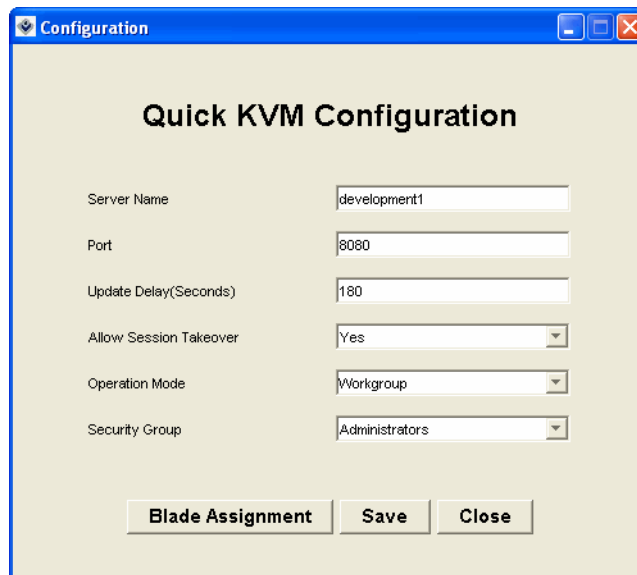
A screenshot of a Windows-style window titled 'Configuration'. The window has a blue title bar and standard window controls. The main content area is light beige and contains the title 'Quick KVM Configuration'. Below the title are several configuration fields: 'Server Name' with the value 'development1', 'Port' with '8080', 'Update Delay(Seconds)' with '180', 'Allow Session Takeover' with a dropdown menu set to 'Yes', 'Operation Mode' with a dropdown menu set to 'Workgroup', and 'Security Group' with a dropdown menu set to 'Administrators'. At the bottom of the window are three buttons: 'Blade Assignment', 'Save', and 'Close'.

Figure 8 Quick KVM Configuration Screen

The following parameters can be changed:

Server Name – The Switch Manager server name. All Blades running Quick KVM must be able to communicate with a Switch Manager server. Once the Administrator has specified a Switch Manager server name, this field is auto-populated with that name for use during any subsequent configuration changes.

Port – The TCP/IP port over which Quick KVM communicates with the Switch Manager server. The default is port 8080. If this value is changed, it needs to be changed in the `server.xml` file on the Switch Manager server. Only one port can be configured for Quick KVM communication.

Update Delay – The amount of time that elapses between C/Port information updates. The default is 180 seconds. This number should be set to the highest number possible while still meeting refresh needs. As the number of Blades running Quick KVM increases, the traffic between Quick KVM, Switch Manager, and the RMC increases. This increased traffic can cause system slowdowns.

Allow Session Takeover – Whether an active session can be taken over by another user switching to that Blade.

Operation Mode – A drop-down menu that allows choosing Workgroup or Domain.

Security Group – A drop-down menu that allows choosing the Domain security group to which local users must belong order to log in to Quick KVM. It is not necessary to log in except to make configuration changes, so users do not need to authenticate when using Quick KVM.

Quick KVM 1.1 allows using alternate TCP/IP ports for switching communication. The default TCP/IP port is 8080. When the Quick KVM communication port is changed from its default value, it must also be changed in the `server.xml` file on the Switch Manager server. In addition, it must be changed for all Quick KVM installations that will use this Switch Manager server. Because Quick KVM establishes communication with the Switch Manager server *before* it displays the user interface for Quick KVM, you must establish communications and change the TCP/IP port number via the GUI on all systems using the alternate port *before* you change the port on the Switch Manager server. Otherwise, the dialog box shown in *Figure 9* is displayed.

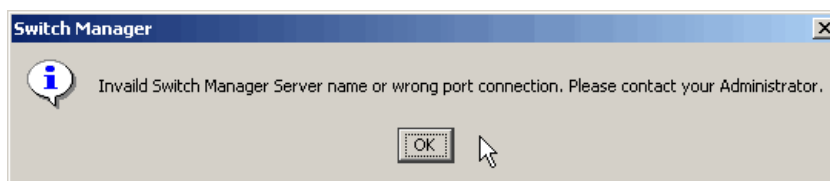


Figure 9 Invalid TCP/IP Port

To assign specific Blades to C/Ports, click the **Blade Assignment** button. The Quick KVM Blade Assignment screen, shown in *Figure 10*, is displayed.

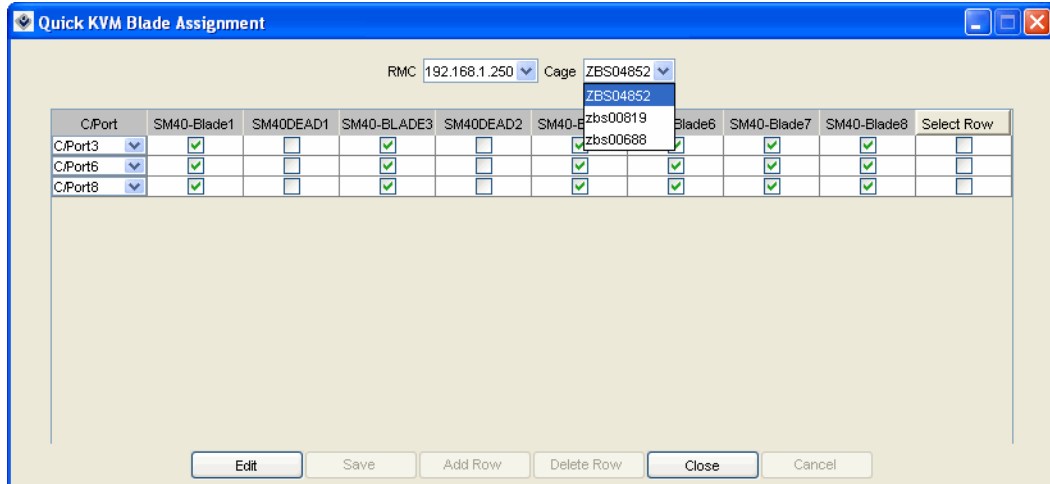


Figure 10 Quick KVM Blade Assignment Screen

The **RMC** field provides a pull-down menu of the RMCs configured on the Switch Manager server. Each RMC represents a Cage group, usually set up as a single rack of Cages containing Blades. Select an RMC to begin configuring Quick KVM.

The **Cage** field provides a pull-down menu of the individual Cages for the selected RMC. The selected Cage contains the Blades to be configured to the users' C/Ports. After selecting a Cage, press **Edit** to begin configuring Blades to C/Ports.

Note: If the Cage aliases are not correctly displayed in the Cage pull-down menu or in the toolbar Quick KVM menu, use Switch Manager to rename a Blade in the Cage that is not displaying its alias. When the Blade list is updated for the user's system, the Cage alias should display correctly. Restarting Quick KVM on the user's system also causes the Cage alias to update.

The following options are available:

- **Edit** – Click after selecting an RMC and a Cage to configure Blades and C/Ports for that Cage. The **Edit** button is not active until after an RMC and Cage have been selected.
- **Save** – Click after selecting a C/Port and assigning Blades to the C/Port to save the configuration.
- **Add Row** – Click to add a row. Each row represents one C/Port and the Blades available to that C/Port. To add Blades, click the check box in the row that is in the desired Blade's column.
- **Delete Row** – Click to delete the configuration for a C/Port. Select a row by clicking the **Select Row** check box for that row.
- **Close** – Click to close the Configurator after saving changes, or to close the Configurator without saving recent changes. Clicking **Close** returns to the Quick KVM Configuration screen (Figure 8).
- **Cancel** – Click to return to the Configurator's state as it was before making any unsaved changes. The Configurator screen remains active.

To assign Blades to a C/Port, follow these steps:

1. From the RMC pull-down menu, choose an RMC. Choose the Cage group to which your Blade belongs.
2. From the Cage pull-down menu, choose the Cage to which your Blade belongs.
3. When you choose a Cage, the **Edit** button on the bottom left becomes active. Click the **Edit** button.
4. Click the **Add Row** button in the center. This adds a row. Each row corresponds to a C/Port attached to the Cage being configured.
5. Click on the pull-down arrow in the **C/Port** field of the row you wish to edit. This displays a drop-down menu of all C/Ports attached to that Cage. C/Port 1 represents the C/Port connected to port 1 on the BackPack of that Cage, and so forth. Select a C/Port.
6. Select each Blade the C/Port can access by checking the check box in the column representing the Blade. The Blade names match the Blade names in Switch Manager. If the names have not been configured in Switch Manager, the Blade serial numbers are displayed.

Note: The Quick KVM Configurator screen provides a limited space to display Blade names. If the Blade alias is longer than nine characters, it may not be displayed completely. To work around this limitation, the administrator can open a browser window for Switch Manager to see the full details for the Cage and Blade. You can configure more than one row before saving changes. Each row must specify a different C/Port.

7. Click the **Save** button to save this C/Port configuration, or **Cancel** to cancel the changes.
8. Click the **Close** button to exit the Configurator screen.

Note: After changing configuration settings on a system, you must exit Quick KVM on that system and then restart Quick KVM before the saved changes take effect.

When configuring C/Ports and Blades, keep these points in mind:

- An empty row can be created—a row that specifies a C/Port but has no Blade assigned to that C/Port. By default a C/Port must be able to connect to at least one Blade, so an empty row is not a valid configuration for a C/Port. An error message is generated if you attempt to save an empty row. Select at least one Blade per C/Port.
- More than one row can be created for a single C/Port. This is not a valid configuration. An error message is generated if you attempt to save multiple rows (two or more) for the same C/Port. Create only one row per C/Port, and assign at least one Blade to each C/Port.
- Quick KVM allows assigning every Blade to every C/Port. This *is* a valid configuration, but may result in significant contention for Blades at the user level. The administrator should consider user needs for the capabilities of the available Blades, and configure the Blades to adequately address these needs. An extreme example of miscalculating user needs would be to provide email access on only one Blade per cage, vs. providing email access on every Blade.
- Each C/Port *must* be assigned to at least one Blade for the user to be able to log on. The default is to assign C/Port 1 to Blade 1, C/Port 2 to Blade 2, and so on.

Managing Quick KVM on your Network

Quick KVM provides authentication integration with Active Directory. However, certain limitations exist:

- If your network uses statically defined IP addresses for the Switch Manager server, and you change the IP address on the server, you must reboot the server before Quick KVM can perform switches.
- If your network uses statically defined IP addresses for Blades that use Quick KVM, and you change the IP address on a Blade, you must reboot the Blade before Quick KVM can perform switches with that Blade.

In both cases, Switch Manager can perform switches without requiring a reboot, but Quick KVM requires a Blade reboot.

- If you configure the Switch Manager server or a Blade using Quick KVM as a member of a workgroup, move the system to a domain, and then move the system back to a workgroup (either the same workgroup or a new one), network connectivity is lost until the security settings are returned to their default.

To reset the system to its default security setting, enter the following command (all on one line) at a command prompt:

```
secedit /configure /cfg %windir% \repair\secsetup.inf /db  
secsetup.sdb /verbose
```

Ignore the warning message that is issued after the command runs.

This is a known issue with Windows, and is documented in Microsoft's Knowledge Base as article 313222, found at:

<http://support.microsoft.com/?kbid=313222>

This applies to other ClearCube software products as well.

Closing Quick KVM

To close Quick KVM, choose **Exit** from the Quick KVM menu, as shown in *Figure 11*. This closes the Quick KVM application and removes the ClearCube icon from the system tray. Only Administrators can exit from Quick KVM. See page 14.

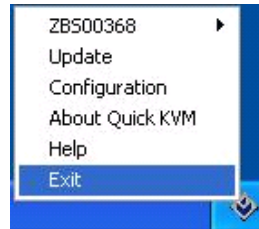


Figure 11 Closing Quick KVM

User Tasks

Launching Quick KVM

The first time Quick KVM is started, an Administrator must log in and provide the name of the Switch Manager server. This prompt also appears any time the Switch Manager server is not configured properly, or when the Switch Manager server entered is not reachable on the network. When users see this, they should contact their system administrator. See *Figure 12*.



Figure 12 Entering the Switch Manager Server Name

When Quick KVM is configured properly, startup is automatic. The ClearCube logo icon in the system tray indicates that Quick KVM is running (see *Figure 13*). Right-click on this icon to access all Quick KVM functions.

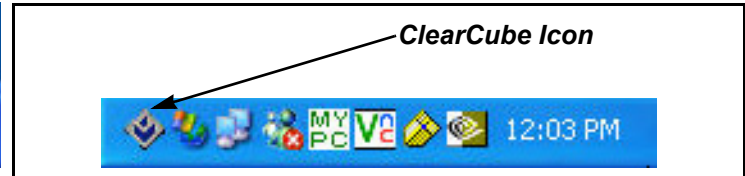


Figure 13 ClearCube Icon in System Tray

Quick KVM is intended to always be available to users. Some functions, such as exiting Quick KVM or changing Quick KVM configuration, require an administrator login. If one of these functions is selected, the login dialog box in *Figure 14* is displayed.

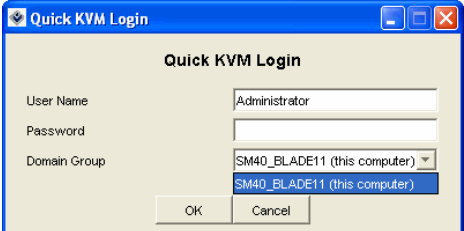


Figure 14 Quick KVM Login

Performing A Switch

Switching a C/Port from Blade to Blade is the core functionality of Quick KVM. To view the Quick KVM menu, right-click on the ClearCube icon in the system tray. The Quick KVM menu, is displayed.

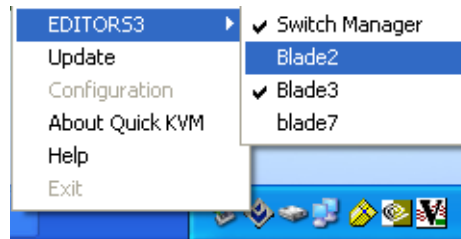


Figure 15 Switching to a Different Blade

The top line of the menu displays the name (or the serial number) of the Cage to which the user's C/Port is connected. To view the available Blades in the Cage, roll the mouse cursor over the Cage name. A sub-menu is displayed, listing the available Blades (shown in *Figure 15*).

An **X** to the left of a Blade name indicates that the Blade is powered off. A check mark to the left of the Blade indicates that another C/Port is already connected to that Blade.

To switch Blades, click one of the Blades in the sub-menu. When an available Blade is selected (one with neither a check nor an **X**), the message shown in *Figure 16* is displayed.

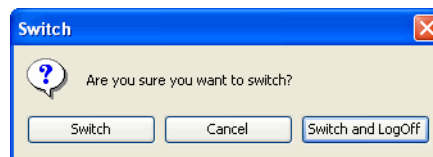


Figure 16 Confirming a Switch

When **Switch** is clicked, the screen flickers briefly as the user is connected to the new Blade. The monitor may display a message such as "No Video Input" while switching takes place. Switching takes several seconds to complete. This behavior is essentially the same as when using a hardware KVM switch, and may take a little longer depending on the number of USB devices connected at the C/Port. The users session on the old Blade is still active,

When **Switch and LogOff** is clicked, the user is connected to the new Blade, and the user's old session is terminated, freeing the Blade up for another user. When the user makes this selection, the message shown in *Figure 19* is displayed to remind the user to save data before ending the session.

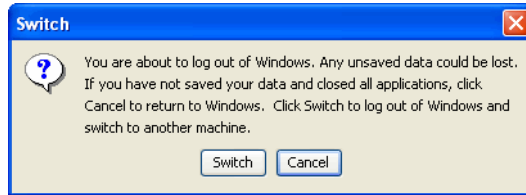


Figure 17 Switch and Log Off Dialog

Clicking **Cancel** will cancel the switch, leaving the user on the same Blade.

If the user selects a Blade that is already connected to another C/Port (a Blade with a check mark next to its name), the message shown in *Figure 18* is displayed.

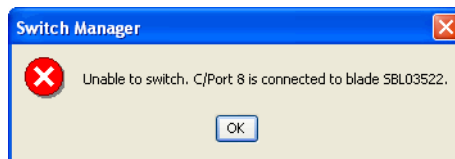


Figure 18 Switch Prevented by Quick KVM

Quick KVM will not allow this switch, thus preventing a user from taking over a Blade that is already in use by another user. Users should be aware that they are sharing resources, and administrators should ensure that users have adequate resources available for their work.

If the user selects a Blade that has an active session but is not connected to another C/Port, the message shown in *Figure 19* is displayed. This means that another user was using this Blade and has switched to a different Blade, but did not log off.

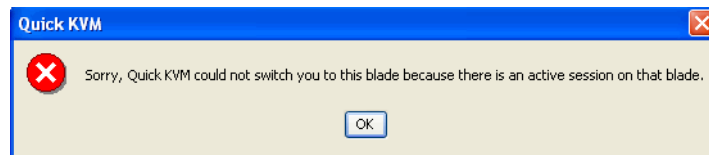


Figure 19 Cannot Switch to a Blade

Note: Users can switch Blades only within a single Cage, and only to Blades that have been configured to be available to the user, which are displayed in the submenu.

When a powered-down Blade is selected (one with an **X** next to the Blade name), the message shown in *Figure 20* is displayed.

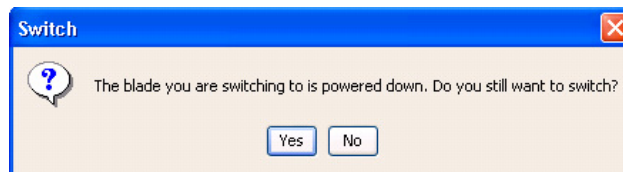


Figure 20 Powered-Off Blade Message

Quick KVM allows a user to switch to a Blade that's powered off, because the Blade can be turned on by pressing the reset button on the back of the C/Port.

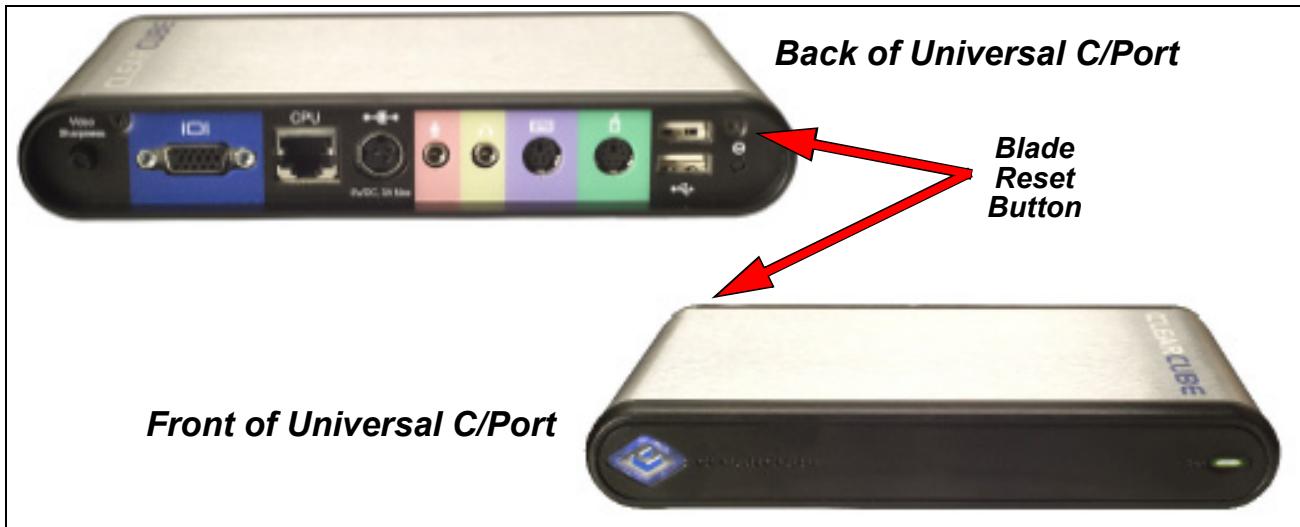


Figure 21 Reset Button on Universal C/Port

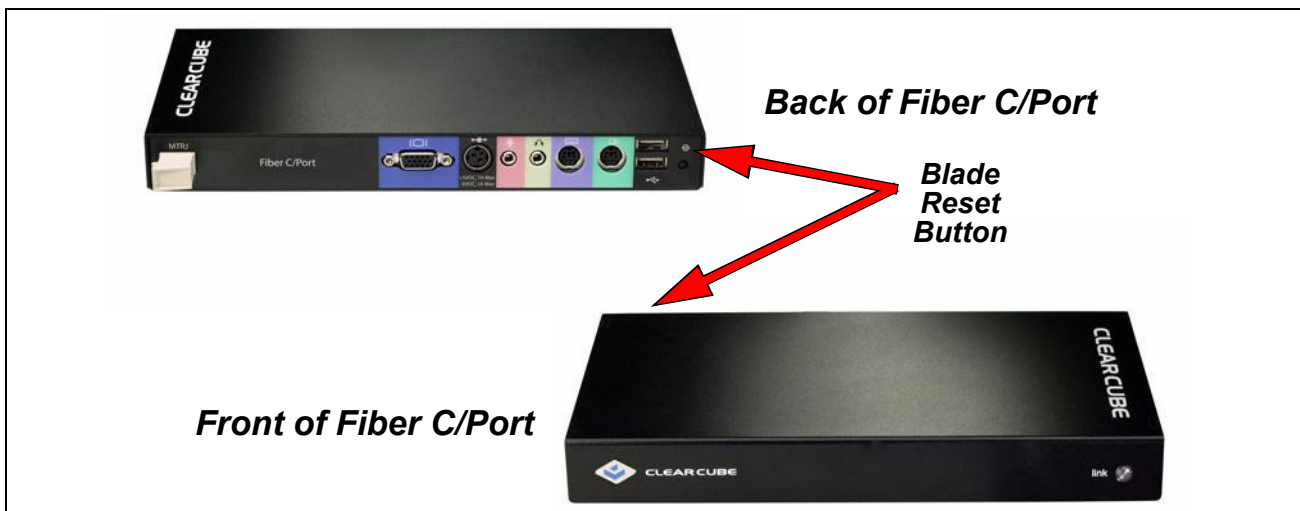


Figure 22 Reset Button on Fiber C/Port

Quick KVM receives a periodic hardware status refresh from the Switch Manager serve (the default update occurs every 180 seconds), so the Blade list in the menu may be out-of-date.

When you request a switch, Quick KVM performs a refresh. If the requested Blade is available, you are switched. If the Blade is not available, the switch is denied (see *Figure 18*) and the menu is updated with the most recent Blade information.

Occasionally, network traffic may delay a switch command. If you try to switch Blades but nothing appears to happen, try again in a few minutes before contacting your system administrator.

Refreshing the Quick KVM Blade List

To reduce network overhead, the list of Blades and their properties displayed in the Quick KVM menu does not refresh instantly when a change occurs. Instead, Quick KVM periodically refreshes this information from data stored on the Switch Manager server. The default refresh interval is every 180 seconds, and can be changed by an Administrator.

This information is also updated each time a Quick KVM user requests a switch. This information can also be manually refreshed by a user at any time by choosing the **Update** option in the Quick KVM menu, shown in *Figure 23*. The refresh takes approximately 5 seconds to complete.

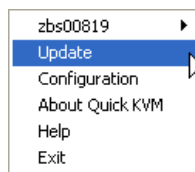


Figure 23 Refreshing the Quick KVM Blade List

About Quick KVM

Right-click the Quick KVM icon in the system tray. When selected, the **About Quick KVM** option, shown in *Figure 24*, displays the Quick KVM version and date information in a browser window.

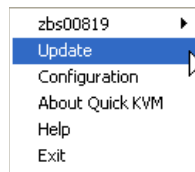


Figure 24 About Quick KVM

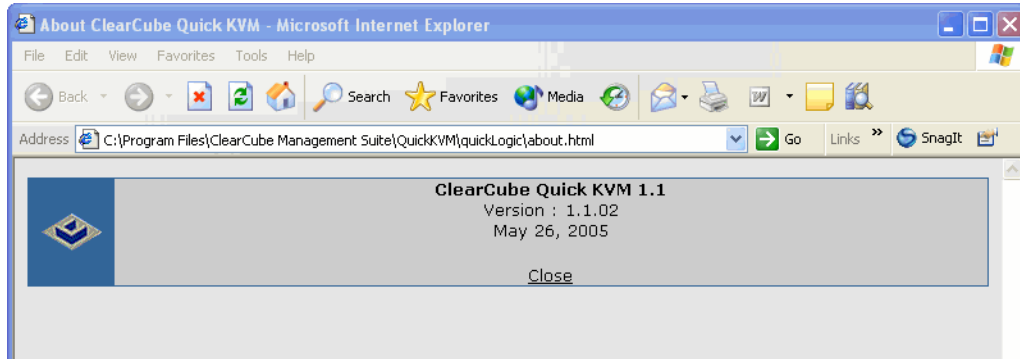


Figure 25 About Quick KVM Window

Quick KVM Help

Right-click the Quick KVM icon in the system tray. The menu shown in *Figure 26* is displayed. Select **Help** and a browser window opens to the ClearCube support web page. The user manual for Quick KVM can be located there.

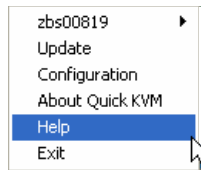


Figure 26 Getting Help

Closing Quick KVM

Quick KVM is intended to be available for users at all times. If a user needs to shut down Quick KVM for any reason, they need to log out of their Windows session, and log back in.

Contacting Support

ClearCube

In the event you have any problems with your ClearCube software, please refer to our Web site or contact ClearCube Technical Support for guidance.

support@clearcube.com	Email address to ClearCube Technical Support
support.clearcube.com	ClearCube Support Website
(866) 652-3400	Direct line in the US
+1 (512) 652-3400	Direct line from outside the US

Active Perl

ClearCube Quick KVM 1.1 utilizes ActiveState Perl technology. ActivePerl is the up-to-date, quality-assured Perl binary distribution from ActiveState. Current releases, and other professional tools for open source language developers are available at: <http://www.ActiveState.com/>

The ActiveState Repository has a large collection of modules and extensions in binary packages that are easy to install and use. To view and install these packages, use the Perl Package Manager (PPM) which is included with ActivePerl.

Commercial support for ActivePerl is available through ActiveState at: <http://www.ActiveState.com/Support/Enterprise/>

For peer support resources for ActivePerl issues see: <http://www.ActiveState.com/Support/>

Acknowledgements

ClearCube Quick KVM 1.1 utilizes ActiveState Perl technology.

ActiveState

Dynamic Tools for Dynamic Languages

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