

KVM ON THE NET™



USER MANUAL

CN-6000

2003-11-14

Warning!

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



Packing List

The complete CN-6000 package consists of:

- ◆ 1 CN-6000 KVM On the Net™ Control Unit
- ◆ 1 CS Custom KVM Cable Set
- ◆ 1 Power Adapter
- ◆ 1 Rack Mount Kit
- ◆ 1 Software CD
- ◆ 1 User Manual
- ◆ 1 Quick Start Guide

Check to make sure that all the components are present and that nothing was damaged in shipping. If you encounter a problem, contact your dealer.

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the unit, and/or any of the devices connected to it.

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Manual Part No. PAPE-0227-1AT
Printed in Taiwan 10/2003

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About This Manual

This User Manual is provided to help you get the most from your CN-6000 system. It covers all aspects of installation, configuration and operation. An overview of the information found in the manual is provided below.

Overview

Chapter 1, Introduction, introduces you to the CN-6000 System. Its purpose, features and benefits are described.

Chapter 2, Hardware Setup, presents the front and back panel components, and explains how to connect the CN-6000 to your server or KVM switch and the Internet.

Chapter 3, The Administrator Utility, explains how to connect to the CN-6000 as an administrator; and how to configure the CN-6000 for operation.

Chapter 4, The Windows Client, explains how to run the Windows Client Software; how to connect to the CN-6000 and how to remotely control the connected server (or servers via a KVM switch).

Chapter 5, The Java Client, explains how to run the Java Client Software; how to connect to the CN-6000 and how to remotely control the connected server (or servers via a KVM switch).

Chapter 6, The Log Server, is a Windows-based administrative utility that records all the events that take place on selected CN-6000 units and stores them in a searchable database.

An Appendix at the end of the manual provides specifications and other technical information regarding the CN-6000.

An Index follows the Appendix for convenient reference to the manual's information.

Conventions

This manual uses the following conventions:

- Courier** Indicates text that you should key in.
- [] Indicates keys you should press. For example, [Enter] means to press the **Enter** key. If keys need to be *chorded*, they appear together in the same bracket with a plus sign between them: [Ctrl+Alt].
 - 1. Numbered lists represent procedures with sequential steps.
 - ◆ Bullet lists provide information
 - > Indicates selecting an option on a menu. For example, Start > Run means to open the *Start* menu, and then select *Run*.
 - ⚠ Indicates critical information.

Notes:

Chapter 1.

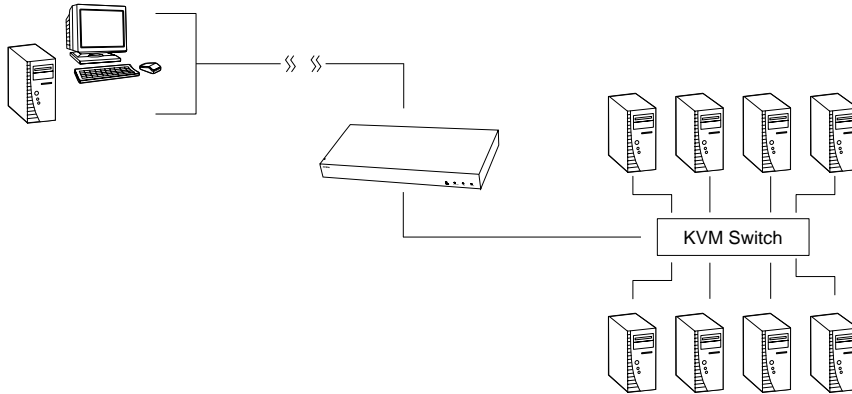
Introduction

Overview

The CN-6000 is a control unit that allows operators to monitor and access their computers from remote locations. The CN-6000 connects to the Internet, an Intranet, LAN, or WAN using industry standard Category 5 cable, then uses KVM cable to connect to a local KVM switch or server.

Since the CN-6000 uses TCP/IP for its communications protocol, the server or KVM switch it is connected to can be accessed from any computer on the Net - whether that computer is located down the hall, down the street, or half-way around the world.

Operators at remote locations connect to the CN-6000 via its IP address. Once a connection has been established and authorization granted, operators of the remote computer can exchange keyboard, video and mouse signals with the server (or servers on a KVM switch installation), just as if they were present locally and working on the equipment directly.



With its advanced security features, the CN-6000 is the fastest, most reliable, most cost effective way to remotely access and manage widely distributed multiple computer installations.

The *Administrator* and *Client* software utilities provided with the CN-6000 make it easy to install, maintain, and operate. System administrators can handle a multitude of tasks with ease - from installing and running GUI applications, to BIOS level troubleshooting, routine monitoring, concurrent maintenance, system administration, rebooting and even pre-booting functions.

The *Administrator Utility* is used to: configure the system; limit access from remote computers; manage users; and maintain the system with firmware and software module updates.

Both a *Windows GUI Client* and a *Java Client* are provided for IP connection and login from anywhere on the net. Inclusion of a Java-based client ensures that the CN-6000 is platform independent, and is able to work with all operating systems.

The CN-6000's client software allows access to, and control of, the connected servers. Once an operator successfully connects and logs in, his screen displays what is running on the remote unit attached to the CN-6000 (a KVM OSD display, a server's desktop, or a running program, for example) and he can control it from his console just as if he were there.

The *Log Server* records all the events that take place on selected CN-6000 units for the administrator to analyze.

Your CN-6000 investment is protected by a *Firmware Upgrade Utility*. You can stay current with the latest functionality improvements by downloading firmware update files from our website as they become available, and then using the utility to quickly and conveniently perform the upgrade.

Features

- ◆ Remote access of KVM switches or servers via LAN, WAN, or the Internet; control your installation from down the hall, down the street, or half-way around the world
- ◆ Supports 10Base-T, 100Base-T, TCP/IP, HTTP
- ◆ Advanced security features include password protection and advanced encryption technologies
- ◆ High video resolution: up to 1280 x 1024 @ 75Hz; 1600 x 1200 @ 60Hz
- ◆ Windows GUI and Java-based client software; Java client works with all operating systems
- ◆ Upgradeable firmware via RJ45 Ethernet connection (with default F/W)
- ◆ Supports unlimited user accounts

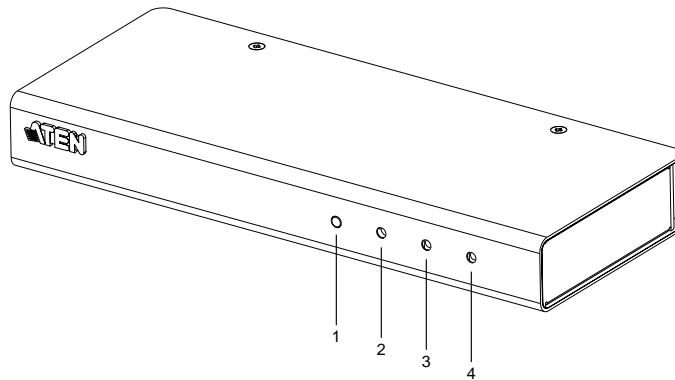
System Requirements

- ◆ For best results we recommend that the computers used to access the CN-6000 control unit have at least a P III 1 GHz processor, and that the screen resolution is set to 1024 x 768.
- ◆ For the Windows Client, you must have DirectX 7.0 or higher installed.
- ◆ For the Java Client, you must have Sun's Java 2 (IBM Java 1.3 or higher).
- ◆ For the Log Server, you must have the Microsoft Jet OLEDB 4.0 or higher driver installed.

Notes:

Chapter 2. Hardware Setup

Front View



1. Reset / Firmware Upgrade Switch

- ◆ Pressing and holding this switch in while powering *On* the CN-6000 puts the switch into Firmware Upgrade mode.
- ◆ Pressing and holding this switch in for more that two seconds performs a system reset.

Note: This switch is recessed and must be pushed with a thin object - such as the end of a paper clip, or a ballpoint pen.

2. 10/100 Mbps Data LED

- ◆ The LED lights GREEN to indicate 10 Mbps data transmission speed.
- ◆ The LED lights ORANGE to indicate 100 Mbps data transmission speed.

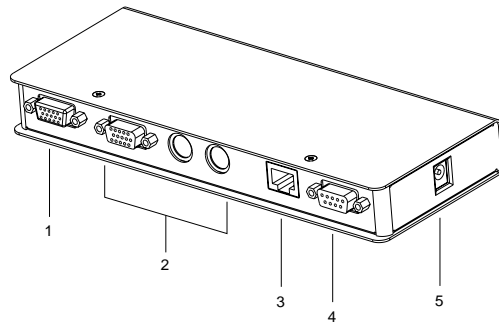
3. Link LED

Flashes GREEN to indicate that a Client program is accessing the device.

4. Power LED

Lights when the CN-6000 is powered up and ready to operate.

Rear View



1. KVM Port

The KVM cable (supplied with this package) that links the CN-6000 to your KVM switch or server plugs in here.

2. Local Console Section

The CN-6000 can be accessed via a local console as well as over the Net. The cables for the local console (keyboard, monitor, and mouse) plug in here. Each port is color coded and marked with an appropriate icon to indicate itself.

3. RJ-45 Jack

The cable that connects the CN-6000 to the Internet server plugs in here.

4. RS-232 Port

The RS-232 port is reserved at this time.

5. Power Jack

The power adapter cable plugs in here.

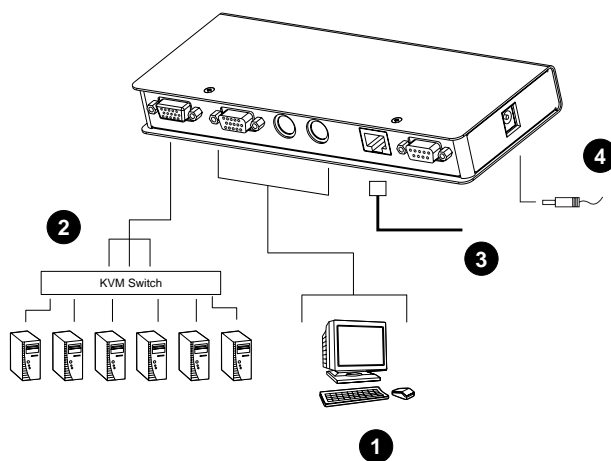
Installation



1. Before you begin, make sure that power to all the devices you will be connecting up have been turned off. You must unplug the power cords of any computers that have the *Keyboard Power On* function.
2. To prevent damage to your installation, make sure that all devices on the installation are properly grounded.

To install the CN-6000, refer to the diagram below (the diagram numbers correspond to the numbered steps), and do the following:

1. Plug the local administrator's keyboard, mouse, and monitor into the unit's Console Ports.
2. Use the KVM cable provided with this package to connect the CN-6000's KVM Port, to the Keyboard, Video and Mouse ports of the server or KVM switch that you are installing.
3. Plug the LAN or WAN cable into the CN-6000's RJ-45 socket.
4. Plug the power adapter cable into the CN-6000's power jack, then plug the power adapter into an AC power source.
5. Power up your server or KVM installation.



Notes:

Chapter 3. Getting Started

Logging In

Operation of the CN-6000 is browser based. To begin, open your browser and specify the CN-6000's IP address in the browser's URL location bar. For example:

`http://100.0.0.001`

The CN-6000 login page appears:



Provide a valid Username and Password, then Click **Login** to continue.

- Note:**
1. The first time you log in, use the default Username: *administrator*; and the default Password: *password*. For security purposes, we strongly recommend you remove these and give yourself a unique Username and Password with the appropriate permissions (see *User Management*, p.).
 2. If you supplied an invalid login, the authentication routine will return a message informing you that the “server is busy.” This is done as a security measure to confuse and discourage hackers from trying to discover a valid Username and Password. If you see this message, try logging in again being careful with the Username and Password
 3. The first time you log in a dialog box appears requesting you to input your serial number. The serial number is located on the bottom panel of the CN-6000. Key in the serial number, then Click **OK**.

Screen Elements

The icons arranged horizontally across the top of the page are the administration utilities. They are used to configure the CN-6000 for operation. Your ability to make configuration changes depends on the permissions associated with your login information (see *User Management*, p. 20).

The purpose of the remaining icons is discussed in the table below:

Icon	Purpose
Save	Saves the changes you make in the administration dialog boxes (see the <i>Administration</i> chapter), but does not implement the changes. The changes only go into effect when you enable <i>Reset on exit</i> (see p. 22 for details) and log out.
Windows Client	Allows users to connect to the CN-6000 using Windows software, and to remotely control the connected server (or servers via a KVM switch).
Java Client	For platform independence, the Java client allows users that have Java installed to connect to the CN-6000 and to remotely control the connected server (or servers via a KVM switch).
Log	All the events that take place on the CN-6000 are recorded in a log file (see <i>Network</i> p. 15 for details). Clicking this icon displays the contents of the log file.
Logout	Click this icon to log out and end your CN-6000 session.

Notes:

Chapter 4. Administration

Introduction

Once you login, the *General* configuration dialog box appears:



The screenshot shows a configuration dialog box with three sections:

- Device Name:** An empty text input field.
- MAC Address:** A text input field containing the value "00-48-54-50-4D-01".
- Firmware Version:** A text input field containing the value "1.1.101".

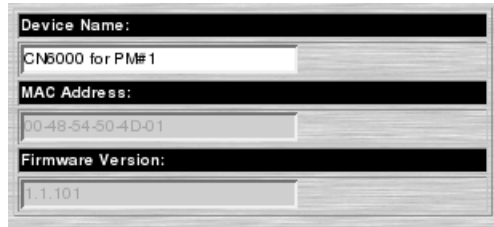
The General configuration dialog is the first of the configuration setting utilities. This chapter discusses each of the configuration utilities in turn.

As you make your configuration changes, Click the **Save** icon to save the changes in the CN-6000's configuration file. To have the changes actually take effect, you have to put a check in the *Reset on Exit* box (see *Customization*, p. 22), and log out.

Note: If you don't have Configuration privileges (see *User Management*, p. 22) the Administration configuration dialogs are available for viewing, but the input fields are disabled, and cannot be changed.

General

The General dialog box provides information about the CN-6000's status.



An explanation of each of the fields is given in the table below:

Device Name:	To make it easier to manage installations that have more than one CN-6000, each one can be given a name. To assign a name for the CN-6000, key in one of your choosing here (15 characters max.).
MAC Address:	The CN-6000's MAC Address displays here.
Firmware Version:	Indicates the CN-6000's current firmware version level.

Note: New versions of the CN-6000's firmware can be downloaded from our website as they become available, (see p. 23 for details).

Network

The Network dialog is used to specify the CN-6000's network environment.

The screenshot shows a dialog box titled "Network" with three main sections:

- Access Port:** Contains two input fields. "Program:" has the value "9000" and "Java:" has the value "9002".
- IP Address:** Contains two radio buttons. "Obtain an IP address automatically" is selected. Below it is an empty input field.
- Log Server:** Contains two input fields. "MAC Address:" has the value "000124D003E5" and "Port:" has the value "9001".

Access Port

As a security measure, the Administrator can set the Port numbers that the User must specify when he attempts to connect to a CN-6000's IP address. Unless the correct Port number is given, the CN-6000 device will not be found. An explanation of the fields is given in the table below:

Program:	This is the port number that must be specified when connecting from the Administrator and Windows Client software programs. Valid entries are from 1024 - 60,000.
Java:	This is the port number used for Java Client connections. Valid entries are from 0 - 65535.

IP Address

The CN-6000 can either have its IP address assigned dynamically at bootup (DHCP), or it can be given a fixed IP address.

- ◆ For dynamic IP address assignment, select the *Obtain an IP address automatically*, radio button.
- ◆ To specify a fixed IP address, select the *Set IP address manually*, radio button and fill in the IP address.

Log Server:

Important transactions that occur on the CN-6000, such as logins and internal status messages, are kept in an automatically generated log file.

Specify the MAC address and a Port number for the server you want the log server software to reside on.

Note: The MAC address setting can only be set with the AP version of the Administrator utility. It can't be set with the browser version.

Security

The Security page is used to control access to the CN-6000.

- ♦ *IP and MAC Filters* permit or deny access to the CN-6000 for specific IP and MAC addresses attempting to access the system with CN-6000 Client software.
- ♦ The *Default Java program name* lets the Administrator specify the page that the user connects to when he accesses the CN-6000 with his browser. The user must include the name of this page in the IP address, or he will not be granted access. For security purposes, we recommend that you change the name of this page from time to time.

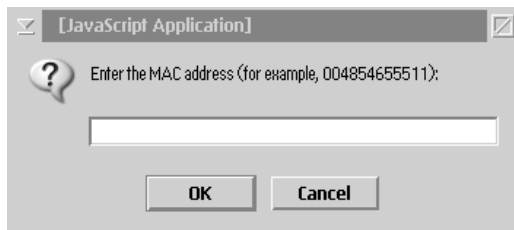
Note: If no page is specified here, anyone will be able to access the CN-6000 with the IP address alone. This is a very insecure situation.

- ♦ *Admin station filters* specify which MAC addresses are allowed to access the CN-6000 configuration dialogs. If nothing is specified here, there are no restrictions.

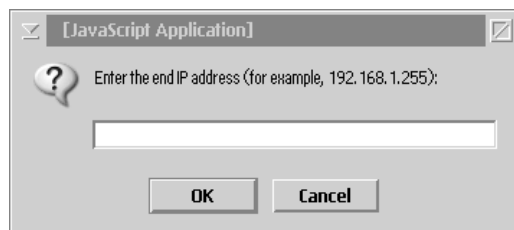
Note: These can only be set with the AP version of the Administrator utility. It can't be set with the browser version.

Filtering

- ◆ There are a maximum of 100 filters allowed for each category (User IPs, User MACs, and Administrator MACs).
- ◆ To enable IP filtering for User Stations, **Click** to put a check mark in the IP and/or MAC *Filter enable* checkbox.
- ◆ To add a filter, Click **Add**. A dialog box similar to the ones below appears (the top example is for IP address filters; the bottom is for MAC address filters):



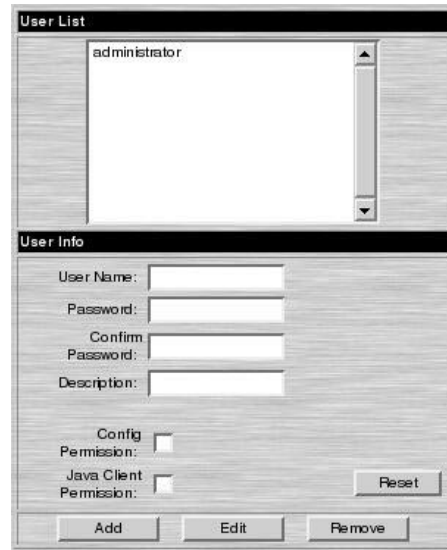
- ◆ Specify the filter address in the dialog box, then Click **OK**.
- ◆ Each IP filter can consist of a single address, or a range of addresses. For IP filtering, a second dialog box similar to the one below appears:



To filter a single IP address, key in the same address as the start IP. To filter a continuous range of addresses, key in the end number of the range.

- ◆ Click **OK** when done.
- ◆ To delete a filter, select it and Click **Remove**; To modify a filter, select it and Click **Edit**. The *Edit* dialog box is similar to the *Add* dialog box. When it comes up, simply delete the old address and replace it with the new one.
- ◆ User Station filtered items can be specified as included or excluded by highlighting the item and clicking the *include* or *exclude* radio button.
 - ◆ If the include button is checked, all the addresses within the filter range are allowed access to the CN-6000; all other addresses are denied access.
 - ◆ If the exclude button is checked, all the addresses within the filter range are denied access to the CN-6000; all other addresses are allowed access.
- ◆ The Administrator station filter dialog boxes are similar to the MAC filter dialog boxes for user stations.

User Management



This configuration dialog is used to manage user profiles.

- ◆ A maximum of 64 users can have access to a CN-6000.
- ◆ To add a user, fill in the information asked for in the *User Info* dialog box and Click **Add**.
- ◆ To delete a user profile, select it and Click **Remove**.
- ◆ To modify a user profile, select it; change the information shown in the *User Info* dialog box; and Click **Edit**.
- ◆ The **Reset** button clears all the information shown in the *User Info* dialog box.

An explanation of the profile items is given in the table below:

Username	A minimum of 6 and a maximum of 15 characters is allowed.
Password	A minimum of 8 and a maximum of 15 characters is allowed.
Confirm Password	To be sure there is no mistake in the password you are asked to enter it again. The two entries must match.
Description	Additional information about the user that you may wish to include.
Permissions	By default, all users may access the CN-6000 via the Windows Client software. 1. Checking <i>Configure</i> gives a User administrator privileges, allowing him to set up and modify the CN-6000's operating environment. 2. Checking <i>Java client</i> allows a User to access the CN-6000 via the Java Client software.

Customization

This configuration dialog allows the Administrator to set *Timeout*, *Login failure*, and *Working mode* parameters.

An explanation of the Customization parameters is given in the table below:

Time out Control	If the CN-6000 doesn't receive any input from the computer that currently has access to it for the amount of time specified here, it ends the connection so it can be available for other users.
Login failure	<i>Login failures allowed</i> , sets the number of consecutive failed login attempts that are permitted from a remote computer. <i>Login failure timeout</i> , sets the amount of time a remote computer must wait before attempting to login again after it has exceeded the number of allowed failures.
Working Mode	If <i>Stealth Mode</i> is enabled , the CN-6000 cannot be pinged. If <i>Echo Mode</i> is disabled , the CN-6000 will not show up in the list of local CN-6000 units (see p. 10 and p. 30)
Reset on exit	Placing a check here causes the CN-6000 to reset itself and implement all the new changes when you log out. Wait approximately 30 to 60 seconds before logging in following the reset.

Firmware

New versions of the CN-6000 firmware can be downloaded from our website at <http://xxxxx.com/downloads> as they become available. To upgrade the firmware, do the following:

1. After downloading the new firmware file to your computer, open the Firmware configuration dialog.



2. Click the Browse button; navigate to the directory that the new firmware file is in and select it.
3. Click **Upload**.
4. Enable the *Reset on exit* checkbox (see p. 22).
5. Click the **Logout** icon to exit and reset the CN-6000.

Troubleshooting

Symptom	Action
Users cannot find the CN-6000 on the network.	The power on sequence may not have been performed correctly. You must power up the CN-6000 before powering up the equipment it connects to.
After I move the CN-6000 to a different computer, it no longer shows up on the network.	<p>This can happen if the new network supports DHCP but the CN-6000 is configured to set the IP address manually, or if the new network doesn't use DHCP to assign IP addresses, but the CN-6000 is set to obtain its IP address automatically via DHCP (see <i>Network</i>, p. 15, for details).</p> <p>To resolve the problem:</p> <ol style="list-style-type: none">1. Put the CN-6000 back on its original domain, and log into it there.2. Change the setting to DHCP (if that is appropriate), or manually assign the CN-6000 a new IP address corresponding to the domain that that the new computer resides on.

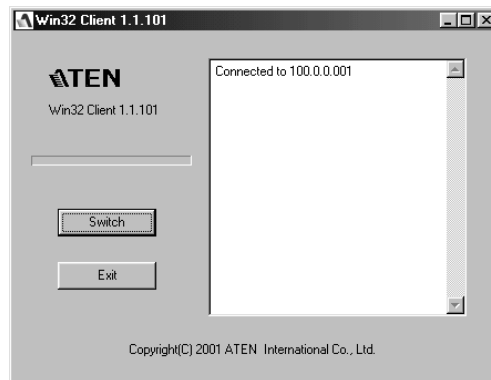
Chapter 5. The Windows Client

Starting Up

To access the CN-6000 with the Windows Client software, after you log in (see p. 9), Click the *Windows Client* icon.

- Note:**
1. You must have DirectX 7.0 or higher installed on your computer. If not, the Client program will not load.
 2. If the browser wants you to save the Client file to disk, save it and *Launch* it after it downloads.

When a connection to the CN-6000 has been established, the following screen appears:



Click on **Switch** to take over console control of the unit that the CN-6000 is connected to.

Operation

Once the Switch to the CN-6000 has been accomplished, the remote system's video output is captured and displayed on your monitor. At the same time, your local keystroke and mouse input is captured and sent to the remote system.

OSD Control Panel

A small OSD control panel showing the remote unit's video resolution and the CN-6000's IP address opens at the lower right hand corner of the screen. The OSD provides four icons that perform the functions described in the table below.

Icon	Function
Hand	Lets you move the OSD display to another position on the screen.
Keyboard	Various configuration actions related to the keyboard, video, and mouse can be performed via hotkey combinations. This function lets you configure the hotkey operation keys (see p. 28 for details).
Hammer	Brings up the video adjustment utility.
Arrow	Exits the Windows Client control of the remote unit.

Note: For computers running NT or Win 2000, the keyboard LED status also displays. (For computers running Win 98 or Win ME, the LEDs on your local keyboard reflect the status of the remote system.)

Keystrokes

Until you close the CN-6000 connection, normal keyboard input is suspended on the local computer. It is captured and operates on the remote system, instead. Only [Alt + Tab] and [Ctrl + Alt + Del] are available to the local system—allowing the user to switch among applications and to recover from system disaster on the local computer.

In order to provide the [Alt + Tab] and [Ctrl + Alt + Del] functions on the remote system, one of the Function Keys is used as a *Substitute* for the [Alt] key.

For example, the **F12** key could substitute for the **Alt** key, in which case [F12 + Tab] substitutes for [Alt + Tab]; and [Ctrl + F12 + Del] substitutes for [Ctrl + Alt + Del]. See *Configuring the Hotkeys* on p. 29 for details on setting up a substitute key.

Note: While any Function Key can be used for the Substitute key, you *must not* use one that is being used for another action.

Mouse Functions

Until you close the CN-6000 connection, normal mouse functions are suspended on your local system. They are captured and sent to the remote system, instead.

From time to time, especially if you change video resolution, the local mouse movement may lose synchronization with the remote system's mouse pointer.

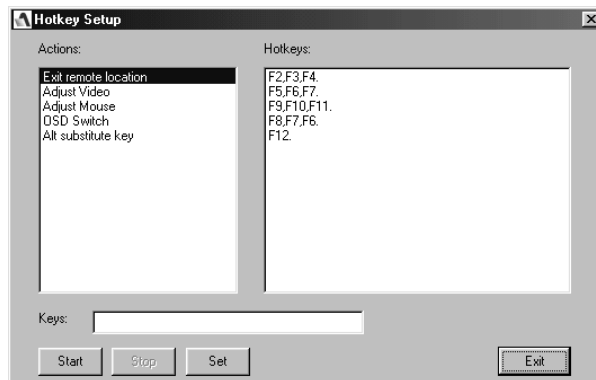
If this occurs, you can bring them back into sync by performing an *Auto Sync* (see *Video Adjustment*, p. 30 for details).

If performing an *Auto Sync* doesn't work, see the *Resolving Mouse Problems* section, p. 32.

Hotkeys

The Hotkey Setup Screen

Various configuration actions related to the keyboard, video, and mouse can be performed via hotkey combinations. The Hotkey setup utility is accessed by clicking the *Keyboard* icon on the OSD Control Panel. The actions performed by the Hotkeys are listed in the left column; the currently defined keys that invoke the actions are shown in the column to the right.



An explanation of the actions is given in the table, below:

Action	Explanation
Exit remote location	Break the connection to the CN-6000 and return to local operation.
Adjust Video	Brings up the video adjustment utility.
OSD Switch	Toggles the OSD display Off and On).
Substitute Alt key	Alt though all other keyboard input is captured and sent to the CN-6000, [Alt + Tab] and [Ctrl + Alt + Del] work on the local computer. In order to implement their effects on the remote system, a function key can be substituted for the Alt key. If you substitute the F12 key, for example, you would use [F12 + Tab] and [Ctrl + F12 + Del].

Note: To invoke an action, you must press and release the keys one key at a time - do not *chord* the keys.

Configuring the Hotkeys

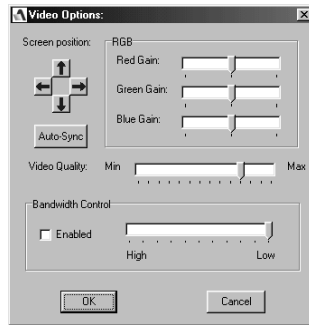
If you find the default Hotkey combinations inconvenient, you can configure them to whatever suits your taste, as follows:

1. Highlight the Action, then Click **Start**
2. Key in the Function keys (one at a time). The key names appear in the *Key* field as you press them.
3. When you have finished keying in your sequence, Click **Stop**
4. Click **Set**
5. Repeat for any other actions you wish to set up

Note: You can use the same function keys for more than one action, *as long as the first key is not the same*. For example, you can use **F1 F2 F3** for one action; **F2 F1 F3** for another; **F3 F2 F1** for a third, etc.

Video Adjustment

You can adjust the placement and the picture quality of the remote screen (as displayed on your local monitor) with the *Video Options* function. To do so, click on the *Hammer* icon on the OSD Control Pane. The following screen appears:



An explanation of the settings is given in the following table:

Screen Position	Adjust the horizontal and vertical position of the remote display by Clicking the Arrow buttons.
Auto-Sync	Click Auto-Sync to have the function detect the vertical and horizontal offset values of the remote screen and automatically synchronize it with the local screen. AutoSync also adjusts the dimensions of the remote screen. Note that this function works best with a bright screen. If you are not satisfied with the results, use the <i>Screen Position</i> arrows to position the remote display manually.
RGB	Drag the slider bars to adjust the RGB (Red, Green, Blue) values. When an RGB value is increased, the RGB component of the image is correspondingly increased.
Video Quality	Drag the slider bar to adjust the overall Video Quality. Values can be from 20 to 100. The larger the value, the clearer the picture and the more video data goes through the network. Depending on the network bandwidth, a high value may adversely effect response time.
Bandwidth Control	This setting adjusts the ratio between picture quality and network speed. For slow data connections, drag the slider bar to a lower setting to decrease the amount of video data transferred. This ensures screen refresh at workable speeds.

Troubleshooting

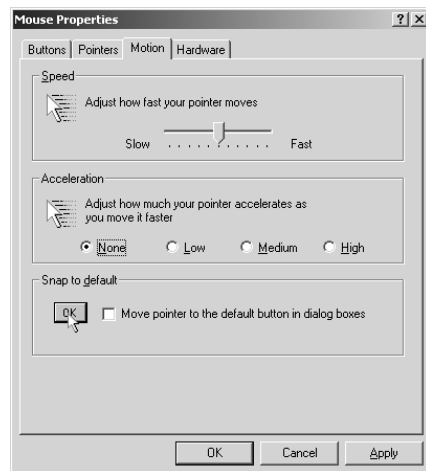
General

Problem	Resolution
I cannot find the CN-6000 on the network.	Check with your system administrator.
The Windows Client will not run.	The Windows Client requires DirectX. Either you don't have DirectX installed, or another program is using it. Either install DirectX, or close the program that is already using it.
The CN-6000 doesn't complete the login.	The CN-6000's default setting is to use port 9000 and port 9001. This situation can occur if there is a firewall blocking these ports. Have the administrator change the port settings.
The mouse doesn't work properly in the login dialog box.	In the login window the mouse is set to the local computer setting. After logging in the mouse will work properly.
Remote mouse pointer is out of step.	<ol style="list-style-type: none"> 1. Use the <i>AutoSync</i> feature (see <i>Video Adjustment</i>, p. 30), to synch the local and remote monitors. 2. Use the <i>Adjust Mouse</i> feature (see <i>Mouse Movement</i>, p. 27) to bring them back in step.
Part of remote window is off my monitor.	Use the <i>AutoSync</i> feature (see <i>Video Adjustment</i> , p. 30), to synch the local and remote monitors.
Ctl+Alt+Del brings up the <i>Close Program</i> dialog box on my local machine instead of on the remote machine.	Pressing Ctl+Alt+Del closes the Windows Client and brings up the <i>Close Program</i> dialog box on the local machine. In order to bring up the <i>Close Program</i> dialog on the remote machine, you must press Ctl+F12+Del. See the <i>Substitute Alt Key</i> discussion on p. 28 for more details.

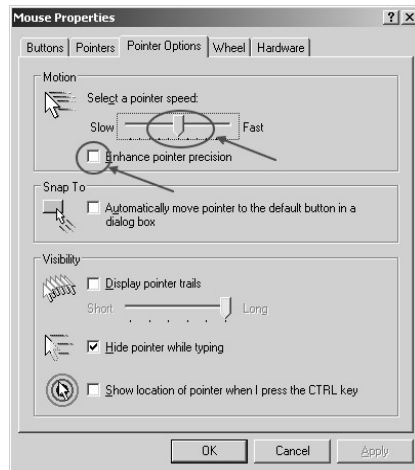
Resolving Mouse Problems

If the Video Adjustment procedures (see *Mouse Functions*, p. 27), still do not help with the mouse synchronization problems, set the mouse speed and acceleration for the computer (or computers via KVM switch) connected to the CN-6000 as follows:

- ◆ **Windows 2000:** Set the mouse speed to the middle position; set the mouse acceleration to *None* (Control Panel → Mouse → Mouse Properties → Motion):



- ◆ **Windows XP:** Set the mouse speed to the middle position; disable *Enhance Pointer Precision* (Control Panel → Printers and Other Hardware → Mouse → Pointer Options):



- ◆ **WinMe / Win95:** Set the mouse speed to the middle position; disable mouse acceleration (click *Advanced* to get the dialog box for this).
- ◆ **WinNT / Win98:** Set the mouse speed to the slowest position.

Notes:

Chapter 6.

The Java Client

Introduction

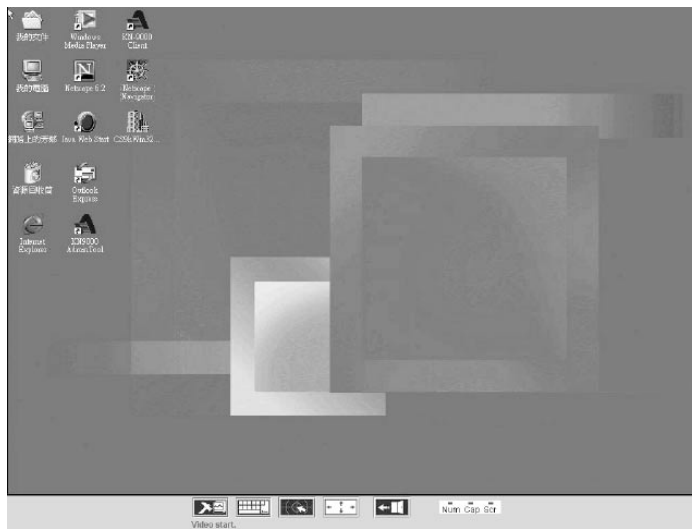
The Java Client is provided to make the CN-6000 accessible to all platforms. Any system that has Java 2 installed, can connect to the CN-6000. If you don't already have Java 2, it is available for free download from Sun's Java web site (<http://java.sun.com>).

To access the CN-6000 with the Java Client software, after you log in (see p. 9), Click the *Java Client* icon.

Note: If the browser asks if you want to save the program to disk or to run it, save it to disk and *Launch* it after the download

The Main Screen

After a successful login, the remote system's screen displays on your monitor as shown in the example below:



You can perform mouse and keyboard operations on this screen just as if it were your local system's display.

- Note:**
1. You can switch between your local and remote programs with [Alt + Tab].
 2. Due to *net lag*, there might be a slight delay before your keystrokes show up. You may also have to wait a bit for the remote mouse to catch up to your local mouse before you click.
 3. Due to *net lag*, or insufficient computing power on the local machine, some images, especially motion images, may display poorly.
 4. If the local and remote mouse pointers get out of sync, you can use the *Mouse Calibration Button* to bring them back into sync (see p. 38 for details).

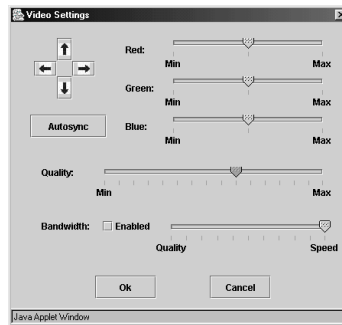
The User Panel

The *User Panel* at the bottom of the screen is a Java applet that gives you control over the KVM operations.



Video

Clicking this button allows you to adjust the placement and picture quality of the remote display. This is similar to the *Adjust Video* feature of the Windows Client (see p. 30 for details). We recommend that you perform an Autosync right after you connect for improved mouse synchronization.



Keypad

Some keyboard combinations can not be captured and sent to the CN-6000. In order to implement their effects on the remote system, this function provides a one-click implementation of some common window control combinations.



Mouse Synchronization

At times the local mouse movement may lose sync with the remote mouse movement. The Mouse Synchronization function gets them back into sync. This is similar to the Mouse Adjustment feature of the Windows Client (see p. 27 for details).

1. Click the Mouse Synchronization button:
2. Wait for the remote mouse pointer to move to the upper left corner of the screen.
3. Move your local mouse pointer directly over the remote mouse pointer and Click.

If the above steps were successful, a *Mouse calibration finished* message appears. If not, a *Wrong position* message displays, in which case you should try the procedure again.

Direction Pad

In case some part of the remote display is off your monitor screen, scroll Up, Down, Left, or Right by clicking in the appropriate direction on the Direction Pad to see the desired view, or Click **AutoSync** to synchronize the local and remote screens automatically.

Tip: Since the *User Panel* is located at the bottom of the local display, it covers the Windows *Start* menu. To get at the *Start* menu, move the remote display with the Direction Pad.

Exit

Click this button to exit the Java Client program and return to local operation.

Num Cap Scr Lock LEDs

These simulated LEDs show what the Lock key status on the remote system is. They turn Green on the browser screen when they are active.

Troubleshooting

For mouse synchronization problems, refer back to the Mouse discussion on the previous page. For connection and operation problems, see the table below:

Symptom	Action
I cannot find the CN-6000 on the network.	Check with your system administrator.
Java Client won't connect to the CN-6000	<ol style="list-style-type: none"> 1. Make sure to include the correct name of the web page when you specify the CN-6000's IP address. 2. Close the Java Client, reopen it, and try again.
The CN-6000 doesn't complete the login.	The CN-6000's default setting is to use port 9000 and port 9001. This situation can occur if there is a firewall blocking these ports. Have the administrator change the port settings.
The mouse doesn't work properly in the login dialog box.	In the login window the mouse is set to the local computer setting. After logging in the mouse will work properly.
Remote mouse pointer is out of step.	<ol style="list-style-type: none"> 1. Use the <i>AutoSync</i> feature (see p. 37), to synch the local and remote monitors. 2. Use the <i>Mouse Synchronization</i> feature (see p. 38) to bring them back in step.
Part of remote window is off my monitor.	Use the <i>AutoSync</i> feature (see p. 37), to synch the local and remote monitors.
Java Client performance deteriorates.	Exit the program and start again.

Notes:

Chapter 7. The Log Server

The *Log Server* is a utility that records all the events that take place on the CN-6000 and stores them in a searchable database. To view the Log contents, after you log in (see p. 9), Click the *Log* icon,. A screen similar to the one below appears:



To clear the log file, click on the *Clear Log* icon.

Notes:

Appendix

Specifications

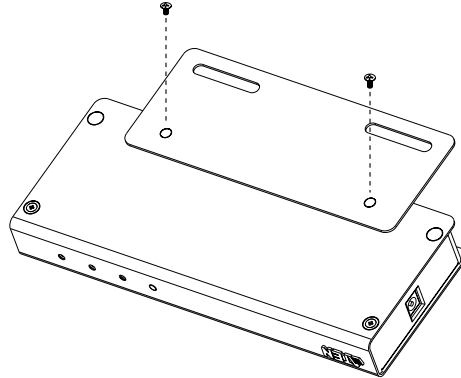
Specifications for the CN-6000 are given in the table, below:

Function		Specification
Connectors	CPU Port	1 x SPDB-15 F - KVM Link
	Console Ports	1 x 6 pin mini-DIN F - Keyboard 1 x 6 pin mini-DIN F - Mouse 1 x HDB-15 F - Video
	LAN	1 x RJ-45 Receptacle
	Power	1 x 3 Pronged Receptacle
	Reserved	1 x RS-232 M (DB9)
LEDs	Power	1 (Blue)
	Link	1 (Green)
	10/100 Mbps	1 (Green/Orange Dual Color)
Video		Up to 1280 x 1024 @ 60 Hz
Protocols		10BaseT Ethernet; 100BaseT Fast Ethernet; TCP/IP
Operating Temperature		0 - 50° C
Storage Temperature		-20 - 60° C
Humidity		0 - 80% RH
Housing		Metal
Weight		0.5 Kg
Dimensions (L x W x H)		20 x 8 x 2.5 cm

Rack Mounting

For convenience and flexibility, the CN-6000 can be mounted on a system rack. To rack mount the unit do the following:

1. Screw the mounting bracket into the top or bottom of the unit as shown in the example diagram below.



2. Screw the bracket into any convenient location on the rack.

Limited Warranty

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM THE DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK OR ITS DOCUMENTATION.

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