CP-2200E

2RU Advanced Display Remote Control Panel

User Guide

EVERTZ MICROSYSTEMS LTD.
5288 John Lucas Drive,
Burlington, Ontario, Canada
L7L 5Z9
Phone: +1 905-335-3700
Sales Fax: +1 905-335-3573
Tech Support Phone: +1 905-335-7570
Tech Support Fax: +1 905-335-7571

Internet: Sales: sales@evertz.com
Tech Support: service@evertz.com
Web Page: http://www.evertz.com

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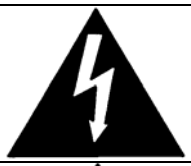
IMPORTANT SAFETY INSTRUCTIONS

	The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “Dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product.

- Read these instructions
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING TO REDUCE THE RISK OF FIRE OR ELECTRIC – SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.
WARNING DO NOT EXPOSE THIS EQUIPMENT TO DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS ARE PLACED ON THE EQUIPMENT.
WARNING TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE.
WARNING THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE.

INFORMATION TO USERS IN EUROPE

NOTE

This equipment with the CE marking complies with both the EMC Directive (2004/108/EC) and the Low Voltage Directive (2006/95/EC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European standards:

- EN60065 Product Safety
- EN55103-1 Electromagnetic Interference Class A (Emission)
- EN55103-2 Electromagnetic Susceptibility (Immunity)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to the European Union EMC directive. 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.

CE	EN60065	Safety
	EN55103-1: 1996	Emission
	EN55103-2: 1996	Immunity

	EN504192 2005 Waste electrical products should not be disposed of with household waste. Contact your Local Authority for recycling advice

INFORMATION TO USERS IN THE U.S.A.

NOTE

FCC CLASS A DIGITAL DEVICE OR PERIPHERAL

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.

WARNING

Changes or modifications not expressly approved by Evertz Microsystems Ltd. could void the user's authority to operate the equipment. Use of unshielded plugs or cables may cause radiation interference. Properly shielded interface cables with the shield connected to the chassis ground of the device must be used.

Evertz Microsystems Ltd FC For Commercial Use	Tested to comply with FCC Standards	This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: This device may cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation.

REVISION HISTORY

REVISION	DESCRIPTION	DATE
0.1	Preliminary	Dec 07
0.2	Added information on configuring the CP-2200E and adding a system	Jul 08
1.0	Release Version	Oct 08
1.1	Updated Specifications and Safety/EMC Warnings	Mar 09

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1. OVERVIEW

The CP-2200E remote control panel features two high-resolution colour LCD display's along side an array of function assignable buttons and dynamic LCD buttons. The two LCD displays intelligently interact with the panel's buttons and rotary controls, updating automatically as different operation facilities are selected. When a menu button is pressed some or all of the buttons change their function and legend. Their operation is then defined by the configuration setup for this new menu. The selection of a new menu can also be configured to change the graphical display of one or both the LCD screens.

The CP-2200E is the flagship panel of Evertz® advanced control system, allowing control of automated tielines and path-finding, as well as advanced breakaway routing while still supporting basic routing concepts, like levels and categories.

The CP-2200E panel incorporates advanced control of all of Evertz®'s SNMP enabled devices. Devices or certain controls of devices can be grouped together and associated with sources and destinations on routers so that when a particular source or destination is used the appropriate controls are loaded up for interfacing on the panels LCD screens. This allows simple but powerful interfaces to be built to control parameters and recall presets as well as integrate with the router systems for SNMP equipment in your facility.

The CP-2200E enables users to have real-time control over an MVP® or VIP™ system. Get graphical visualizations of layouts prior to loading them, control what signal is routed to what multi-viewer window, select an audio to be monitored etc. The CP-2200E is a very sophisticated advanced panel that allows you to create a very powerful and very simple interface for your entire system so users have real-time control over signals, displays and router destinations.

Figure 1-1: CP-2200E Control Panel

2. INSTALLATION

2.1. REAR PANEL

Figure 2-1 shows the rear view of the CP-2200E control panel. The following is a list of the ports and controls on the rear panel:

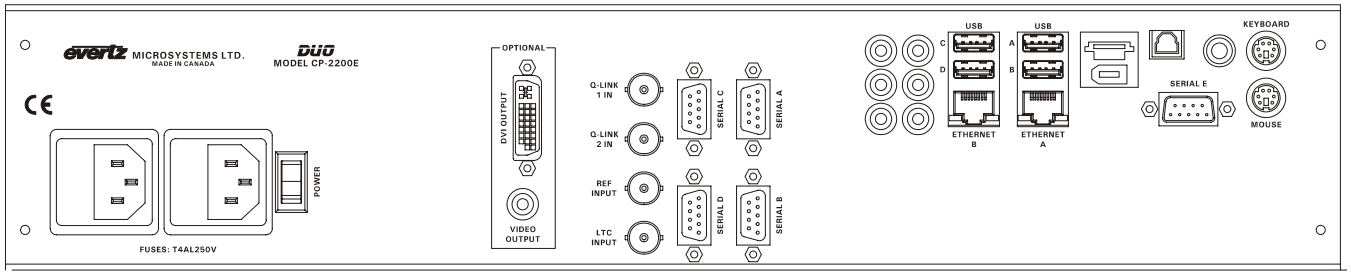


Figure 2-1: CP2200E Rear Panel

DVI OUTPUT: This DVI connector is used to connect the CP-2200E to a LCD monitor.

VIDEO OUTPUT: This connector is currently not supported.

Q-LINK 1 IN: This connector is currently not supported.

Q-LINK 2 IN: This connector is currently not supported.

REF INPUT: This connector is currently not supported.

LTC INPUT: This connector is currently not supported.

SERIAL A, B, C, D: This connector is currently not supported.

ETHERNET (A, B): This RJ45 connector is used for Network connections to the CP-2200E.

USB (A, B, C, D): These USB 2.0 Ports are used for USB-based mouse and/or keyboard connections to the CP-2200E.

KEYBOARD: This connector is currently not supported.

MOUSE: This connector is currently not supported.

POWER: The power button on the rear of the unit enables the user to manually turn the unit ON and OFF. To turn the unit ON, switch the power button down once. To manually turn the unit OFF, hold the power button down for approximately 4 seconds. To reset the unit, switch the power button up.

2.2. FRONT CONTROL PANEL

There are two LCD displays located on the front control panel. The display window on the left is used to select and control the desired module. The display window on the right is used to set the specific control for the selected module. The group of buttons located in the center of the CP-2200E front control panel are used to create pre-program selections.

The button operation is defined by the configuration setup for the new menu. The selection of a new menu can also be configured to change the graphical display of one or both the LCD screens.

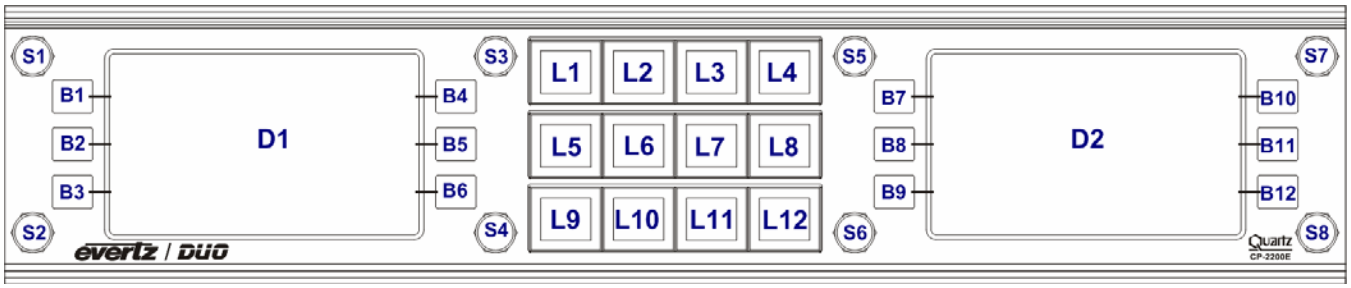


Figure 2-2: CP-2200E Front Control Panel

Please note that the labels in Figure 2-2 will NOT be displayed on the front panel of your CP-2200E device. The labels listed above are for reference purposes only when describing the panel controls in the following sections of the manual. The following chart describes the label and function of the associated button.

Label(s)	Description
D1 & D2	These labels identify the two display screens on the CP-2200E front panel. When operating the panel, the content will be displayed on these screens. The D1 screen is used to display the first level of information to the user and the D2 screen is used to select the associated parameters.
B1 to B12	There are twelve soft-key buttons located on the front panel, which are labelled B1 to B12 in Figure 2-2. These buttons can be used to select items or navigate through the different screens. When an option is available, text will be displayed on the screen beside one of the illuminated soft-key buttons. To select an option on the screen, press the illuminated soft-key button beside the desired control.
S1 to S8	S1 to S8 identifies the eight shaft encoders that are available on the front panel. The user can adjust parameters or toggle through items by turning the shaft encoder knobs left and right. The user can also select items by pressing in the shaft encoder.
L1 to L12	There are twelve LCD buttons located on the front panel, which are labelled L1 to L12 in Figure 2-2. These buttons are extremely versatile as the user can change their function and legend.

2.3. POWER CONNECTIONS

The Cp-2200E power supply operates on either 100-115 or 220-240 volts AC at 50 or 60 Hz and automatically senses the input voltage. Power should be applied by connecting a 3-wire grounding type power supply cord to the power entry module on the rear panel. The power cord should be minimum 18 AWG wire size; type SVT marked VW-1, maximum 2.5 m in length.

The IEC 320 power entry module combines a standard power inlet connector, two 5 x 20 mm fuse holders and an EMI line filter. See section 6.2.1 for information on changing the fuses.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, GROUNDING OF THE GROUND PIN OF THE MAINS PLUG MUST BE MAINTAINED

2.4. MOUNTING

The CP-2200E is equipped with rack mounting angles and fits into a standard 19 inch by 3.5 inch by 12 inch (483 mm x 89 mm x 300mm) rack space. The mounting angles may be removed if rack mounting is not desired.

Cooling is achieved by fan-assisted convection. Air is drawn into the left side of the chassis and expelled as hot air from the right side of the chassis.

When installed in the equipment rack, ensure that the air flow from the left and right side vents is not blocked or restricted.

3. FRONT PANEL CONTROL

To enter the setup menu of the CP-2200E press and hold BOTH rotary encoders (S1 and S2) on the far left side of the panel for approximately 6 seconds. You will then be presented with several menus which allow testing and configuration of the panel.

3.1. CONFIGURING THE NETWORK SETTINGS

The **Network** screen enables the user to configure the network settings for network ports A and B. The following procedure outlines how to set an IP address.

1. The user can configure the network settings by using the rotary encoders and soft-key buttons.

   When the **Network** page is displayed, three options will be instantly highlighted on the screen: **Page**, **Select** and **Change**.

   - The **Page>** option is located in the top right hand corner of the monitor and can be controlled by the **Page>** soft-key (B4) button. Press the **Page>** soft-key (B4) button to toggle through the different pages.

   - The **Select** option is located in the lower left hand corner of the screen and can be controlled using the bottom left rotary encoder (S2).

   - The **Change** option is located in the lower right hand corner of the screen and can be controlled using the bottom right rotary encoder (S4).

2. To change the IP address, mask, broadcast, or gateway network settings toggle to the appropriate number using the bottom left **Select** rotary encoder (S2). Turning the rotary encoder clockwise will enable the user to advance forward and highlight the appropriate value. Turning the encoder counter-clockwise will move the selection tool backwards.

3. Once the desired value is highlighted (the text will be bright yellow), use the bottom right rotary encoder to adjust the value of the selected number. Turning the rotary encoder clockwise will increase the number value, while turning the rotary encoder counter-clockwise will decrease the number value.

4. If any of the Network values are changed, the **Apply** soft-key (B5) button will illuminate. If you wish to apply your changed network settings, select the **Apply** soft-key (B5) button when illuminated. The twelve LED buttons will illuminate to indicate that the settings are being applied. Once the settings are applied the LCD buttons will not be illuminated and the **Apply** soft-key will be greyed out.

5. Bonding may be chosen if you wish the CP-2200E to use the same IP address on BOTH Ethernet ports. This setting is ONLY to be used if ONE Ethernet cable is plugged into a single network OR if two completely isolated networks are in use. Using bonding, and plugging both ports into the same switch will cause a network loop and unsavoury results on your network.

3.2. LOADING UPDATES

The user can manually upload code onto the CP-2200E unit using the **Update** screen or the **Web Interface** (see section 4.1). The following procedures outline how to manually update the device. This practice is not recommended for typical users and should only be implemented when directed by Evertz personnel.

3.2.1. Updates Via the Update Screen

This practice is not recommended for typical users and should only be used when directed by Evertz personnel.

1. Plug a USB memory key into one of the USB ports on the rear panel of the CP-2200E.

2. Using the **Page>** soft-key (B4) button toggle to the **Update** screen.

3. The Update screen will display the updates available on the USB memory key. If there are no files listed, press the **Refresh** soft-key (B2) button to refresh the list. If there are still no files listed, try rebooting the system and ensure the correct files are loaded on your USB memory key.

4. If the available files are listed on the display screen (D1), toggle through the list using the bottom left rotary encoder (S4).

5. Once the desired file is highlighted, select the **Install** soft-key (B5) button.

6. The Install Update screen will appear after a few seconds enabling the user to select whether they would like to update the code. Select the **Yes** soft-key (B3) button to apply the update, or select the **No** soft-key (S6) button if you do not wish to update the code.

7. Once the **Yes** option is selected, the user can remove the USB memory key from the rear of the CP-2200E device. The CP-2200E device will automatically reboot. This may take approximately 2 to 3 minutes.

3.3. TESTING THE CP-2200E

The Test screen enables the user to test the functionality of the LCD screens and LCD buttons. The user can navigate to the Test screen using the right **Page >** soft-key (B4) or left **<Page** soft-key (B1) buttons. Once the Test screen is displayed there are two main Test options: **Key Test** and **LCD Test**.

3.3.1. Key Test

Selecting the Key Test option enables the user to test the functionality of the twelve LCD buttons. To perform a Key Test, select the **Key Test** soft-key (B2) button. The Key Test screen will be displayed and the user will be able to change the colour of the twelve LCD buttons.

To exit the Key Test screen, simultaneously hold down the top and bottom rotary encoders (S1 and S2) on the left hand side of the screen until the Test setup screen is displayed.

3.3.2. LCD Test

Selecting the LCD Test option enables the user to test the LCD monitors. To perform a LCD Test, select the **LCD Test** soft-key (B3) button. The LCD screens will cycle through a variety of solid coloured and gradient screens. The screens will continue to cycle until the LCD Test is exited.

To exit the LCD Test, simultaneously hold down the top and bottom rotary encoders on the left hand side of the screen until the Test setup screen is displayed.

3.4. PHYSICAL MONITORING OF THE CP-2200E

The Monitor screen displays information pertaining to the performance of the CP-2200E. The user can navigate to the Test screen using the **Page >** soft-key (B4) or **<Page** soft-key (B1) buttons.

- **Main Temperature:** Monitors the temperature of the CPU in degrees Celsius and Fahrenheit.
- **System Temperature:** Monitors the temperature of the system in degrees Celsius and Fahrenheit.
- **Fan Speed:** Monitors the fan speed.
- **Workload:** Monitors the workload.

4. SYSTEM CONFIGURATION

4.1. UPGRADING THE CP-2200E PANEL

4.1.1. Requirements

1. The user must have a laptop or PC connected to the same network as the CP-2200E.

2. The user must obtain upgrade files from Evertz Personnel.

    a. Your computer must be running the Mozilla firefox web browser located at: http://www.mozilla.com/en-US/firefox/
    b. This browser is also available in Chinese simplified and traditional, if preferred, by clicking the “other languages…” option under the download link.

3. The user must have the Java runtime environment installed on their machine. The JRE must be installed AFTER firefox. This file can be downloaded from the following location: http://java.com/

4.1.2. Getting Started

1. Set the IP address of the CP-2200E by holding down both rotary encoders (S1 and S2) on the far left of the panel for 6 seconds.
    a. Using the rotary encoders, toggle to the “Network” page.
    b. Set the IP address for the A port and ensure “bonding” is on (a green dot should appear next to it).
    c. Click *Apply*, then press the setup button.

2. Set the IP of your laptop or PC in the same range as the panel.

3. Ensure that firefox is installed on your machine. If not, please review section 4.1.1 for instructions on installing firefox.

4. Ensure that java JRE is installed on your machine. If not, please review section 4.1.1 for instructions on installing the java JRE file.

4.1.3. Upgrading Firmware on the CP-2200E

1. To upgrade firmware using the web interface, open a firefox web browser and enter the IP address of the CP-2200E, then press the <*enter*> key. The *CP2200e* screen will appear, as shown in Figure 4-1.

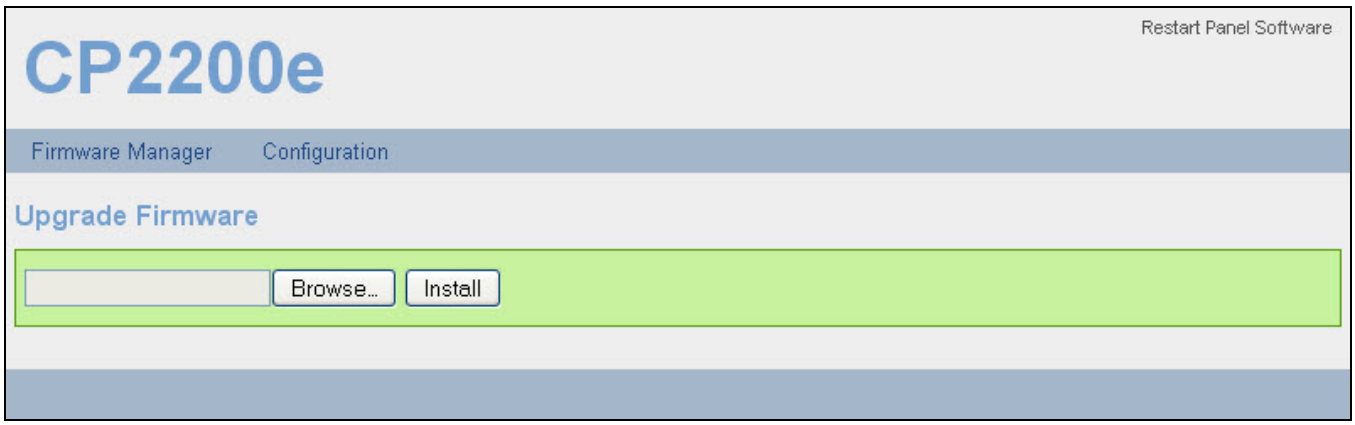


Figure 4-1: CP2200e Main Screen

2. Using the *Firmware Manager*, select the **Browse** button and load the file to be updated (Example:CP2200e-1.1_rc18.efp)

3. If a reboot is required the panel should automatically reboot on its own otherwise you may reboot it using the front panel.

4. Once the panel has rebooted you are ready to configure the CP-2200E.

4.2. CONFIGURING THE CP-2200E TO CONTROL A QUARTZ/EVERTZ ROUTER USING DIRECT ROUTER CONTROL OVER ETHERNET

Direct Router control is only used in a system where a CP-2200E is to be DIRECTLY CONNECTED via Ethernet, to an EQX or Xenon router. Most systems employ a control system (EQX Server) which the panel connects to in lieu of a direct connection to the router. If you have purchased an EQX server and the system is operating, please proceed to section 5.3 to configure the CP-2200E for connection to the EQX Server.

1. Open a Firefox web browser and enter the IP address of the CP-2200E into the address field, then press the <*enter*> button. The *CP2200e* screen will appear enabling the user to configure the device.

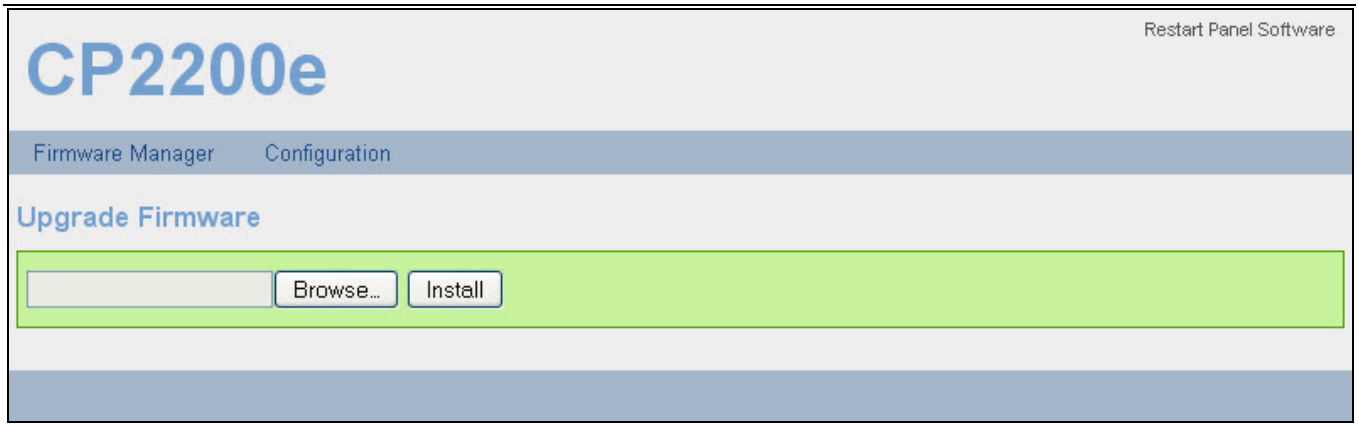


Figure 4-2: CP2200e Main Screen

2. Click on the ***Configuration*** tab. The *CP2200e* configuration screen will appear as shown in Figure 4-3.

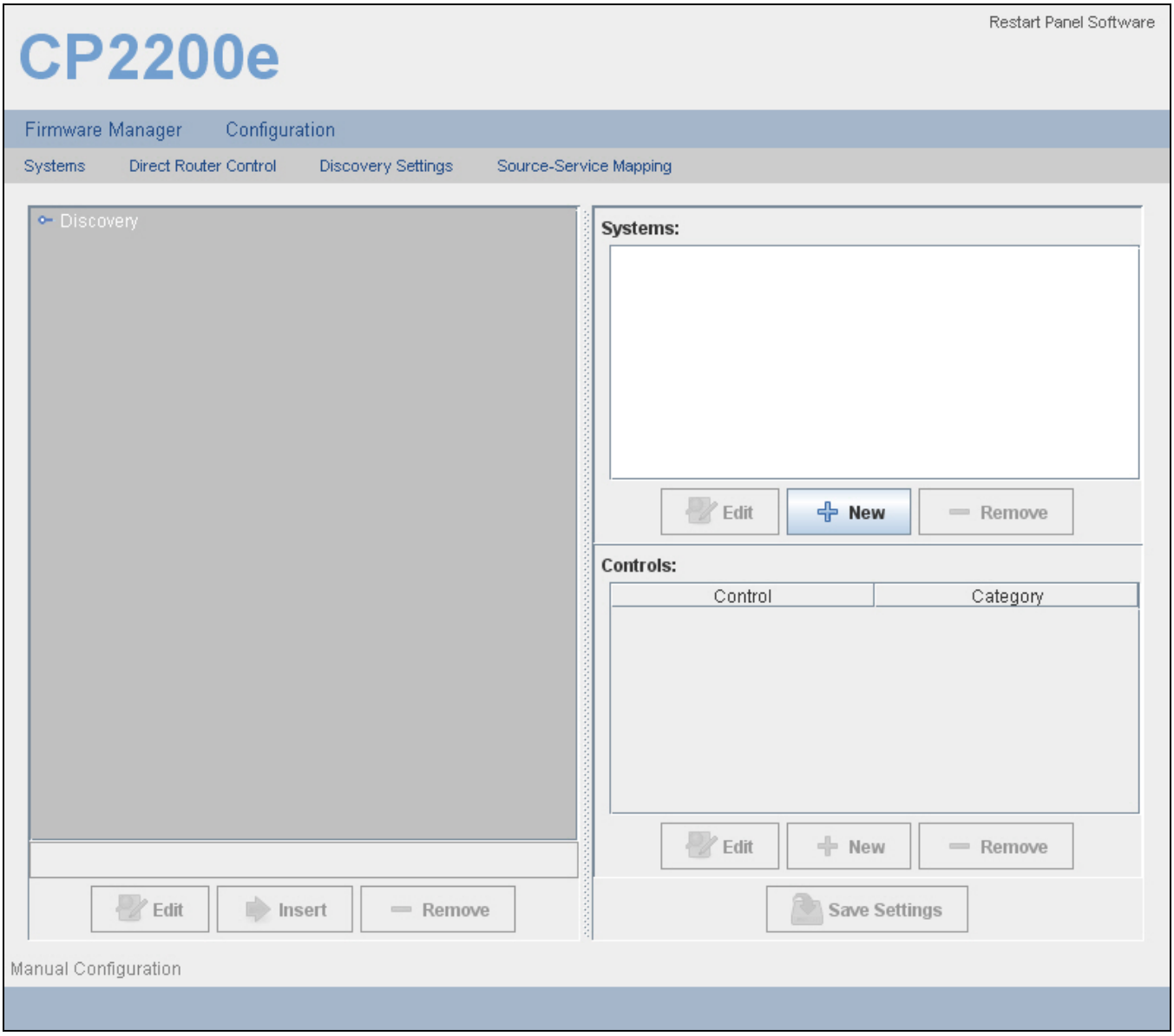


Figure 4-3: CP2200e Configuration Screen

3. Select the **Direct Router Control** tab from the top menu bar.

4. The *Direct Router Control Configuration* window will appear as shown in Figure 4-4. Select the LOGIN button located in the top left of the screen.

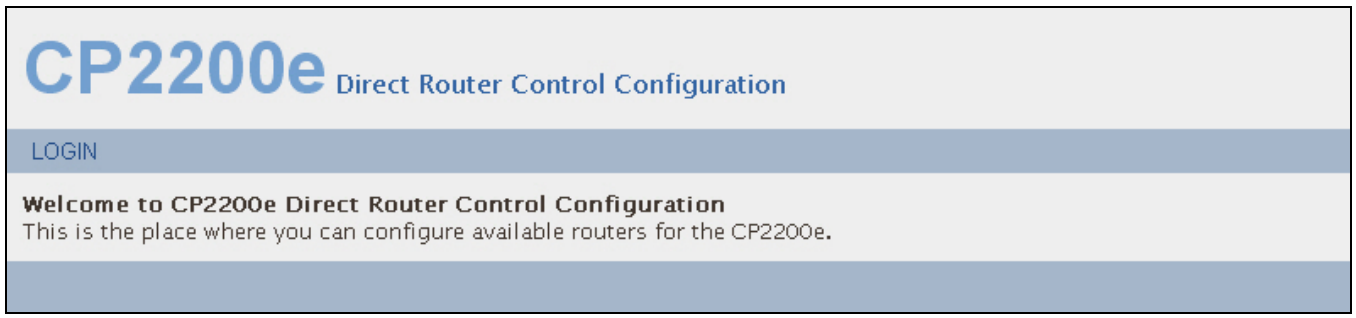


Figure 4-4: Direct Router Control Configuration Welcome Screen

5. Enter in your username and password. If you do not have your own login information, enter in *admin* for the username and password.

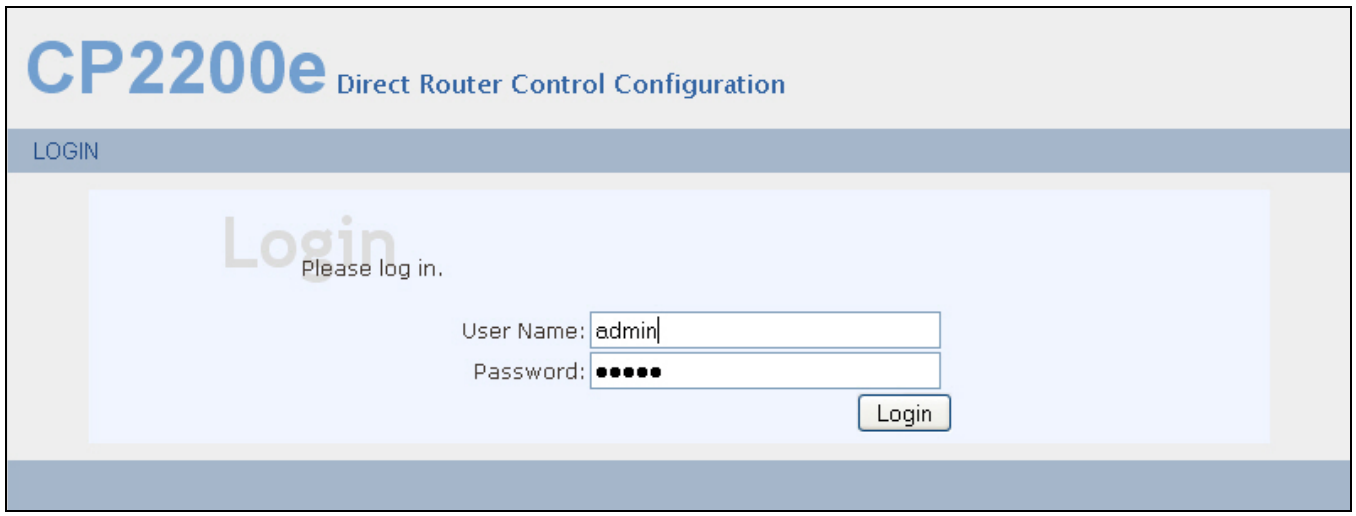


Figure 4-5: Login

6. Under the ***Devices*** option, select the *Devices* tab and add the EQX router parameters. The following information should be entered:

    a. **Short Name:** The name used to build default names for source destinations and tielines.
    b. **Long Name:** The name used to refer to the router in the WCT.
    c. **Device Type:** The router type to be controlled.
    d. **Inputs/Outputs:** The size of I/O available on the router to be controlled.
    e. **FC IP address (primary)/Port:** The network information of the primary FC is required for the router to be controlled.
    f. **FC IP address (secondary)/Port:** The network information of the secondary FC is optional.
    g. **Location:** Information pertaining to the physical location (Los Angeles or ER-227) can be optionally entered here.

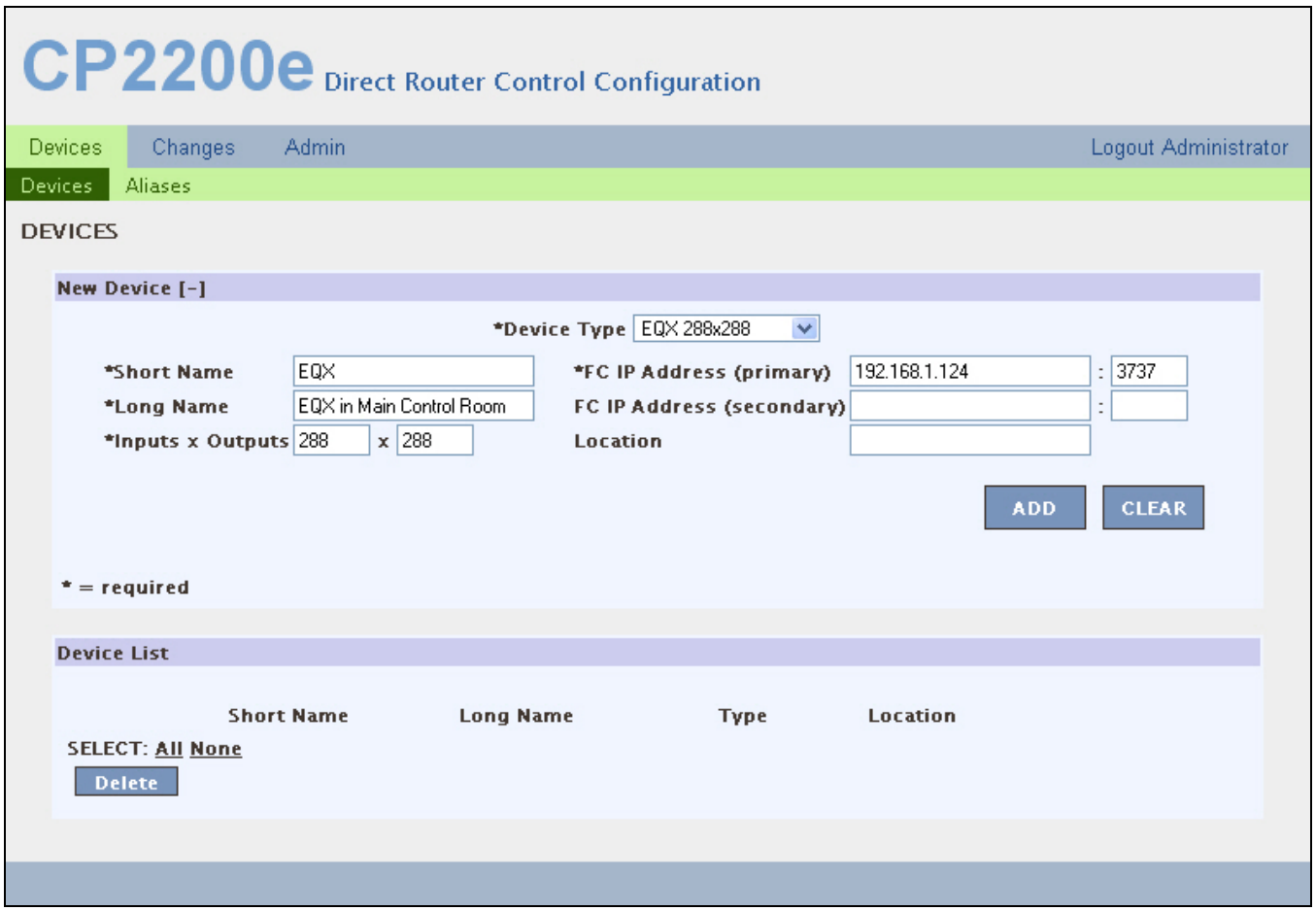


Figure 4-6: Devices Tab

7. Once the appropriate fields are filled in, select the ***ADD*** button. The newly created device will be added to the ***Device List*** panel. The device can be removed from the *Device List* at any time by placing a check mark in the box beside the device and then selecting the **Delete** button.

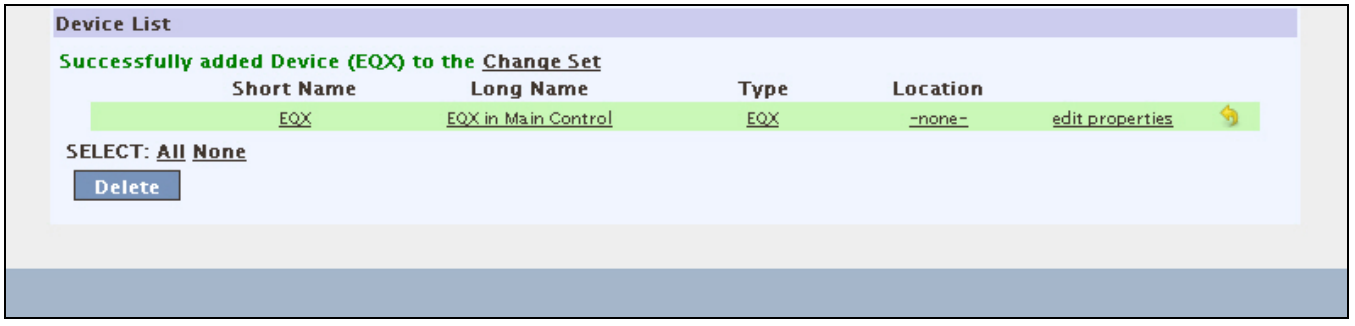


Figure 4-7: Device List

8. Once complete, click on the ***Changes*** tab, and select the ***Commit Changes*** button. The changes will be processed.

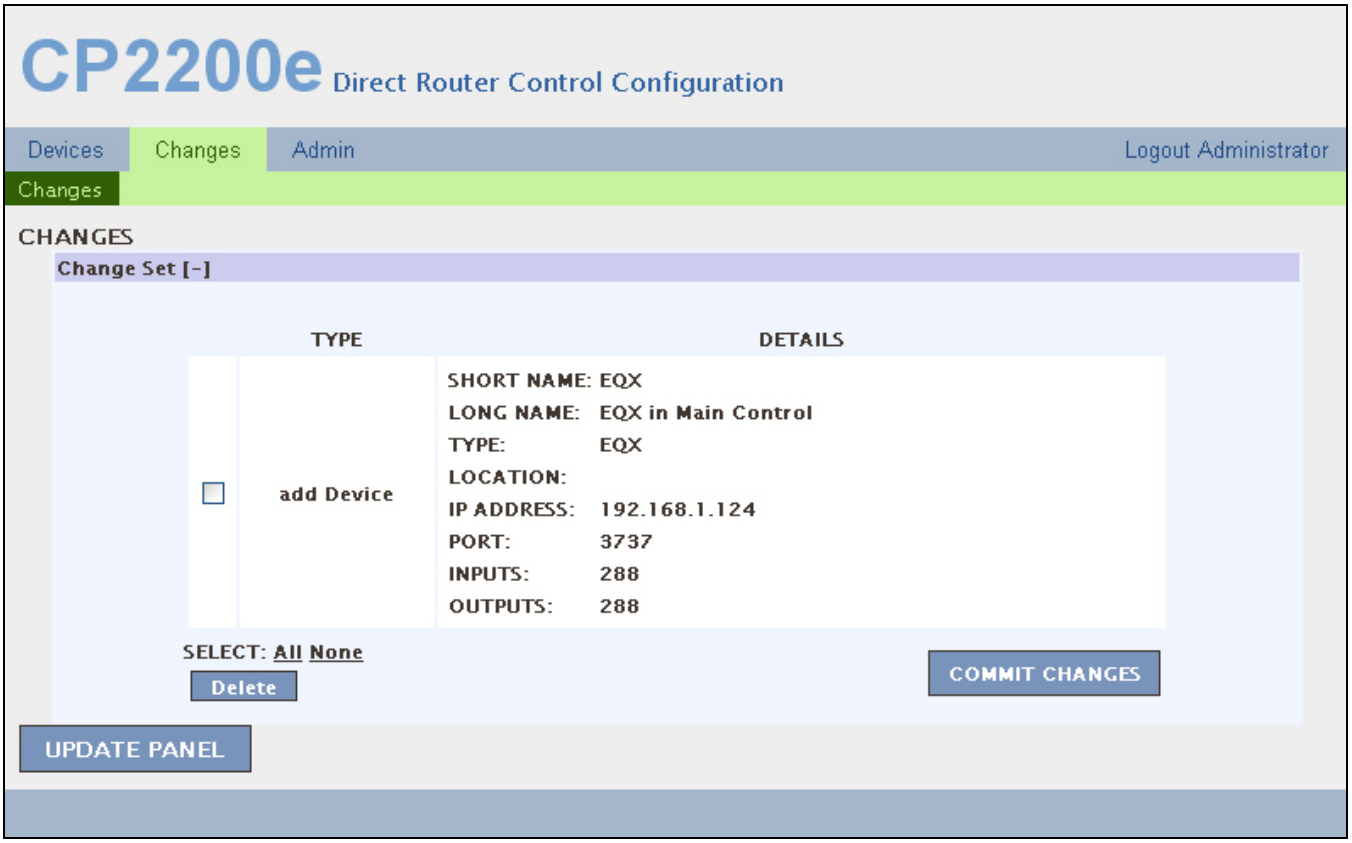


Figure 4-8: Changes

9. To update the panel, select the ***update panel*** button at the bottom of the screen. The changes will be sent to the panel and updated. The user will be informed if the update was successful.

10. Navigate back to the ***Devices*** menu and select the ***Aliases*** tab.

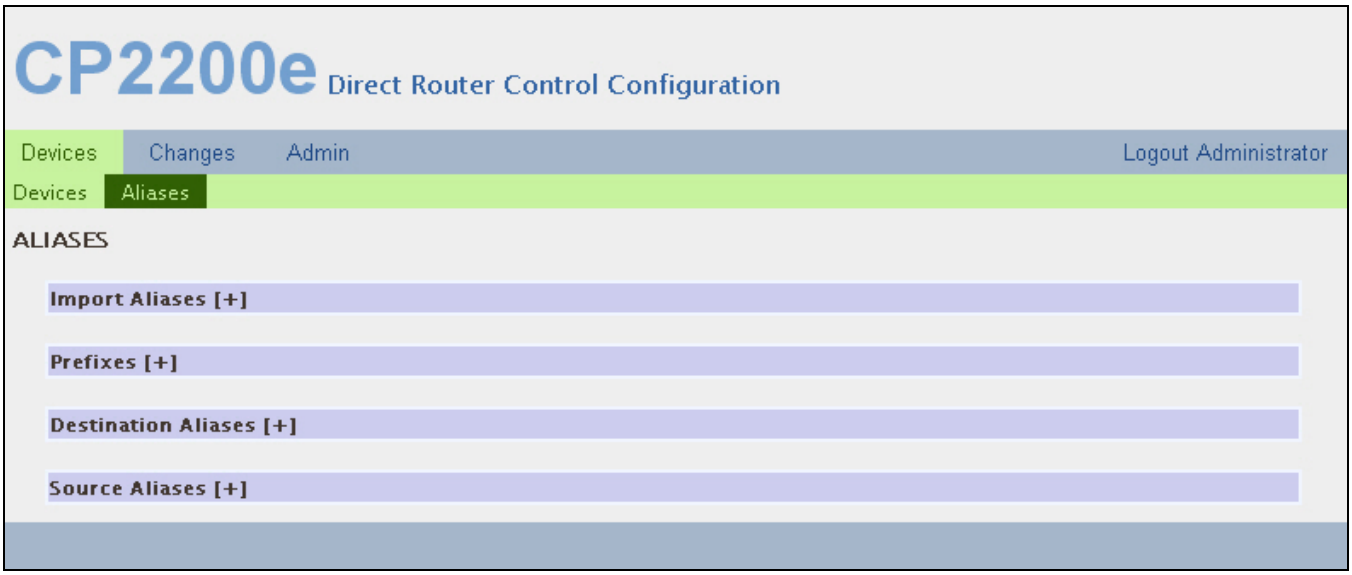


Figure 4-9: Aliases

11. The *Import Aliases* section enables the user to import an existing alias. Select the *Browse* button and navigate to the appropriate alias file. Once the file is selected and displayed in the *Import Aliases File* field, select the **IMPORT** button.

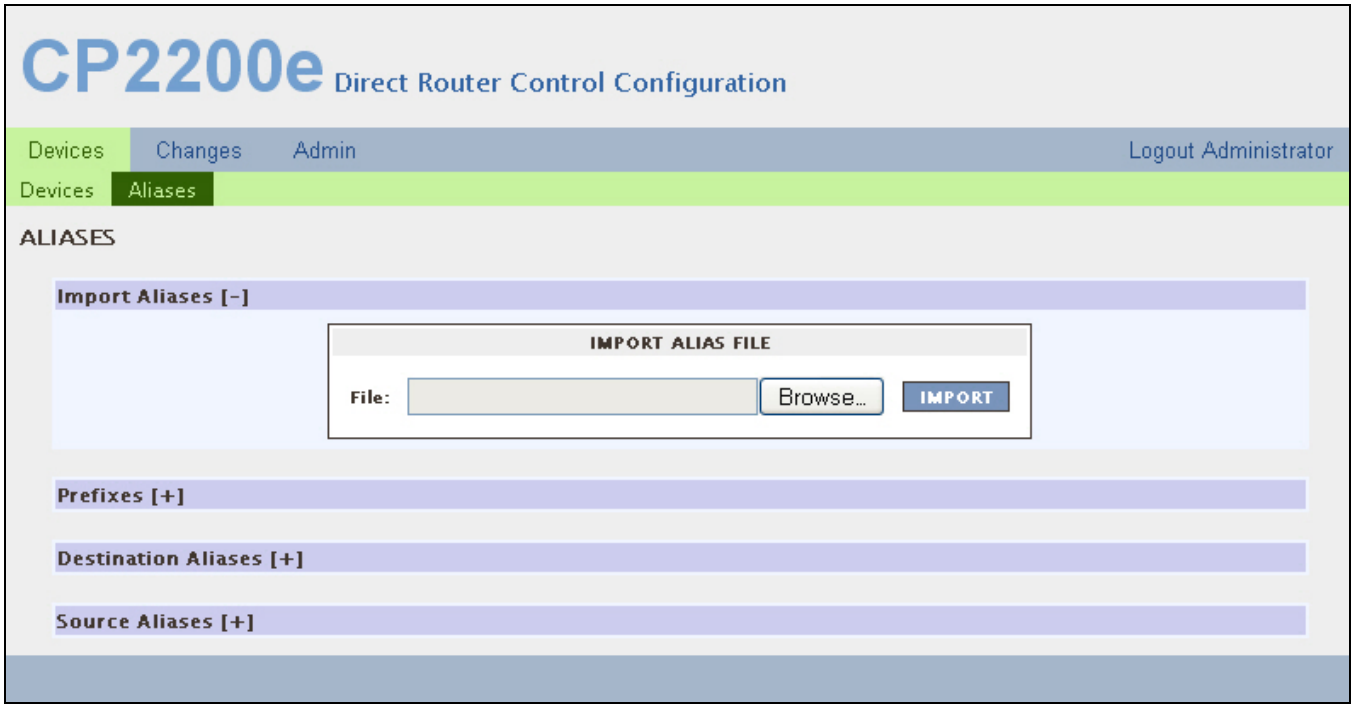


Figure 4-10: Import Aliases

12. Prefixes are used to quickly name sources and destinations (ie. IE, VTR, CAM, ENCODER, etc).

    Prefixes are also the buttons that will appear on the CP-2200E panel to quickly create routes. For example, CAM prefix will assist the user in naming sources as CAM-1 through CAM-20 and will also create a CAM prefix button on the panel.

    To create a prefix, also referred to as categories, type in the name (you are NOT limited to 3 letters, use symbols, long names, numbers) and then click the **ADD** button. The prefix will be displayed in the *Existing Prefix* field on the right. To remove an existing prefix, select the prefix from the *Existing Prefix* list and select the **DELETE** button.

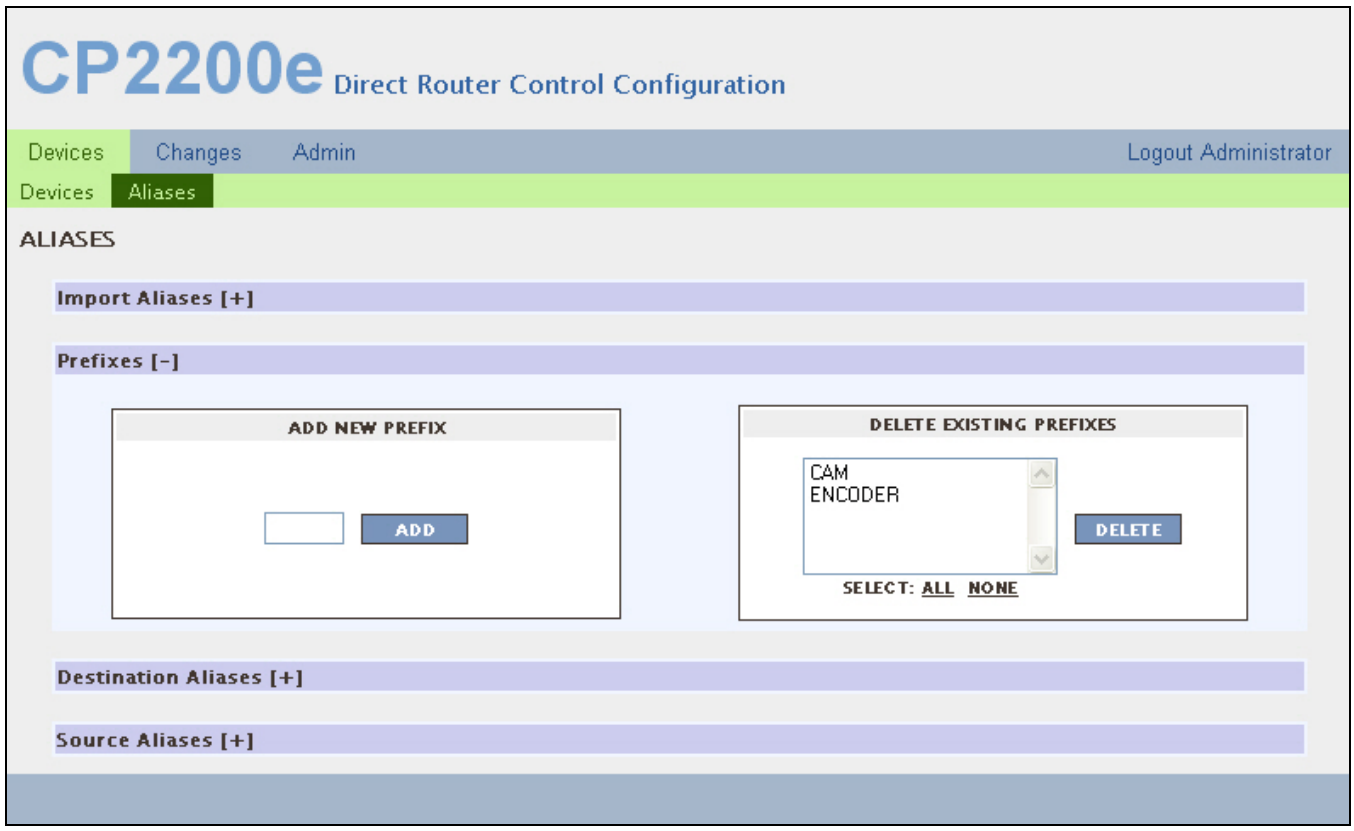


Figure 4-11: Prefixes

13. To set destination aliases, expand the *Destination Aliases* section. Using the quick alias generator you can have a prefix followed by a separator and then a suffix.
    a. The Prefix will put a "category" button on the panel under this heading, eg. VTR.
    b. The Separator can be a ***- , <space>, ****** or any number of characters eg. ***– Cleveland*Inbound Rem!!-***
    c. The Suffix is an automatically incrementing number. Starting at 1 will proceed as 2, 3, 4. Starting at 0001 will proceed as 0002, 0003, 0004, etc

    Once you are finished modifying the aliases, ensure you select the **SAVE** button to save your changes.

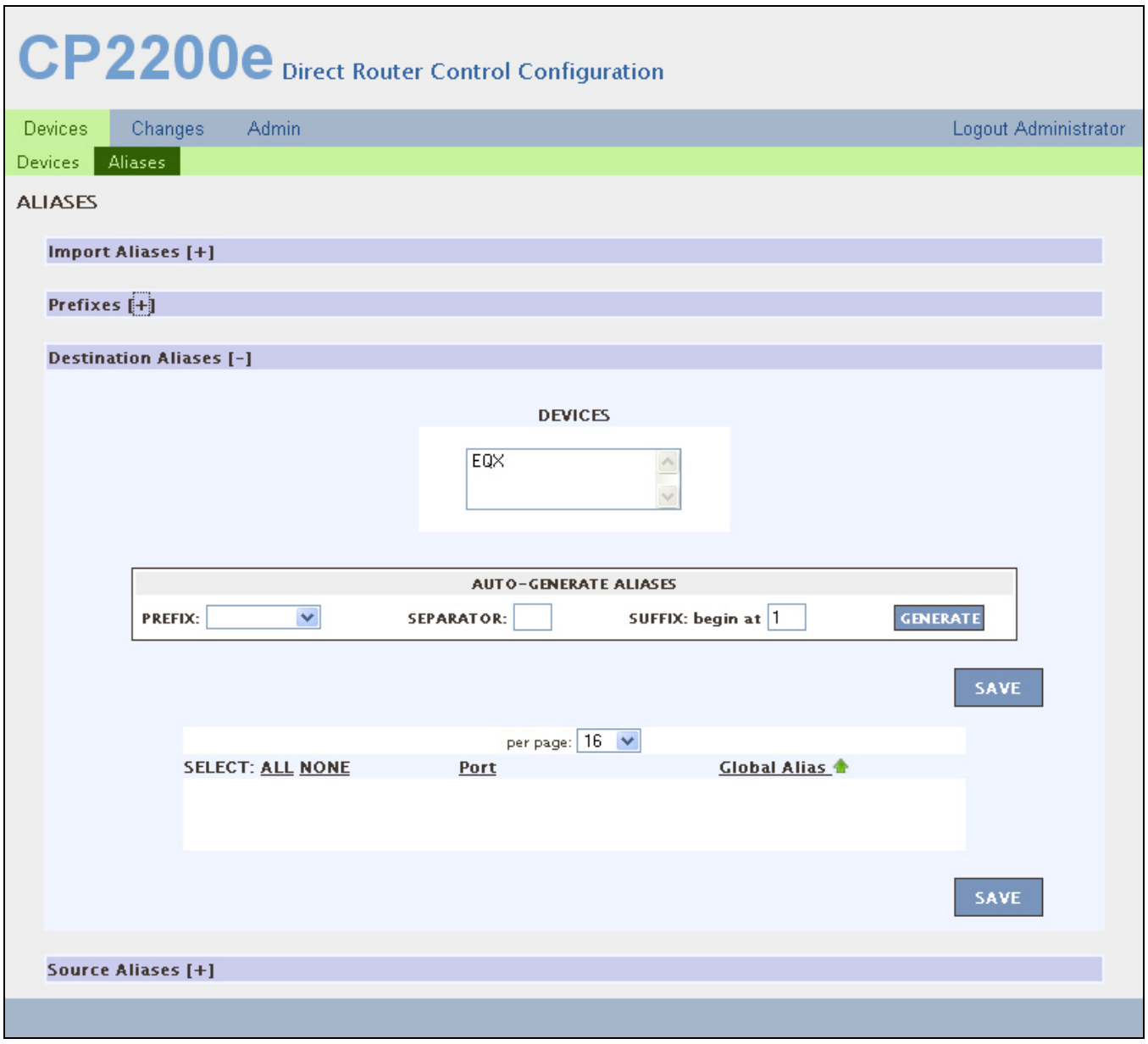


Figure 4-12: Destination Aliases

14. Follow the same procedure for *Source Aliases*. Once complete, ensure you save the configuration using the **SAVE** button.

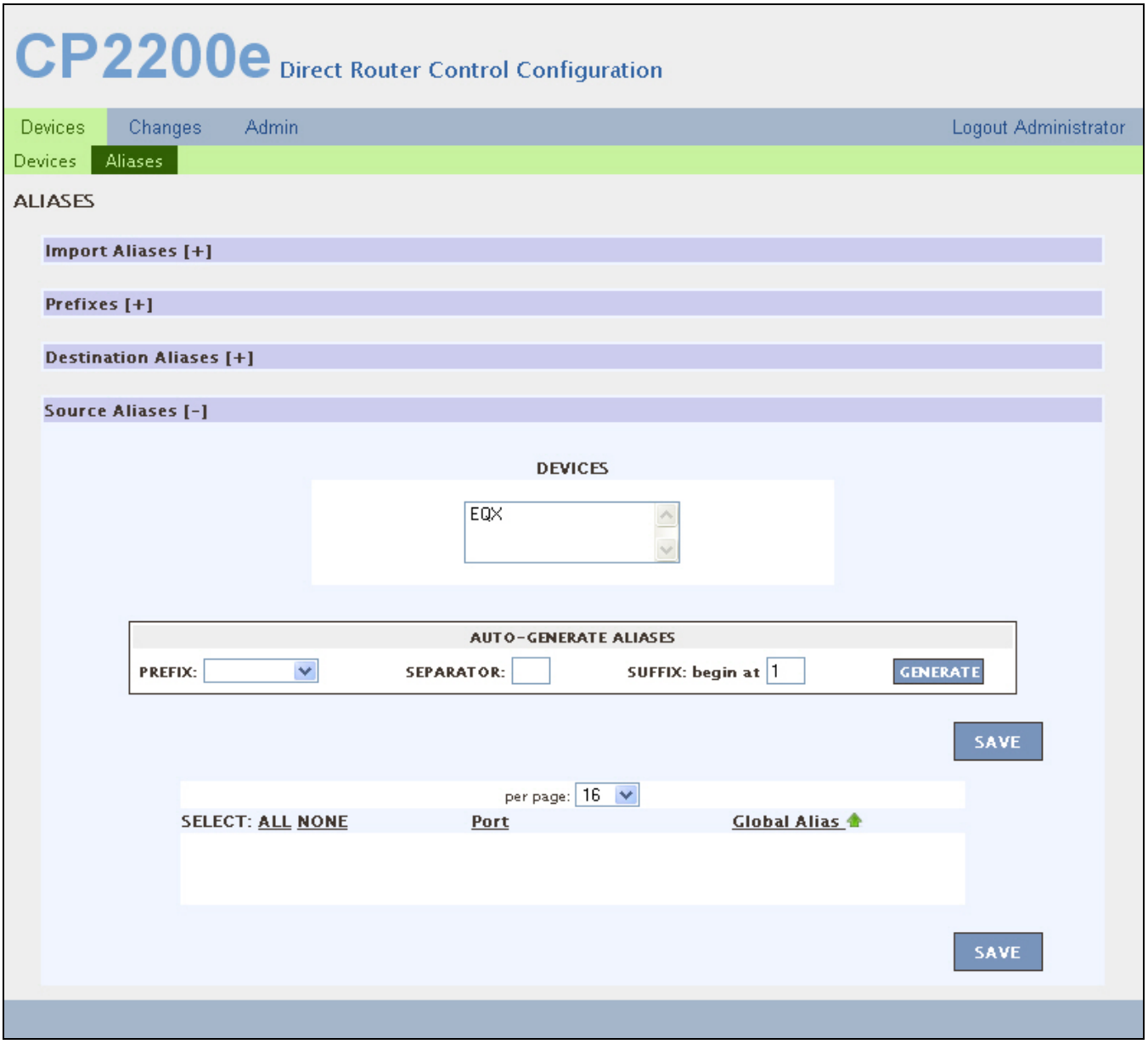


Figure 4-13: Source Aliases

15. Once complete, navigate to the **Changes** tab and place a checkmark beside any change sets that have not been applied. To apply the changes to the panel, select the ***update panel*** button at the bottom of the screen. The panel should automatically connect to the router and show the current status of the source and destinations. If not, simply return to the main page of the CP2200E and click the “restart panel software” link found on the top right of every web interface screen.

5. ADDING AN EVERTZ SYSTEM TO CONTROL

5.1. CP-2200E CONTROL OF MVP SYSTEM

Controlling an MVP system from the CP-2200E panel requires a few “one time” steps (as well as a normal procedure) to be completed on the MVP system prior to working with the CP-2200E:

1. Set up the MVP system to allow control from the CP-2200E. (This step should only be performed once upon initial setup):
    a. Ensure the MVP server is in operation.
    b. Confirm the “listen” port of the MVP server in the configuration (default is 9680)
    c. Create a canvas file for your MVP system and send it to the server. (If possible, please provide the service with the number of display cards, displays, and resolutions that can be used to assist in building a custom canvas file)
        i. Using the “Transfer scripts” button in the server, choose the remote file type of canvas. Select the *browse* button and navigate to your *canvas.vssl* file. Once selected, click the *Transfer* button. Restart the server to apply this canvas.

2. Daily operation of the MVP to allow the CP-2200E control of a layout:
    a. Open an existing layout (while connected in maestro) and select the “save as script” option. Assign a descriptive name and then click send (you will need to do this with any layout you wish to appear on the CP-2200E).

3. Set up the CP-2200E (This setup should only have to be performed once):
    a. Using the firefox browser, enter the IP address of the CP-2200E into the address field.
    b. Navigate to the *Configuration* page as shown in Figure 5-1 and click the **NEW** button.

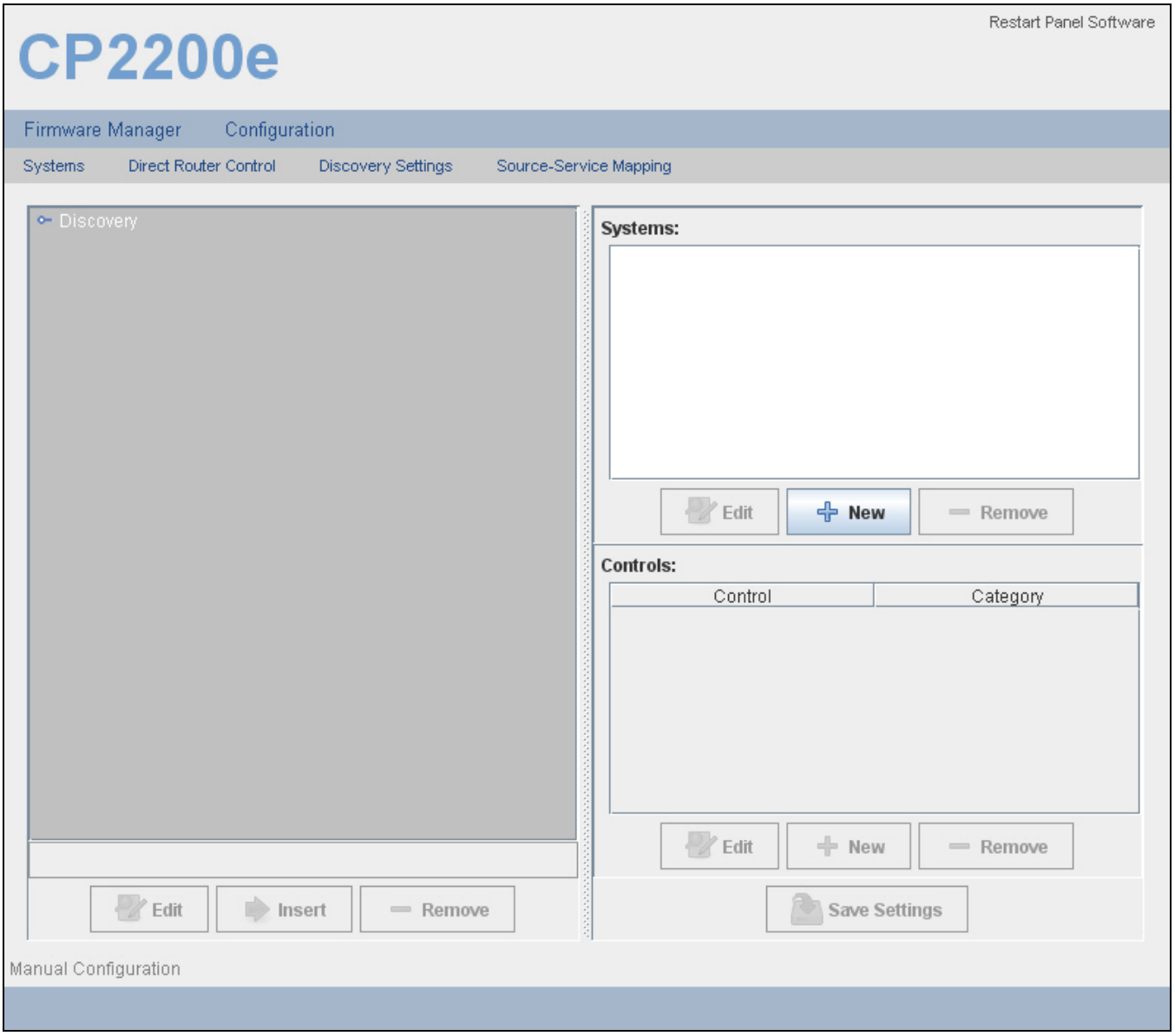


Figure 5-1: Configuration Page

c. A dialog box will appear enabling the user to create a new system. Use the *System Type* drop down menu to select the **MVP System**. The dialog box will adjust to accommodate the MVP system parameters. In the *Name* field enter a unique identifier name (this name will appear on the panel). Enter some information into the *location* field, the IP address of the MVP server system into the *Host* field and the appropriate port into the *Port* field (the default IP port for MVP systems is 9680).

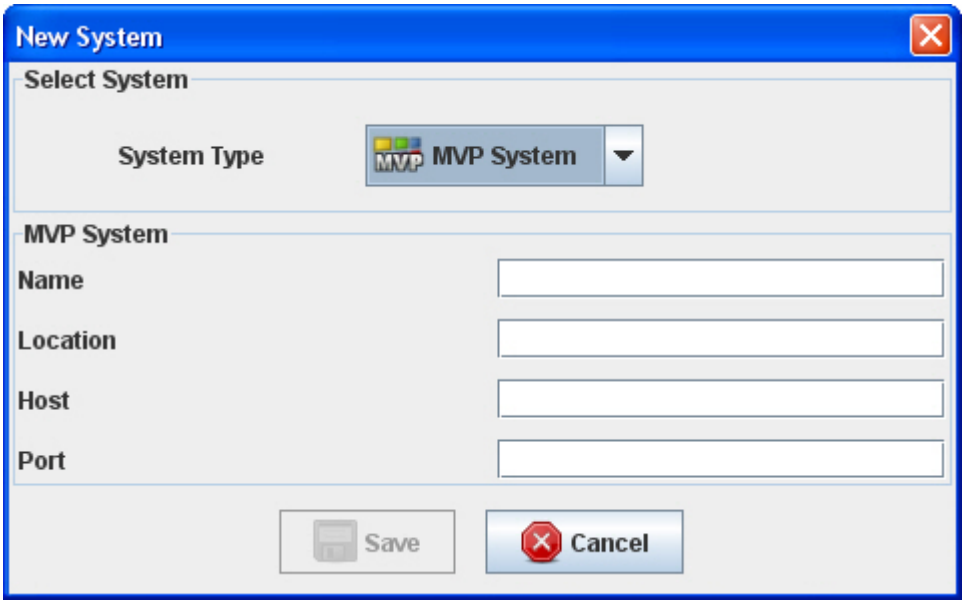


Figure 5-2: Creating a New MVP System

d. Once the user has filled out all the fields in the **New System** dialog box, select the **Save** button.
e. Click the **Save settings** button in the bottom right of the main configuration screen.
f. The MVP system will be added to the list above and a notification to restart the panel will appear. In the very top right of every page is a link to "restart panel software". Select this link and the panel software will take approximately three seconds to restart.
g. When the panel restarts, the system should be displayed on the front panel of the CP-2200E. Use the shaft encoders and soft-keys or the illuminated LEDs to select the new MVP system.

4. Daily operation of the CP-2200e (Directly using the panel)
   a. Select the MVP system from the CP2200E front panel by navigating to the appropriate system using the shaft encoders and soft-keys or illuminated LEDs.
   b. Once the list is generated, select a display from the list and click *OK.*
   c. The layout that is currently loaded will be displayed and a list of layouts that the user can load will be provided. Use the shaft encoders to toggle through the layouts. Select one of the layouts and then click the *load* button.
   d. The user can also change sources on the CP-2200E. This will allow you to pick a source that is already located on the MVP somewhere else, without making routes. The user can select which audio to route to the monitor outputs. Furthermore, it will allow the user the ability to view thumbnails generated in real-time from the VIP/VIPX/VIPA/MVP attached to the system.
   e. To configure the CP-2200E for thumbnails, browse to the configuration page and choose **Discovery Settings**. At the very bottom of this page there is a space for the user to enter information for a thumbnail server (the thumbnail server is an optional component of VistaLINK® Pro. Please contact your sales representative if you have not purchased the thumbnail server option). See Figure 5-3.

5.2. ADDING SNMP SERVICES

This section will guide the user through the set up of SNMP services. SNMP services are parameters from one or several pieces of terminal equipment that you wish an operator to control from the CP-2200E panel. Parameters from multiple cards can be added and categorized for easy access and control.

This setup should only have to be performed during initial configuration:

1. In the *Configuration* page, navigate to the **Discovery Settings** menu and set the appropriate discovery settings for the panel.

2. In the **Ranged Discovery** section, enter the network range that the panel is to do its discovery in. See Figure 5-3. Once the range is entered, select the **Discover** button. This process takes approximately 1 minute or less.

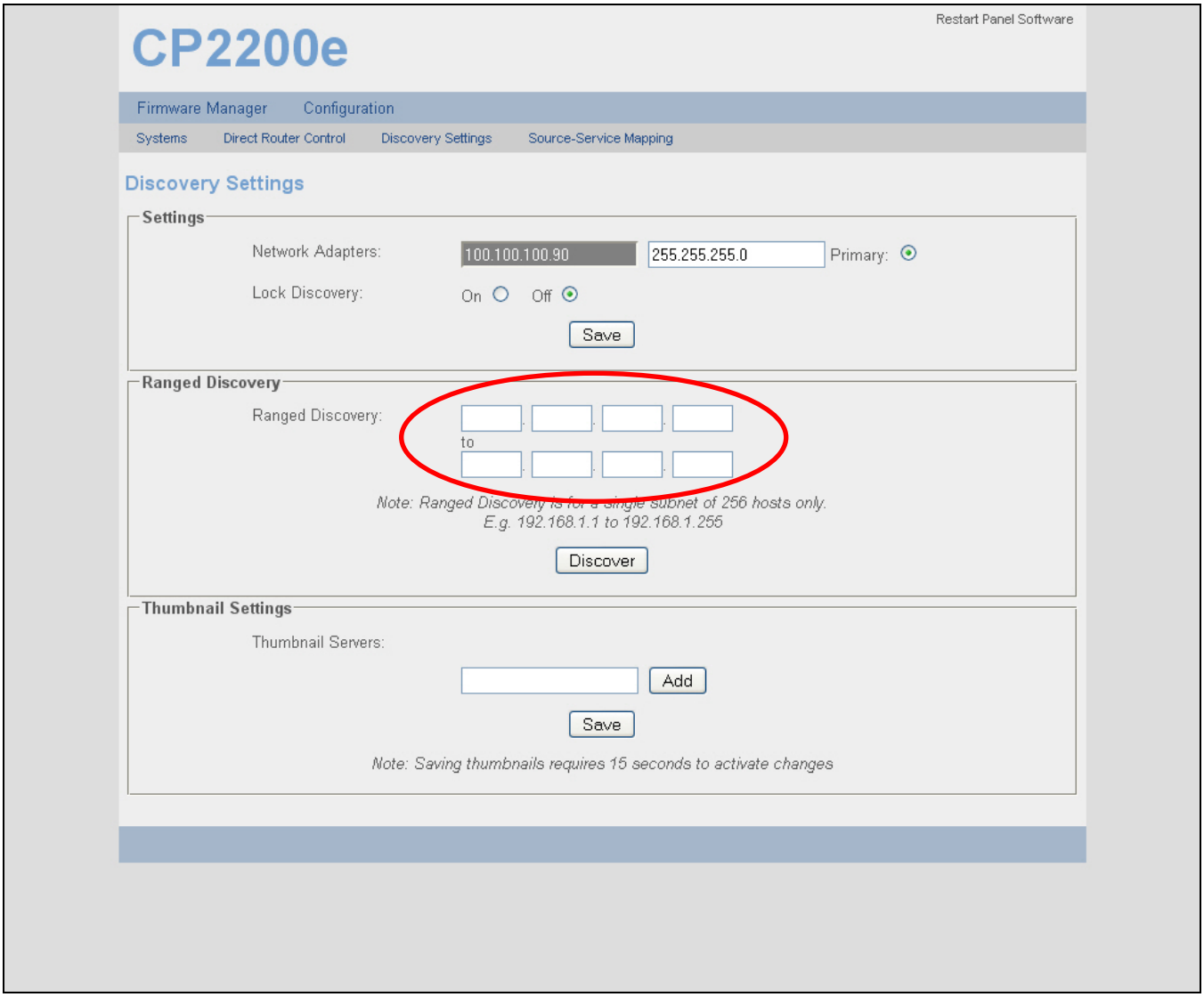


Figure 5-3: Discovery Settings Page

3. Once the discovery procedure is complete, navigate back to the *Configuration* page and select the **NEW** button.

4. A dialog box will appear enabling the user to create a new system. Use the *System Type* drop down menu to select the **SNMP Service**. The dialog box will adjust to accommodate the SNMP Service parameters. In the *Name* field enter a unique identifier name (this name will appear on the panel). Once the parameters are set for the SNMP Service, select the **Save** button.

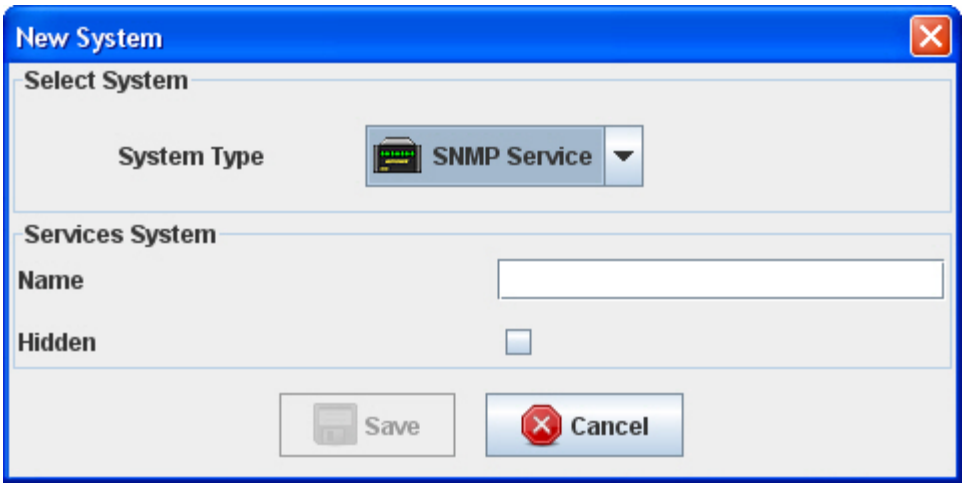


Figure 5-4: Add SNMP Service

5. Once the SNMP Service is selected, navigate to and insert the desired parameters using the discovery hardware tree on the left. With the system selected in the *systems* pane, use the discovery hardware tree to add parameters to the system. Select the parameters from the discovery hardware tree and add them to the System by highlighting the desired parameter and then clicking the **INSERT** button. By holding down the *Ctrl* button you can select multiple parameters at the same time. Once the parameter is inserted, it will be displayed in the *Controls* pane.

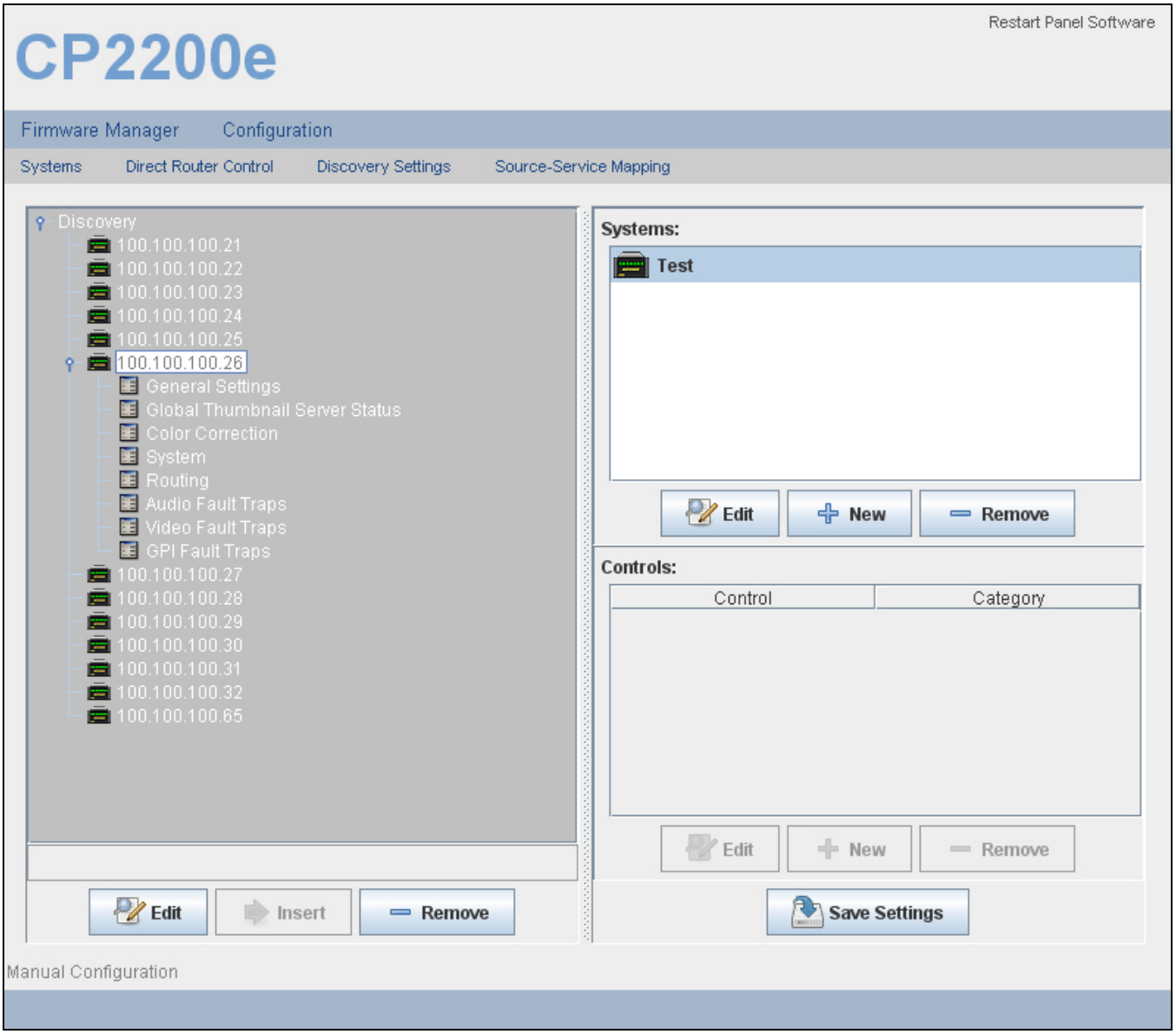
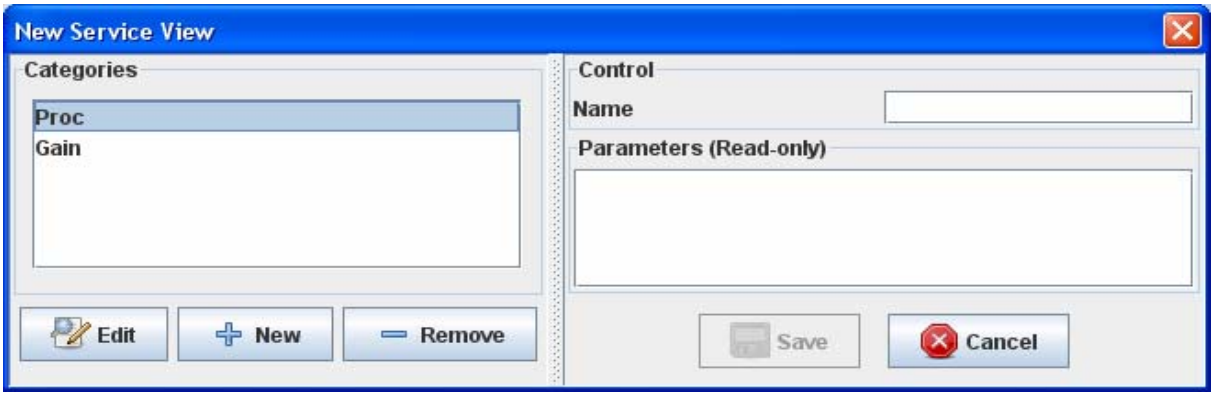


Figure 5-5: Hardware Tree

6. If you wish to add categories to an SNMP service (ie. groupings of parameters), the user must highlight the control in the controls pane and then select the **Edit** button.

7. If categories already exist, the user can use the delete or edit controls to modify the categories. To create a new category, select the **New** button and fill in the appropriate fields. Once complete, select the **Save** button. From the *Controls* pane, the user will be able to double click on the individual parameters and select a category to assign one to that specific control. The ***categories*** menu will list all of the categories that you created. Be sure to click the ***save*** button below ***Controls*** to save your changes.



8. Once the configuration is complete, ensure that the **Save Settings** button is selected. In the very top right of every page is a link to "restart panel software". Select this link and the panel software will restart in approximately three seconds.

9. Once restarted, the CP-2200E will display the updated system configuration. The user will be able to view the canvas' and adjust the sources, categories and parameters of the CP-2200E.

5.3. ADDING AN EQX SERVER

All router management of the CP-2200E for use in an EQX Server based system is done through the EQX Server WCT (web config tool). Please see the EQX Server manual for details on working with the CP-2200E panel in that respect.

1. To add an EQX server, the user must open a firefox browser and enter the IP address of the CP-2200E in the address field.

2. Navigate to the *Configuration* page using the tabs at the top of the screen and then click the **NEW** button.

3. A *New System* dialog box will appear enabling the user to create a new system. Use the *System Type* drop down menu to select the **EQX Server**. The dialog box will adjust to accommodate the EQX Server parameters. In the *Name* field enter a unique identifier name (this name will appear on the panel). Enter the IP address of the EQX server host into the *Host* field. Enter the appropriate port into the *Port* field. ***The port is ALWAYS 8765***

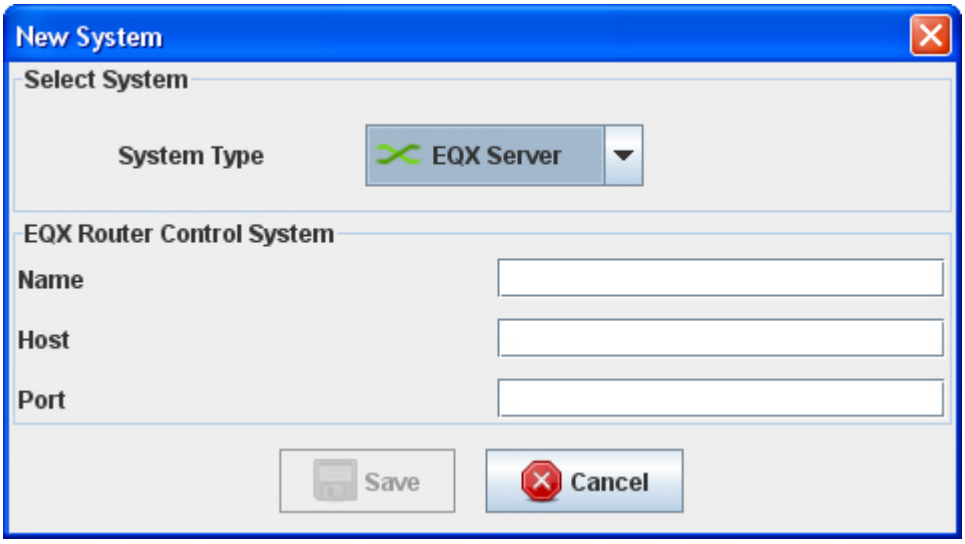


Figure 5-6: Add EQX Server

4. Once the user has filled out all the fields, select the **Save** button in the **New System** dialog box. Once you return to the main configuration window, click the **Save Settings** button on the bottom right-hand side of the main configuration screen. In the very top right of the page is a link to "restart panel software". Select this link and the panel software will take approximately three seconds to restart. When the panel restarts, the user can use the shaft encoders and soft-key buttons to toggle to the new EQX system configuration.

5.4. SETTING THE THUMBNAILS

If you wish to have thumbnails available as a system (instead of having to retrieve them through the MVP section) you may add them as follows:

1. Navigate to the *Configuration* page and click the **NEW** button.

2. A *New System* dialog box will appear enabling the user to create a new system. Use the System Type drop down menu to select the **Thumbnails** option. The dialog box will adjust to accommodate the Thumbnail parameters. In the *Name* field, enter a unique identifier name (this name will appear on the panel).

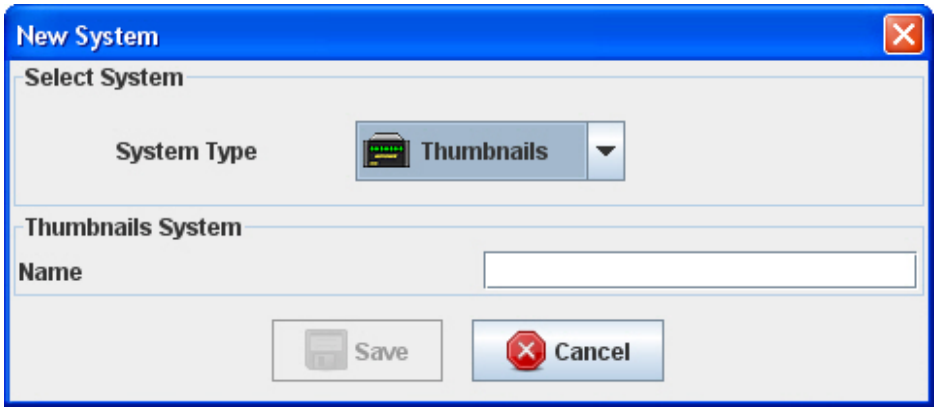


Figure 5-7: Add Thumbnails

3. Once the user has filled out all of these fields, select the **Save** button in the **New System** dialog box. Once you return to the main configuration window, click the **Save settings** button in the bottom right of the main configuration screen. In the very top right of every page is a link to "restart panel software". Select this link and the panel software will take approximately three seconds to restart. When the panel restarts, the user can use the shaft encoders and soft-key buttons to toggle to the Thumbnail system configuration.

5.5. ADDING A DISCOVERY SYSTEM

Using the web configuration interface, the user can create a Discovery system. Discovery mode (similar to VistaLINK Pro) will enable all SNMP hardware capable of being controlled by the CP-2200E to be discovered and ALL parameters within each piece of hardware will be available to access (instead of controlling this with SNMP Services discussed earlier). This is very often an excellent tool for engineers as Services may have only the most used or popular parameters for a card whereas the discovery allows complete access to all parameters.

1. To create a discovery system, navigate to the *Configuration* page and click the **NEW** button.

2. A *New System* dialog box will appear enabling the user to create a new system. Use the System Type drop down menu to select the **Discover** option. The dialog box will adjust to accommodate the Thumbnail parameters. In the *Name* field enter a unique identifier name (this name will appear on the panel).

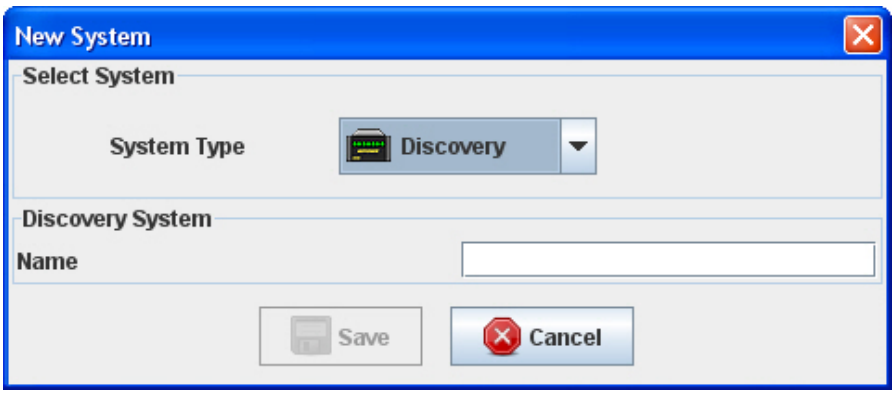


Figure 5-8: Add Discovery

3. Once the user has filled out all fields, select the **Save** button in the **New System** dialog box. Once you return to the main configuration window, click the **Save settings** button in the bottom right of the main configuration screen. In the very top right of every page is a link to "restart panel software". Select this link and the panel software will take approximately three seconds to restart. When the panel restarts, the user can use the shaft encoders and soft-key buttons to toggle to the Discovery system configuration.

5.6. CREATING SOURCE-SERVICE MAPPING

Source-Service mapping is a unique and powerful tool in the EQX Server and CP-2200E system. The process is simple. Create SNMP services and then choose the routing device and source port to attach the service to. In this way, SNMP Services (and therefore Terminal gear parameters) can be accessed from within the EQX Server portion of the CP-2200E and users do not have to filter through long lists looking for the correct Service name.

1. The following items will be required before you begin:
    a. The PRECISE "short name" from the EQX Server for the router containing the input or output you wish to map a service to.
    b. The PRECISE port number (in other words the numerical input) the service should be mapped to. This number should be entered without any preceding zeros. Enter the number one as: 1 not 001.
    c. A Service created and saved on the CP-2200E panel.

2. On the Source-Service mapping page click the plus sign to create a new mapping.

3. Enter the PRECISE "short name" of the router device to map to.

4. Enter the port number (the numerical input) to map to.

5. Either type in the name of the SNMP service created earlier, or select it from the drop down box.

6. Once selected, click the *save* button.

7. When you are finished mapping the SNMP Services be sure to click the "Restart Panel Software" link found at the top of each page.

8. When in the EQX Server section of the CP-2200E panel, if a route is made using a source with a Source-Service Mapping, click the "info" button to show a button labelled "Proc". Clicking the "Proc" button once it is displayed will lead the user to the SNMP service you created.

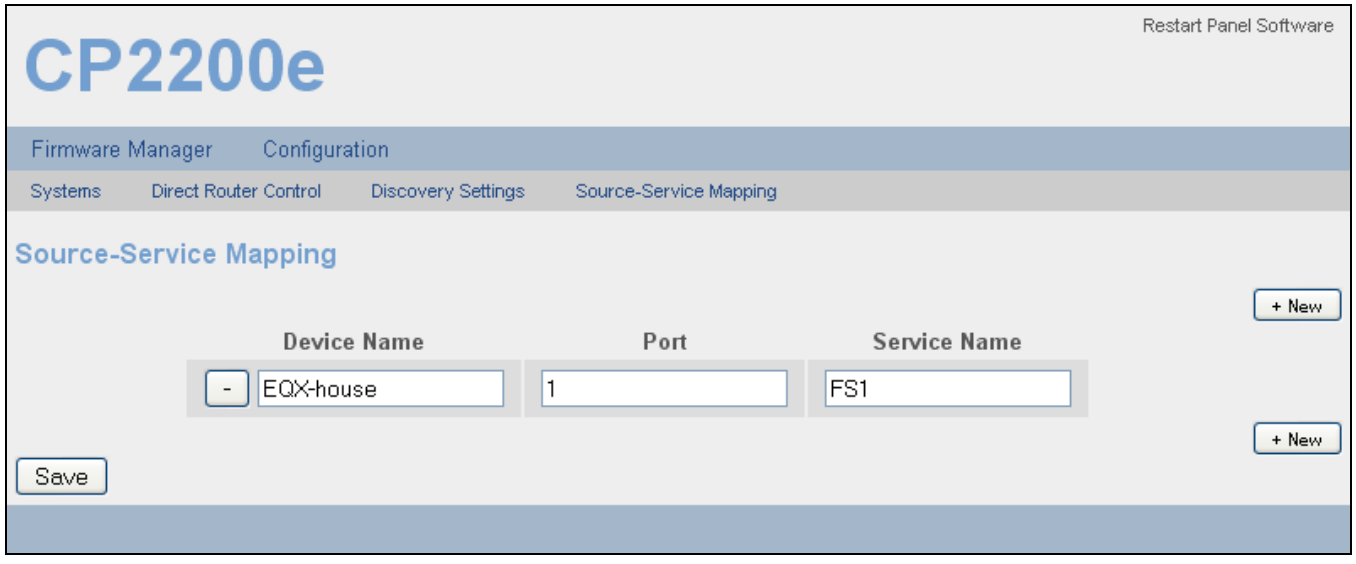


Figure 5-9: Source-Service Mapping

6. TECHNICAL DESCRIPTION

6.1. SPECIFICATIONS

6.1.1. Control

Q-Link:	75Ω coaxial cable 500m max. length BNC connector per IEC 61169-8 Annex A
Ethernet:	10/100 base T.RJ45 connector
Serial RS232/422:	D9 female
Parallel (Joystick Override):	D9 male, TLL levels

6.1.2. Electrical

Voltage:	Autoranging 100 - 240 Volts AC, 50/60 Hz
Power:	80W
Fuse Rating:	250 V, 4 amp, time delay

6.1.3. Physical

Dimensions:	19“ W x 3.5” H x 12” D. (483mm W x 89mm H x 300mm D)
Weight:	10 lbs. (4.5Kg)
Operating Temp:	0-40°C

6.1.4. Compliance

Safety:	ETL Listed, complies with EU safety directives
EMI/RFI:	Complies with FCC Part 15 Class A regulations Complies with EU EMC directive

6.2. SERVICING INSTRUCTIONS

These servicing instructions are for use by qualified service personnel.

6.2.1. Changing the Fuses

The fuse holders are located inside the power entry module. To change the fuses, pull out the fuse holder from the power entry module using a small screwdriver. The fuse holder contains two fuses, one for the line and one for the neutral side of the mains connection. Pull out the blown fuse and place a fuse of the correct value in its place. Use slo blo (time delay) 5 x 20 mm fuses rated for 250 Volts with a current rating of 4 amperes. Carefully reinsert the fuse holder into the power entry module.

Never replace with a fuse of greater value.

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