

# USER MANUAL

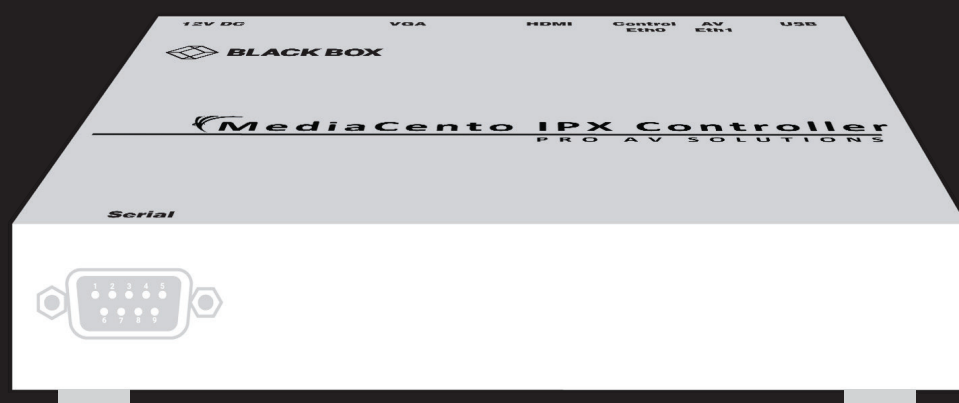
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VSW-MC-CTRL

# MEDIACENTO IPX CONTROLLER

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24/7 TECHNICAL SUPPORT AT 1.877.877.2269 OR VISIT [BLACKBOX.COM](http://BLACKBOX.COM)



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## CHAPTER 1: SPECIFICATIONS

TABLE 1-1. MEDIACENTO IPX CONTROLLER SPECIFICATIONS

SPECIFICATION	DESCRIPTION
Approvals	FCC, TUV, CE, UL®, CSA, RoHS2, WEEE
Ethernet	Network controller: (2) RJ-45 (10/100/1000 Mbps)
Connectors	(1) HDMI, (1) VGA, (2) RJ-45, (2) USB 2.0, (1) DB9 RS-232 console port
Indicators	(1) Power LED, (2) Network Connection LEDs
Environmental	Temperature Tolerance: Operating: 32 to 140° F (0 to 60° C); Humidity Tolerance: Operating: 5–95%, noncondensing
Power Supply	Input: 100–240 VAC, 60 Hz, 0.5 A; Output: 12 VDC, 1.5 A
Dimensions	1.23"H x 6.13"W x 5.13"D (3.12 x 15.57 x 13.03 cm)
Weight	1.1 lb. (0.5 kg)

TABLE 1-2. DEFAULT SETTINGS

SETTING	DEFAULT
user name	admin
password	BBNSMediaCento

## CHAPTER 2: OVERVIEW

### 2.1 INTRODUCTION

The MediaCento™ IPX Controller provides full control over the IP based MediaCento IPX transmitters and receivers. It turns the system into an IP-based matrix switch and video wall controller. A Web interface enables users to switch from any source to any display, create presets, and combine multiple receivers into a video wall. Users can control and switch the video wall zones remotely. The system's mobile support enables users to easily access and activate presets from a cell phone or tablet device. And because the system is IP-based, it does not have any port limits and can potentially support hundreds of devices and video walls up to 8 x 8 (64 screens).

### 2.2 FEATURES

- ◆ Control IP-based MediaCento IPX Transmitters and Receivers.
- ◆ Provides an intuitive user interface.
- ◆ Includes Web app and mobile support.
- ◆ Enables you to control video walls up to 8 x 8 (64 screens).

### 2.3 WHAT'S INCLUDED

Your package should include the following items. If anything is missing or damaged, contact Black Box Technical Support at 877-877-2269 or [info@blackbox.com](mailto:info@blackbox.com).

- ◆ MediaCento IPX Controller
- ◆ Power supply with power cord
- ◆ Quick Start Guide

### 2.4 ADDITIONAL ITEMS YOU WILL NEED

- ◆ MediaCento IPX Transmitters and Receivers



## 2.5 HARDWARE DESCRIPTION

Figure 2-1 and 2-2 show the front and back panels of the MediaCento IPX Controller. Table 2-1 describes its components.



FIGURE 2-1. FRONT PANEL OF THE MEDIACENTO IPX CONTROLLER

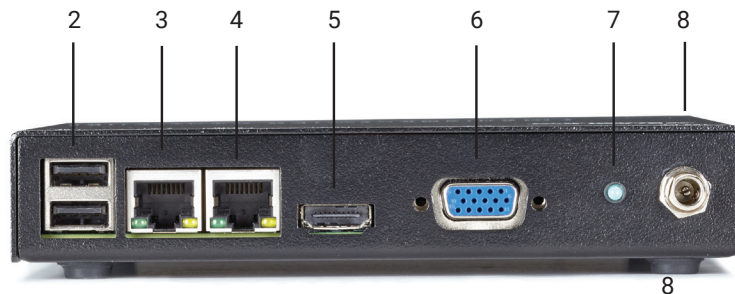


FIGURE 2-2. BACK PANEL OF THE MEDIACENTO IPX CONTROLLER

TABLE 2-1. MEDIACENTO IPX CONTROLLER COMPONENTS

NUMBER IN FIGURE 2-1 OR 2-2	COMPONENT	DESCRIPTION
1	(1) DB9 male connector	RS-232 console port
2	(2) USB Type A connectors	Links to USB devices
3	(1) RJ-45 connector	Links to AV network
4	(1) RJ-45 connector	Links to control network
5	(1) HDMI connector	Connects to HDMI
6	(1) HD15 connector	Connects to VGA
7	(1) Power LED	Lights when power is ON
8	(1) Power connector	Connects to 12-VDC power supply

## CHAPTER 3: INSTALLATION

1. Connect the AV port (Eth1) to the AV network with the connected MediaCento endpoints.
2. (Optional) If using a separate control network, connect the control port (Eth0) to the network your PC or control device is connected to.
3. Power on the MediaCento IPX Controller by plugging in the power supply.



## CHAPTER 4: USER INTERFACE PAGES

### 4.1 LOGIN PAGE

Connect through your preferred Web browser to access the controller's Web interface in the following ways:

1. If the same Ethernet interface is used for both the MediaCento IPX endpoints and your control PC, you should be connected to Eth1 and you will have to access the default IP address, "169.254.1.1".
2. If you are using the optional Control port to control the system from a secondary network, your PC should be connected to Eth0 and you will have to access the default IP address, "192.168.10.10".

When first connecting to the MediaCento IPX Controller, you need to enter a user name and password. By default, the main user is "admin" and the main password is "BBNSMediaCento."



FIGURE 4-1. LOGIN SCREEN

## CHAPTER 4: USER INTERFACE PAGES

### 4.2 DASHBOARD

The dashboard is where the user can check the status of the controller as well as see which each receiver is currently connected to which transmitter. The main use of the dashboard will be to view status and change presets. Changing presets is done easily by selecting the preset in the drop down menu and confirming the switch. Each preset also has a note that can be entered for non-experienced users to easily find and switch the units.

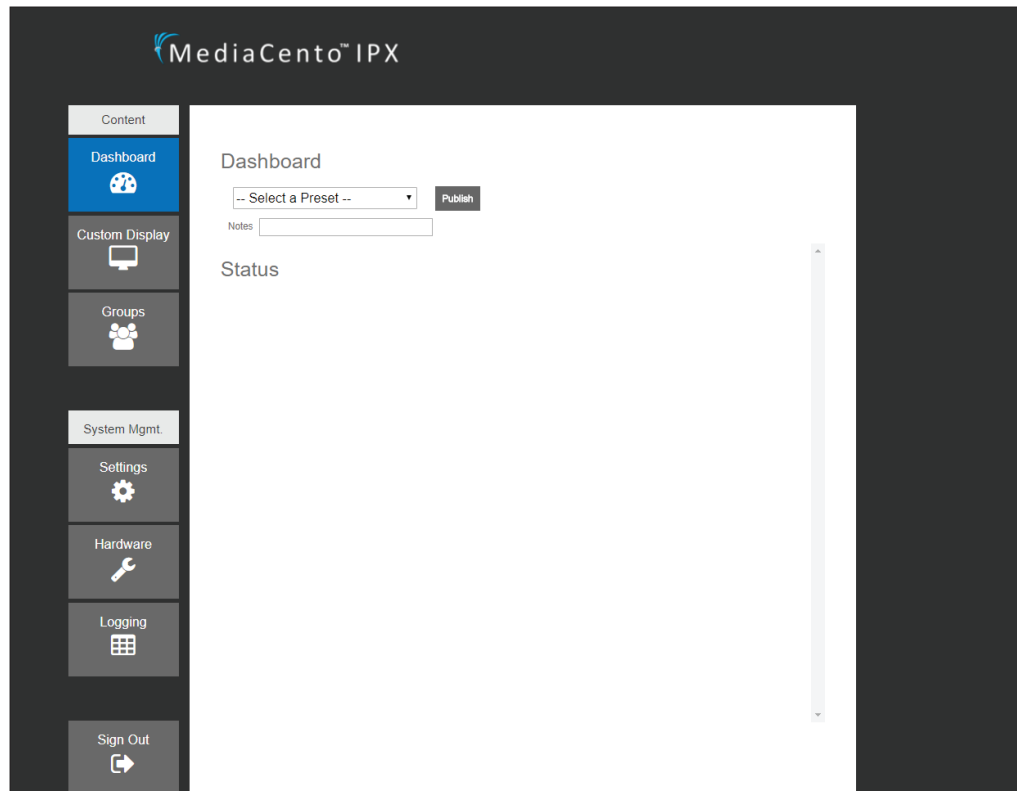


FIGURE 4-2. DASHBOARD SCREEN



## CHAPTER 4: USER INTERFACE PAGES

### 4.3 CUSTOM DISPLAY

The custom display page is where specific switching is done as well as setting up presets, if desired. The matrix in the middle is easy to use with receivers/groups and video walls along the left of the matrix and transmitters (sources) along the top. To switch, simply select the box that matches the desired receivers to the correct transmitters and confirm the switch. To set up presets, switch the units to the desired layout, confirm the switch, and save the preset. When saving a preset, a name and note can be linked to it for ease of use for all users.



FIGURE 4-3. CUSTOM DISPLAY SCREEN

## CHAPTER 4: USER INTERFACE PAGES

### 4.4 GROUPS

The groups page is where groups and video walls are created from a number of receivers. To create a group, select the desired receivers and put them into the right column. The group can be named and saved now or turned into a video wall. To create a video wall out of the group, check the video wall checkbox. This will open up an additional window below where you can enter the number of rows and columns, as well as bezel information. You can drag and drop receivers in the group from the list to the left of the video wall diagram. Bezel information is a ratio and units does not matter as long as the same units are used for all bezel information.



FIGURE 4-4. GROUPS SCREEN



FIGURE 4-5. VIDEO WALL SCREEN

## CHAPTER 4: USER INTERFACE PAGES

### 4.5 SETTINGS

The settings page is where the controller specific settings can be changed. This currently includes the IP addresses of both the control and video networks.



FIGURE 4-6. SETTINGS SCREEN

## CHAPTER 4: USER INTERFACE PAGES

### 4.6 HARDWARE

The hardware page is where new MediaCento IPX units are detected and configuration on them is done. Detecting new units can take up to 30 seconds but it will find and display every MediaCento IPX unit seen on the network. Receivers are listed on the left and transmitters on the right. Each unit can be given a specific name which is connected to the IP address. This is suggested to make it easier to switch correct units. To correctly identify each unit OSD (On Screen Display) can be triggered. This will display the IP address as well as any name currently given to a receiver on the display it is connected to.

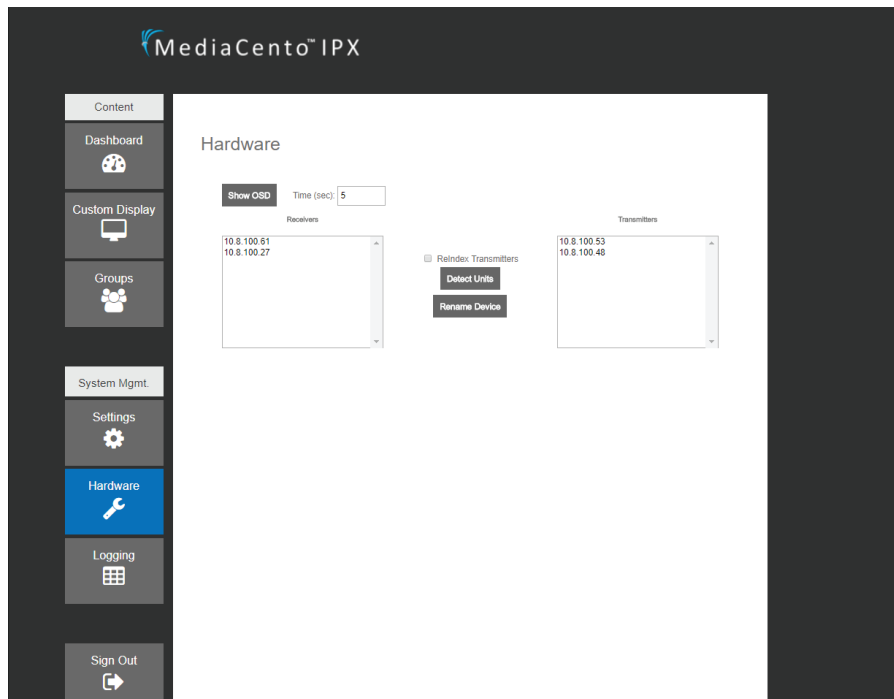


FIGURE 4-7. HARDWARE SCREEN

## CHAPTER 5: ADVANCED COMMANDS

When first connecting to the MediaCentro IPX Controller, you need to enter a user name and password. By default, the main user is "admin" and the main password is "BBNSMediaCentro."



FIGURE 5-1. LOGIN SCREEN

1. Connect to the unit's control port through the default IP address: 169.254.1.1
2. A blank Dashboard page will be shown:

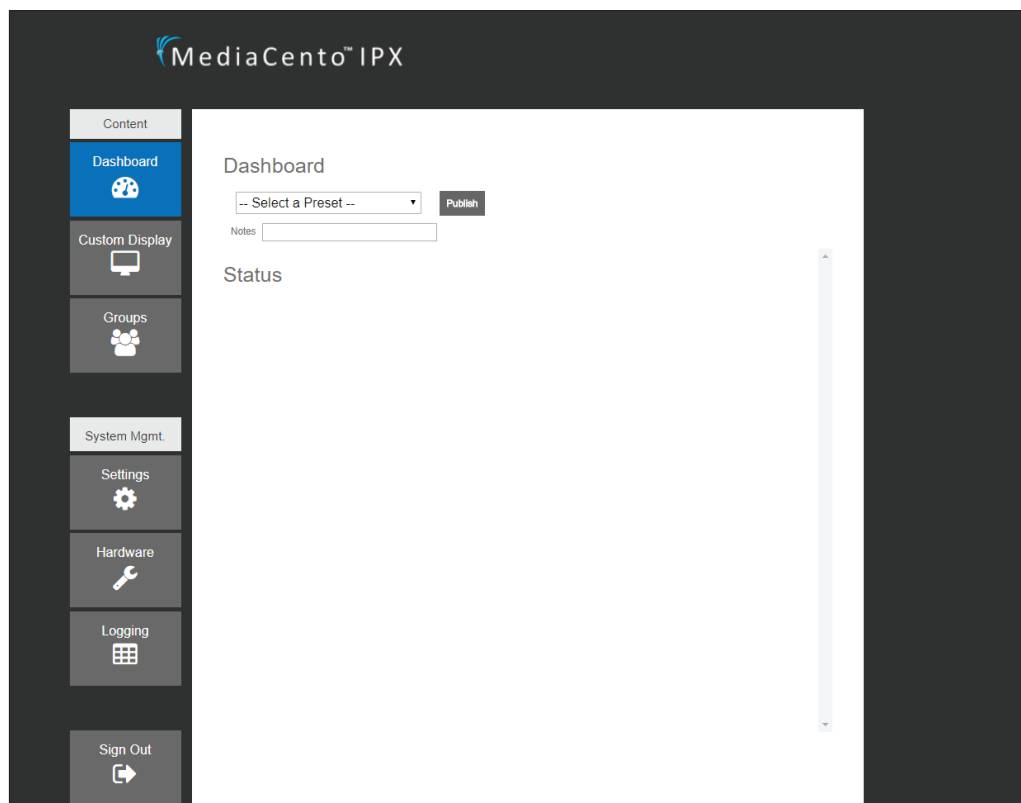


FIGURE 5-2. BLANK DASHBOARD PAGE

# CHAPTER 5: ADVANCED COMMANDS

3. Start by adjusting the controller's IP addresses on the Settings page:

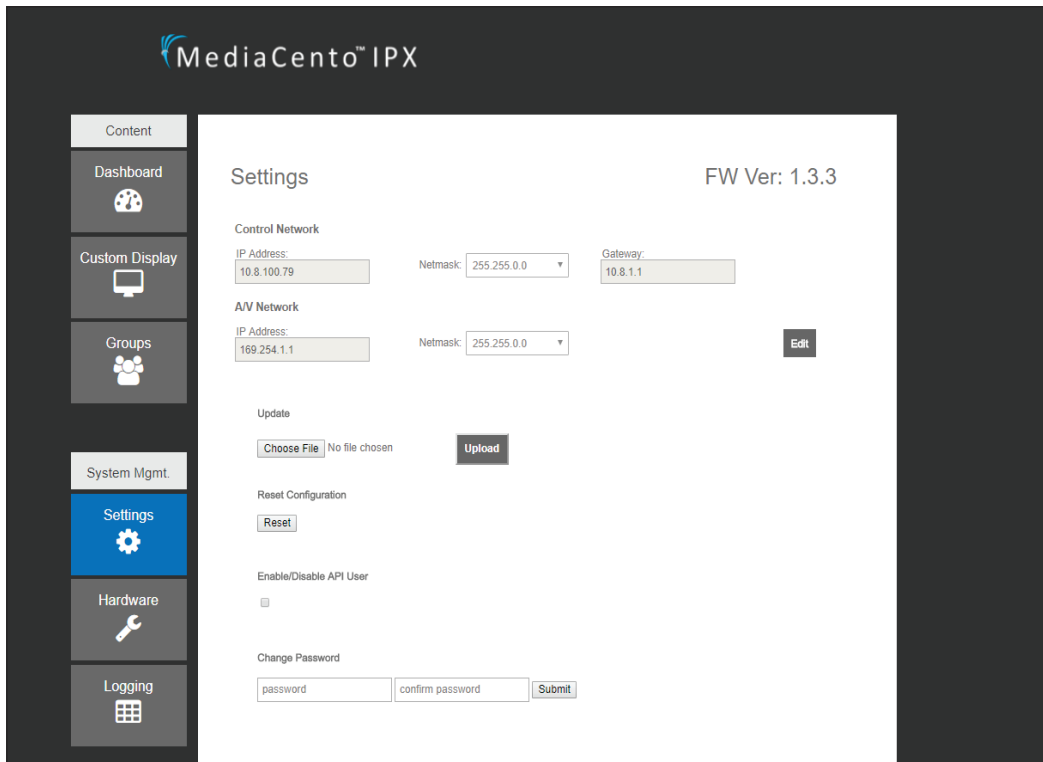


FIGURE 5-3. SETTINGS PAGE

4. Once the IP settings have been configured, select the hardware page:

5. Select the detect units button. This process will take approximately 30 seconds to complete:

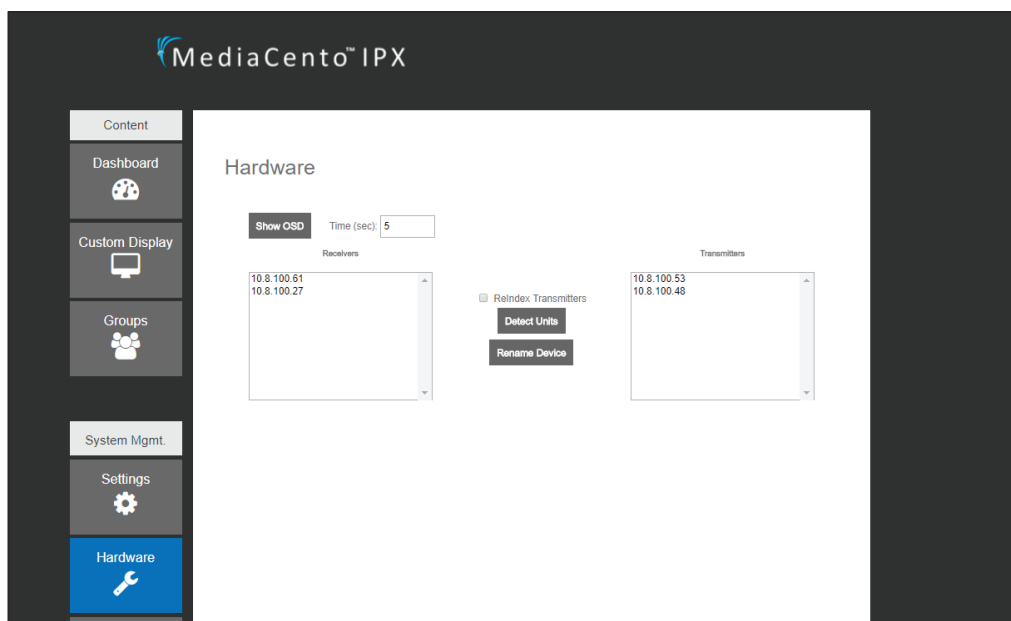


FIGURE 5-4. DETECT HARDWARE SCREEN

## CHAPTER 5: ADVANCED COMMANDS

- Once completed, all detectable MediaCentro IPX units will be displayed in the columns, receivers in the left and transmitters in the right.
- You can rename any device by selecting it and clicking "Rename Device". In order to more easily tell which receiver has which IP address, an OSD button will show the IP address of every connected unit:

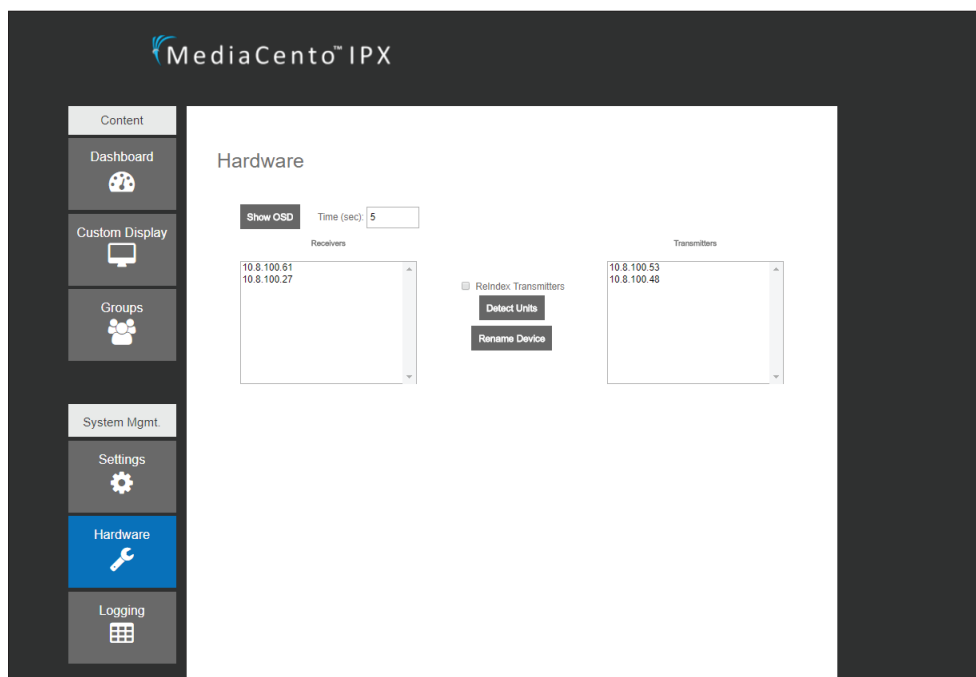


FIGURE 5-5. HARDWARE SCREEN

- After all units are named accordingly, groups and videowalls can be configured in the Groups page:



FIGURE 5-6. GROUPS PAGE



# CHAPTER 5: ADVANCED COMMANDS

- 9. Select which receivers will be in a group or videowall and bring them to the right column:
- 10. The group can be saved now as individual multicast selections or made into a video wall by selecting the "Make Wall" checkbox:
- 11. To create a videowall, first input the number of rows and columns are desired, as well as the information for bezel compensation:
- 12. Once set, simply drag and drop the list of receivers on the left to the appropriate spot on the diagram and save:

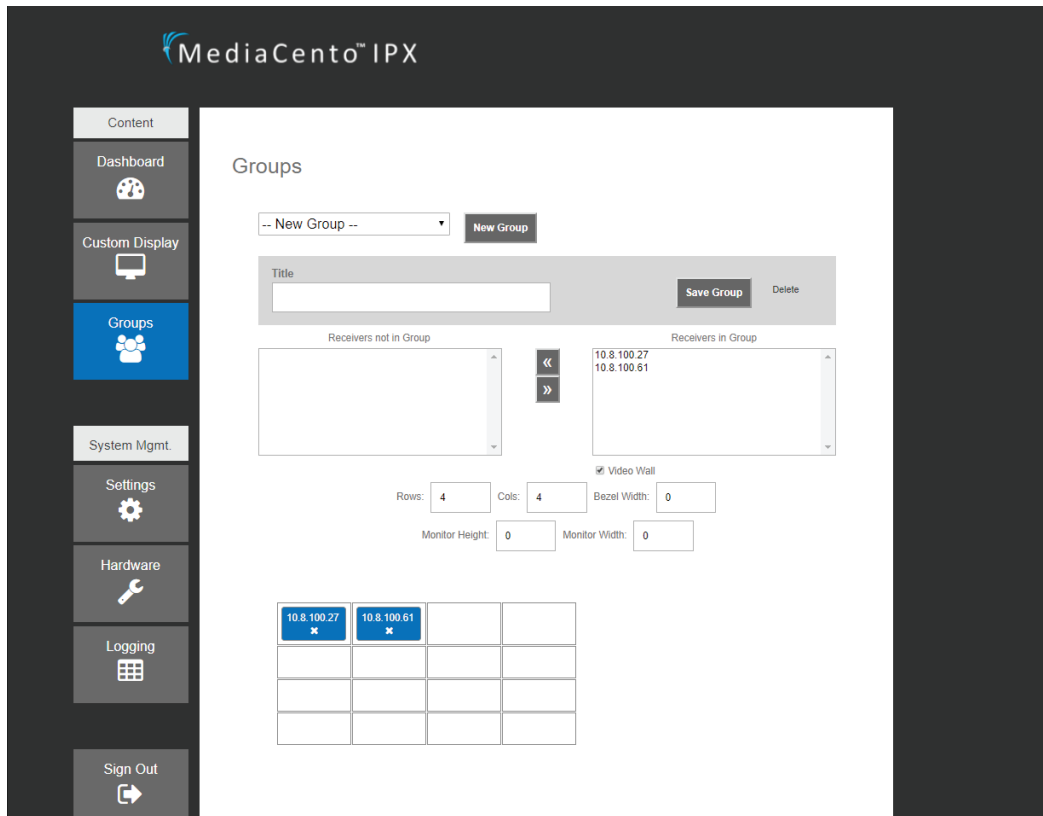


FIGURE 5-7. VIDEO WALL SCREEN

## CHAPTER 5: ADVANCED COMMANDS

13. To start switching video signals and set up presets go to the Custom Display page. The names and IP addresses along the top are transmitters and along the left are receivers:



FIGURE 5-8. CUSTOM DISPLAY SCREEN

14. To switch a receiver between transmitters, simply select the row of your receiver and select the column of the transmitter you want connected to it. Once completed, click the switch button. Switching takes a few seconds for all control commands to be sent safely.

## CHAPTER 6: APPLICATION PROGRAM INTERFACE (API)

To enable API functionality, navigate to the “Settings” tab and check the box under “Enable/Disable API User.” Enabling this setting will allow the default API user of your MediaCentro Controller the ability to receive API commands. API commands are sent via http. To send a command, type the API command into a web browser using values specific to your MediaCentro Setup.

All variables in API commands are based on the predefined information from the MediaCentro Controller Web Interface. Groups and Presets have to be defined before calling an API command. If a transmitter or receiver are not named, then their IP address (periods Included) will be used in the API calls.

### DEFAULT API CREDENTIALS

Username: apiuser

Password: apipass2015

### SWITCH ONE RECEIVER TO TRANSMITTER

<http://bbox.local.net/bbapi/v1/apiuser/switchrx?u=apiuser&p=apipass2015&t=tx1&r=rx1>

\*\*Replace bbox.local.net with hostname or IP address of MediaCentro Controller box

Parameters:

u = API Username

p = API Password

t = Transmitter Name

r = Receiver Name

### SWITCH GROUP TO TRANSMITTER

<http://bbox.local.net/bbapi/v1/apiuser/switchgroup?u=apiuser&p=apipass2015&t=tx1&g=g1>

\*\*Replace bbox.local.net with hostname or IP address of MediaCentro Controller box

Parameters:

u = API Username

p = API Password

t = Transmitter Name

g = Group Name

### ACTIVATE A PRESET

<http://bbox.local.net/bbapi/v1/apiuser/switchpreset?u=apiuser&p=apipass2015&preset=p1>

\*\*Replace bbox.local.net with hostname or IP address of MediaCentro IPX Controller box

parameters:

u = API Username

p = API Password

preset = Preset Name

### EXAMPLES

<http://10.8.10.1/bbapi/v1/apiuser/switchpreset?u=apiuser&p=apipass2015&preset=preset1>

<http://10.8.10.1/bbapi/v1/apiuser/switchrx?u=apiuser&p=apipass2015&t=169.254.3.68&r=169.254.2.3>

## APPENDIX A: REGULATORY INFORMATION

### A.1 FCC STATEMENT

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.



## APPENDIX A: REGULATORY INFORMATION

### A.2 NOM STATEMENT

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser conectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra física y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las líneas de energía.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objetos líquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
  - A: El cable de poder o el contacto ha sido dañado; u
  - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
  - C: El aparato ha sido expuesto a la lluvia; o
  - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
  - E: El aparato ha sido tirado o su cubierta ha sido dañada.

## APPENDIX B: DISCLAIMER/TRADEMARKS

### B.1 DISCLAIMER

Black Box Corporation shall not be liable for damages of any kind, including, but not limited to, punitive, consequential or cost of cover damages, resulting from any errors in the product information or specifications set forth in this document and Black Box Corporation may revise this document at any time without notice.

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**NOTES**

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