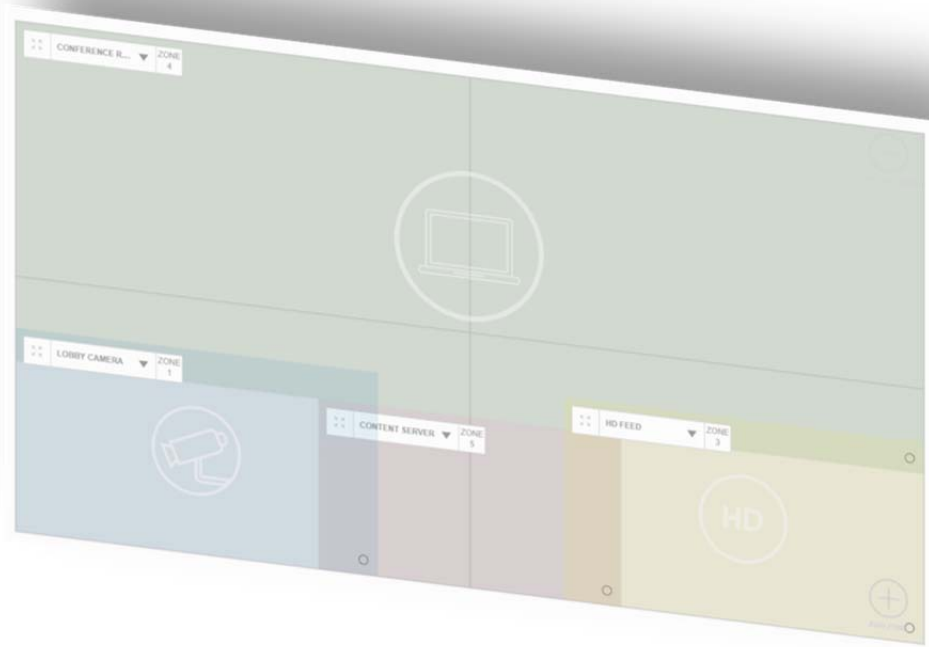


WallDirector-RPS and Video Controller



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Manual Part Number: 020-1341-00B

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Introduction

The Leyard Video Wall System includes a Web User Interface to get the optimum performance of the panels connected to the system. There are two additional user interfaces, the On Screen Display and the Video Controller Front Panel Display, that have similar functionality to the WallDirector™ Web UI and are useful during installation, depending on how the final system is installed. This manual provides a full description of each of these three interfaces and the functionality of the commands within each interface, with an emphasis on the WallDirector software.

WallDirector UI

The WallDirector software is a web browser-based user interface accessed through the WAN/LAN connection on the video wall system. To use the WallDirector software, you must configure the equipment accessing the web-based software to be on the same network as the WallDirector and use the IP address of the system master. Refer to the specific product's *Installation Guide* for how to configure a system master.

You can locate the IP address of the master in one of the following ways:

- Video controller front panel display
- On-Screen Display (OSD)
- RS232 command protocol (refer to the *RS232 Guide* for connection information and commands)

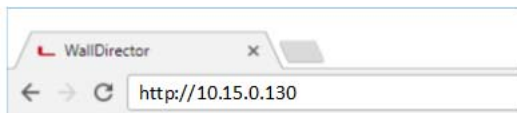
You can also use the OSD and RS232 command protocol to set up the network configuration prior to accessing the system with the WallDirector software.

After you have connected your equipment to the same network as the video wall, follow these steps to access the WallDirector software:

- 1 Open a supported Web browser:
 - Google Chrome™ v.62 or later
 - Microsoft Edge v.15 or later
 - Mozilla® Firefox® v.57 or later
 - Apple® Safari® v.11 or later

Note: Other browsers or versions may work; however, the performance of any other than listed above has not been validated by the factory.

- 2 Enter the IP address of the system master in the address bar and click the **Go** button. This loads a locally hosted system web page into the browser.



Establishing a LAN Connection (Windows)

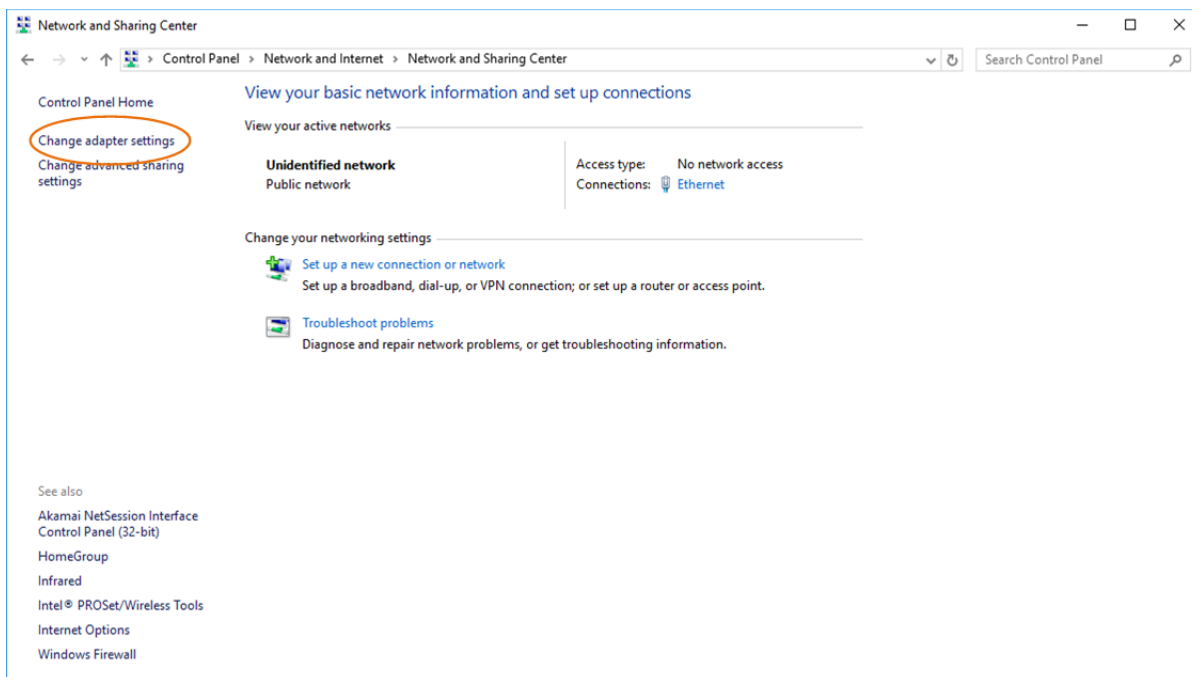
In the absence of a DHCP network, the WallDirector software may still be used with a local PC connected to the system network. To do this, a physical LAN connection between the PC and the system will need to be made by an Ethernet cable plugged into a component that has been set as the master.



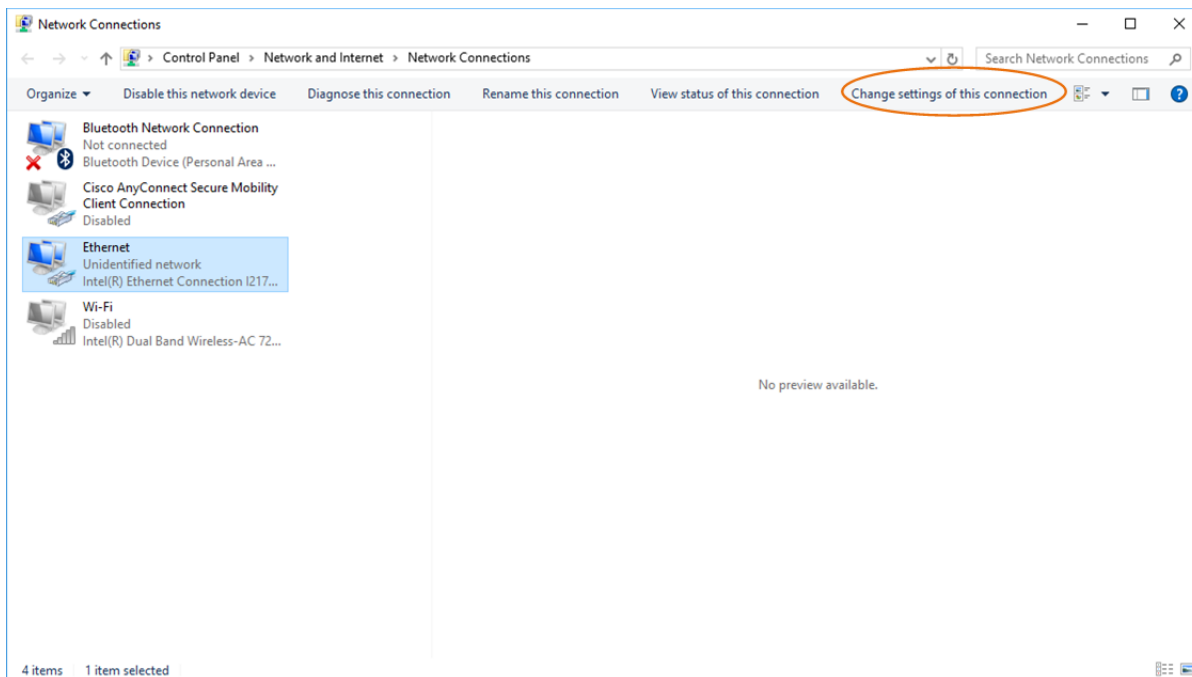
The default IP address for the master is 192.168.12.12. If a supported browser is unable to connect to this address, it may be necessary to configure the network parameters on the PC to make sure it is on the same network as the system. Follow the steps below for a Windows-based system to set up these parameters.

Note: This process works for systems where the default IP address has been changed; however, the data entered below will be specific to the changed IP address. Refer to the serial commands on how to obtain the network configuration data.

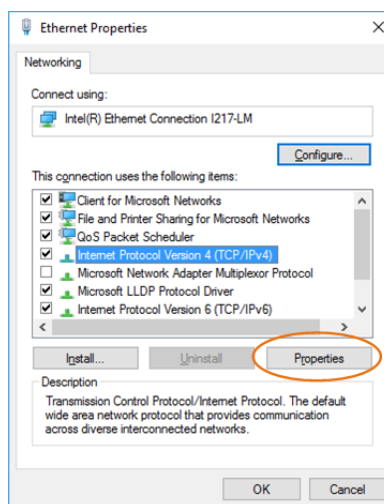
- 1 On the PC, open the Control Panel and browse to **Network and Internet > Network and Sharing Center** and choose **Change adapter settings**.



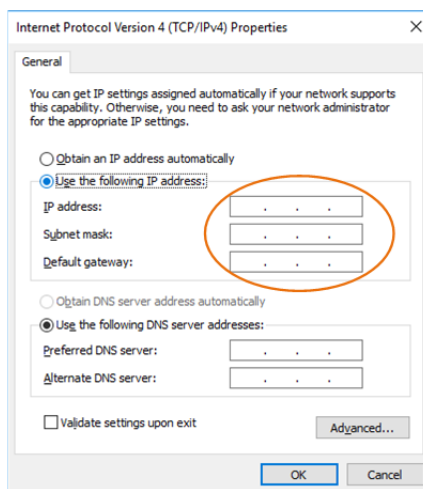
- 2 Select the adapter that is connected to the system master and click **Change settings of this connection**.



- 3 Select **Internet Protocol Version 4 (TCP/IPv4)** and click the **Properties** button.



- 4 In the dialog box that opens, select the **Use the following IP address** option and enter the following data:



IP address: 192.168.12.10
 Subnet mask: 255.255.255.0
 Default gateway: 192.168.12.1

Note: Any IP Address between 192.168.12.1 and 192.168.12.254 may be entered except for 192.168.12.12.

- 5 Click **OK** and close the previous windows for the changes to take effect. Access to the system master will now be available via the default IP address.

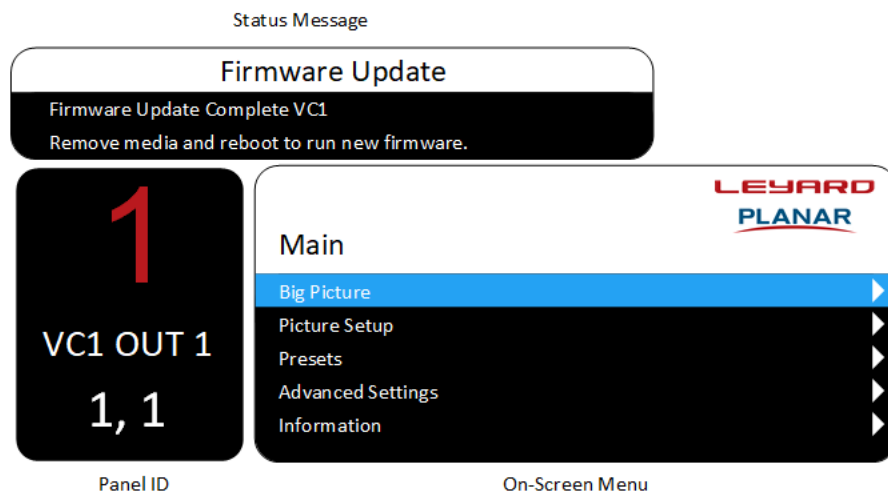
For details on using the WallDirector, see "WallDirector Web UI" on page 11.

On-Screen Display (OSD)

The OSD is accessed through an IR sensor connected to the video wall system with the remote control. The IR sensor can be connected to any piece of equipment within the system; however, for best functionality, connection to the system master is recommended. See the *Installation Guide* for IR sensor installation. The OSD is comprised of three distinct parts: the On-Screen Menu (OSM), Panel ID and Status Message. The OSM is capable of doing most functions within the system, except there are significant limitations to image layout capabilities. Using the WallDirector software for layout is recommended.

For details on using the OSM, see "OSM" on page 84.

OSD



Video Controller Front Panel Display

The front panel display is on every video controller in the system. The front panel display is accessed through the front panel keypad next to the front panel display. Each is capable of accessing the system parameters found in the display for all components in the system. It is not necessary to use the front panel display on each component.

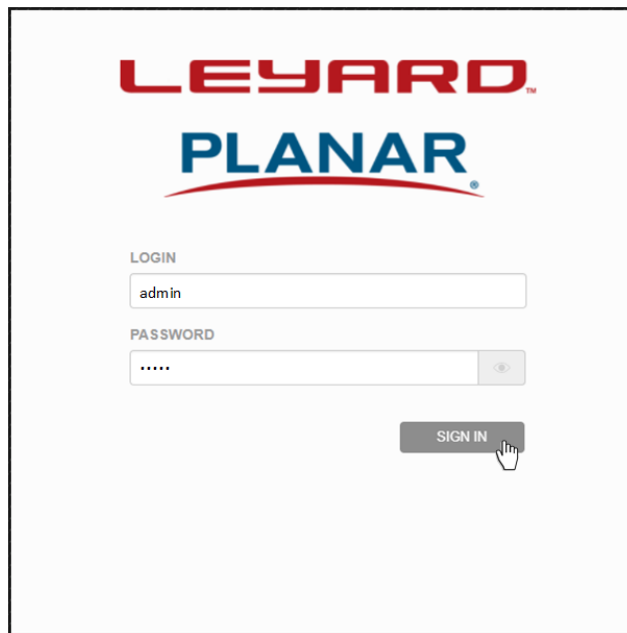
The front panel display includes a limited set of parameters that can be changed.

For details on using the front panel display, see "Video Controller Front Panel" on page 122.



WallDirector Web UI

When a new session is started by opening a web browser window and directing it to the appropriate IP address, the system master will display the login page to access the features within the software. The default username and password are both "admin".



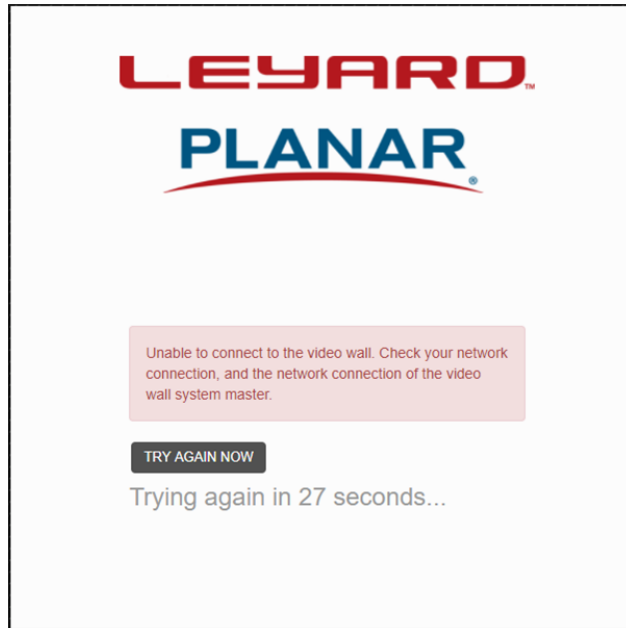
LEYARD™
PLANAR®

LOGIN
admin

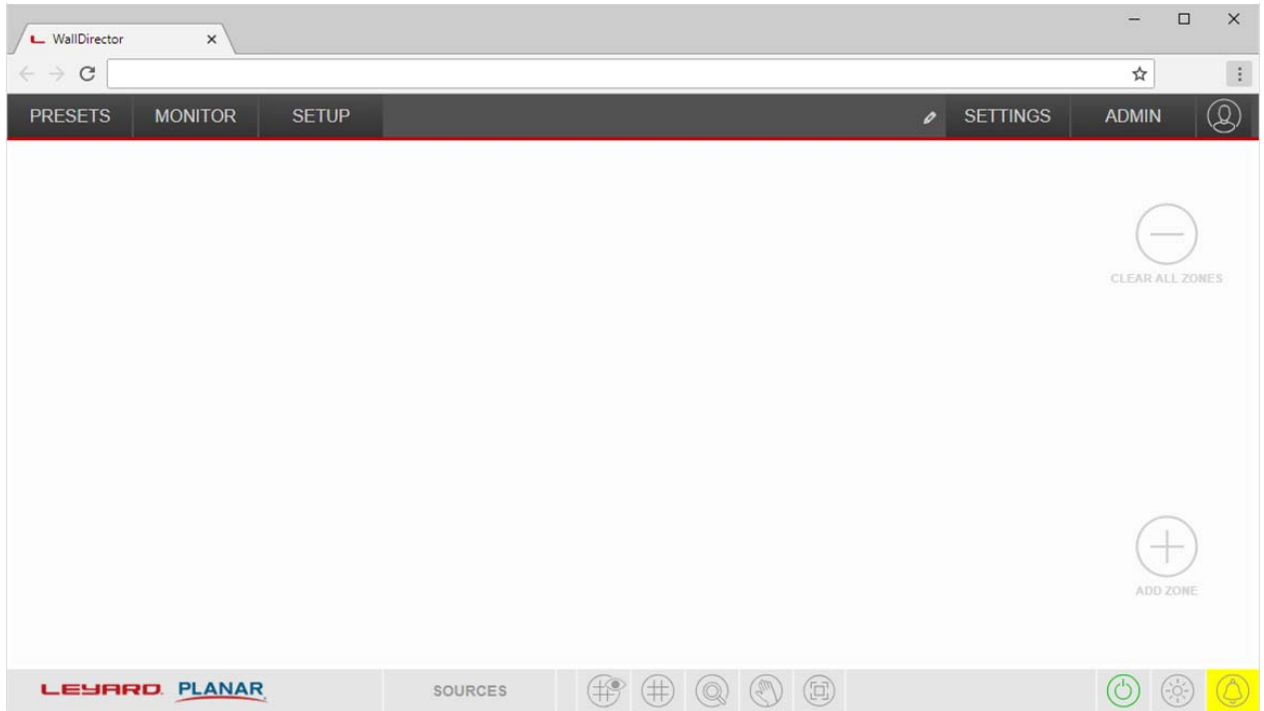
PASSWORD
....

SIGN IN

Note: If at any time the browser shows the following window, it means the system is no longer reachable at the IP address indicated. This may be due to a system reboot or other temporary disconnection. Click the refresh or reload page function of the web browser to reload the WallDirector software. If the system is ready and no other issues are present, the system should be recognized again by the browser. If this does not work, check the IP address and physical connections to the system.



Once the web page loads into the browser, the software can be used to do a multitude of functions to set up the video wall and how the content is displayed. Additionally, access may be set and status information can be gathered from various menus, indicators and popup messages.



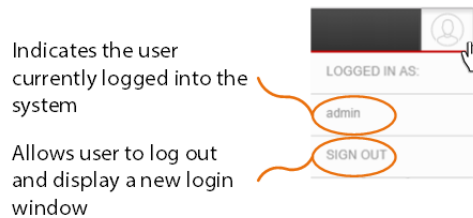
General System Functions

Starting on the right-upper corner of the window, there are four icons/text that can be selected for the purpose of general software setup items. Depending on the user login, this can look slightly different as users without administrative rights cannot access some of the setup options. Menu beneath the main headings may look different as well.



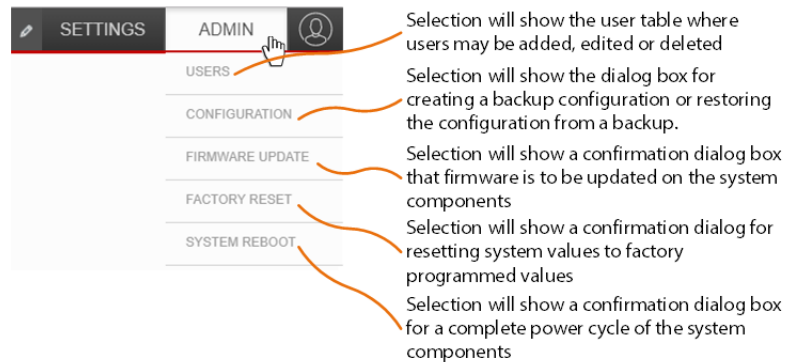
User Icon

This selection is the same no matter which user may be logged into the system.



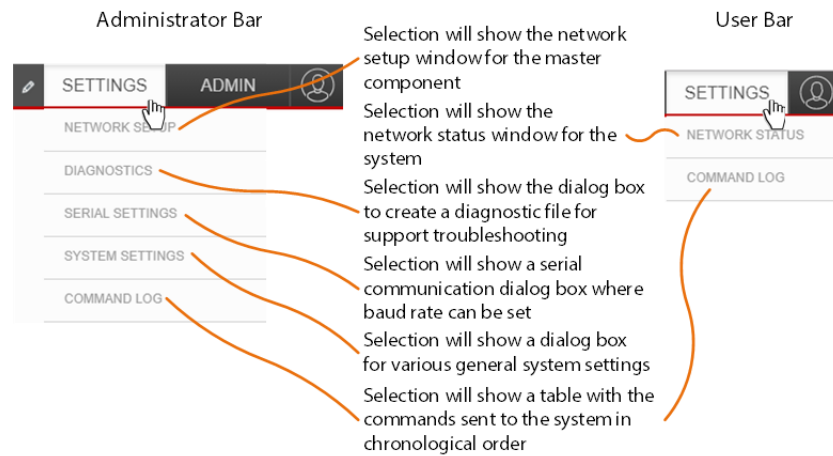
Admin

Only available for administrative users, this allows for more technical setup and diagnostic selections.



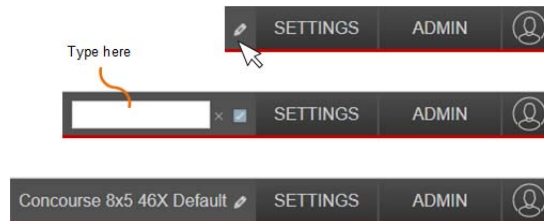
Settings

The **Settings** menu varies depending on if the user has administration rights or not.



Pencil

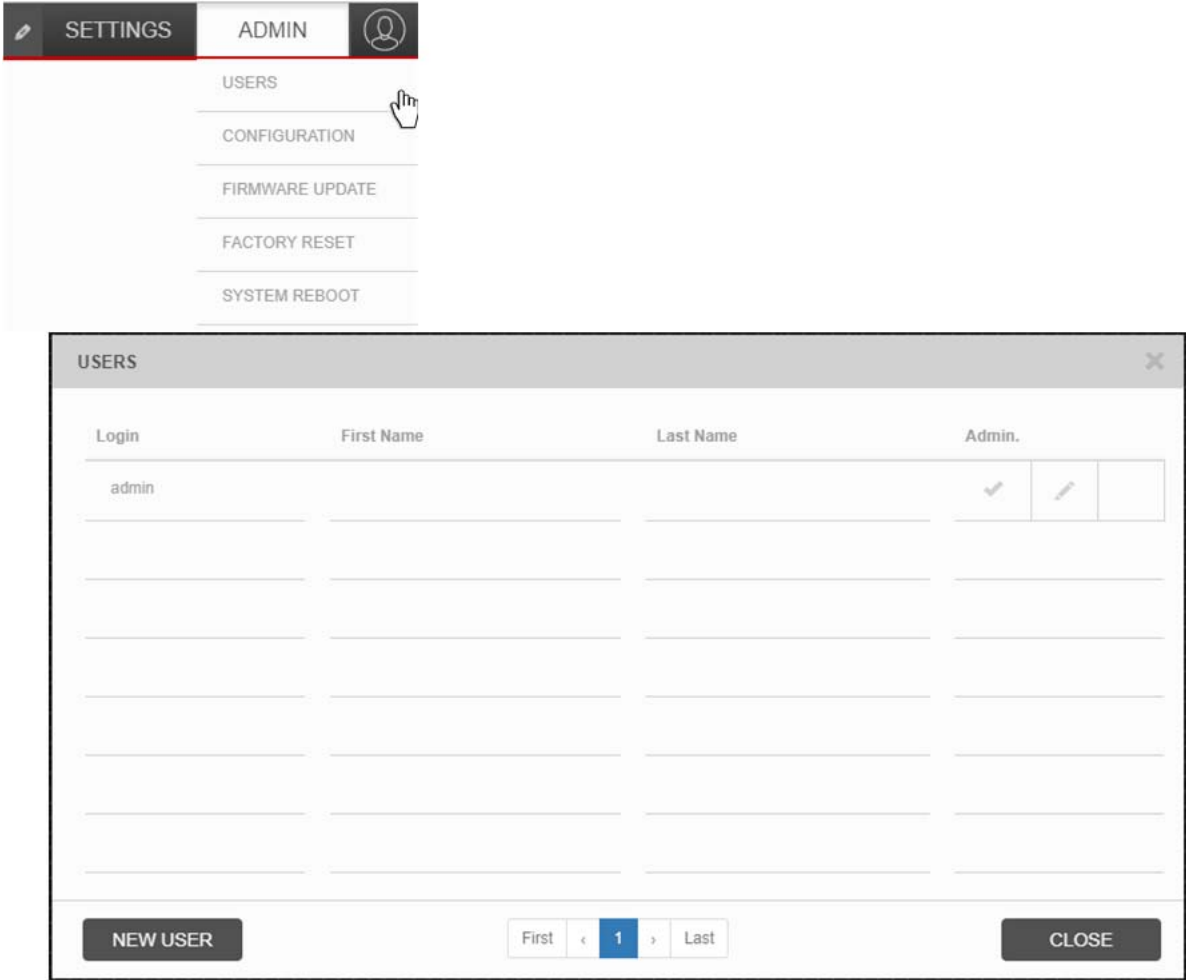
The pencil icon appears only for administrators and is for creating a unique name for the configuration. This allows for an easy way to know which video wall is being communicated with. The name is restricted to a maximum of 128 characters.



Adding Users

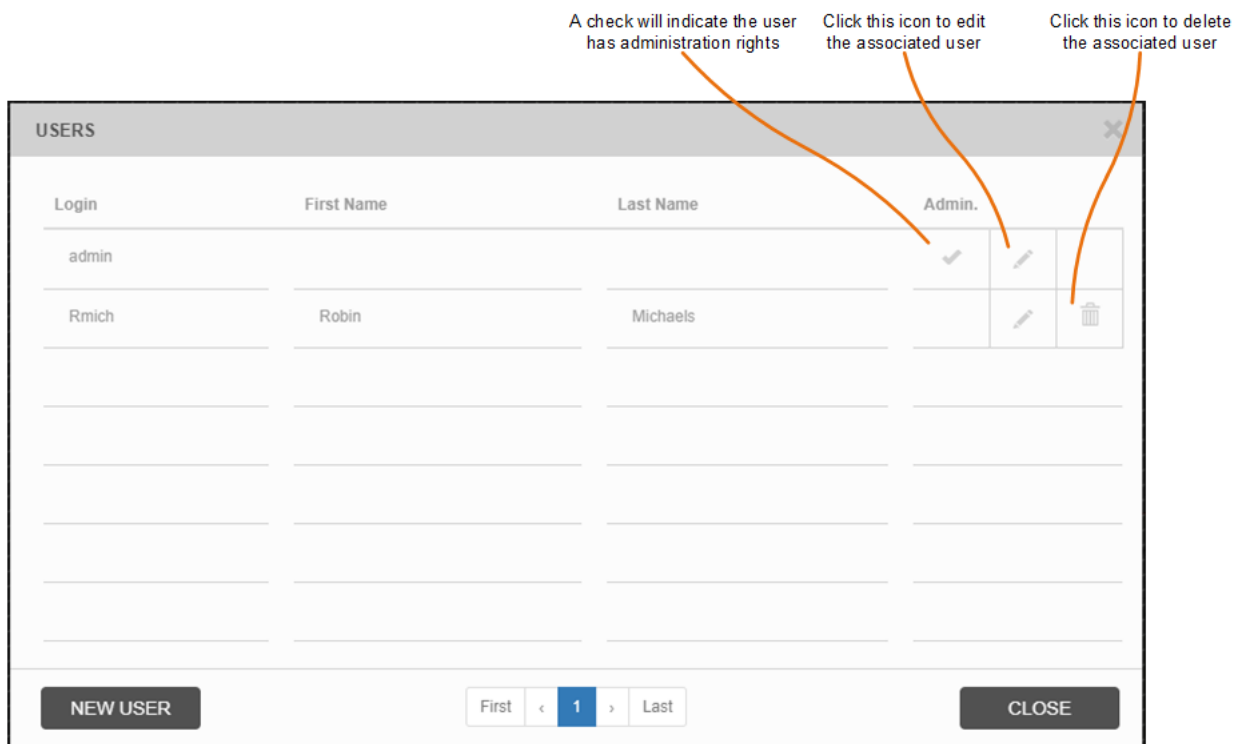
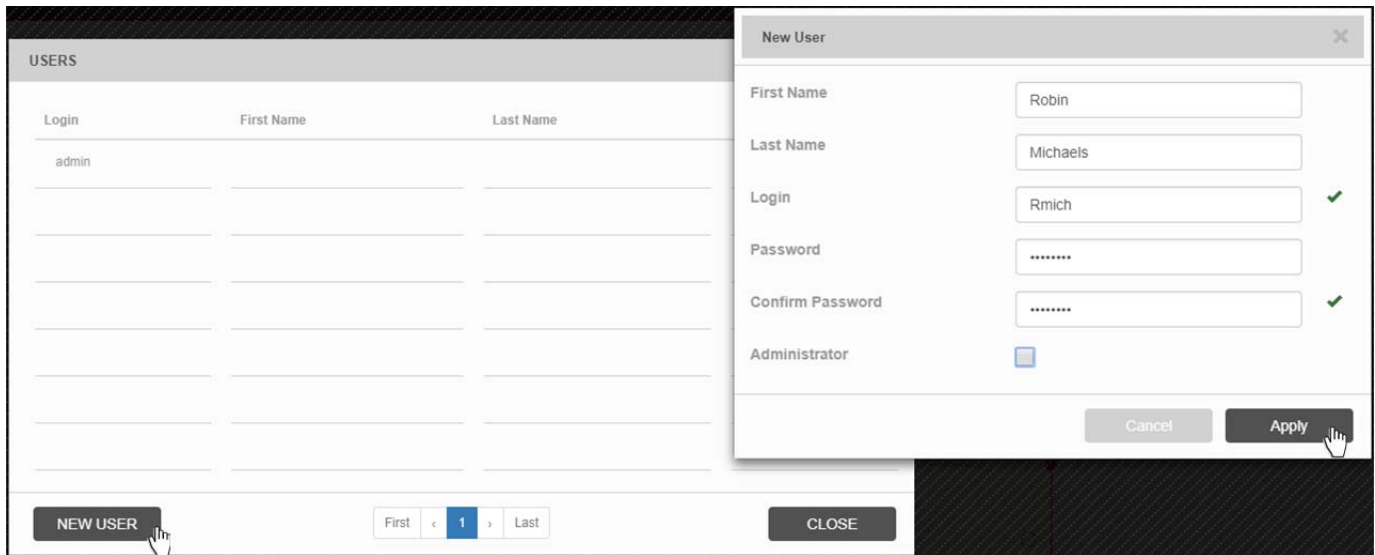
Add users by selecting **Admin** and then **Users**. The following table will appear showing the users that are currently set up in the system.

Note: admin is the default administrative user and it may not be deleted; however, the password may be changed from its default setting.



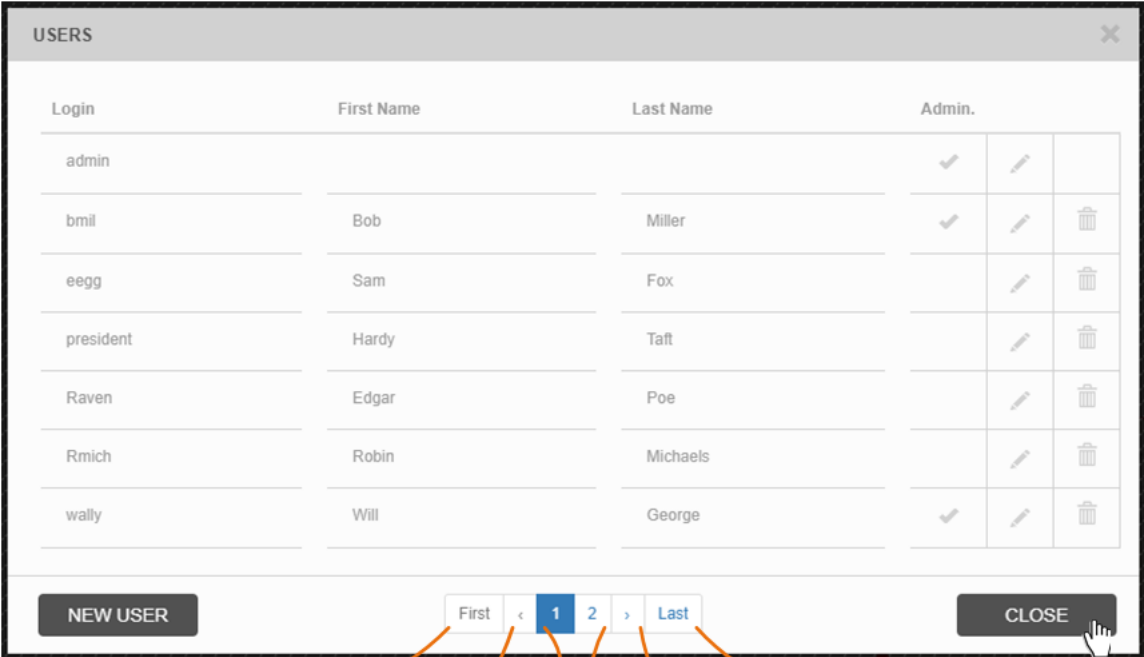
Click **New User**, which will display a dialog box for entering the new user’s relevant information. Only username and password with matching confirmation are required fields for this dialog box. However, it may be easier to add more information to distinguish between users. After entering the needed data, click **Apply** for the changes to take effect.

Note: Selecting the **Administrator** check box will give that user all the rights to change the system as the default admin user.



Multiple users may be added to a system if needed.

Note: Blue characters or blue highlighted characters are valid selections for the browsing at the bottom of the window.



Click this to browse to the first page of users

Clicking these will browse to the selected page of users

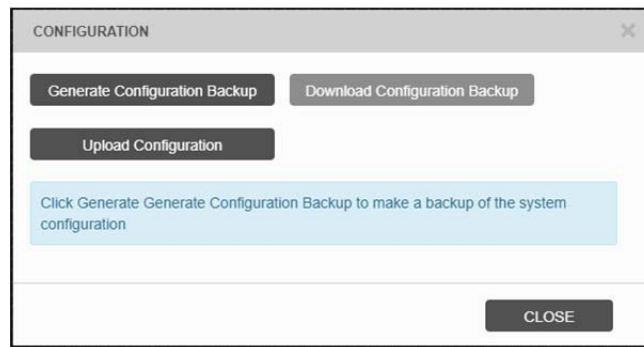
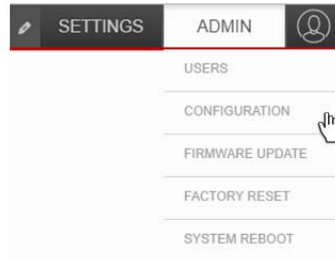
Click this to browse to the last page of users

Click this to browse to the previous page of users

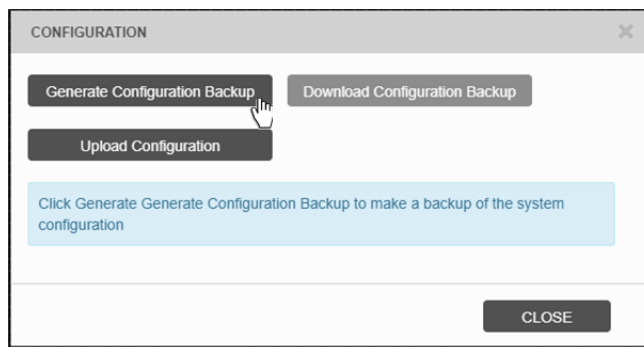
Click this to browse to the next page of users

Saving a System Configuration

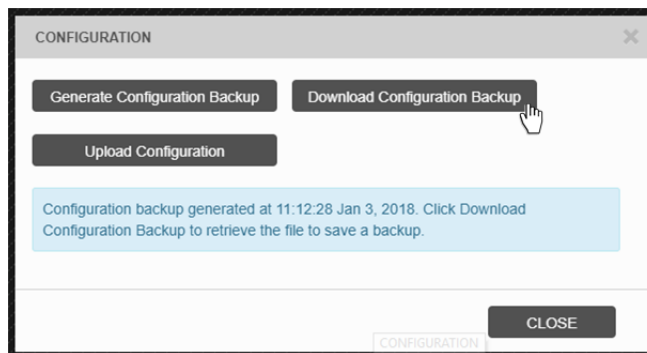
Saving a configuration will allow the setup data for the entire system to be backed up both locally on the system master and on a USB drive. The latter can be used to restore a system or can possibly be used as a basis for identical systems installed at a different location. Selecting **Configuration** will display a dialog box.



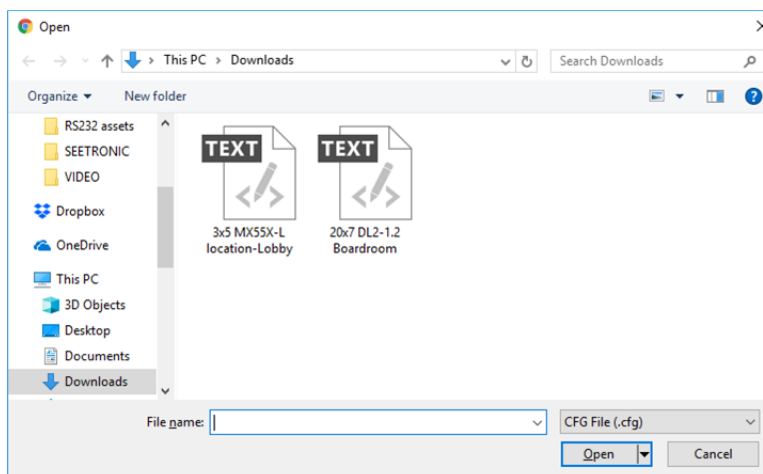
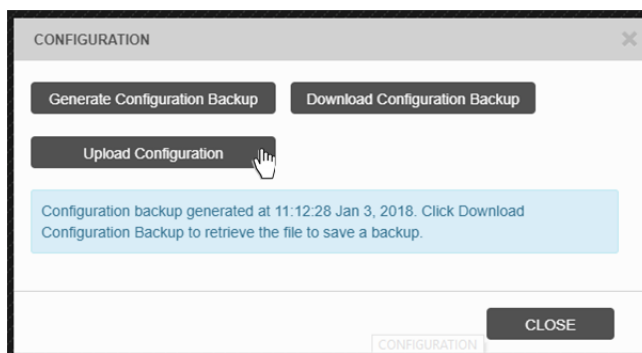
Clicking **Generate Configuration Backup** will save a copy of the current configuration. When a backup is generated, the information window on the dialog box confirms the time and date of the backup.



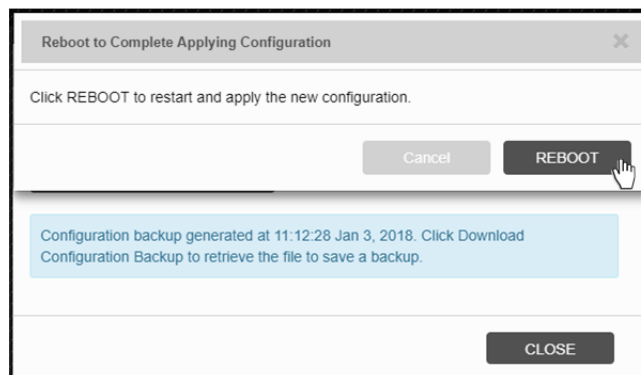
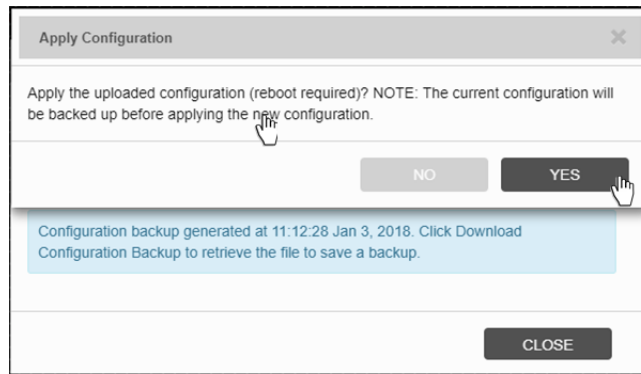
Clicking **Download Configuration Backup** will save the file to the Download folder on the connected computer. By default, downloaded configuration files are given a unique name that ends with *.cfg*. The file downloaded may be renamed to designate status and/or the date of the configuration for easy recognition later. Click **Close** when done.



Clicking **Upload Configuration** will open a file browser to select the configuration that is desired for upload to the system.



After you select the appropriate configuration file, a confirmation dialog will appear. Clicking **Yes** will open a second dialog box requesting that the system be rebooted. Clicking **No** in the Apply Configuration dialog box or **Cancel** in the Reboot dialog box will cancel the upload configuration selection.



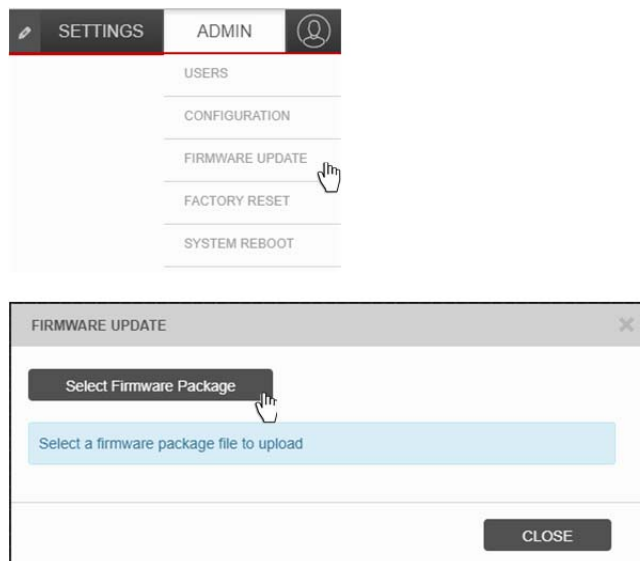
Firmware Updates

Note: It is recommended after connection of all equipment the firmware be updated to the latest revision. The latest firmware may be located on the Planar Portal website (<http://partners.planar.com/>).

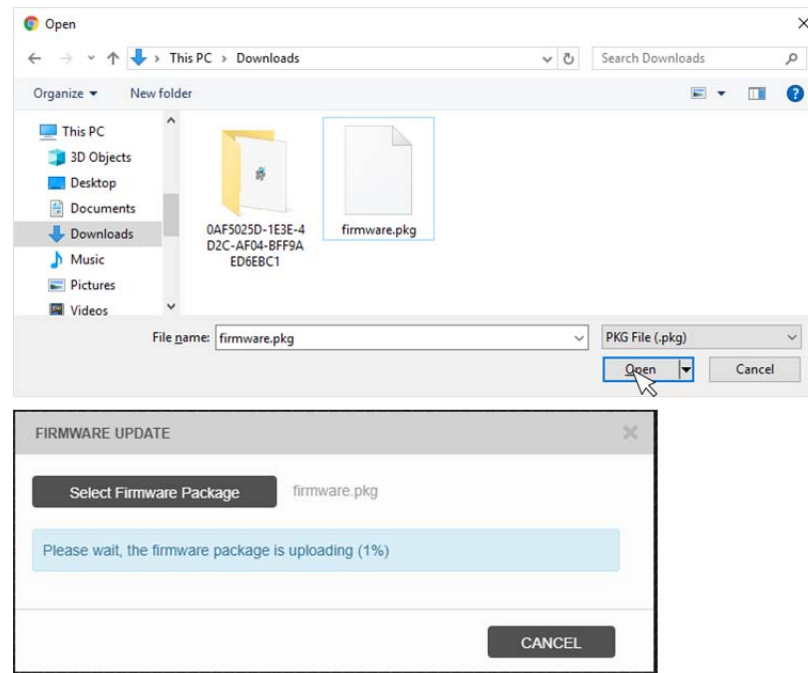
Component firmware may be updated through the settings menu. Selecting **Firmware Update** will bring up a dialog window for the process. Updating firmware through the WallDirector software will automatically update all equipment connected to the master. Any equipment that may not be connected may need to be updated at a later date.

To update the firmware, follow these steps:

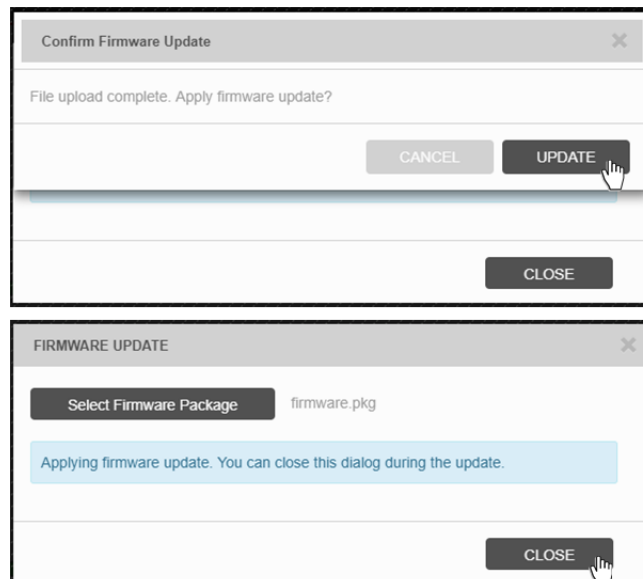
- 1 Select **Firmware update** from the **Settings** drop-down menu, which will bring up a dialog box to select a firmware package.



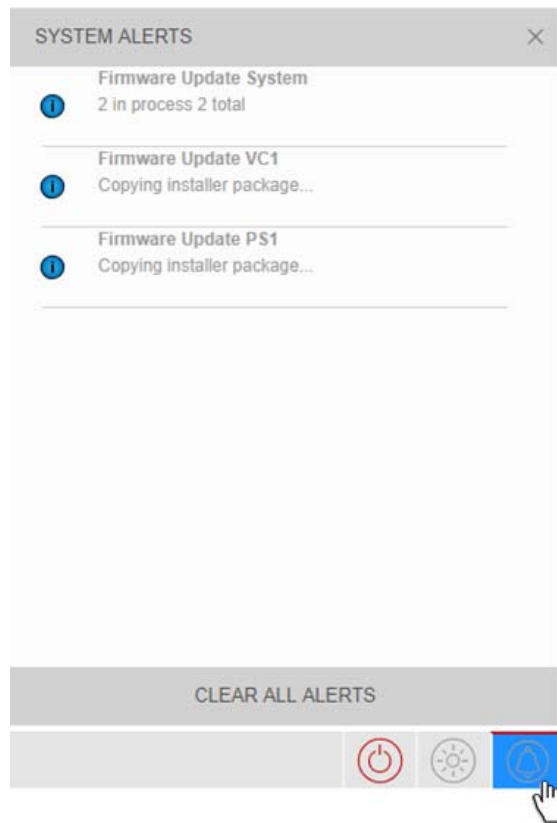
- A file browser will open when **Select Firmware Package** is clicked, allowing browsing to a connected file location. Once a file is selected, it will begin uploading to the equipment.



- Once the file has uploaded, a confirmation box will appear to begin updating the firmware. Once updating starts, the dialog box may be closed.

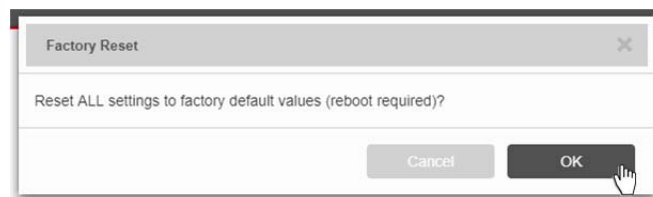
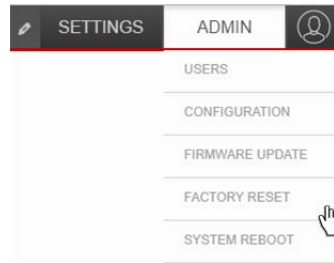


- Status of the update will be noted in the System Alerts section (see "Bottom Button Bar Features" on page 32). Once it is indicated all firmware has been updated, a system reboot will be required for changes to take effect.



Factory Reset

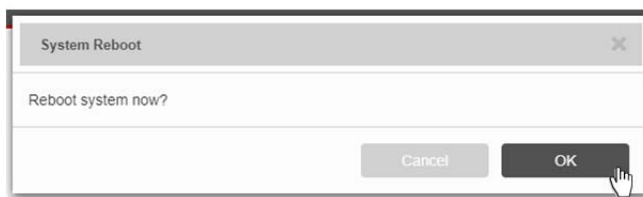
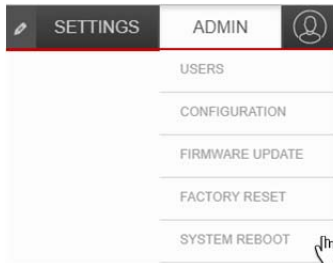
This selection will allow for removing all configuration data and reverting the system back to factory settings except for the panel color balance settings. This will be followed by a confirmation dialog box. A reboot will be required to take effect.



System Reboot

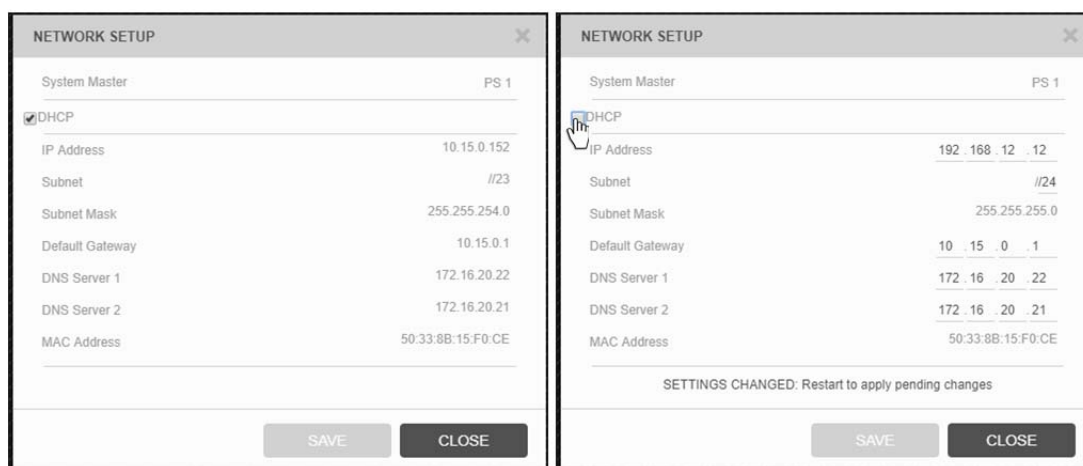
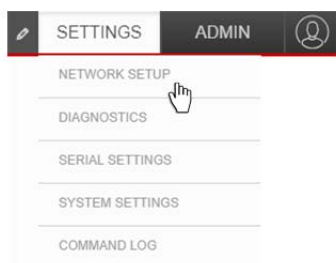
Selecting this menu item will perform an electronic reboot of the system.

During reboot the system will be unavailable. Try to reload the page after three minutes if it does not reload automatically.



Network Setup

The **Network Setup** menu item allows the user to set the wide area network parameters of the master component. The default of the system is DHCP; however, it is possible to statically assign an IP address and other parameters based on configuration needs. Changing parameters in this menu will require a system reboot and may require connected control equipment re-configuration to re-connect.



System Master: The component in the system that is the master.

DHCP: When selected, this check box enables you to connect to a WAN that assigns an IP address to a device. Once the system master has been assigned, the appropriate network information from a DHCP server making it accessible to equipment using the WallDirector software on the same network.

IP Address: The IP address of the system master component. All communication via the WAN port should use this number.

Subnet: The subnet in CIDR notation, which gives the number of bits in the network portion of the IP address.

Subnet Mask: The subnet mask as automatically defined by the subnet CIDR value.

Default Gateway: The network gateway.

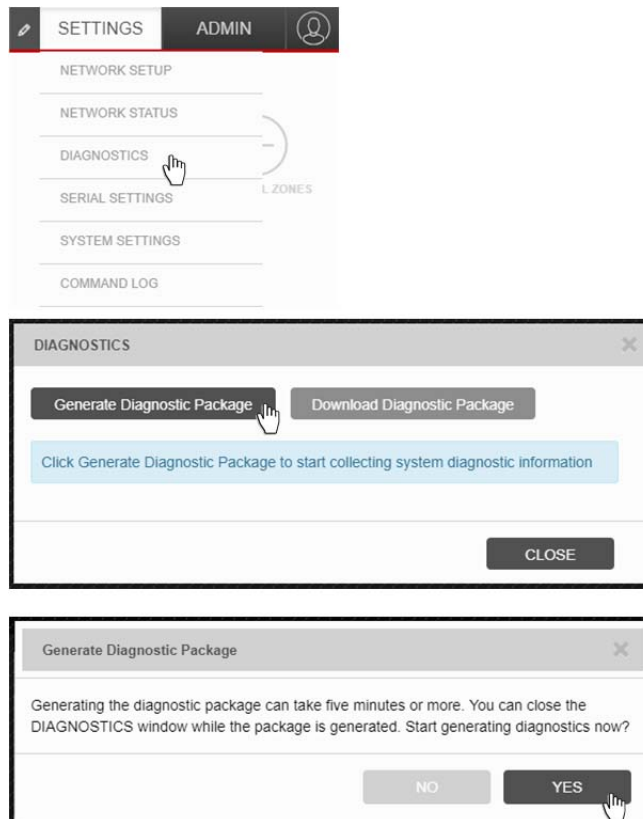
DNS Server 1: Domain Name Server #1

DNS Server 2: Domain Name Server #2.

MAC Address: The unique MAC ID of the component.

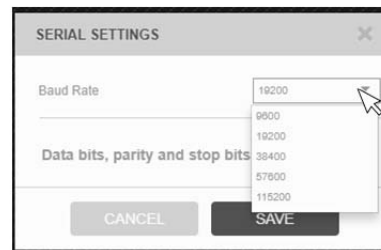
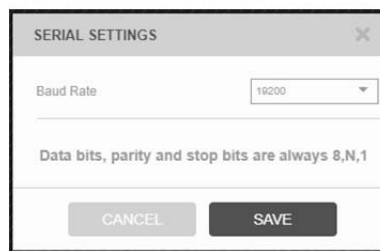
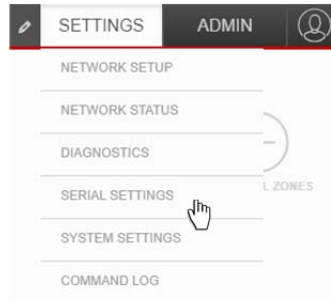
Diagnostics

Selecting **Diagnostics** under **Settings** will show a dialog box allowing the generation of a file to help troubleshoot complicated problems. When you click **Generate Diagnostic Package**, a confirmation box will appear to verify that this task is to be performed. Once the file is generated, clicking **Download Diagnostic Package** will save the file to the connected computer. This file can then be sent to the factory for analysis of potential issues within the system. Click **Close** when done.



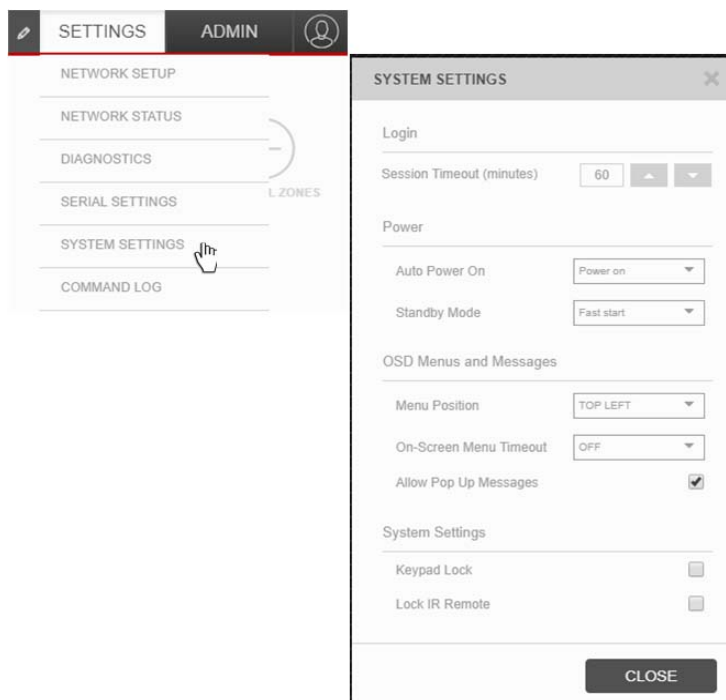
Serial Settings

Serial settings is a quick way to set the baud rate of the RS232 connection to the system and verify the system requirements for serial communication with the system. Click **Save** once the baud rate has been selected.



System Settings

The system settings will display a menu where general system wide functions can be changed.



Session Timeout: The number of minutes of idle time before the user is automatically logged out of the WallDirector software.

Auto Power On: This value sets the behavior of the system when power is applied. The options are Power On, Disabled or Previous State. Power On automatically boots the entire system fully on. A Disabled setting requires user intervention through the various user interfaces to turn the system on. Previous State boots the system to the last known state prior to power being removed from the system.

Standby Mode: This value sets the behavior of the system when a user interface applied power command is used. The options are Fast Start or Low Power. Fast Start saves power by turning off the lights at the panels. Low Power saves power by turning off all power to the system except for the minimum required at each power supply.

Menu Position: This sets the position on individual panels where the OSD should appear. Selections are Top Left, Top Right, Bottom Left, Bottom Right and Center. Center is the default.

On-Screen Menu Timeout: Sets the time in seconds from the last button press to when the menu will disappear from the screen due to inactivity. The settings are OFF, 30, 60, 120 and 240. The OFF setting enables the menu to always be on the screen until a user intervenes.

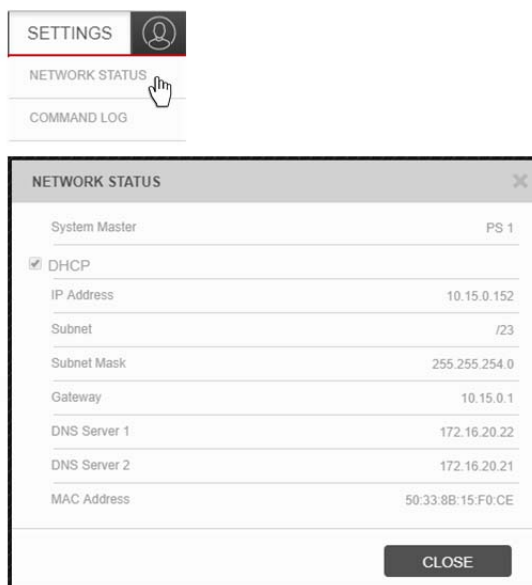
Allow Pop Up Messages: When checked, enables messages from the system to be seen on the screen. Messages usually indicate required reboots or software updating notifications.

Keypad Lock: When selected, disables the keypad on the front of all video controllers from working.

Lock IR Remote: When selected disables any commands from the remote from working. To unlock the remote commands, you must use the WallDirector or RS232 command protocol.

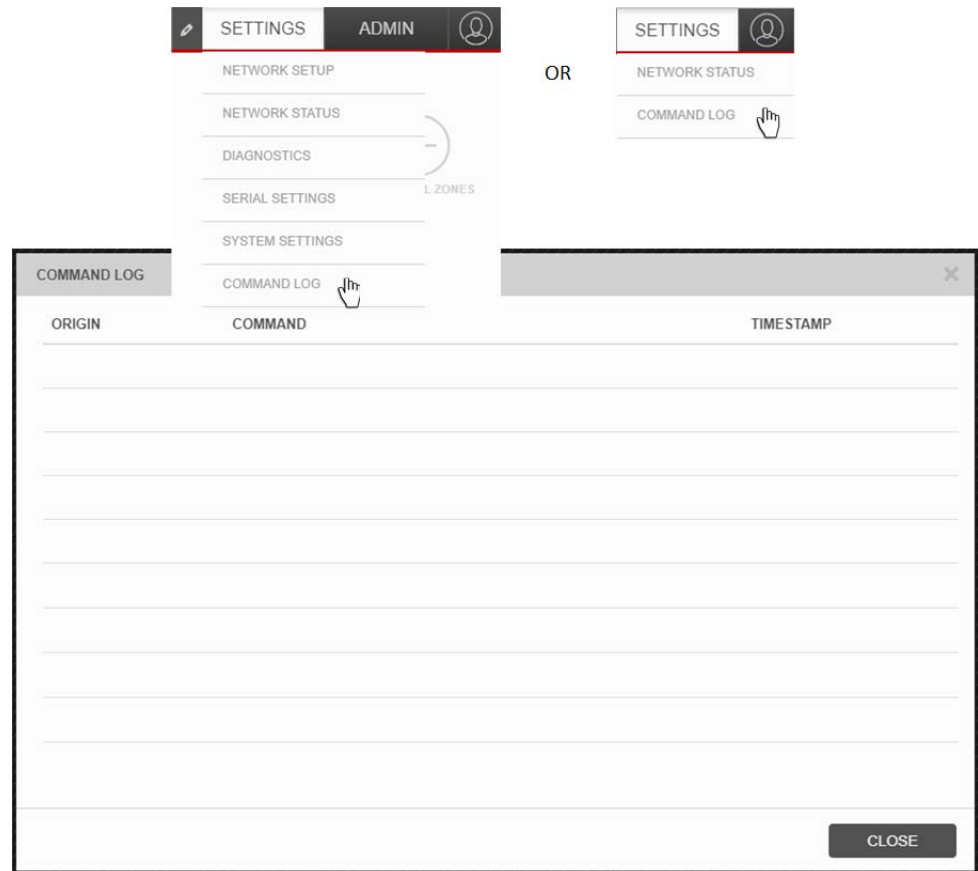
Network Status

The **Network Status** menu item under **Settings** shows a window with system information about the network connection as well as which component in the system is the master.



Command Log

Selecting **Command Log** will display a window that is actively updated with commands that are received by the system on the serial or LAN ports. The command origin will depend on which component is connected to the external equipment that is providing the command.



Bottom Button Bar Features

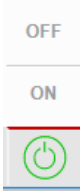

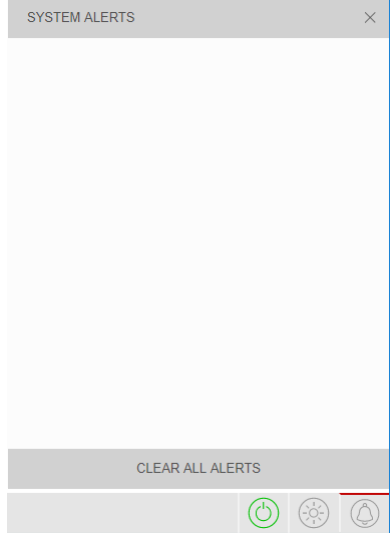



There are a few quick access functions to help in setup of the video wall configuration within the software main interface. This section describes the bottom button bar features.



User Buttons

In the lower-right corner of the window are three user buttons available to all users.












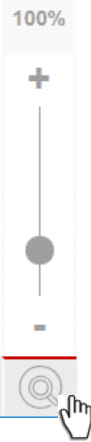



Button	Description
 A vertical UI element for power control. It features a grey button with 'OFF' text, a grey button with 'ON' text, and a green power icon button at the bottom.	Turns power on or off based upon the standby power designation.
 A vertical UI element for brightness adjustment. It shows a slider with a grey circle, a '+' sign above, and a '-' sign below. A grey brightness icon button is at the bottom.	Adjusts the brightness of the video wall by increments of 10 by sliding the circle up and down. Administrators and non-administrators may change this value.
 A screenshot of a 'SYSTEM ALERTS' window. It has a title bar with a close button, a large empty area for alerts, and a 'CLEAR ALL ALERTS' button at the bottom. The three user buttons are visible at the bottom of the window.	<p>Shows system alerts from all components connected.</p> <ul style="list-style-type: none"> A yellow icon means there are issues with the system configuration that will not inhibit basic performance. A red icon means there are critical issues with the system that will affect performance. A blue icon means there are informational only alerts based on the system state.

Workspace Buttons

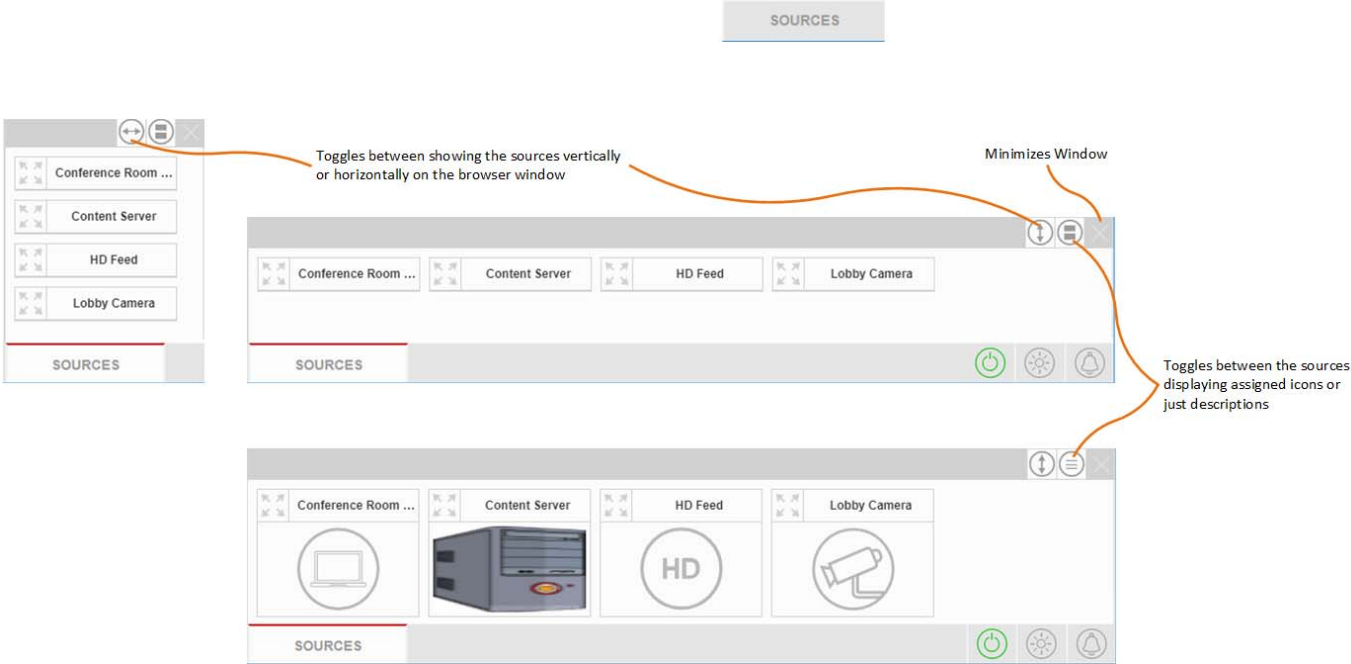
The bottom bar has additional items that are used to manipulate the workspace area. These are primarily used when setting up zones but can also be used to zoom and pan the video wall area as well.



Button	Description
	<p>Toggles the snap grid display on the video wall configuration.</p> <p>Changes the snap grid for the configuration. All snap grid divisions are created or removed by equally spacing the divisions based on the entire wall size.</p>
	 <p>Quick snap grid selection converting each recognized panel edge into a grid division.</p>
	 <p>Quick snap grid selection converting each recognized panel into having a center vertical and horizontal division.</p>
	 <p>Quick snap grid selection displaying two horizontal by two vertical divisions.</p>
	 <p>Quick snap grid selection displaying three horizontal by three vertical divisions.</p>
	 <p>Increase or decrease the number of horizontal snap grid divisions by single increments.</p>
	 <p>Increase or decrease the number of vertical snap grid divisions by single increments.</p>
	 <p>Denotes how many horizontal/vertical snap grid divisions are displayed.</p>

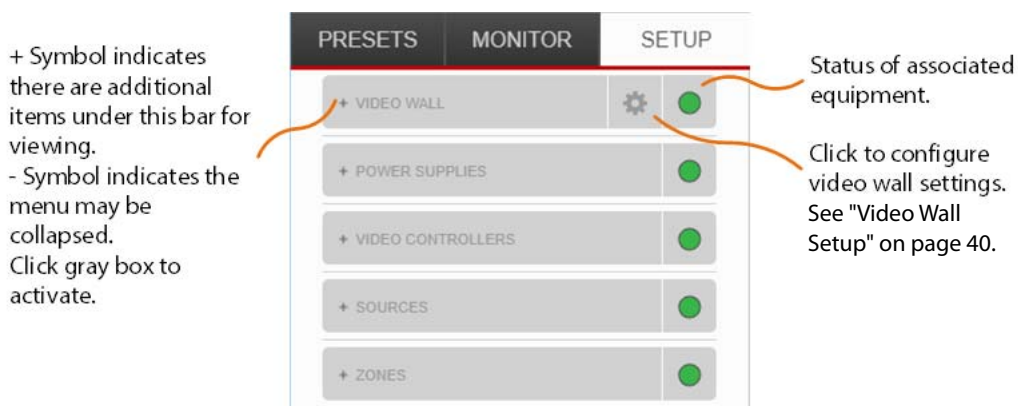
Button	Description
 A vertical zoom control interface. At the top, it displays '100%'. Below this is a plus sign (+) and a minus sign (-) flanking a vertical line with a circular slider knob. At the bottom, there is a square button with a magnifying glass icon and a hand cursor pointing to it.	Allows the adjustment of workspace zoom.
 A square button with a hand icon and a crosshair symbol, with a hand cursor pointing to it.	Turns on the ability to pan the workspace. A crosshair icon () will appear in the workspace. This feature must be turned off in order to perform any other tasks within the workspace.
 A square button with a magnifying glass icon and a square frame, with a hand cursor pointing to it.	Zooms the workspace to fit the display area. Note: Zoom to fit zooms only the physical panels. If a zone is not in the display area, use pan and zoom to find the zone or the position data in the zone tab under Setup.

The Sources button toggles the display of sources that have been set up within the system. This allows for easy reference and assigning of sources to various grid divisions or zones on the canvas.



Setup Tab

The Setup tab is only visible by users with administrator privileges. On the **Setup** tab, administrators can change the layout settings of the video wall system, individual panels, power supplies, video controllers and sources. When hardware is connected to the system, it is automatically populated in the appropriate fields.



	OK
	Warning
	Error
	Status Unavailable

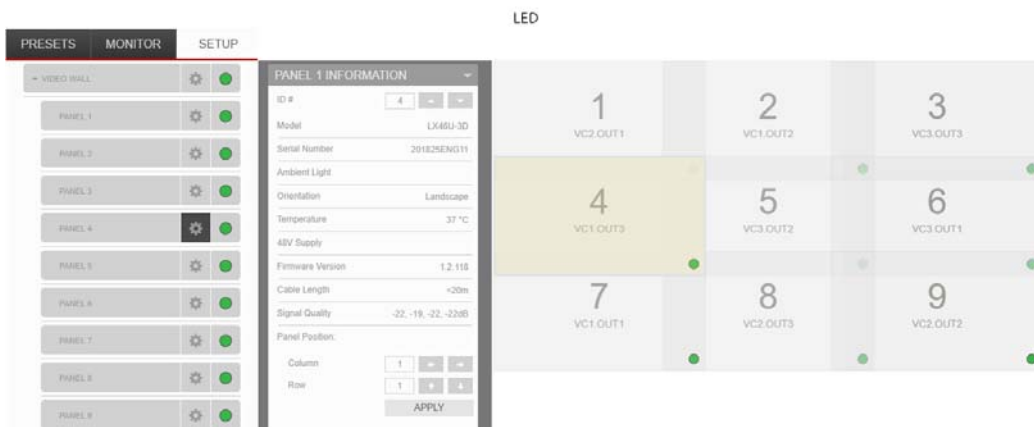
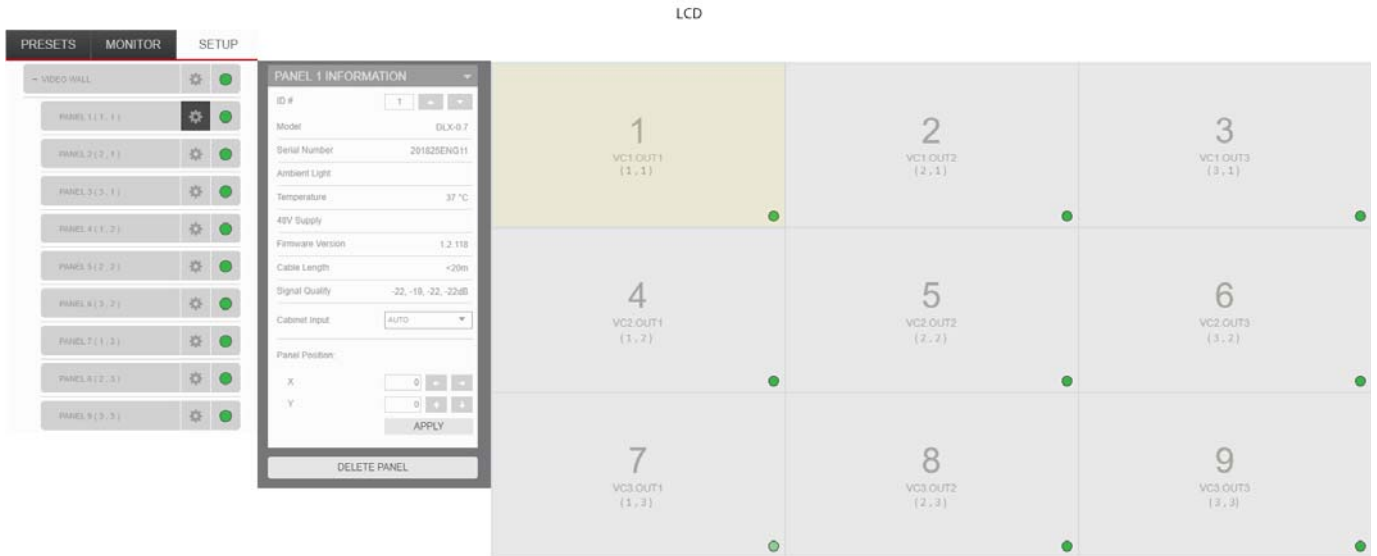
Holding the mouse arrow over the icons will provide quick information on the system. Additionally clicking the System Alerts icon will provide a summary of information.

Video Wall

Under **Video Wall**, you can do the following:

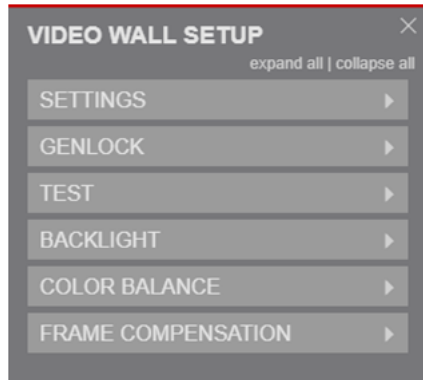
The image displays two side-by-side screenshots of the Video Wall configuration interface. The left screenshot is for an LCD display, and the right is for an LED display. Both interfaces feature a top navigation bar with three tabs: 'PRESETS', 'MONITOR', and 'SETUP'. Below the tabs, there is a list of panels. Each panel entry consists of a panel name, a gear icon for configuration, and a green circle for status. In the LCD interface, the panels are labeled 'PANEL 1 (1, 1)' through 'PANEL 9 (3, 3)'. In the LED interface, they are labeled 'PANEL 1' through 'PANEL 9'. Two orange callout boxes with arrows provide instructions: one points to a gear icon in the LCD panel list with the text 'Click to configure panel settings. See "Panel Setup" on page 50.', and the other points to a green status circle in the LCD panel list with the text 'View the status of the video wall or panel.'

In the Setup tab environment with panels showing in the workspace area, clicking on a panel navigates to the panel settings menu of that panel. Whether the panel was selected this way or through the menu structure, this will be visibly noted by a color change of the display representation in the workspace area to better understand which panel is being edited.

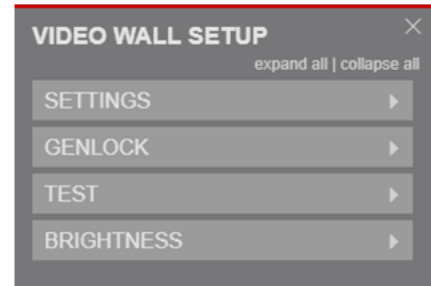


Video Wall Setup

LCD

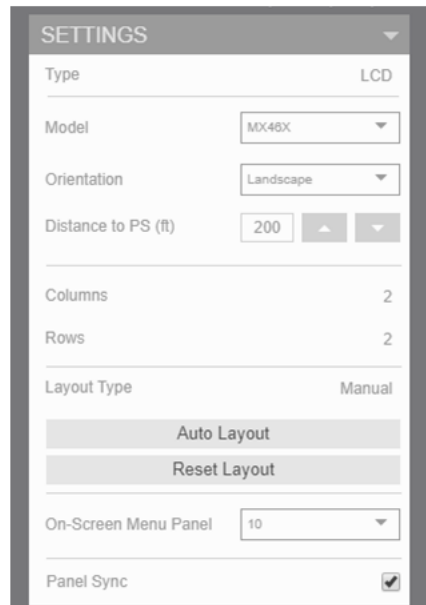


LED

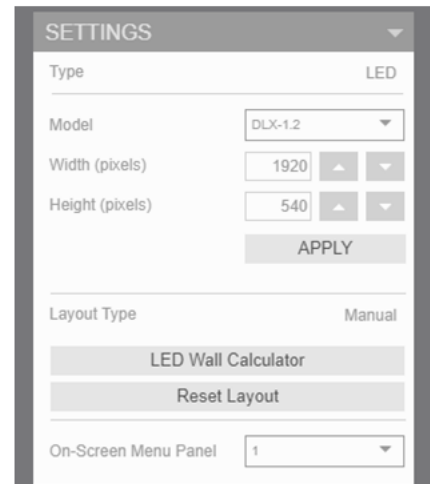


Settings

LCD



LED



Field	Description
Type	Describes the display equipment detected by the system. LCD, LED or Monitor.
Model	The panel model connected to the system.
Orientation	<i>(LCD products only)</i> The orientation of the panel that is connected to the system. The orientation is determined by a sensor attached to the panel. This can be manually changed here if necessary.

Field	Description
Distance to PS (ft)	Input value to help determine when too many panels may be connected together on a single power chain. A critical error icon will appear next to the PS if too many are determined to be attached.
Columns	<i>(LCD products only)</i> The number of columns in the array. In default mode, the value will be 1. In auto layout mode, the value is the number of columns in the physical array as self-detected by the panel position sensors. To manually change this value, enter a number or use the up and down arrow buttons. Click Apply after changing for new values to take affect.
Rows	<i>(LCD products only)</i> The number of rows in the array. In default mode, the value will be 1. In auto layout mode, the value is the number of rows in the physical array as self-detected by the panel position sensors. To manually change this value, enter a number or use the up and down arrow buttons. Click Apply after changing for new values to take affect.
Width (pixels)	<i>(LED products only)</i> The total number of horizontal pixels in the array. This is a summation of each cabinet's horizontal pixels. This can automatically be calculated by clicking the LED Wall Calculator and following the procedure for wall setup. Click Apply after changing here for new values to take affect.
Height (pixels)	<i>(LED products only)</i> The total number of horizontal pixels in the array. This is a summation of each cabinet's horizontal pixels. This can automatically be calculated by clicking the LED Wall Calculator and following the procedure for wall setup. Click Apply after changing here for new values to take affect.
Layout Type	Indicates the layout mode as Default, Auto or Manual. Use manual mode if you have a faceted wall display or faulty or no panel position sensors. Manual mode acts like auto layout mode except it is required to set the panel positions manually in the software. Changing any panel position in the software will switch the layout to Manual mode from either Default or Auto.
Auto Layout	<i>(LCD products only)</i> Activates the auto layout feature, which tells the system that the wall has been installed and for the panels to self discover where they are positioned with respect to one another. Refer to the <i>Installation Guide</i> for more information. This will be followed by a confirmation dialog box. A successful Auto layout or Manual layout is essential for proper video wall behavior, and allows the system to place content within the video wall exactly where it is intended. Additionally, failure of a proper layout of the panels in the video wall will cause unexpected issues with content when the system or any portion of the system is restarted. When auto layout is successful, a message will appear at the bottom of this menu indicating "Auto Layout Complete."

Field	Description
LED Wall Calculator	<i>(LED products only)</i> Clicking this button opens a window allowing for easy configuration of the wall based on size and type of product chosen. The data from this window populates the settings window.
Reset Layout	Returns the wall to the default layout during setup prior to an auto or manual layout. This allows for the addition of more panels and components in an expected manner. Refer to the <i>Installation Guide</i> for more information. This will be followed by a confirmation dialog box.
On-Screen Menu Panel	Indicates which panel the On-Screen Menu is active on. To change this value, select a panel from the list.
Enable Panel Sync	<i>(LCD products only)</i> Enables the inverted image scan on even rows of a video wall. This is meant to reduce tearing of the horizontal panning images.

LED Wall Calculator

LED WALL CALCULATOR

LED Model DLX-0.7 ▼

Cabinet Size:

Width 768 px

Height 432 px

Wall Layout:

Columns ▲ ▼

Rows ▲ ▼

Wall Size:

Width 3840 px

Height 2160 px


APPLY WALL SIZE

Panel Position ▼

X ← →

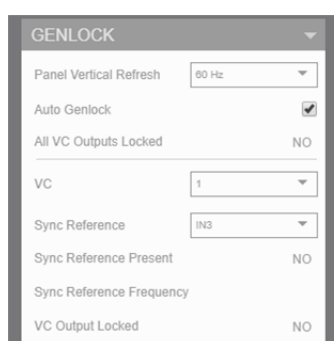
Y ↑ ↓

APPLY PANEL POSITION

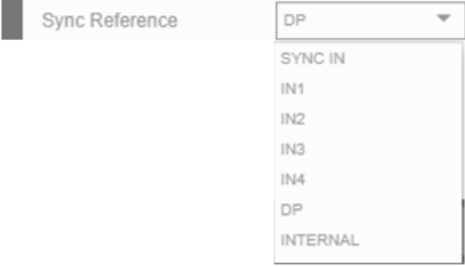
Field	Description
LED Model	<p>Selects the LED product model to be used in the video wall.</p> 
Cabinet Size	Indicates the total cabinet horizontal and vertical pixels of the LED model chosen.
Wall Layout	Settable number of columns and rows of cabinets in the video wall. Change by entering a number in the field or by the up and down arrows.
Wall Size	Total video wall horizontal and vertical pixels calculated by the cabinet size multiplied by the wall layout. Apply Wall Size must be selected after any change to wall layout for the wall size to be saved in the configuration.

Field	Description
Panel Position	Indicates the panel in the video wall that will have its position configured. This may be selected by clicking on a panel in the workspace or choosing from the drop-down box. X is the horizontal position in pixels and Y is the vertical position in pixels. The origin is the upper left corner and is referred to as the 0, 0 position. Values may be changed by either entering data in the boxes or using the left, right, up or down arrows. Apply Panel Position must be selected after changing panel data for position to be saved.

Genlock



Field	Description
Panel Vertical Refresh	Sets the default refresh rate of the connected panels. Values are 50Hz or 60Hz. A system reboot required for change to take effect.
Auto Genlock	Checking this box sets all VC outputs to sync to a single source determined by the system.
All VC Outputs Locked	Indicates if there are any VCs that are not locked to a reference. Value is either YES or NO.
VC	This is the VC of the sync reference.

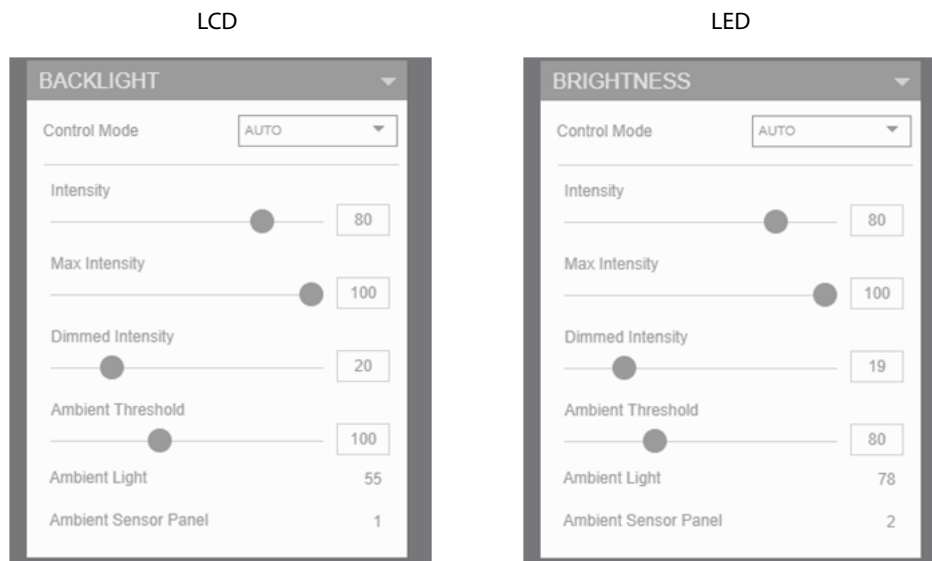
Field	Description
Sync Reference	<p>This is the input that will be used to sync all outputs.</p>  <p>SYNC IN: Chooses the HDBNC Sync In as the reference signal. IN1: Chooses Input 1 as the reference signal. IN2: Chooses Input 2 as the reference signal. IN3: Chooses Input 3 as the reference signal. IN4: Chooses Input 4 as the reference signal. DP: Chooses the DisplayPort Loop In as the reference signal. Internal: Chooses an internal signal to the VC as the reference signal.</p>
Sync Reference Present	This indicates if the sync is present on the selected VC.
Sync Reference Frequency	This is the frequency of the sync reference.
VC Output Locked	Indicates if the output on the VC is locked to a reference. Value is either YES or NO.

Test



Field	Description
Panel	Select which panel to display the test pattern or a source on. "All" displays the test pattern on every panel connected to the system. The pattern will remain in place as you navigate further in the menus or exit the menu. Predefined zones will not be seen on the panels until the "None" pattern or Clear All is selected.
Test Pattern	Displays a predefined test pattern on the selected panel. The available test patterns are: None Black White Red Green Blue Gray Red Scale Green Scale Blue Scale Gray Scale Logo Grid Contrast Color Bars
Sources	Displays a source that has been set up or detected on the selected panel.
One to One Sources	Creates a zone on each panel in the video wall and then assigns an active HDMI source to a each zone. Zone panel assignment corresponds to the VC output and corresponding HDMI input. Outputs without a corresponding input are blank.
Clear All	Clears any test pattern or source assignment so that zones may be displayed.

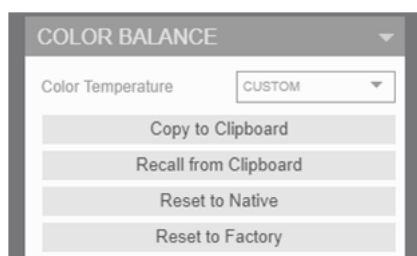
Backlight/Brightness



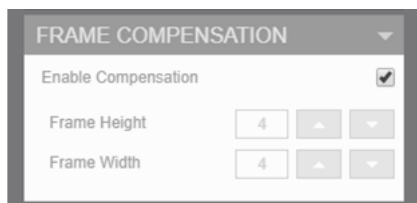
Field	Description
Control Mode	Select Manual or Auto. With manual, you can set a value for the brightness of the video wall. Use Auto in conjunction with the Ambient Light Sensor option. See the <i>Installation Guide</i> for setup and use of the ambient light sensor.
Intensity	The backlight intensity value for all panels within the video wall. The higher the number, the brighter the display and the more power the video wall uses. To change the value, enter a number or move the slider. Note: The slider changes the number by increments of 10, but a number may manually be entered between 0-100.
Max Intensity	Sets a wall intensity value that the intensity setting cannot exceed. The intensity setting is scaled from this setting. To change the value, enter a number or move the slider. Note: The slider changes the number by increments of 10, but a number may manually be entered between 0-100.
Dimmed Intensity	Available to change when in Auto mode. The higher the number, the brighter the display and the more power the video wall uses. To change the value, enter a number or move the slider. Note: The slider changes the number by increments of 10, but a number may manually be entered between 0-100.

Field	Description
Ambient Threshold	Available to change when in Auto mode. The higher the number, the brighter the display and the more power the video wall uses. To change the value, enter a number or move the slider. The range is 0 to 255.
Ambient Light	Hidden unless Auto mode is selected. The reading from the first detected ambient light sensor. The higher the number, the brighter the light that is detected.
Ambient Sensor Panel	Hidden unless Auto mode is selected. Indicates the panel ID that has the first detected ambient light sensor connected.

Color Balance *(LCD products only)*



Field	Description
Color Temperature	Enables you to choose preset color temperatures on all panels. The values are 3200K, 5500K, 6500K, 8500K, Custom and Native.
Copy to Clipboard	Click to copy all current color balance values as a short term backup value that can be restored until the next system reboot. This will be followed by a confirmation dialog box.
Recall from Clipboard	Click to update all color balance values to the panel with the values that were copied to the clipboard. This will be followed by a confirmation dialog box.
Reset to Native	Click to return the color balance values on all panels to the pre-programmed calibrated data from the factory. This will be followed by a confirmation dialog box.
Reset to Factory	Click to return the color balance values on all panels to the factory calibrated values for each panel. This will be followed by a confirmation dialog box.

Frame Compensation (*LCD products only*)

Field	Description
Enable Compensation	When selected, activates frame compensation.
Frame Height	<p>The amount of vertical scale applied to the image to hide portions of an image that would be otherwise behind the image break. This is a global setting for all panels within the video wall. The higher the value, the more an image is scaled. To change the value, enter a number or use the up and down arrow buttons.</p> <p>Note: If a panel is in portrait orientation, this value is actually the Frame Width.</p>
Frame Width	<p>The amount of horizontal scale applied to the image to hide portions of an image that would be otherwise behind the image break. This is a global setting for all panels within the video wall. The higher the value, the more an image is scaled. To change the value, enter a number or use the up and down arrow buttons.</p> <p>Note: If a panel is in portrait orientation, this value is actually the Frame Height.</p>

Panel Setup

LCD

LED

LCD

LED

Field	Description
ID #	The ID of the panel to be associated with the OSD. This value may be changed to any number. To change the value, enter a number or use the up and down arrow buttons.
Model	The type of panel.
Serial Number	The factory serial number of the equipment.
Ambient Light	Indicates if an ambient light sensor is connected to the panel.
Orientation	<i>(LCD products only)</i> The panel sensor orientation reading.
Temperature	<i>(LCD products only)</i> The panel temperature value.
48V Supply	<i>(LCD products only)</i> The 48V DC supply value.

Field	Description
Firmware Version	The software version of the firmware on the panel.
Cable Length	Rough approximation of the actual cable length connected between the VC and the panel.
Cabinet Input	<i>(LED products only)</i> Sets the cabinet input to be used for a panel. Values are AUTO, HDMI 1 and HDMI 2.
Signal Quality	Diagnostic tool to determine if there may be cable issues causing display anomalies.
Panel Position	For LCD, the column and row position of the panel in the array. For LED, this is the X (horizontal) and Y (vertical) pixel position of the panel in the array. Panel origin is the upper-left corner of the video wall, incrementing to the right and down. To manually change the value, enter a number or use the arrow buttons. This will actively change in the canvas area as the arrows are selected.
Apply	Click to apply changes to the panel position.

Color Balance (LCD Products Only)

PANEL 1 COLOR BALANCE

White Balance

White Test Pattern

Color Temperature **CUSTOM**

All

Red 100

Green 100

Blue 100

Gray Balance

Gray Test Pattern

All

Red 2.20

Green 2.20

Blue 2.20

Backlight Adjustment 0

Clipboard

Copy to Clipboard

Recall from Clipboard

Reset to Native

Reset to Factory

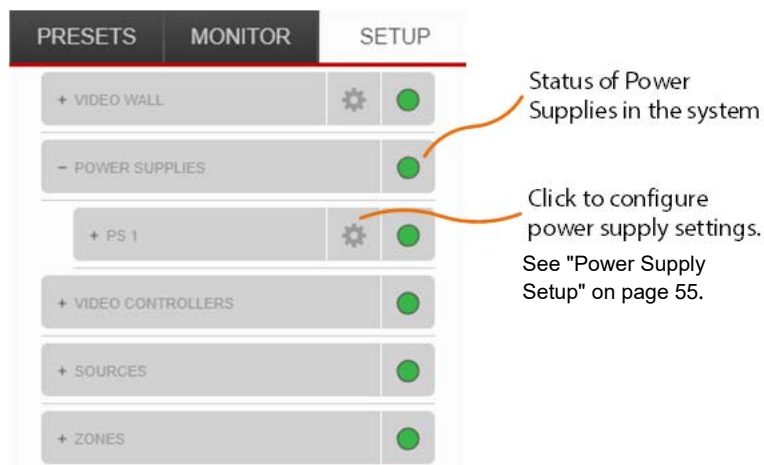
DELETE PANEL

Field	Description
White Test Pattern	When selected, displays a white image across all panels connected to the system. For best results, use this option when color balancing panels. Selecting this check box clears the Gray Test Pattern check box.

Field	Description
Color Temperature	Enables you to select preset color temperatures from 3200K, 5500K, 6500K, 8500K, CUSTOM and NATIVE. This value is initially set to CUSTOM from the factory, as it has been pre-calibrated to a known value to match other panels from the factory. Changing the color temperature values changes this value to CUSTOM if the changes start from one of the presets.
All	Moves the Red, Green and Blue color points simultaneously for the selected panel. Once one of the Red, Green or Blue color points is maximized to 100 or minimized to 0, none of the values will change further.
Red	Changes the red color point for the selected panel. The higher the value, the more red a panel will appear. To change the value, enter a number or move the slider.
Green	Changes the green color point for the selected panel. The higher the value, the more green a panel will appear. To change the value, enter a number or move the slider.
Blue	Changes the blue color point for the selected panel. The higher the value, the more blue a panel will appear. To change the value, enter a number or move the slider.
Gray Test Pattern	When selected, displays a gray image across all panels connected to the system. For best results, use this option after the white color balancing is done. Selecting this check box clears the White Test Pattern check box.
All	Moves the Red, Green and Blue gammas simultaneously for the selected panel. Once one of the Red, Green or Blue gammas is maximized to 100 or minimized to 0, none of the values will change further.
Red	Changes the red gamma for the selected panel. The lower the value, the more red a panel will appear. To change the value, enter a number, use the up/down arrow keys or move the slider. Range is 1.80 to 2.60.
Green	Changes the green gamma for the selected panel. The lower the value, the more green a panel will appear. To change the value, enter a number, use the up/down arrow keys or move the slider. Range is 1.80 to 2.60.
Blue	Changes the blue gamma for the selected panel. The lower the value, the more blue a panel will appear. To change the value, enter a number, use the up/down arrow keys or move the slider. Range is 1.80 to 2.60.

Field	Description
Backlight Adjustment	Adjusts the backlight intensity for the selected panel, enabling panels to match brightness so color balancing can be done properly. To change the value, enter a number or move the slider. If the brightness does not change when moving in either direction, it means that the panel has hit the range limit.
Copy to Clipboard	Click to copy current panel color balance values as a short term backup value that can be restored until the next system reboot. This will be followed by a confirmation dialog box. These values are stored in the same location as the video wall color balance clipboard location.
Recall from Clipboard	Click to update the current panel color balance values in this menu with the values that were copied to the clipboard. This will be followed by a confirmation dialog box.
Reset to Factory	Click to return the current panel color balance factory calibrated values. This will be followed by a confirmation dialog box.
Reset to Native	Click to return the current panel color balance values to the native setting. This is the same as selecting NATIVE from the Color Temperature list. Native values are all at 100. This will be followed by a confirmation dialog box.

Power Supply Setup



Power Supply Setup

Field	Description
ID #	The ID of the power supply associated with the component. This value may be changed to any number. To change the value, enter a number or use the up and down arrow buttons.
Model	The type of power supply.
Serial Number	The factory serial number of the equipment.
PS Module 1 Status	The status of the power supply module in position 1. The possible statuses are OK, Fault or Not Present.
PS Module 2 Status	The status of the power supply module in position 2. The possible statuses are OK, Fault, blank or Not Present.
PS Module 3 Status	The status of the power supply module in position 3. The possible statuses are OK, Fault, blank or Not Present.
PS Module 4 Status	The status of the power supply module in position 4. The possible statuses are OK, Fault or Not Present.
Temperature	The processor temperature value.
Firmware Version	The software version of the firmware on the equipment.
Delete Power Supply	Removes the power supply configuration from the video wall.

Video Controllers

PRESETS MONITOR SETUP

- + VIDEO WALL
- + POWER SUPPLIES
- VIDEO CONTROLLERS
 - + VC 1
 - + VC 2
 - + VC 3
- + SOURCES
- + ZONES

Status of Video Controllers in the system

Click to configure video controller settings. See "Video Controller Setup", next.

Video Controller Setup

VIDEO CONTROLLER SETUP

expand all | collapse all

- VC 1 SETTINGS
- VC 1 INFORMATION
- VC 1 PICTURE SETUP
- VC 1 EDID

DELETE VIDEO CONTROLLER

VC 1 SETTINGS

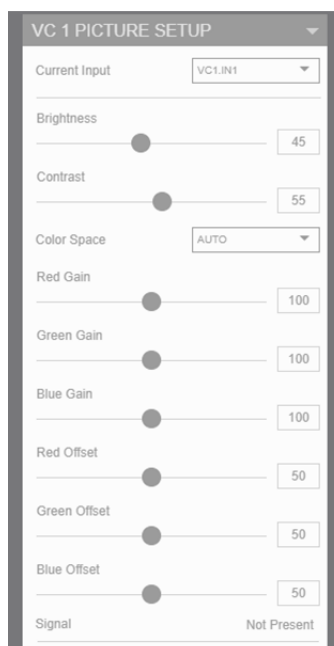
ID # 1

Model VC4H-BP+

Field	Description
ID #	The ID of the video controller associated with the component. This value may be changed to any number. To change the value, enter a number or use the up or down arrow buttons.
Model	The type of video controller.



Field	Description
Serial Number	The factory serial number of the equipment.
Temperature & Fan Status	Indicates if either a fan has failed or the temperature is greater than the limit. The possible status is OK or Fault.
Firmware Version	The software version of the firmware on the equipment.



Field	Description
VC	The active video controller that the source is connected to. Can be changed to any video controller number in the system.
Current Input	The source that will be modified.
Brightness	Adjusts the brightness of the selected input. The higher the number, the brighter the image.
Contrast	Adjusts the contrast of the selected input. The higher the number, the whiter the contrast.

Field	Description
Color Space	Selects the desired color space for the input. AUTO uses the color space from the input. Other choices are REC601, REC709, RGB and RGB VIDEO.
Red Gain	Adjusts the red color for the selected input. The higher the number, the more red for the input.
Green Gain	Adjusts the green color for the selected input. The higher the number, the more green for the input.
Blue Gain	Adjusts the blue color for the selected input. The higher the number, the more blue for the input.
Red Offset	Adjusts the red offset for the selected input. The higher the number, the more red for the input.
Green Offset	Adjusts the green offset for the selected input. The higher the number, the more green for the input.
Blue Offset	Adjusts the blue offset for the selected input. The higher the number, the more blue for the input.
Signal	Denotes if a valid source is connected to the current input.
DisplayPort Type	Enables the choice between DisplayPort 1.1 and 1.2 as the source connected. Changing may require a re-insertion of the source cable to the input.

Field	Description
Input	The current source input that information is displayed for, and can be edited if desired. To change the value, use the up or down arrow keys or enter the number desired in the box.
Program EDID	If changes are made to the information of a source, press ENTER while this line is highlighted for the changes to take effect.
EDID Type	There are three quick select types of pre-defined EDIDs for sources to use: 4K/60, 4K/30 and 1080P. The default setting is 4K/60. Selecting each will change the Horizontal Active, Vertical Active and Vertical Refresh Rate Below.
Horizontal Active	The horizontal resolution that the input will represent to the source. The maximum for this value is 4095 as long as the Pixel Clock remains under 600MHz. To change the value, use the up or down arrow keys or enter the number desired in the box.
Vertical Active	The vertical resolution that the input will represent to the source. The maximum for this value is 4095 as long as the Pixel Clock remains under 600MHz. To change the value, use the up or down arrow keys or enter the number desired in the box.
Vertical Refresh Rate	The refresh rate that the input will represent to the source. The default is 60, but can be tuned to any standard and non-standard refresh rate as long as the Pixel Clock remains under 600MHz. To change the value, use the up or down arrow keys or enter the number desired in the box.
Fully Specified	When selected, enables the editing for the parameters below. These parameters are meant for users who fully understand the image setup parameters.

Field	Description
Pixel Clock	The frequency of the pixel clock. The maximum setting is 600MHz. To change the value, use the up or down arrow keys or enter the number desired in the box.
Horizontal Blanking	To change the value, use the up or down arrow keys or enter the number desired in the box.
Horizontal Front Porch	To change the value, use the up or down arrow keys or enter the number desired in the box.
Horizontal Sync Width	To change the value, use the up or down arrow keys or enter the number desired in the box.
Vertical Blanking	To change the value, use the up or down arrow keys or enter the number desired in the box.
Vertical Front Porch	To change the value, use the up or down arrow keys or enter the number desired in the box.
Vertical Sync Width	To change the value, use the up or down arrow keys or enter the number desired in the box.
Revert to Factory	Press the ENTER button while highlighted to return the factory settings for the EDID Type selected above. This will be followed by a confirmation dialog box.

Sources

The screenshot displays the 'Sources' section within the 'SETUP' tab. The interface is organized into a list of components, each with a name, a gear icon for configuration, and a green circle for status. The components listed are: VIDEO WALL, POWER SUPPLIES, VIDEO CONTROLLERS, SOURCES (expanded to show Conf Room Comp, Content Server, HD Feed, and Lobby Camera), and ZONES. An 'ADD SOURCE' button is located below the expanded SOURCES list.

Annotations:

- Click to add a source to the system (points to the 'ADD SOURCE' button)
- Status of Sources in the system (points to the green status circles)
- Click to configure sources. See "Source Setup" on page 62. (points to the gear icons)

Source Setup

Field	Description
Source Name	The active input on the active video controller for which the status information will be displayed. The system automatically assigns a source name as the auto detected video controller and input. The value may be changed to a more descriptive value based upon the source plugged in. There is a 128 character limit.
Image	A predefined image is associated with the drop-down menu for easy recognition of the source on the canvas. There is an option to use custom images as well.
Input Assignment	The video controller and input assigned to this source.
Source Present	Indicates if a source is detected.
Resolution	The recognized resolution and refresh rate of the selected input.
Horizontal Frequency	The horizontal scan rate of the selected input.
Pixel Frequency	The pixel clock frequency of the selected input.
Color Space	The color space setting of the selected input.
Color Depth	The color depth in bits for the selected input.
Color Subsampling	The subsampling of the selected input in X:X:X format. For example, 4:4:4 or 4:2:0.
Delete Source	Removes the source configuration from the video wall.

Zones

Zones are the means for assigning, sizing and positioning sources on a video wall array. A zone can have only a single source assigned, but a single video controller can have up to 8 displayable zones contained within its output area. Any number beyond 8 will make some zones go black due to bandwidth limitations. See the "Design Guide" section in the *Installation Guide* for information on video wall layout for multi-zone environments. Zones may be created in two ways:

- In the Setup tab as shown below:



- Or by clicking the icon below in the workspace area.



The latter method will navigate to the Preset tab for zone creation. See "Presets Tab" on page 74.


There are two locations within WallDirector where zone information may be edited. Using the former method will display a dialog box as shown below to input information about the zone.



Zone Setup

Field	Description
ID #	The ID of the zone associated with the area on the video wall. This value may be changed to any number. To change the value, enter a number or use the up or down arrow buttons.
Zone Position X	Adjusts the horizontal position of the zone in landscape, or adjusts the vertical position of the zone in portrait. This value may be changed to any number. To change the value, enter a number or use the up or down arrow buttons.
Zone Position Y	Adjusts the vertical position of the zone in landscape, or adjusts the horizontal position of the zone in portrait. This value may be changed to any number. To change the value, enter a number or use the up or down arrow buttons.
Width	Adjusts the pixel width of the zone in landscape, or adjusts the height of the zone in portrait. This value may be changed to any number. To change the value, enter a number or use the up or down arrow buttons.
Height	Adjusts the pixel height of the zone in landscape, or adjusts the width of the zone in portrait. This value may be changed to any number. To change the value, enter a number or use the up or down arrow buttons.
Source	Assigns a predefined source to be displayed within the zone. Select drop-down arrow to see all sources setup on the system.
Bring to Top	For overlapping zones, moves the selected zone to display over any others.
Delete Zone	Removes the zone from the active workspace.

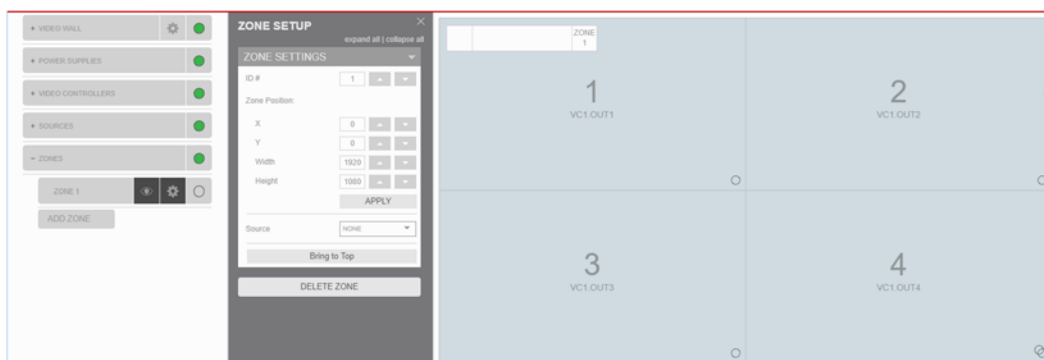
For the second location on editing zones, see "Presets Tab" on page 74.

Note: The zone menu here is an easy way to navigate to zones that may be positioned off the active area of the workspace or hidden beneath other zones in the layout.

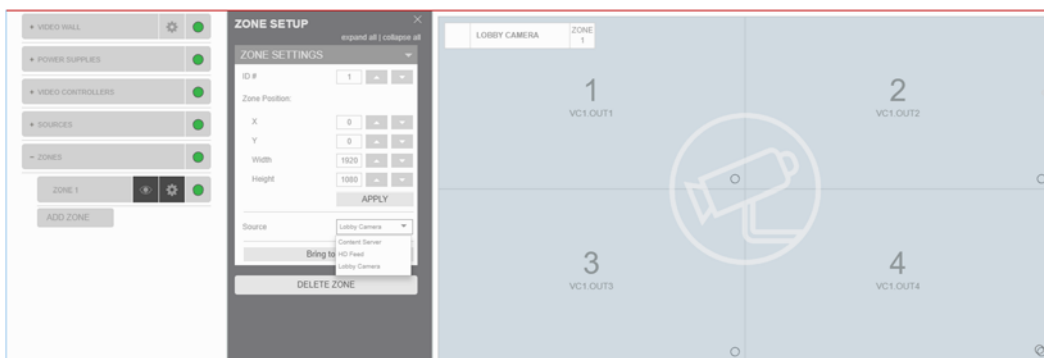
Clicking the  will show the zone's physical representation on the

workspace. If a zone is not seen, use the zoom  and/or pan  features to locate or change the position values to fit the display area.

Adding the first zone will automatically apply Big Picture to the setup display area as shown below.



From here the size position and source may be changed for the zone.

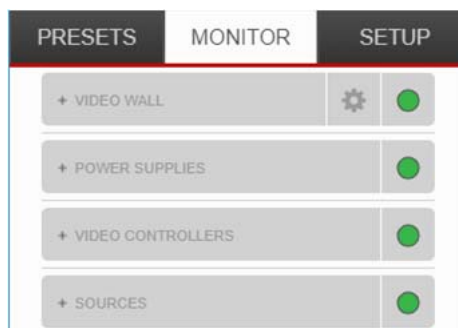


Additional zones may be added and setup from here.

To save the layout, see "Presets Tab" on page 74.

Monitor Tab

The **Monitor** tab allows non-administrator users to check the health of individual components within the system. Configuration items may not be changed here, but these items can help in troubleshooting system issues.



Video Wall Details



LCD

LED

VIDEO WALL DETAILS
✕

expand all | collapse all

INFORMATION

Type	LCD
Model	LX55X
Orientation	Landscape
Columns	3
Rows	3
Layout Type	Default
On-Screen Menu Panel	1
Panel Sync	YES

GENLOCK

Panel Vertical Refresh	60 Hz
All VC Outputs Locked	NO
VC	1
Sync Reference	DP
Sync Reference Present	NO
Sync Reference Frequency	0.00 Hz
VC Output Locked	NO

BACKLIGHT

Control Mode	AUTO
Intensity	60
Max Intensity	100
Dimmed Intensity	20
Ambient Threshold	50
Ambient Light	239
Ambient Sensor Panel	2

FRAME COMPENSATION

Enabled	YES
Frame Height	4
Frame Width	4

VIDEO WALL DETAILS
✕

expand all | collapse all

INFORMATION

Type	LED
Model	DLX-0.7
Width	3840
Height	2160
Layout Type	Manual
On-Screen Menu Panel	4

GENLOCK

Panel Vertical Refresh	60 Hz
All VC Outputs Locked	YES
VC	1
Sync Reference	IN3
Sync Reference Present	YES
Sync Reference Frequency	29.97 Hz
VC Output Locked	YES

BRIGHTNESS

Control Mode	AUTO
Intensity	60
Max Intensity	100
Dimmed Intensity	20
Ambient Threshold	50
Ambient Light	239
Ambient Sensor Panel	2

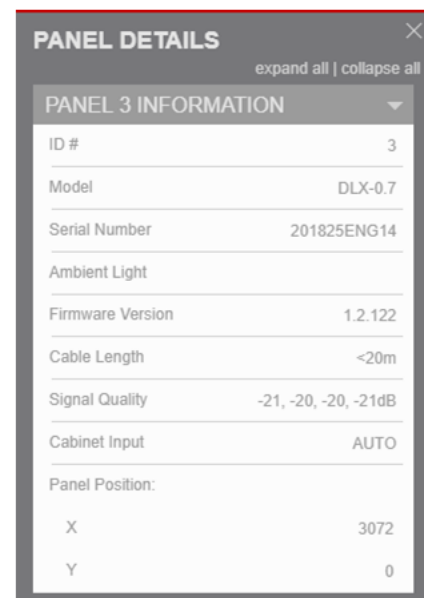
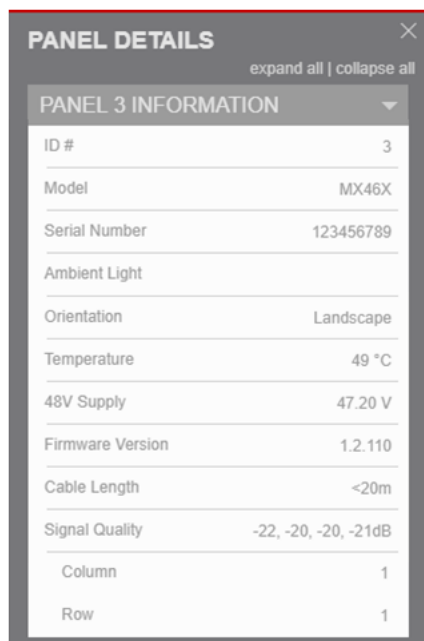
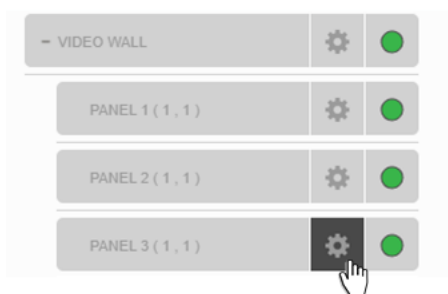
Field	Description
Type	Describes the display equipment detected by the system: LCD, LED or Monitor.
Model	The panel model connected to the system.
Orientation	<i>(LCD products only)</i> The orientation of the panel as recognized by the sensor or manually set by the administrator.
Columns	<i>(LCD products only)</i> The number of columns in the video wall array as recognized by the position sensors or set by the administrator.
Rows	<i>(LCD products only)</i> The number of rows in the video wall array as recognized by the position sensors or set by the administrator.
Width (pixels)	<i>(LED products only)</i> The total number of horizontal pixels in the array. This is a summation of each cabinet's horizontal pixels.
Height (pixels)	<i>(LED products only)</i> The total number of horizontal pixels in the array. This is a summation of each cabinet's horizontal pixels.
Layout Type	Denotes whether the panel position sensors were used to configure the rows and columns or if this was set by the administrator. The possible statuses are Default, Auto or Manual.
On-Screen Menu	Denotes panel ID number the On-Screen Menu will be displayed for use with the remote control.
Panel Sync	<i>(LCD products only)</i> This indicates if the inverted image scan on even rows is enabled. Values are YES or No.
Panel Vertical Refresh	Indicates the vertical refresh setting for the panel. Values are 50Hz and 60Hz.
All VC Outputs Locked	Indicates if all connected VCs have sync locked outputs. Values are YES and NO.
VC	Sets the number of the VC to be monitored.
Sync Reference	Indicates the VC sync reference. Values are SYNC IN, IN 1, IN 2, IN 3, IN 4, DP and Internal.
Sync Reference Present	Indicates if a sync reference is present on the selected VC. Values are YES and NO.
Sync Reference Frequency	Indicates the value of the sync reference in Hz.
VC Output Locked	Indicates if the output on the selected VC is locked to the sync reference. Values are YES and NO.
Control Mode	Denotes the method used for controlling panel brightness. The possible statuses are Manual or Auto.
Intensity	Denotes the global brightness setting.
Dimmed Intensity	Denotes the brightness setting when the Ambient Threshold is reached as set by the administrator.

Field	Description
Ambient Threshold	Denotes the administrator set value for when the Dimmed Intensity value is used for the brightness of the video wall.
Enabled	Denotes whether or not Frame Compensation is on or off. The possible statuses are Yes or No.
Frame Height	<i>(LCD products only)</i> Value set by the administrator for the vertical Frame Compensation.
Frame Width	<i>(LCD products only)</i> Value set by the administrator for the horizontal Frame Compensation.

Panel Details

LCD

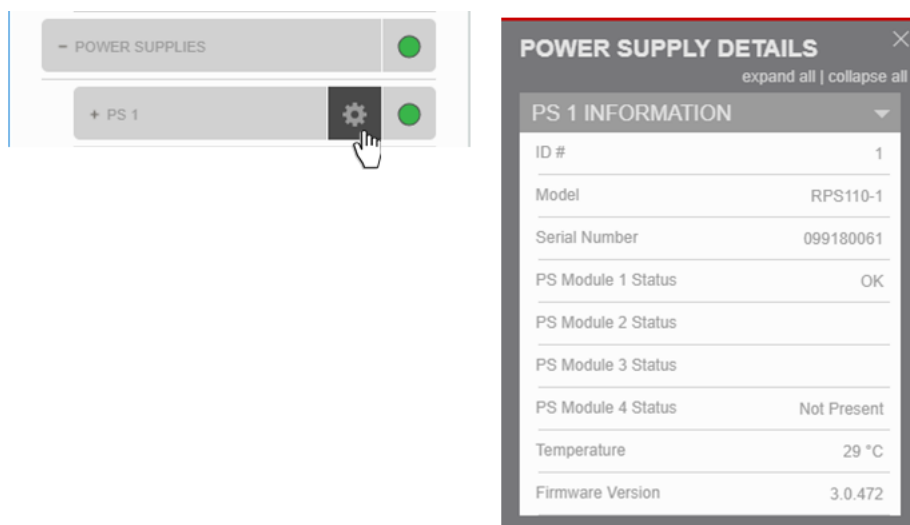
LED



Field	Description
ID #	The panel number for which this information menu pertains.
Model	The panel type.
Serial Number	The factory assigned serial number for the panel.
Ambient Light	Denotes whether an Ambient Light sensor is connected to the panel.
Orientation	<i>(LCD products only)</i> Denotes the orientation sensor reading for the panel.

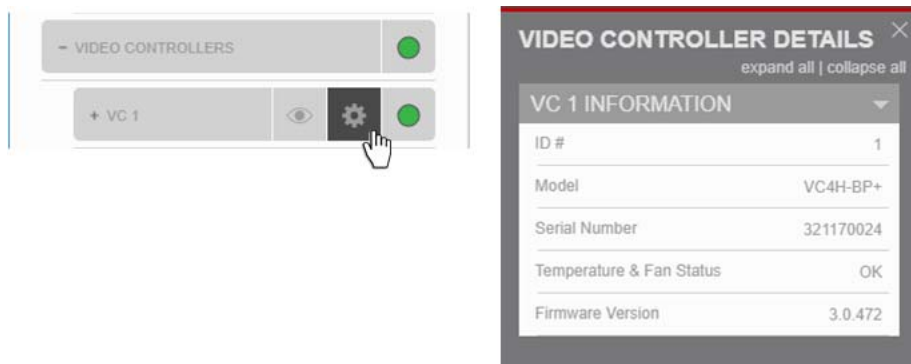
Field	Description
Temperature	<i>(LCD products only)</i> Denotes the current temperature of the electronics on the back of the panel.
48V Supply	<i>(LCD products only)</i> Denotes the actual voltage being supplied to the electronics of the panel.
Firmware Version	Current software version loaded on the panel electronics.
Cable Length	Rough approximation of the cable length from the VC to the panel.
Cabinet Input	<i>(LED products only)</i> Denotes the current input setting for the first cabinet in the video chain is using. Values are AUTO, HDMI 1 and HDMI 2.
Signal Quality	Diagnostic tool to determine if there may be cable issues causing display anomalies.
Column	<i>(LCD products only)</i> Denotes the horizontal position of the panel in the video wall array.
Row	<i>(LCD products only)</i> Denotes the vertical position of the panel in the video wall array.
X	<i>(LED products only)</i> Denotes the horizontal pixel position of the upper left corner of the selected panel with respect to the left side of the video wall.
Y	<i>(LED products only)</i> Denotes the vertical pixel position of the upper left corner of the selected panel with respect to the top of the video wall.

Power Supply Details



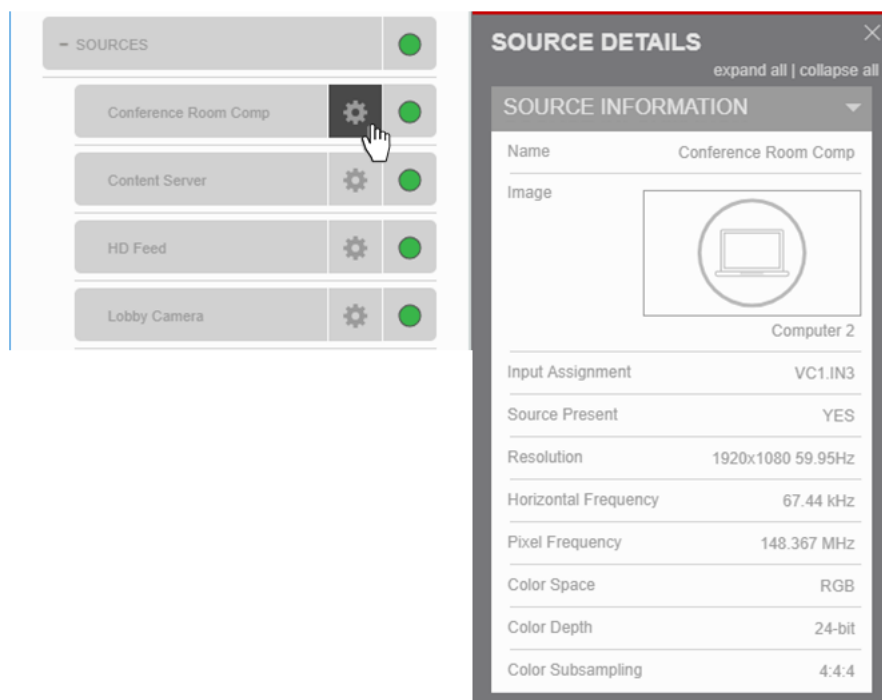
Field	Description
ID #	The power supply number for which this information menu pertains.
Model	The power supply type
Serial Number	The factory assigned serial number for the power supply.
PS Module 1 Status	The status of the power supply module in position 1. The possible statuses are OK, Fault or Not Present.
PS Module 2 Status	The status of the power supply module in position 2. The possible statuses are OK, Fault, Blank or Not Present.
PS Module 3 Status	The status of the power supply module in position 3. The possible statuses are OK, Fault, Blank or Not Present.
PS Module 4 Status	The status of the power supply module in position 4. The possible statuses are OK, Fault or Not Present.
Temperature	Denotes the current temperature of the electronics in the power supply.
Firmware Version	Current software version loaded on the power supply.

Video Controller Details



Field	Description
ID #	The video controller number for which this information menu pertains.
Model	The video controller type
Serial Number	The factory assigned serial number for the video controller.
Temperature & Fan Status	Indicates if either a fan has failed or the temperature is greater than the limit. The possible statuses are OK or Fault.
Firmware Version	Current software version loaded on the video controller.

Source Details



Field	Description
Name	Default or administrator set name for the source.
Image	Assigned or blank icon denoting source zone on canvas.
Input Assignment	Physical connection point of the source to a video controller.
Source Present	Denotes if the source is recognized by the system as being valid. The possible statuses are Yes or No.
Resolution	The recognized resolution and refresh rate of the source.
Horizontal Frequency	The horizontal scan rate of the selected source.
Pixel Frequency	The pixel clock frequency of the source.
Color Space	The color space of the source.
Color Depth	The color depth in bits of the source.
Color Subsampling	The subsampling of the source.

Presets Tab

On the **Presets** tab, administrators can manage zones on the video wall, and save the layout as a preset. Non-administrative users may switch between predefined presets if multiple are available. See the "Design Guide" section in the *Installation Guide* for considerations for laying out the wall.



It is important to note that Presets save only the zone information as shown in the active workspace and not any other system settings. The information saved includes:

- Layout of zones
- Assigned source
- Source scaling
- Source justification
- Source overscan
- Zone size
- Zone position
- Zone layer

Nothing in a preset is saved until the save button is pressed.

As described earlier, zones may be created in the Setup tab; however, there is more freedom to adjust zones in the Presets tab. Instead of a panel being selected for editing in the workspace as in the Setup tab, the zones are selectable and able to be manipulated with the cursor. The active zone for manipulation is denoted by a red rectangle and round circles at the points where the zone can be resized with a click and drag. Additionally, the grid buttons described earlier (see "Workspace Buttons" on page 34) may be used to snap zones to a location.

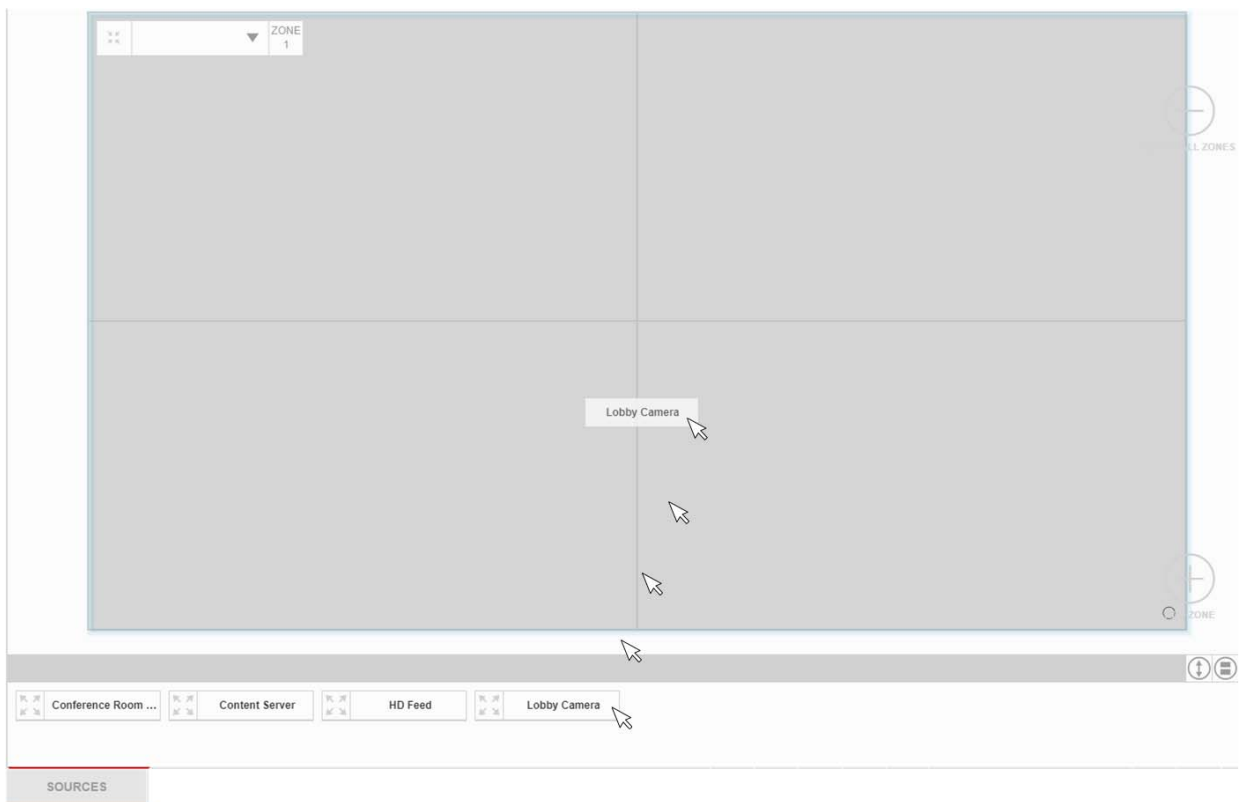
There are two ways to add zones to the workspace from the Preset tab. The first way to add a zone is to press the icon in the workspace area below:



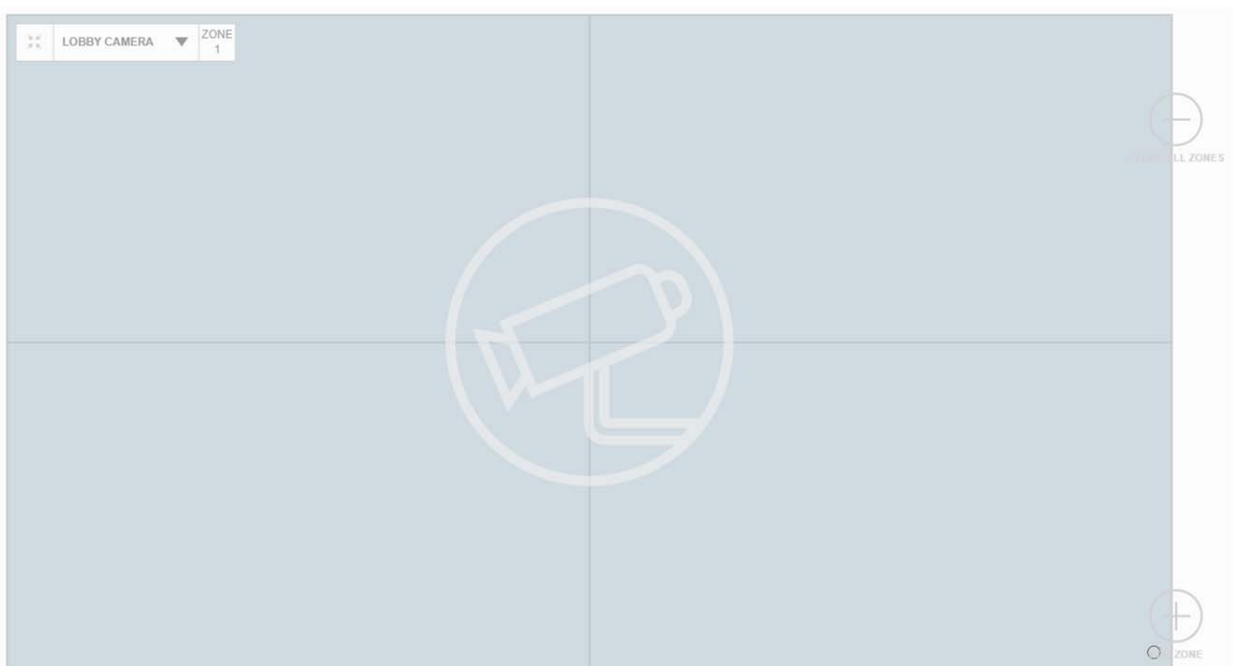
Note: Clicking the other icon in the workspace area removes all zones created in the active preset.



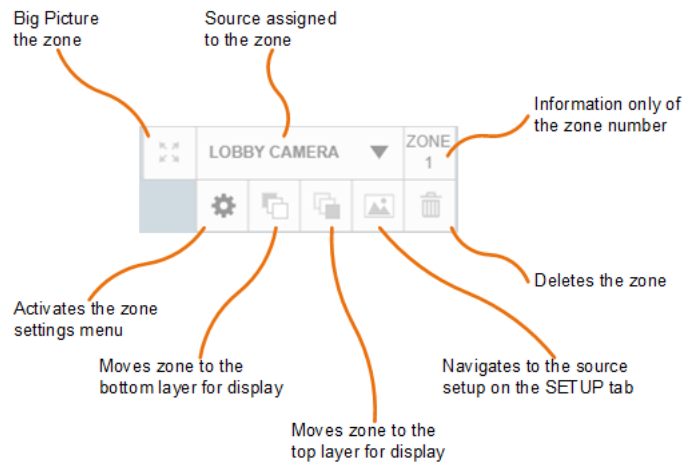
The second way to add a zone is by showing the sources by clicking **SOURCES** and dragging a source into the workspace area.



Adding the first zone automatically applies Big Picture to the setup display area as shown below.



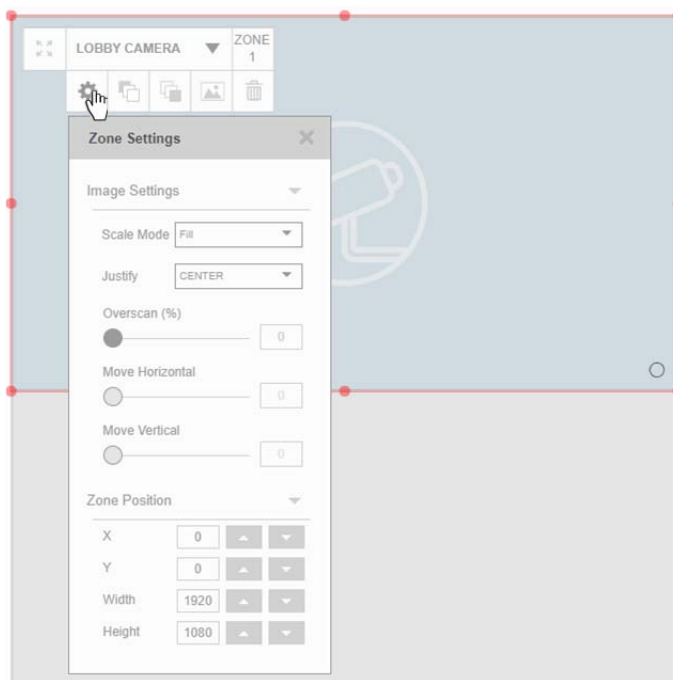
When a zone is created, a zone bar appears with various functions.

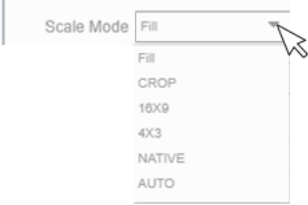
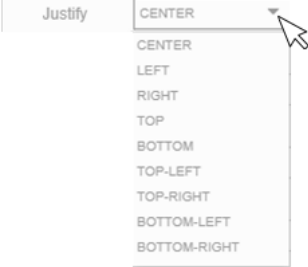


Note: Source may be assigned within the zone bar drop-down menu or by dragging a source from the source bar onto the zone area.



Within the zone settings menu, the size and position may be entered manually. The menu also includes other functions to get the most out of the display.



Field	Description
Scale Mode	<p>Allows for the selection of how the source should be scaled within the zone area.</p>  <p>See "Scale Mode" on page 78..</p>
Justify	<p>Allows for the selection of how the source should be referenced within the zone area.</p>  <p>See "Justify" on page 79.</p>

Field	Description
Overscan	This is a percentage of how much the source should be scaled in excess of the native resolution. Change this value by clicking the circle and dragging to the desired value. The range is 0-50%.
Move Horizontal	Active only when overscan is enabled, this feature allows the overscanned image to move left or right up to the edge of the native image. Change this value by clicking the circle and dragging to the desired value. The range is 0– <i>Overscan setting</i> .
Move Vertical	Active only when overscan is enabled, this feature allows the overscanned image to move up or down up to the edge of the native image. Change by clicking the circle and dragging to the desired value. The range is 0– <i>Overscan setting</i> .
Zone Position X	Adjusts the horizontal position of the zone in landscape and the vertical position in portrait. This value may be changed to any number. To change the value, enter a number or use the up or down arrow buttons.
Zone Position Y	Adjusts the vertical position of the zone in landscape and the horizontal position in portrait. This value may be changed to any number. To change the value, enter a number or use the up or down arrow buttons.
Width	Adjusts the pixel width of the zone. This value may be changed to any positive non-zero number. To change the value, enter a number or use the up or down arrow buttons.
Height	Adjusts the pixel height of the zone. This value may be changed to any positive non-zero number. To change the value, enter a number or use the up or down arrow buttons.

Scale Mode

Field	Description
Fill	Stretches or shrinks the image to fit both top to bottom and left to right of the zone size. The result is a zone showing all source content with no black bars but possible significant image distortion.
Crop	Stretches the image resolution equally in both width and height until both horizontal and vertical rows of pixels have equaled or exceeded a zone resolution. The result is a source aspect ratio correct image with no black bars but a possible oversized image in either horizontal or vertical direction.
16x9	Stretches or shrinks the image in the horizontal and/or vertical to the closest edge of a zone to create a 16x9 aspect ratio. The result is a 16x9 image with possible vertical or horizontal black bars.

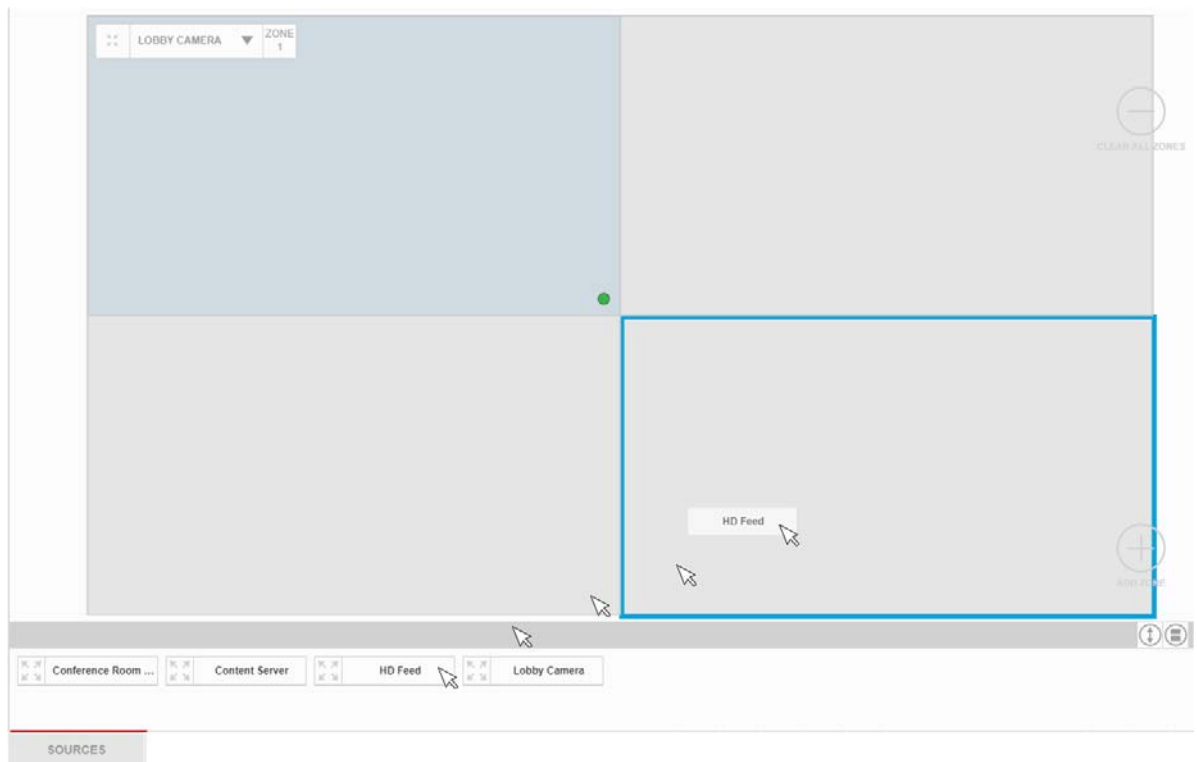
Field	Description
4x3	Stretches or shrinks the image in the horizontal and/or vertical to the closest edge of a zone to create a 4x3 aspect ratio. The result is a 4x3 image with possible vertical or horizontal black bars.
Native	No scaling of the image occurs. The result is a zone with source resolution unchanged, but depending on the difference of the zone and image resolutions, the image may be oversized or contain black bars.
Auto	Stretches or shrinks the image in the horizontal and/or vertical to the closest edge of a zone while maintaining the input resolution. The result is a source equal aspect ratio image with possible vertical or horizontal black bars.

Justify

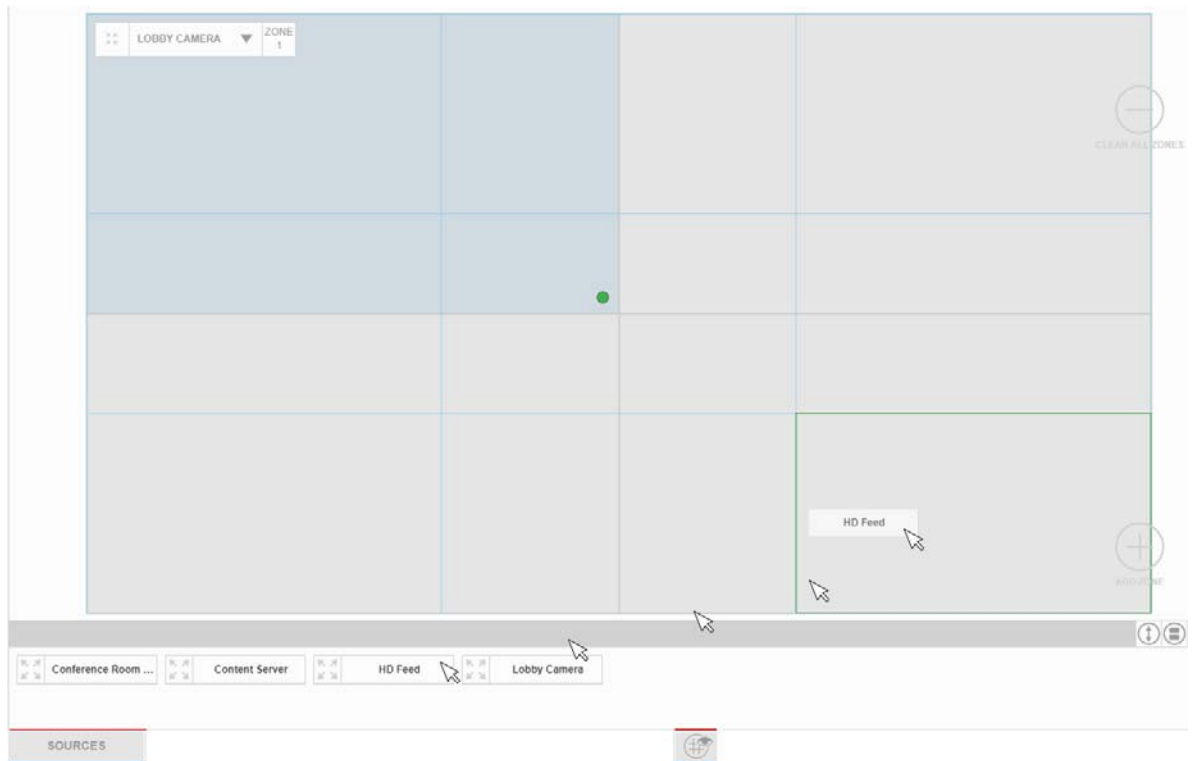
Field	Description
Center	The image is placed in the zone based on the center vertical pixel being centered between the top/bottom of the zone and the center horizontal pixel being centered between the left/right of the zone.
Left	The image is placed in the zone based on the center vertical pixel being centered between the top/bottom of the zone and the left most line of pixels on the left most edge of the zone.
Right	The image is placed in the zone based on the center vertical pixel being centered between the top/bottom of the zone and the right most line of pixels on the right most edge of the zone.
Top	The image is placed in the zone based on the center horizontal pixel being centered between the left/right of the zone and the top most line of pixels on the top most edge of the zone.
Bottom	The image is placed in the zone based on the center horizontal pixel being centered between the left/right of the zone and the bottom most line of pixels on the bottom most edge of the zone.
Top-Left	The image is placed in the zone based on the top most line of pixels on the top most edge of the zone and the left most line of pixels on the left most edge of the zone.
Top-Right	The image is placed in the zone based on the top most line of pixels on the top most edge of the zone and the right most line of pixels on the right most edge of the zone.
Bottom-Left	The image is placed in the zone based on the bottom most line of pixels on the bottom most edge of the zone and the left most line of pixels on the left most edge of the zone.

Field	Description
Bottom-Right	The image is placed in the zone based on the bottom most line of pixels on the bottom most edge of the zone and the right most line of pixels on the right most edge of the zone.

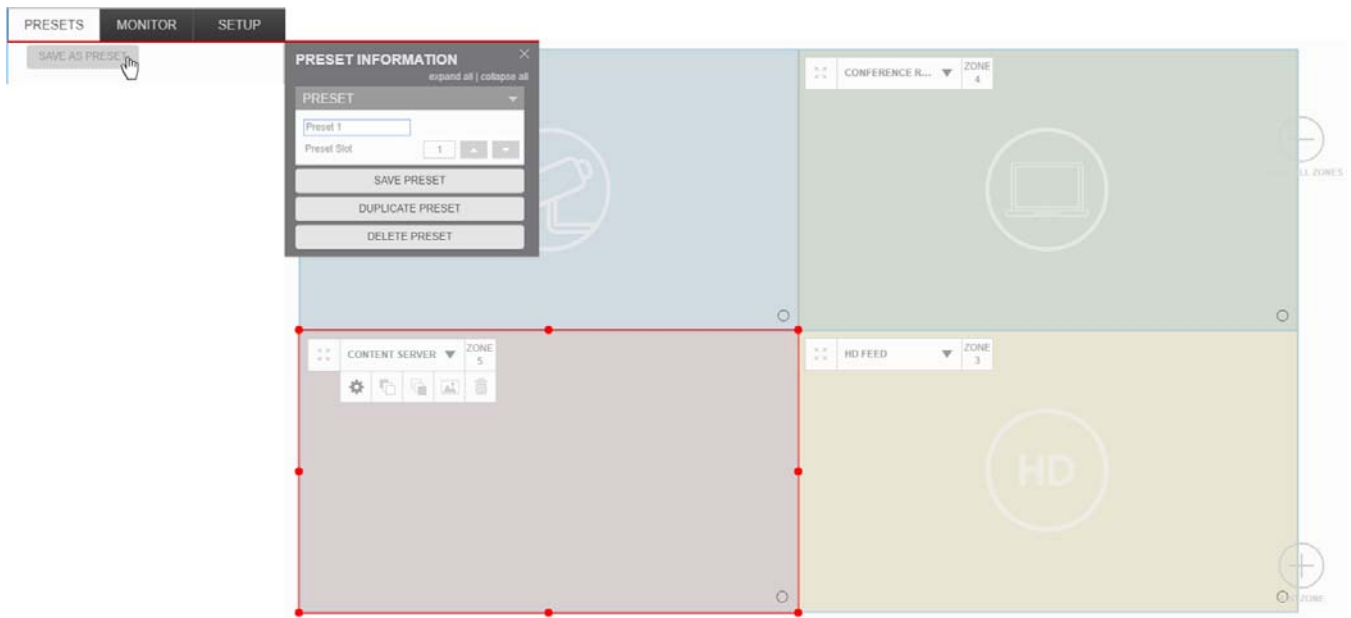
Once one zone is configured, additional zones may be added. For convenience, dragging a source to the wall will snap to the panel desired.

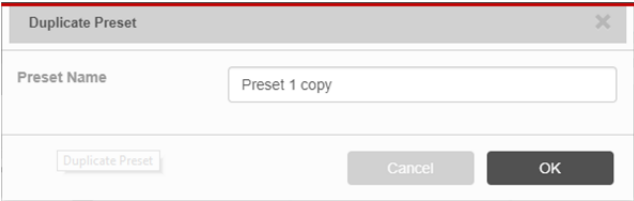
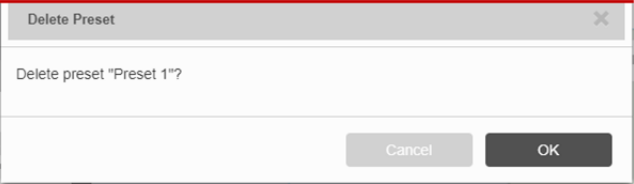


Or, if the grid is enabled, the source will snap and size to the section desired.

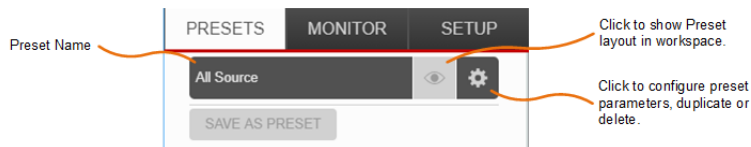


Once all the desired zones for the preset are created, the information may be saved under a preset number.



Field	Description
Preset Name	Allows a user name for the preset. Limited to maximum 28 visible characters in menu (128 characters available). Changing a preset name only does not require a Save Preset; the change will be automatic.
Preset Slot	Allows the user to identify the slot location the preset should be saved under. Slot locations are limited from 1-255. This may be changed by entering a number or using the arrow keys. Different presets will not be allowed to be saved under the same slot and will revert to the original slot if there is a conflict. Note: Presets are listed in slot order in the Presets Tab.
Save Preset	Saves the current layout to the slot location and makes the new preset active.
Duplicate Preset	<p>Duplicates and initiates a dialog box to copy and save the active layout to an unused slot location that is next in numerical order.</p>  <p>The dialog box allows for the renaming of the layout. Note: Any changes made to the active layout are not saved in the duplicate layout. Use Save as Preset instead. Duplicating the preset does not make the duplicate active; navigation to the new preset is necessary.</p>
Delete Preset	<p>Deletes the selected preset from the configuration. The following confirmation dialog box will appear.</p> 

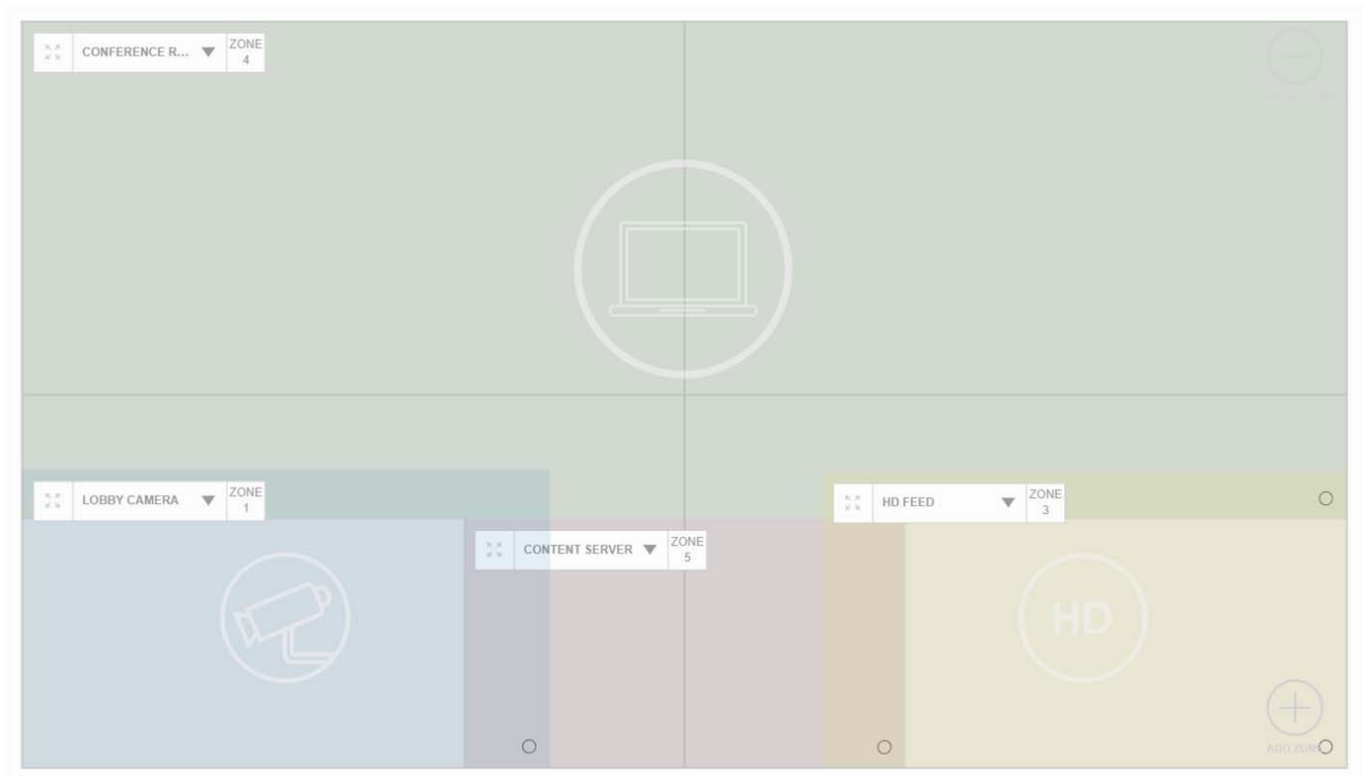
Once a preset has been created, the Preset will be added as an item to the menu.



A few more notes about presets and zones:

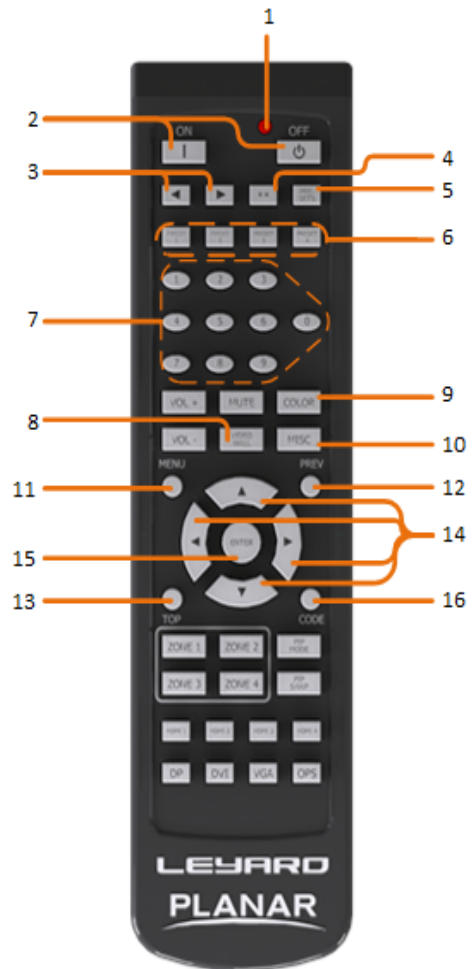
- As stated, additional presets may be created by duplication or by adding and deleting zones from the current preset and saving it as a new preset.
- Zone numbers between presets may or may not match as they are identified separately under each preset.

Overlapping zones in a preset are acceptable. Be sure to use the **Bring to Front** and/or **Send to Back** buttons for proper display order. For example, the image below shows zones 1 and 3 being displayed in the overlap areas instead of zones 4 and 5.



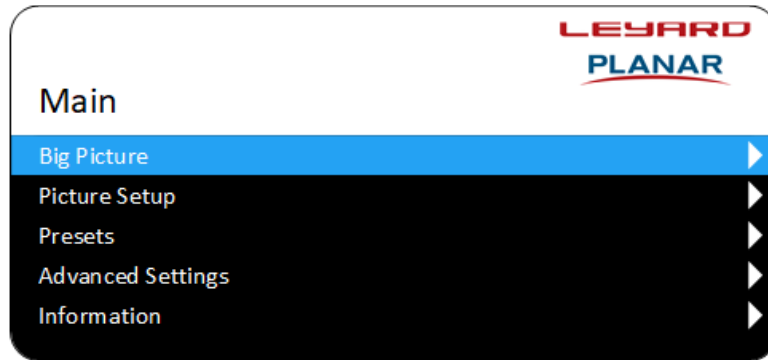
OSM

Remote



Number	Symbol	Description
1	LED	Indicates button has been pressed; feedback for remote code programming
2	ON/OFF	Turns the system on or off. Equipment affected depends on Power Mode setup.
3	◀ ▶	Color Balance Menu only; Moves control between previous and next display
4	**	Color Balance Menu only; Selects All displays for control (LCD only)
5	PRE-SETS	Shortcut to Presets Menu
6	PRESET1-4	Shortcut to display Presets 1 thru 4
7	0-9	Keypad for numeric entry
8	VIDEO WALL	Shortcut to Big Picture Menu
9	COLOR	Shortcut to Color Balance Menu (LCD only)
10	MISC	Shortcut to Brightness Menu
11	MENU	Shortcut to display the OSD
12	PREV	Navigates to previous level of menu
13	TOP	Moves OSD highlight bar to top of current menu
14	◀▶▲▼	Navigation arrows for menus
15	ENTER	Selects the highlighted item in the menu
16	CODE	Used when programming a custom remote code

The OSD menu is activated by pointing the remote at a video wall active IR sensor and pressing MENU on the remote. Once pressed, each panel should show its assigned panel ID and one of the panels will have the OSD menu. The first menu shown will be like the one below.



The active command/setting in a menu will be the orange highlighted line. Some lines will not highlight when browsing the menus. These are either information/status lines or lines that require a check box to be clicked to enable.

Browsing Menus

- To browse the menus, use the remote up and down arrow keys.
- Menus are self scrolling, meaning once the bottom is reached, pressing the down arrow will move the highlight back to the top of the menu.
- If there is an arrow that points to the right on the menu line, it indicates there is another menu under this line with more items that can be viewed. Once the highlight line is on one of these lines, use either the ENTER or right arrow to navigate to the next menu.
- To navigate back to the previous menu, press the PREV button on the remote.
- To remove the menu from the panels, press the EXIT button.

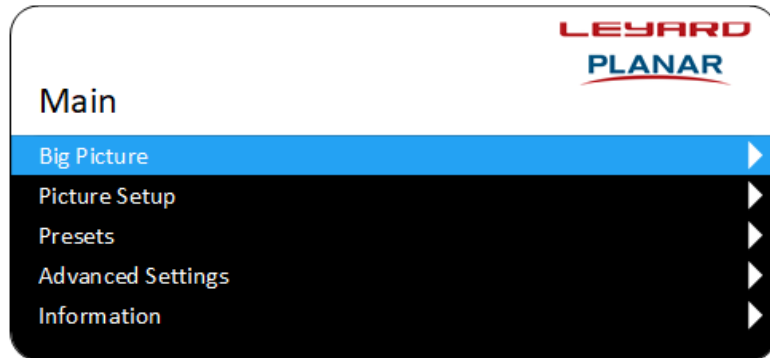
Changing Values

All lines that can be highlighted have values that can be changed via the left and right arrows. Additionally, lines that have editable numbers may be changed via the numeric keypad of the remote. To do this, do the following:

- 1 Press ENTER while on the line.
- 2 If necessary, delete the existing data by using the left arrow on the keypad.
- 3 Enter the desired numbers and press ENTER again to save the values.

Menus

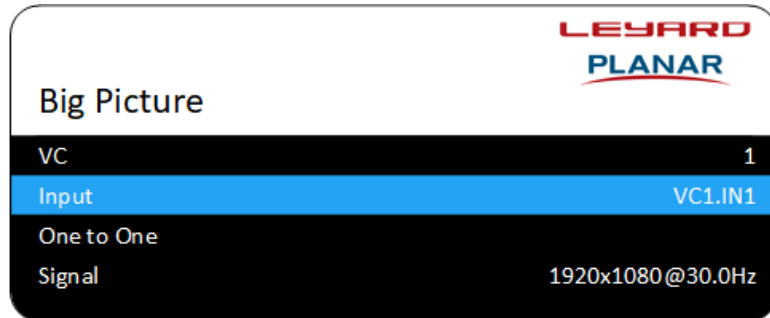
Main Menu



Menu	Description
Big Picture	Navigates to the Big Picture menu. See "Big Picture Menu" on page 87.
Picture Setup	Navigates to the Picture Setup menu. See "Picture Setup Menu" on page 88.
Presets	Navigates to the Presets menu. See "Presets Menu" on page 89.
Advanced Settings	Navigates to the Advanced Settings menu. See "Advanced Settings" on page 90.
Information	Navigates to the Information menu. See "Information" on page 116.

Big Picture Menu

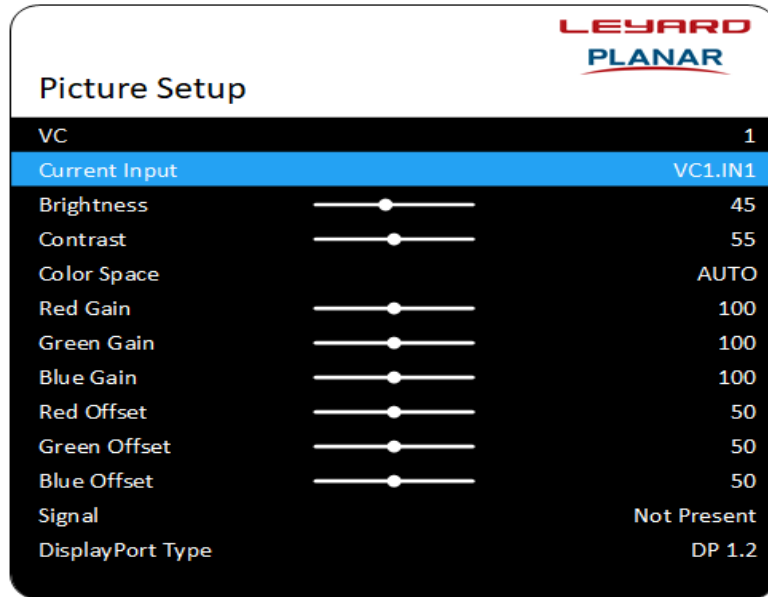
This menu enables you to easily spread a single source over the entire video wall or display the inputs to each panel.



Menu	Description
VC	The active video controller that contains the source to be scaled across the video wall. Can be changed to any video controller number in the system.
Input	The input of the active controller that will be used for the source across the video wall. Can be changed to any input within the video controller.
One to One	Routes the sources from each input to the corresponding output on the video controller.
Signal	Displays the resolution and refresh rate of the source selected for the input, if present. If nothing is detected, displays "Not Present."

Picture Setup Menu

Use this menu to modify the input source.



Field	Description
VC	The active video controller that the source is connected to. Can be changed to any video controller number in the system.
Current Input	The source that will be modified.
Brightness	Adjusts the brightness of the selected input. The higher the number, the brighter the image. Range is 1-100.
Contrast	Adjusts the contrast of the selected input. The higher the number, the whiter the contrast. Range is 1-100.
Color Space	Selects the desired color space for the input. AUTO uses the color space from the input. Other choices are REC601, REC709, RGB and RGB VIDEO.
Red Gain	Adjusts the red color for the selected input. The higher the number, the more red for the input. Range is 0-200.
Green Gain	Adjusts the green color for the selected input. The higher the number, the more green for the input. Range is 0-200.
Blue Gain	Adjusts the blue color for the selected input. The higher the number, the more blue for the input. Range is 0-200.
Red Offset	Adjusts the red offset for the selected input. The higher the number, the more red for the input. Range is 1-100.
Green Offset	Adjusts the green offset for the selected input. The higher the number, the more green for the input. Range is 1-100.

Field	Description
Blue Offset	Adjusts the blue offset for the selected input. The higher the number, the more blue for the input. Range is 1-100.
Signal	Denotes if a valid source is connected to the current input.
DisplayPort Type	Enables the choice between DisplayPort 1.1 and 1.2 as the source connected. Changing may require a re-insertion of the source cable to the input.

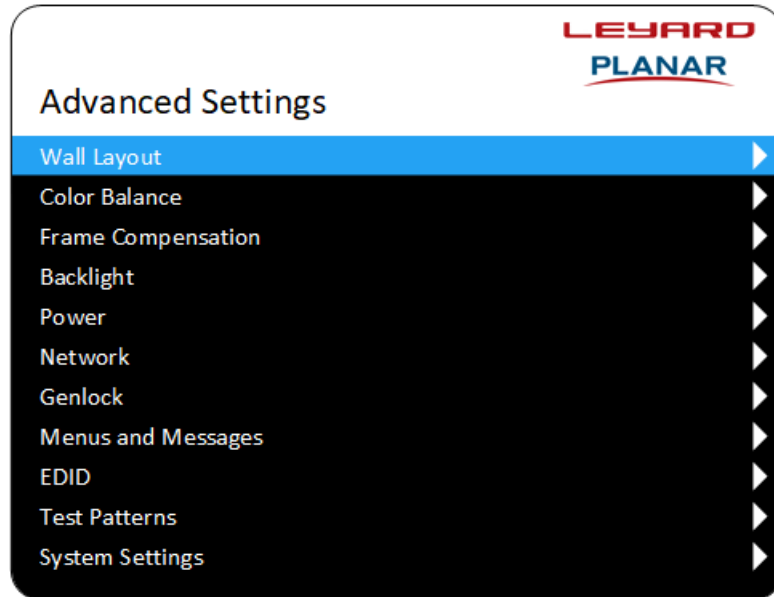
Presets Menu



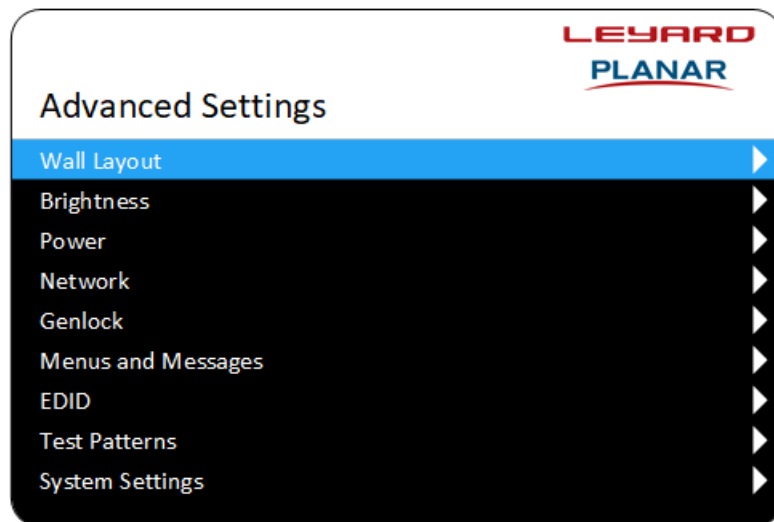
Field	Description
Preset Slot	Selects the preset slot number to recall, save or delete.
Name	The number or name of the preset. A name can be defined for a preset from the WallDirector software.
Recall	Activates the selected preset.
Save	Saves the selected preset.
Delete	Deletes the selected preset.

Advanced Settings

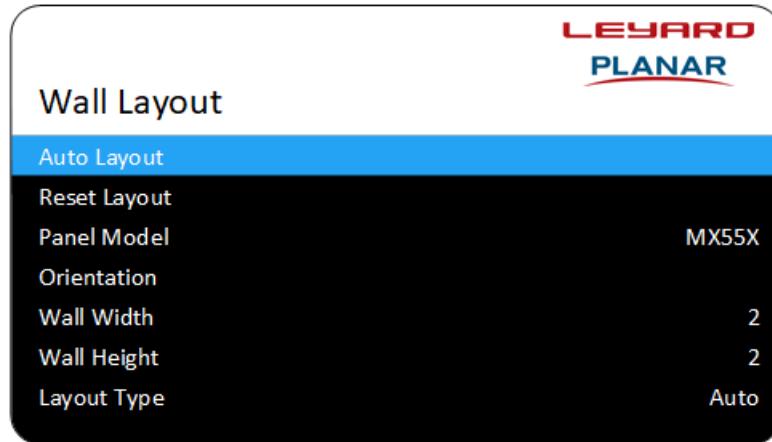
Matrix Layout Menu



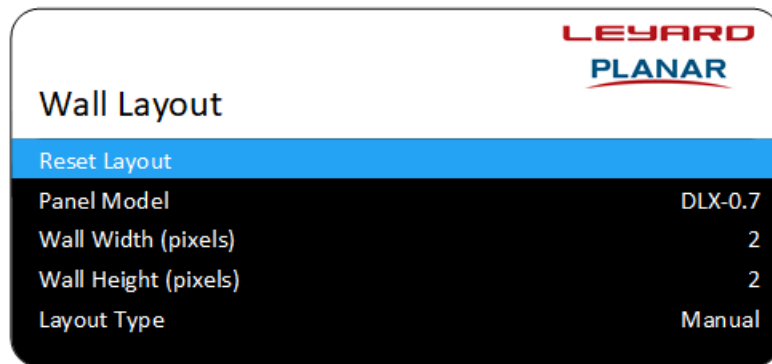
LCD



LED



LCD



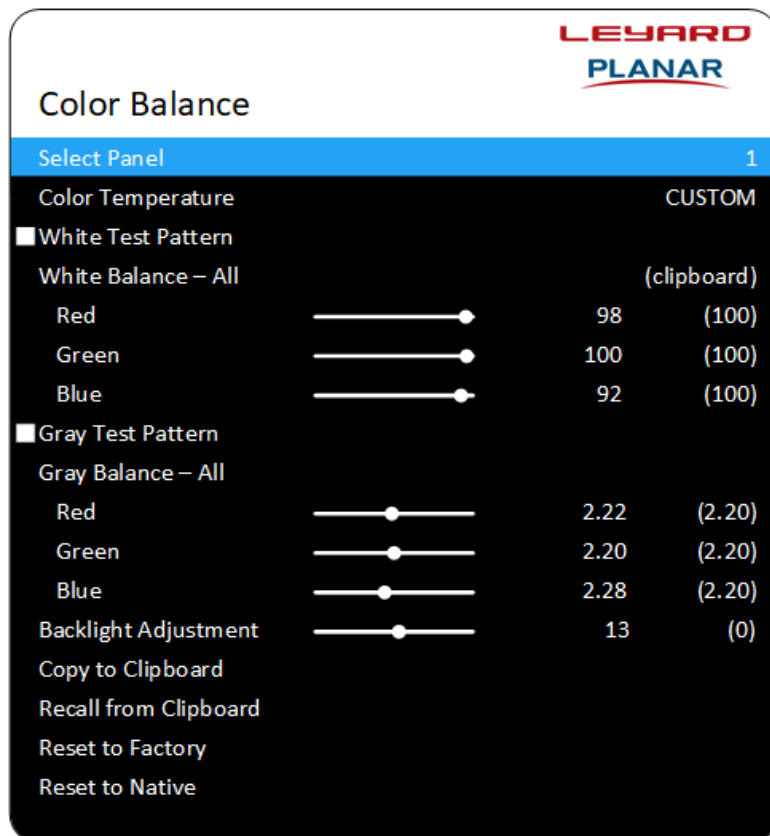
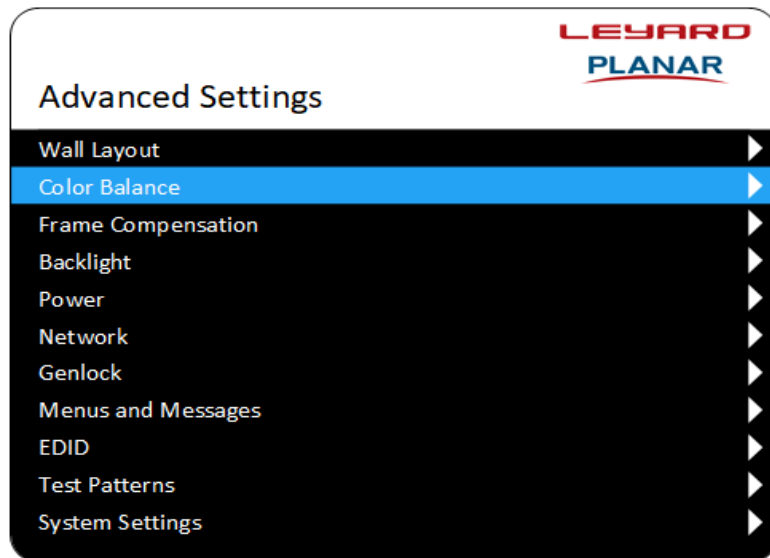
LED

Field	Description
Auto Layout	<i>(LCD products only)</i> Activates the auto layout feature, which tells the system that the wall has been installed and for the panels to self discover where they are positioned with respect to one another. Refer to the <i>Installation Guide</i> for more information. This will be followed by a confirmation dialog box. Auto layout is essential for proper video wall behavior, and allows the system to place content within the video wall exactly where it is intended. Additionally, failure to auto layout a video wall will cause unexpected issues with content if components lose power indiscriminately. When auto layout is successful, a message will appear at the bottom of this menu indicating "Auto Layout Complete."
Reset Layout	Returns the wall to the default layout during setup prior to an auto or manual layout. This allows for the addition of more panels and components in an expected manner. Refer to the <i>Installation Guide</i> for more information. This will be followed by a confirmation dialog box.

Field	Description
Panel Model	The panel model connected to the system.
Orientation	<i>(LCD products only)</i> The orientation of the panel that is connected to the system. The orientation is determined by a sensor attached to the panel but can be changed in the WallDirector software.
Wall Width	<i>(LCD products only)</i> The number of columns in the array. In auto layout mode, the value is the number of columns in the physical array as self-detected by the panels. To manually change this value, use the WallDirector software.
Wall Height	<i>(LCD products only)</i> The number of rows in the array. In auto layout mode, the value is the number of rows in the physical array as self-detected by the panels. To manually change this value, use the WallDirector software.
Wall Width (pixels)	<i>(LED products only)</i> The total number of horizontal pixels in the array. This is a summation of each cabinet's horizontal pixels. This can automatically be calculated by clicking the LED Wall Calculator and following the procedure for wall setup. Click Apply after changing here for new values to take affect.
Wall Height (pixels)	<i>(LED products only)</i> The total number of horizontal pixels in the array. This is a summation of each cabinet's horizontal pixels. This can automatically be calculated by clicking the LED Wall Calculator and following the procedure for wall setup. Click Apply after changing here for new values to take affect.
Layout Type	Indicates the layout mode as Default, Auto or Manual. You can activate manual mode in WallDirector if you have a faceted wall panel, faulty sensor or the physical product has no sensors. Manual mode acts like auto layout mode except the user must set the panel positions manually in the software. Changing any panel position in the software will switch the layout to Manual mode from either Default or Auto.

Color Balance Menu

LCD products only



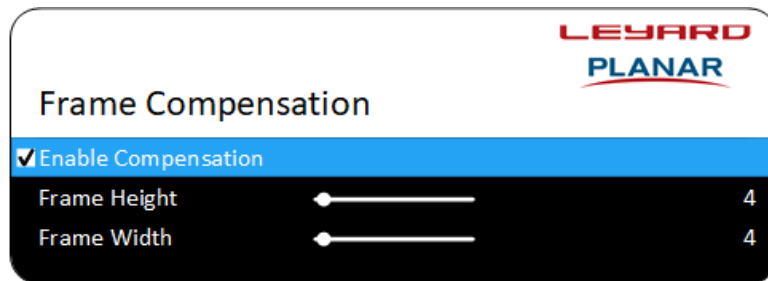
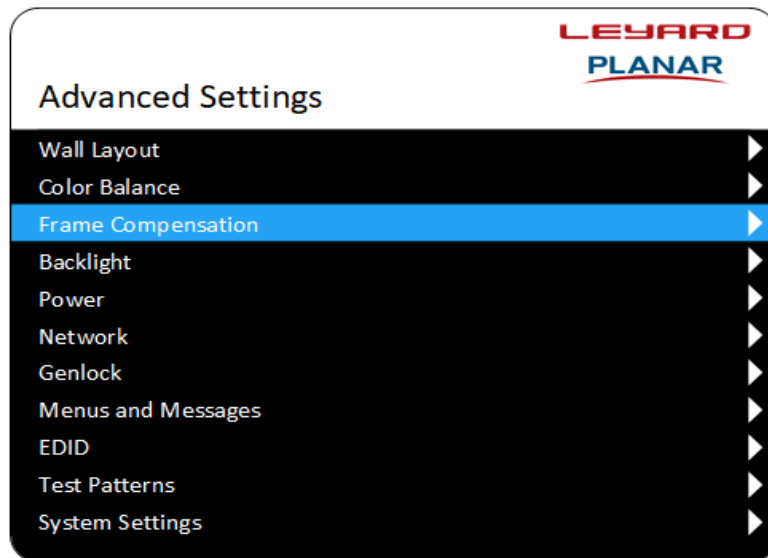
Note: Changes within this menu are instantaneous. Changing any parameter should result in a visible change to all or part of the video wall.

Field	Description
Select Panel	Enables you to change the panel being addressed by the commands within this menu. To change the value, use the left or right arrow keys or the numeric keypad. Additionally, pressing the ** button on the remote changes the value to ALL, which enables you to change the Color Temperature on all panels. To navigate away from ALL, use the left or right arrows and the previous panel number will return.
Color Temperature	Enables you to select preset color temperatures from 3200K, 5500K, 6500K, 8500K and Native. This value is initially set to CUSTOM from the factory, as it has been pre-calibrated to a known value to match other panels from the factory. Changing the color temperature values below changes this value to CUSTOM if the changes start from one of the presets.
White Test Pattern	When selected, displays a white image across all panels connected to the system. For best results, use this option when color balancing panels. Selecting this check box clears the Gray Test Pattern check box.
All	Moves the Red, Green and Blue color points simultaneously for the selected panel. Once one of the Red, Green or Blue color points is maximized to 100 or minimized to zero, none of the values will change further.
Red	Changes the red color point for the selected panel. The higher the value, the more red a panel will appear. To change the value, use the left or right arrow keys or the numeric keypad.
Green	Changes the green color point for the selected panel. The higher the value, the more green a panel will appear. To change the value, use the left or right arrow keys or the numeric keypad.
Blue	Changes the blue color point for the selected panel. The higher the value, the more blue a panel will appear. To change the value, use the left or right arrow keys or the numeric keypad.
Gray Test Pattern	When selected, displays a gray image across all panels connected to the system. For best results, use this option after the white color balancing is done. Selecting this check box clears the White Test Pattern check box.
All	Moves the Red, Green and Blue gammas simultaneously for the selected panel. Once one of the Red, Green or Blue gammas is maximized to 100 or minimized to 0, none of the values will change further.
Red	Changes the red gamma for the selected panel. The lower the value, the more red a panel will appear. To change the value, use the left or right arrow keys or the numeric keypad. Range is 1.80 to 2.60.

Field	Description
Green	Changes the green gamma for the selected panel. The lower the value, the more green a panel will appear. To change the value, use the left or right arrow keys or the numeric keypad. Range is 1.80 to 2.60.
Blue	Changes the blue gamma for the selected panel. The lower the value, the more blue a panel will appear. To change the value, use the left or right arrow keys or the numeric keypad. Range is 1.80 to 2.60.
Backlight Adjustment	Adjusts the backlight intensity for the selected panel, enabling panels to match brightness so color balancing can be done properly. To change the value, use the left or right arrow keys or the numeric keypad. If the brightness does not change when moving in either direction, it means that the panel has hit the range limit.
Copy to Clipboard	Press ENTER to copy all numeric values in this menu for use on other panels. This will be followed by a confirmation dialog box.
Recall from Clipboard	Press ENTER to update the numeric values in this menu with the values that were copied to the clipboard. This will be followed by a confirmation dialog box.
Reset to Factory	Press ENTER to return the numeric values to the pre-programmed calibrated data from the factory. This will be followed by a confirmation dialog box.
Reset to Native	Press ENTER to return the numeric values to the Native programmed numbers. This is the same as selecting NATIVE from the Color Temperature list. Native values are all at 100. This will be followed by a confirmation dialog box.

Frame Compensation Menu

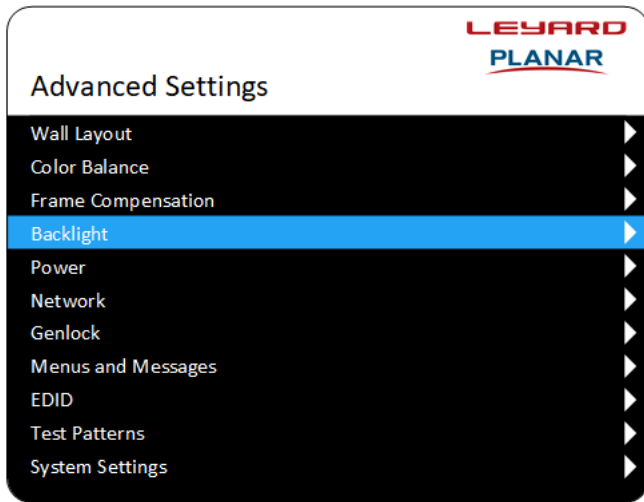
LCD products only



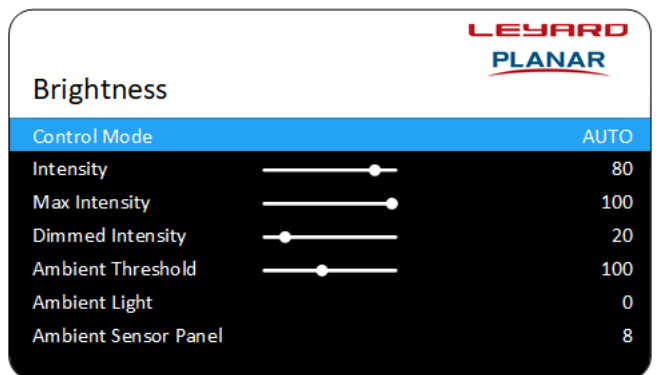
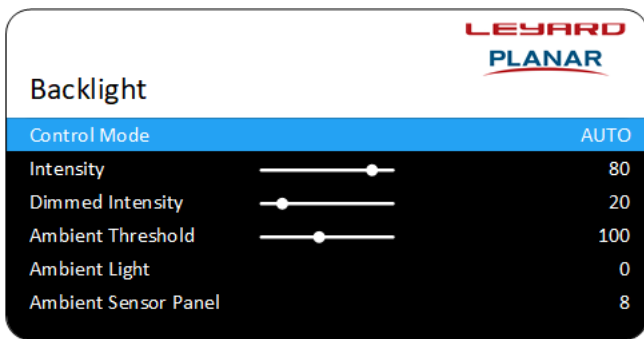
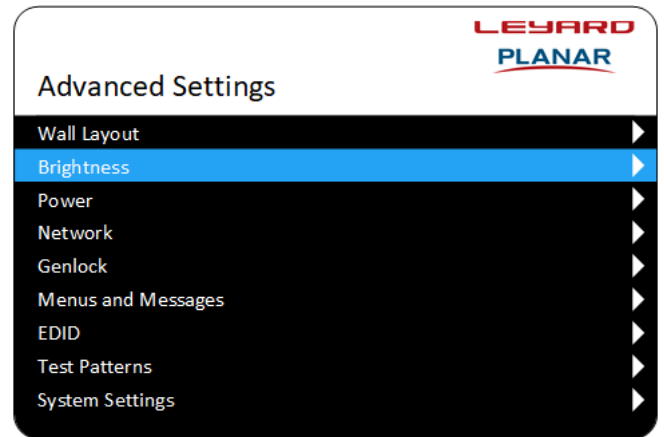
Field	Description
Enable Compensation	When selected, activates frame compensation.
Frame Height	The amount of vertical overscan to hide portions of an image that would be otherwise behind the image break. This is a global setting for all panels within the video wall. The higher the value, the more an image is overscanned. To change the value, use the left or right arrow keys or the numeric keypad. Note: If a panel is in portrait orientation, this value is actually the Frame Width.
Frame Width	The amount of horizontal overscan to hide portions of an image that would be otherwise behind the image break. This is a global setting for all panels within the video wall. The higher the value, the more an image is overscanned. To change the value, use the left or right arrow keys or the numeric keypad. Note: If a panel is in portrait orientation, this value is actually the Frame Height.

Intensity Menu

LCD



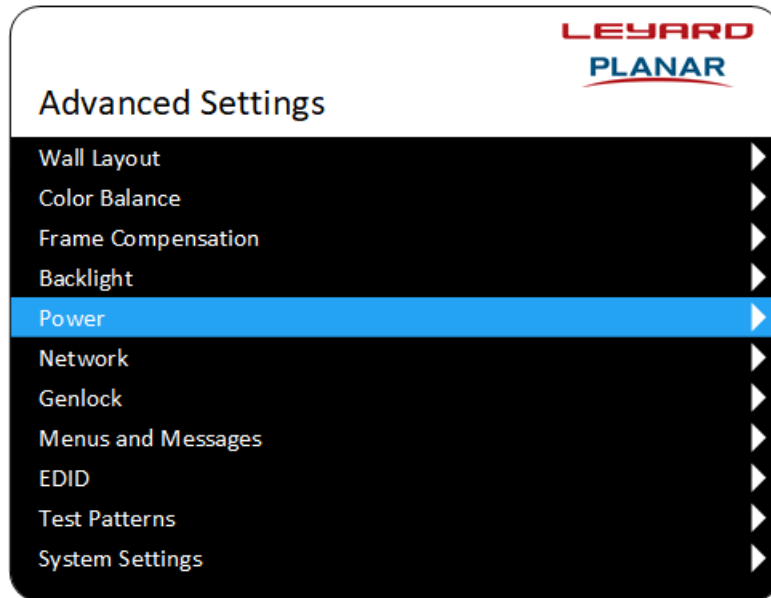
LED



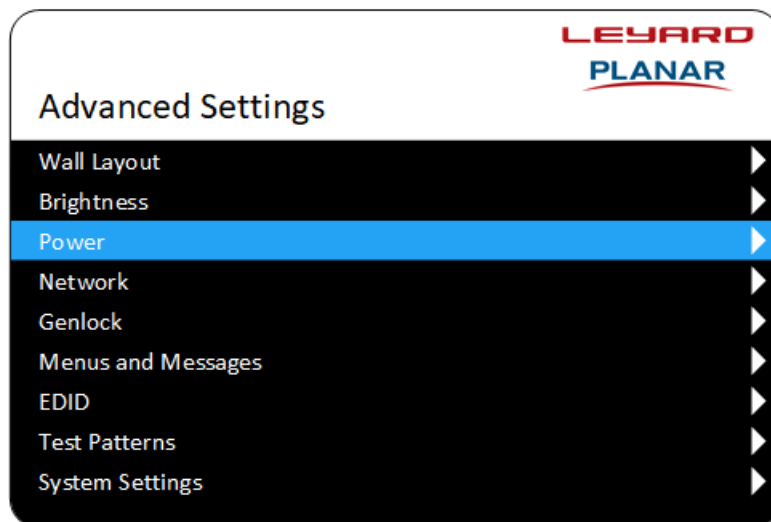
Field	Description
Control Mode	Select Manual or Auto. With manual, you can set a value for the brightness of the video wall. Use Auto in conjunction with the Ambient Light Sensor option. See the <i>Installation Guide</i> for setup and use of the ambient light sensor.
Intensity	The backlight intensity value for all panels within the video wall. The higher the number, the brighter the display and the more power the video wall uses. To change the value, use the left or right arrow keys or the numeric keypad. Note: The left or right arrow changes the number by increments of 10, but you can manually enter any number between 0-100.

Field	Description
Max Intensity	<p>Sets a wall intensity value that the intensity setting cannot exceed. The intensity setting is scaled from this setting. To change the value, enter a number or move the slider.</p> <p>Note: The slider changes the number by increments of 10, but a number may manually be entered between 0-100.</p>
Dimmed Intensity	<p>Available to change when in Auto mode. The higher the number, the brighter the display and the more power the video wall uses. To change the value, use the left or right arrow keys or the numeric keypad.</p> <p>Note: The left or right arrow changes the number by increments of 10, but you can manually enter any number between 0-100.</p>
Ambient Threshold	<p>Available to change when in Auto mode. The higher the number, the brighter the display and the more power the video wall uses. To change the value, use the left or right arrow keys or the numeric keypad. The range is 0 to 255.</p>
Ambient Light	<p>Hidden unless in Auto mode. The reading from the first detected ambient light sensor. The higher the number, the brighter the light that is detected.</p>
Ambient Sensor Panel	<p>Hidden unless in Auto mode. Indicates the panel ID that has the first detected ambient light sensor connected.</p>

Power Menu



LCD

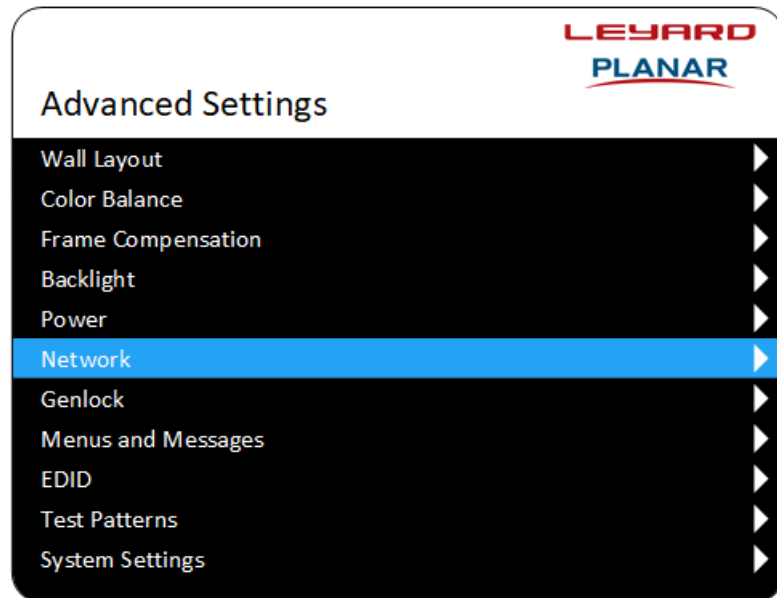


LED

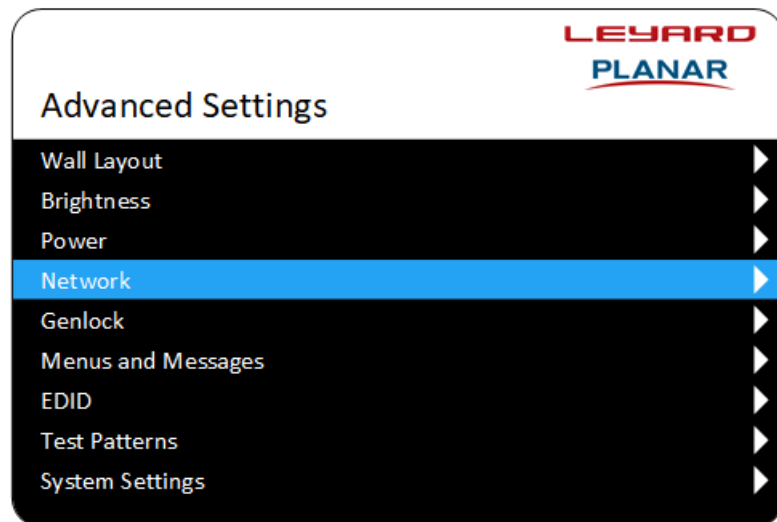


Field	Description
Auto Power On	This value sets the behavior of the system when power is applied. The options are Power On, Disabled or Previous State. Power On automatically boots the entire system fully on. A Disabled setting requires user intervention through the various user interfaces to turn the system on. Previous State boots the system to the last known state prior to power being removed from the system.
Standby Mode	This value sets the behavior of the system when a user interface applied power command is used. The options are Fast Start or Low Power. Fast Start saves power by turning off the lights at the panels. Low Power saves power by turning off all power to the system except for the minimum required at each power supply.

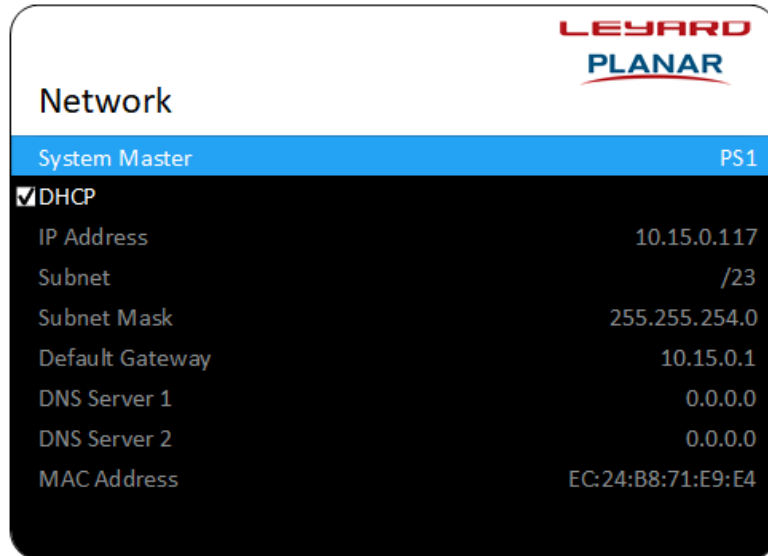
Network Menu



LCD



LED

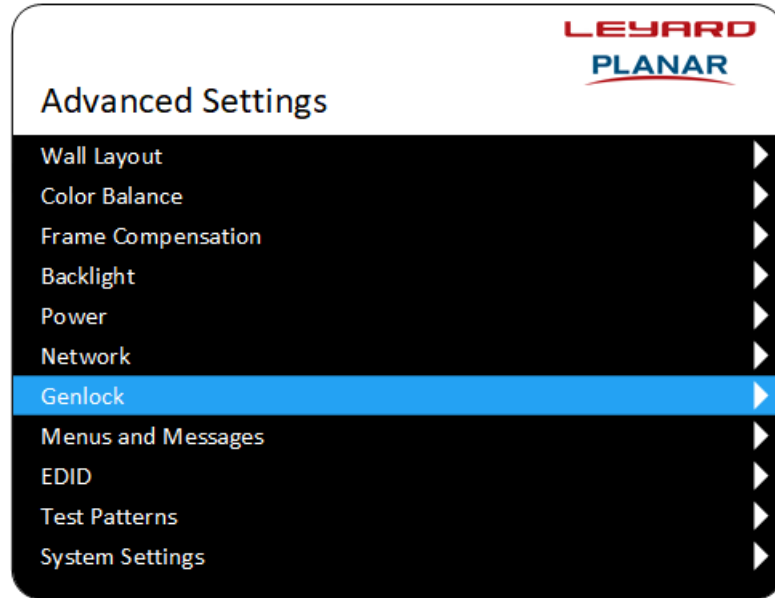


Note: Any changes within this menu require a reboot of the system, which will be indicated at the bottom of this menu by the statement, "Settings Changed: Restart to apply pending changes."

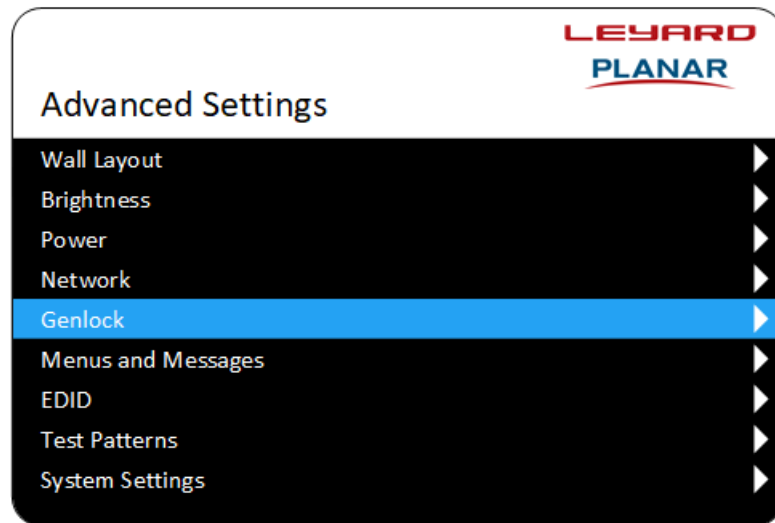
Field	Description
System Master	The component in the system that is the master.
DHCP	When selected, this check box enables you to connect to a WAN that assigns an IP address to a device. Once the system master has been assigned the appropriate network information from a DHCP server, it is accessible using the WallDirector software via the network if the control system is on the same network.
IP Address	The IP address of the system master component. All communication via the WAN port should use this number. To change this value, use the left or right arrow keys or the numeric keypad.
Subnet	The subnet in CIDR notation, which gives the number of bits in the network portion of the IP address. To change this value, use the left or right arrow keys or the numeric keypad.
Subnet Mask	The subnet mask as automatically defined by the subnet CIDR value. To change this value, use the left or right arrow keys or the numeric keypad.
Default Gateway	The network gateway. To change this value, use the left or right arrow keys or the numeric keypad.
DNS Server 1	Domain Name Server #1. To change this value, use the left or right arrow keys or the numeric keypad.
DNS Server 2	Domain Name Server #2. To change this value, use the left or right arrow keys or the numeric keypad.

Field	Description
MAC Address	The unique MAC ID of the component.

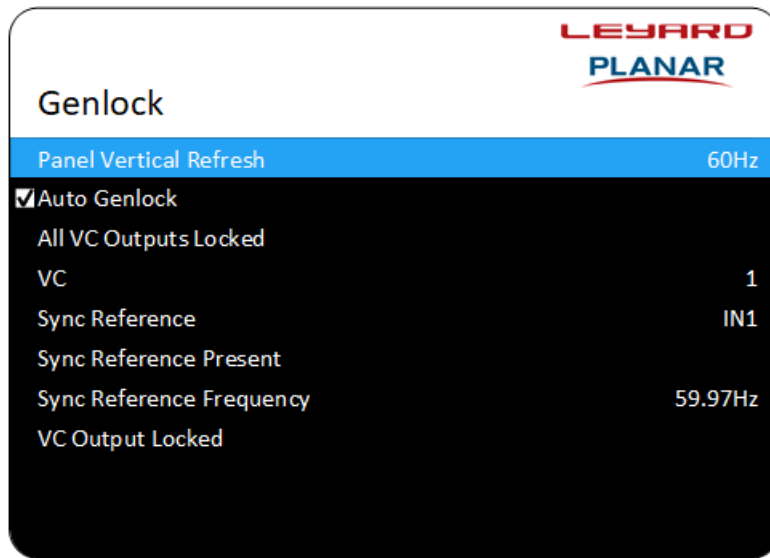
Genlock

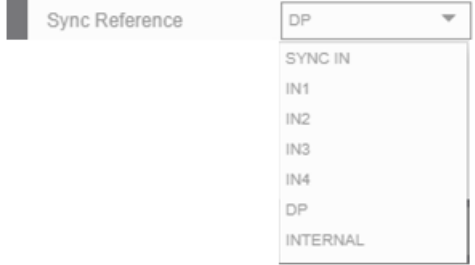


LCD



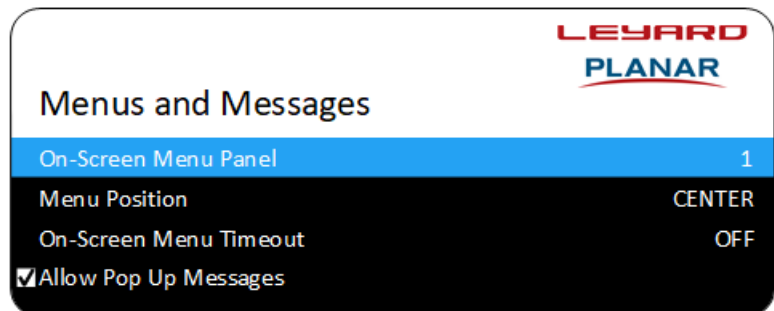
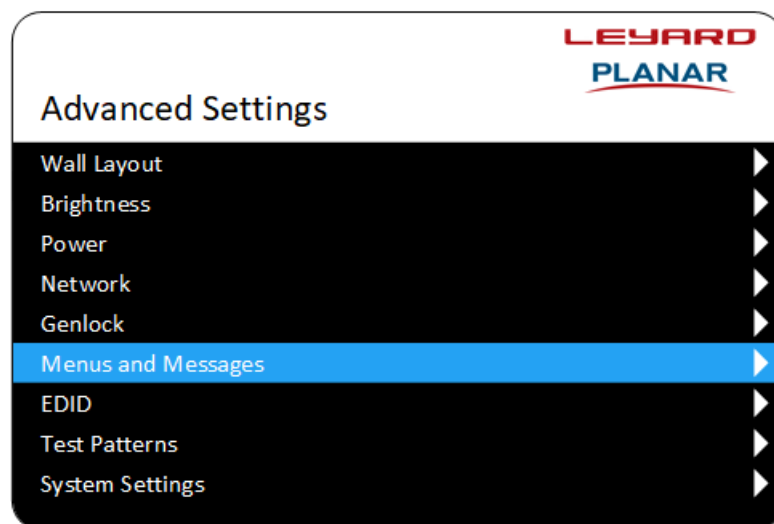
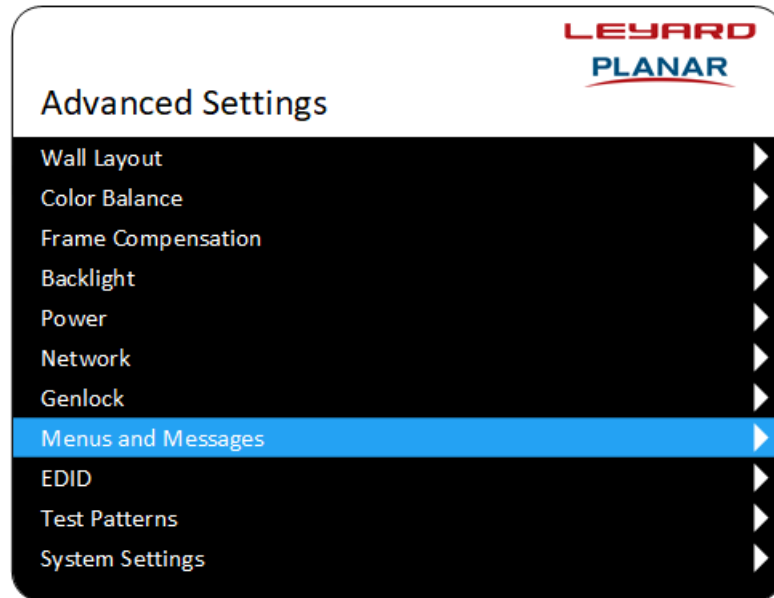
LED



Field	Description
Panel Vertical Refresh	Sets the default refresh rate of the connected panels. Values are 50Hz or 60Hz. A system reboot required for change to take effect.
Auto Genlock	Checking this box sets all VC outputs to sync to a single source determined by the system.
All VC Outputs Locked	Indicates if there are any VCs that are not locked to a reference. Value is either YES or NO.
VC	This is the VC of the sync reference.
Sync Reference	<p>This is the input that will be used to sync all outputs.</p>  <p>SYNC IN: Chooses the HDBNC Sync In as the reference signal. IN1: Chooses Input 1 as the reference signal. IN2: Chooses Input 2 as the reference signal. IN3: Chooses Input 3 as the reference signal. IN4: Chooses Input 4 as the reference signal. DP: Chooses the DisplayPort Loop In as the reference signal. Internal: Chooses an internal signal to the VC as the reference signal.</p>

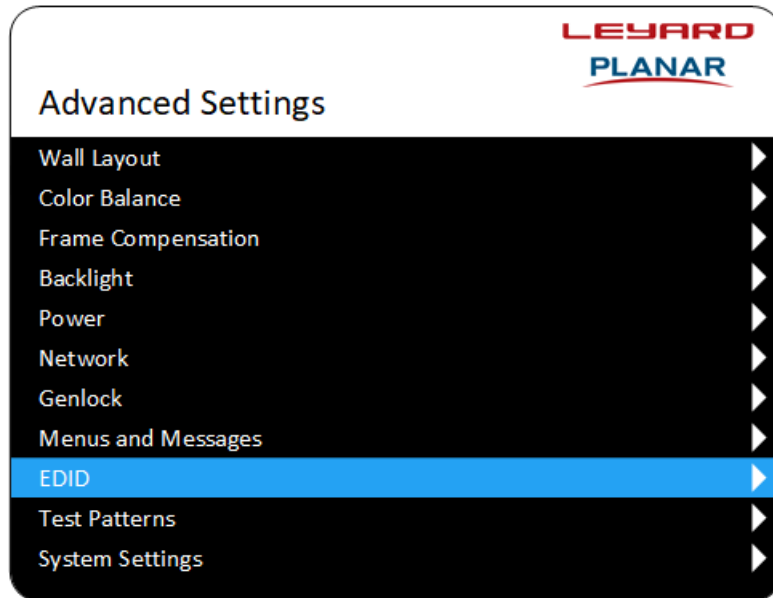
Field	Description
Sync Reference Present	This indicates if the sync is present on the selected VC.
Sync Reference Frequency	This is the frequency of the sync reference.
VC Output Locked	Indicates if the output on the VC is locked to a reference. Value is either YES or NO.

Menu and Messages Menu

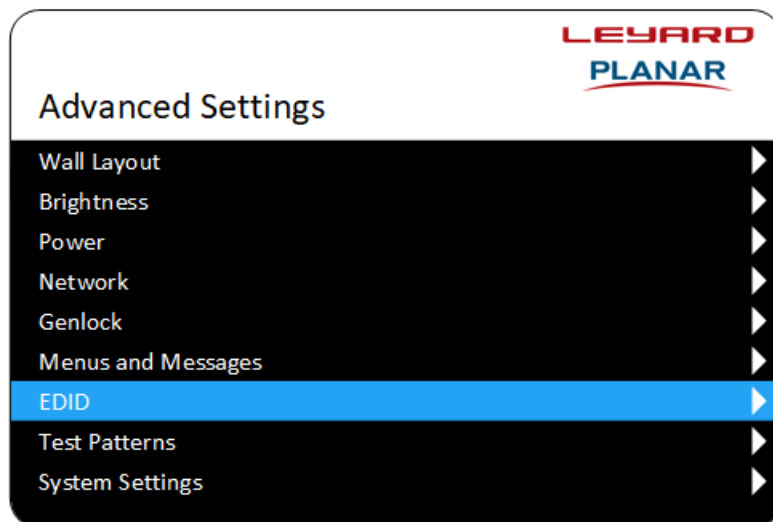


Field	Description
On-Screen Menu Panel	Indicates which panel the OSD is active on. To change this value, use the left or right arrow keys or the numeric keypad.
On-Screen Menu Timeout	Sets the time in seconds from the last button press to when the menu will disappear from the screen due to inactivity. The settings are OFF, 30, 60, 120 and 240. The OFF setting enables the menu to always be on the screen until a user intervenes.
Allow Pop Up Messages	When checked, enables messages from the system to be seen on the screen. Messages usually indicate required reboots or software updating notifications.

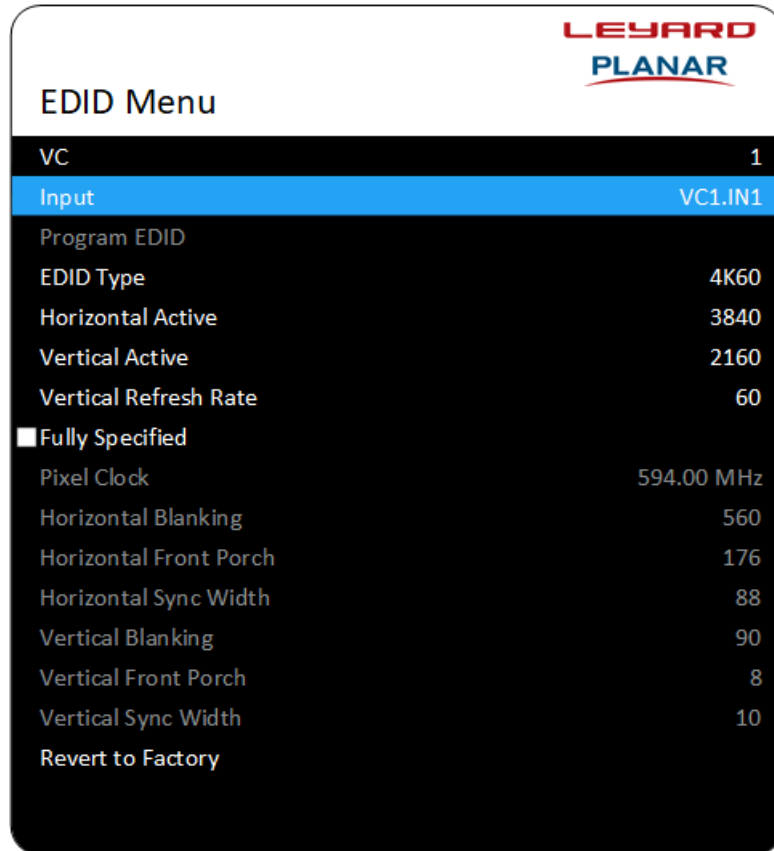
EDID Menu



LCD



LED



EDID is the standard protocol for connected equipment to communicate its capability to an image source. The equipment default values may not always be optimum for the desired application, so these values can be changed to get the best performance from the system and a multitude of possible sources. EDIDs for the inputs are determined using the CVT formula when not using the Fully Specified option.

Note: The DisplayPort input 4K/60 EDID uses the CVT reduced blanking for its calculation. If an HDMI to DisplayPort adapter is employed to connect to an HDMI source, the source may not be able to use these parameters. Use the Fully Specified option below to correct.

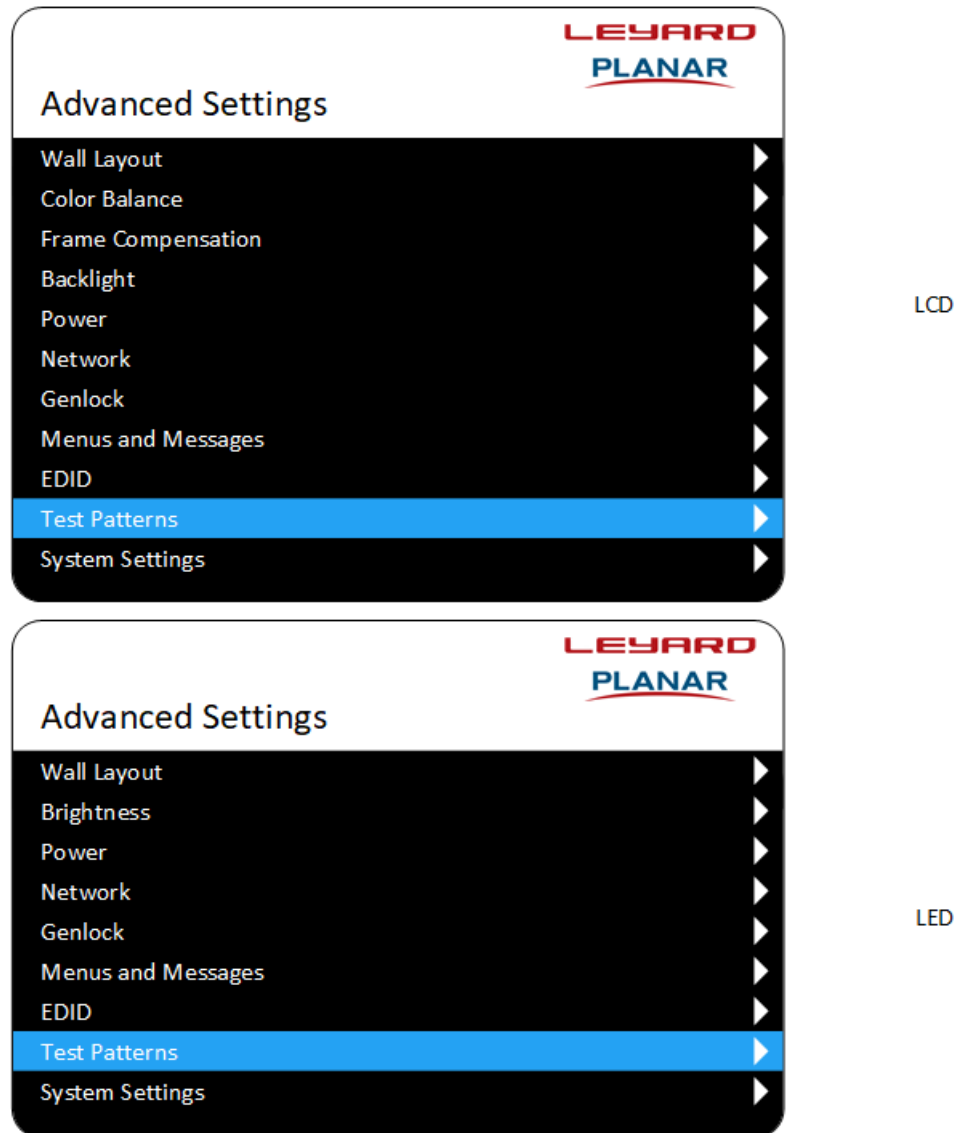
Field	Description
VC	Indicates to which video controller the source to be edited is attached.
Input	The current source input that information is displayed for, and can be edited if desired. To change this value, use the left or right arrow keys or the numeric keypad.
Program EDID	If changes are made to the information of a source, press ENTER while this line is highlighted for the changes to take effect.

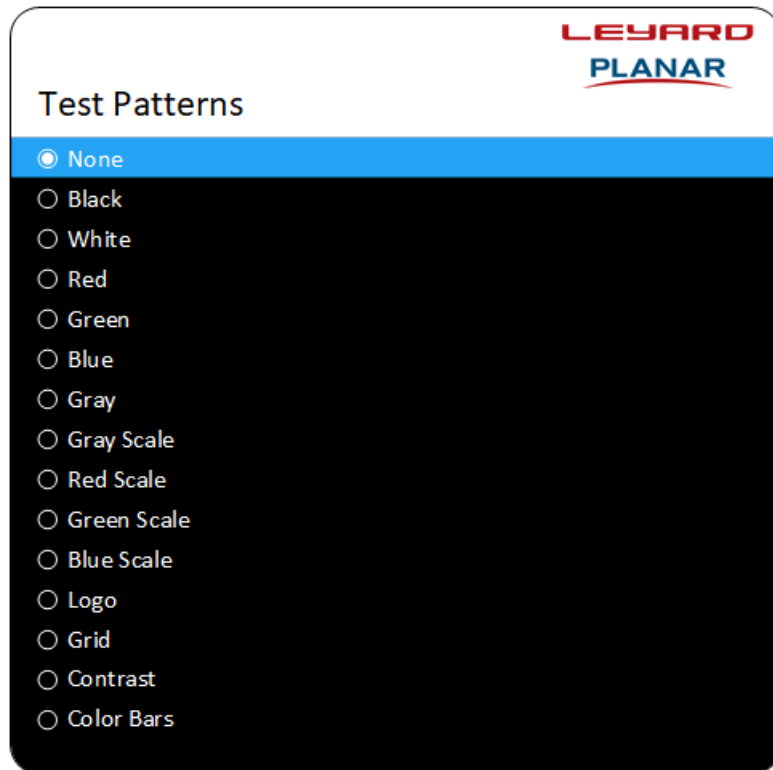
Field	Description
EDID Type	There are three quick select types of pre-defined EDIDs for sources to use: 4K/60, 4K/30 and 1080P. The default setting is 4K/60. Selecting each will change the Horizontal Active, Vertical Active and Vertical Refresh Rate Below.
Horizontal Active	The horizontal resolution that the input will represent to the source. The maximum for this value is 4095 as long as the Pixel Clock remains under 600MHz. To change the value, use the left or right arrow keys or the numeric keypad process.
Vertical Active	The vertical resolution that the input will represent to the source. The maximum for this value is 4095 as long as the Pixel Clock remains under 600MHz. To change the value, use the left or right arrow keys or the numeric keypad.
Vertical Refresh Rate	The refresh rate that the input will represent to the source. The default is 60, but can be tuned to any standard and non-standard refresh rate as long as the Pixel Clock remains under 600MHz. To change the value, use the left or right arrow keys or the numeric keypad.
Fully Specified	When selected, enables the editing for the parameters below. These parameters are meant for users who fully understand the image setup parameters.
Pixel Clock	The frequency of the pixel clock. The maximum setting is 600MHz. To change the value, use the left or right arrow keys or the numeric keypad.
Horizontal Blanking	To change the value, use the left or right arrow keys or the numeric keypad.
Horizontal Front Porch	To change the value, use the left or right arrow keys or the numeric keypad.
Horizontal Sync Width	To change the value, use the left or right arrow keys or the numeric keypad.
Vertical Blanking	To change the value, use the left or right arrow keys or the numeric keypad.
Vertical Front Porch	To change the value, use the left or right arrow keys or the numeric keypad.
Vertical Sync Width	To change the value, use the left or right arrow keys or the numeric keypad.
Revert to Factory	Press the ENTER button while highlighted to return the factory settings for the EDID Type selected above. This will be followed by a confirmation dialog box.

Test Pattern Menu

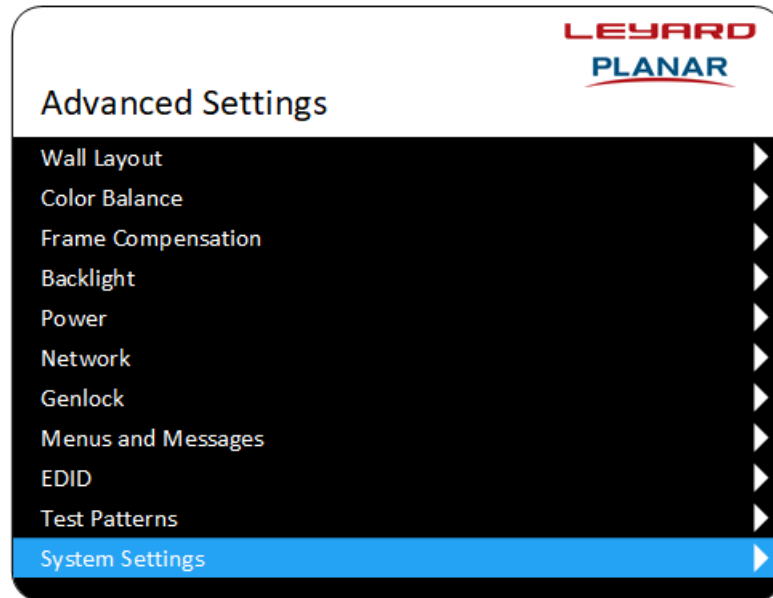
The Test Pattern menu enables you to select one test pattern to be displayed on every panel connected to the system. Pressing ENTER on the highlighted pattern will enable that pattern. The pattern will remain in place as you navigate further in the menus or exit the menu. Sources will not be seen on the panels until the “None” pattern is selected.

The available test patterns are shown below.

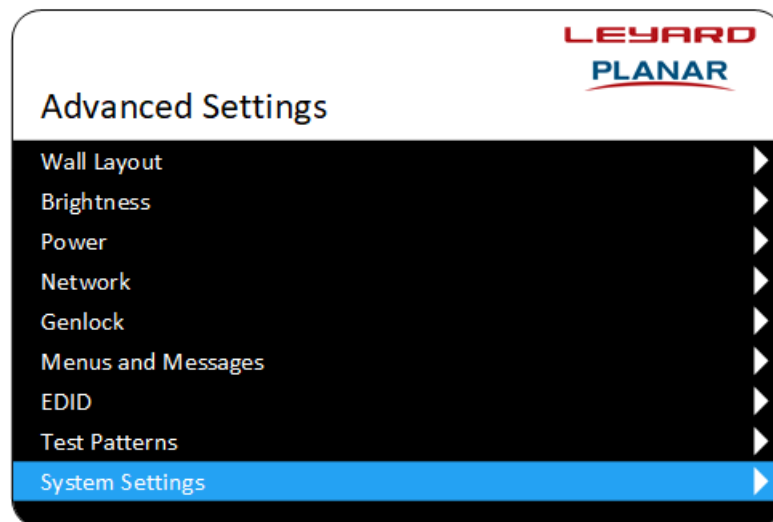




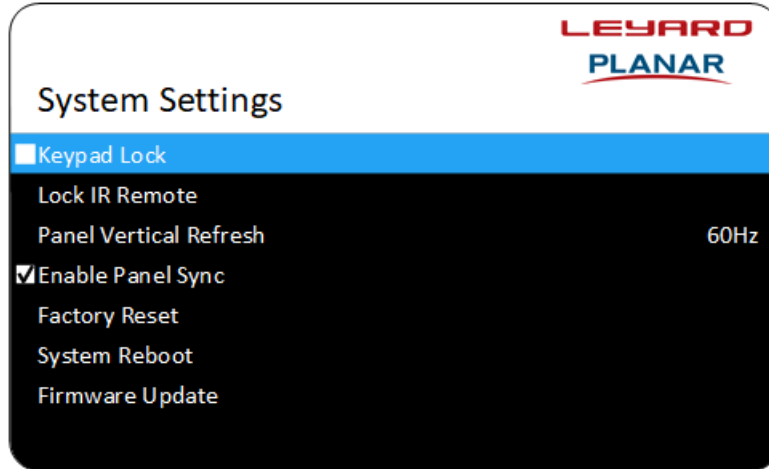
System Settings Menu



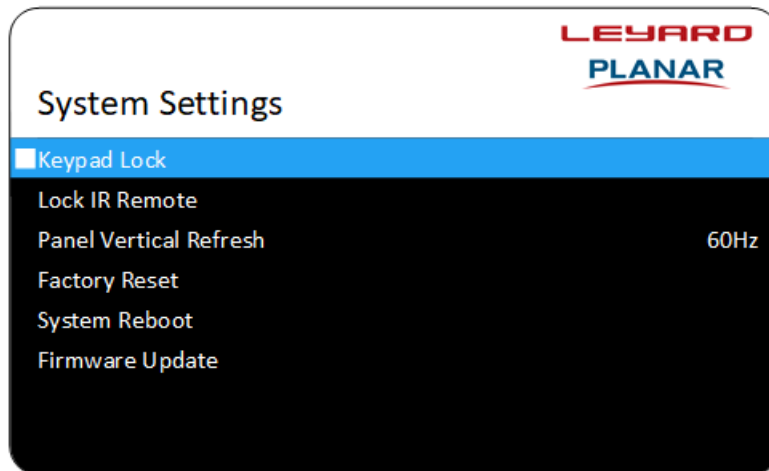
LCD



LED



LCD



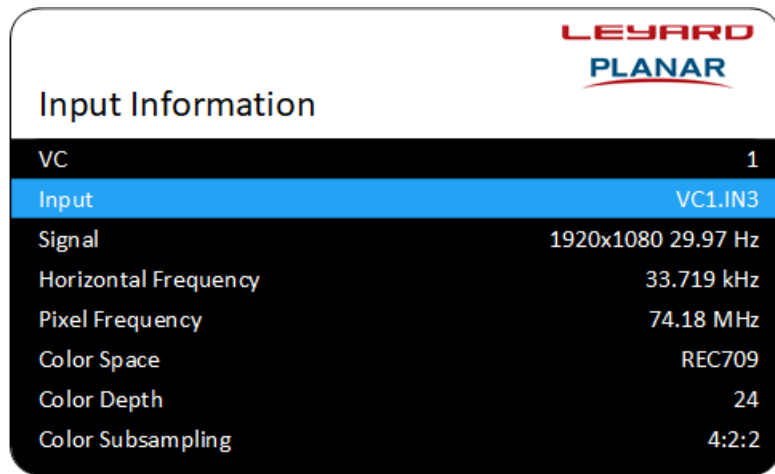
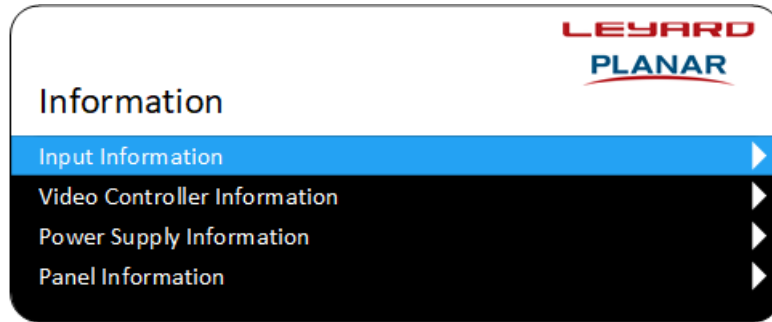
LED

Field	Description
Keypad Lock	When selected, disables the keypad on the front of all video controllers from working.
Lock IR Remote	Press ENTER to disable any commands from the remote from working. This will be followed by a confirmation dialog box. To unlock the remote commands, you must use the WallDirector or RS232 command protocol.
Panel Vertical Refresh	Sets the default refresh rate of the connected panels. Values are 50Hz or 60Hz. A system reboot required for change to take effect.
Enable Panel Sync	<i>(LCD products only)</i> Enables the inverted image scan on even rows of a video wall. This is meant to reduce tearing of the horizontal panning images.

Field	Description
Factory Reset	Press Enter to reset the system back to factory settings except for panel color balance settings. Resetting color balance may be done in the color balance menu. This will be followed by a confirmation dialog box. A reboot of the system is required.
System Reboot	Press Enter to perform a power cycle to the equipment. This will be followed by a confirmation dialog box.
Firmware Update	Press ENTER e multiple times if only one USB is used and multiple pieces of equipment need updating. This will be followed by a confirmation dialog box. A reboot is required after firmware updating; however, it is best to update all components before rebooting the system.

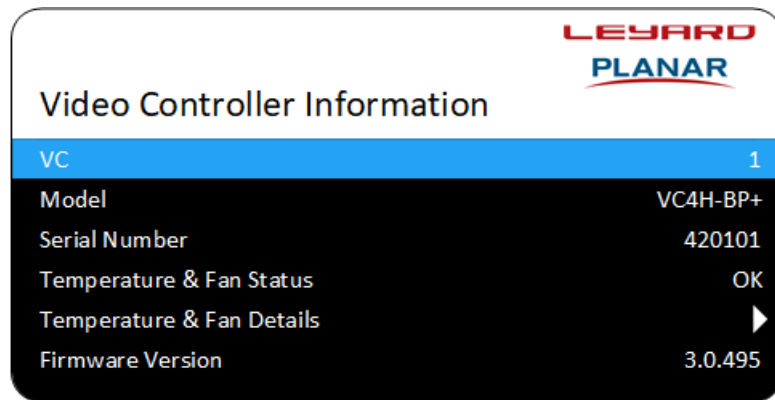
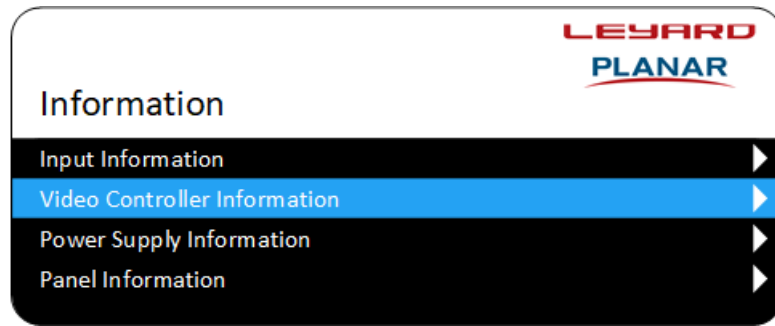
Information

Input Information Menu



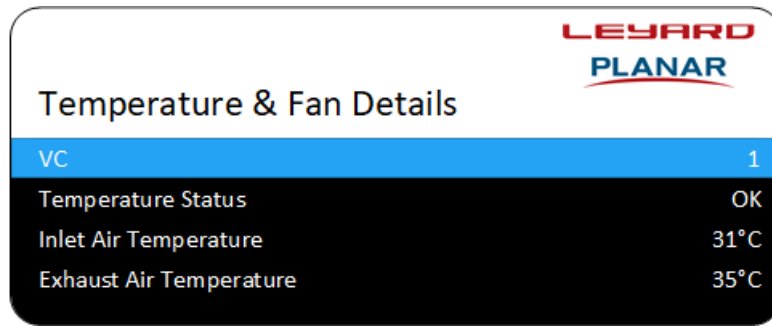
Field	Description
VC	The active video controller for which the status information will be displayed. Can be changed to any video controller in the system. To change this value, use the left or right arrow key or the numeric keypad.
Input	The active input on the active video controller for which the status information will be displayed. To change this value, use the left or right arrow key or the numeric keypad.
Resolution	The recognized resolution and refresh rate of the selected input.
Horizontal Frequency	The horizontal scan rate of the selected input.
Pixel Frequency	The pixel clock frequency of the selected input.
Color Space	The color space setting of the selected input.
Color Depth	The color depth in bits for the selected input.
Color Subsampling	The subsampling of the selected input in X:X:X format. For example, 4:4:4 or 4:2:0.

Video Controller Information Menu



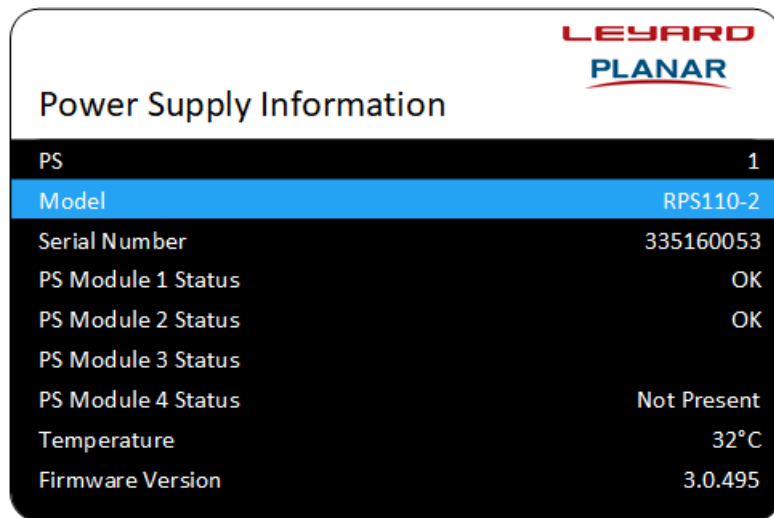
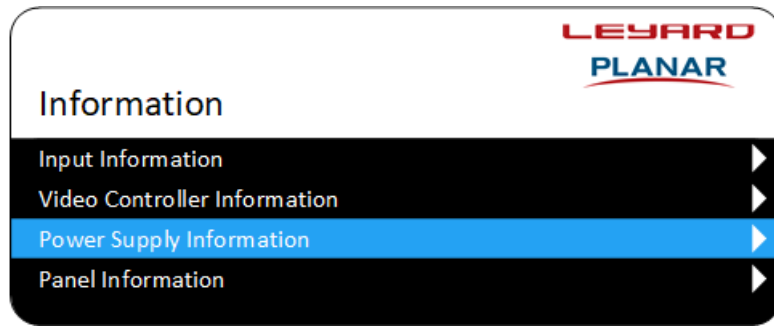
Field	Description
VC	The active video controller for which the status information is displayed. You can change this value to any video controller in the system. To change the value, use the left or right arrow keys or the numeric keypad.
Model	The type of video controller.
Serial Number	The factory serial number of the equipment.
Temperature & Fan Status	Indicates if either a fan has failed or the temperature is greater than the limit. The possible status is OK or Fault.
Temperature & Fan Details	See "Temperature & Fan Details Menu" on page 118.
Firmware Version	The software version of the firmware on the equipment.

Temperature & Fan Details Menu



Field	Description
VC	The active video controller for which the status information will be displayed. You can change this value to any video controller number in the system. To change the value, use the left or right arrow keys or the numeric keypad.
Temperature Status	Indicates if the critical system temperature is above threshold.
Inlet Air Temperature	The inlet air temperature for the equipment.
Exhaust Air Temperature	The exhaust air temperature for the equipment

Power Supply Information Menu



Field	Description
PS	The active power supply for which the status information is displayed. You can change this value to any power supply in the system. To change the value, use the left or right arrow keys or the numeric keypad.
Model	The type of power supply.
Serial Number	The factory serial number of the equipment.
PS Module 1 Status	The status of the power supply in position 1. The possible status is OK, Fault or Not Present.
PS Module 2 Status	The status of the power supply in position 2. The possible status is OK, Fault, blank or Not Present.
PS Module 3 Status	The status of the power supply in position 3. The possible status is OK, Fault, blank or Not Present.
PS Module 4 Status	The status of the power supply in position 4. The possible status is OK, Fault or Not Present.
Temperature	The processor temperature value.
Firmware Version	The software version of the firmware on the equipment.

Panel Information Menu

LEYARD PLANAR

Information

- Input Information ▶
- Video Controller Information ▶
- Power Supply Information ▶
- Panel Information ▶**

LEYARD PLANAR

Panel Information

Panel	3
Model	MX46X
Serial Number	42424233
Ambient Light	0
Orientation	Landscape
Temperature	45°C
48V Supply	47.54V
Firmware Version	1.3.161
Cable Length	<20m
Signal Quality	-22, -22, -22, -22dB

LCD

LEYARD PLANAR

Panel Information

Panel	3
Model	DLX-0.7
Serial Number	1538744677
Ambient Light	0
Firmware Version	1.3.161
Cable Length	<20m
Signal Quality	-20, -19, -20, -21dB

LED

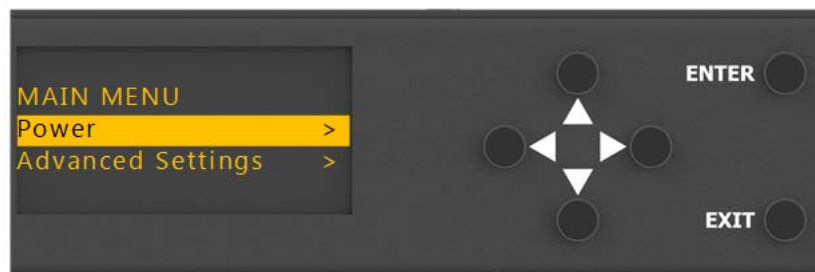
Field	Description
Panel	The active panel for which the status information is displayed. You can change this value to any panel in the system. To change the value, use the left or right arrow keys or the numeric keypad.
Model	The type of panel.
Serial Number	The factory serial number of the equipment.
Ambient Light	The panel the first ambient light sensor is attached, if any.
Orientation	<i>(LCD products only)</i> The panel sensor orientation reading.
Temperature	<i>(LCD products only)</i> The panel temperature value.
48V Supply	<i>(LCD products only)</i> The 48V DC supply value.
Firmware Version	The software version of the firmware on the equipment.
Cable Length	Rough approximation of the cable length from the VC to the panel.
Signal Quality	Diagnostic tool to determine if there may be cable issues causing display anomalies.

Video Controller Front Panel

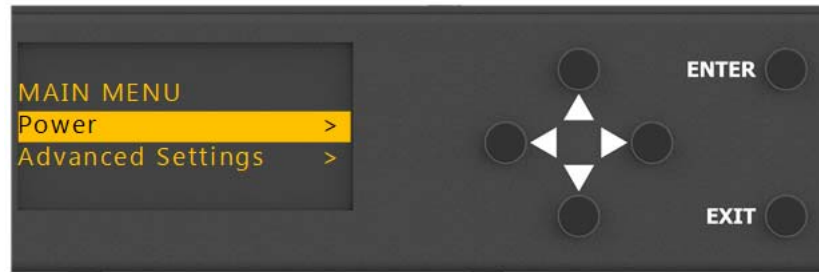


The Video Controller front panel has basic functionality to perform the more common maintenance functions on the system. Access to the menu items is accomplished by pushing any button except exit on the front panel display of the video controller. This will transition away from the information display to a navigable menu as described below. To navigate, either the ENTER or right arrow will select the highlighted field. The up and down arrows will scroll through the menu options moving the highlight line to selectable fields. The EXIT or left arrow will transition to the previous menu.

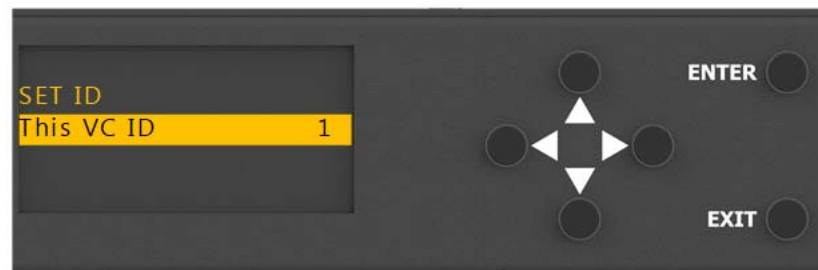
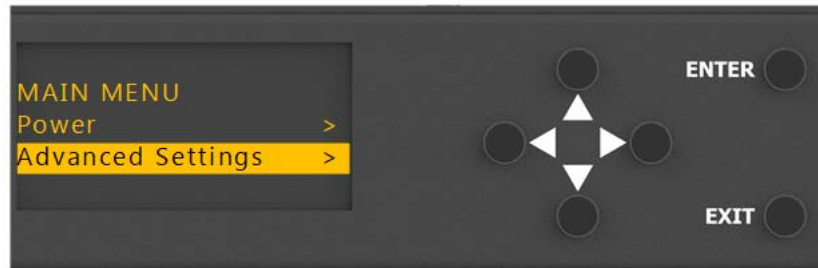
If a menu line has a > symbol on the right, this indicates there is an additional menu that can be accessed if selected. If a menu item is bracketed by < >, then an action will occur when selected. If a YES/NO option is displayed, use the left or right arrows to toggle the highlight to the selection desired and press ENTER.



Field	Description
Power	Navigates to the power on/off menu.
Advanced Settings	Navigates to the advanced settings menu.



Field	Description
System Power On	When in fast start mode, this selection will turn the system power on.
System Power Off	When selected, this will turn the system power off. Depending on the standby mode selected, this may disable power to the video controller and thus requiring a power on by another method.



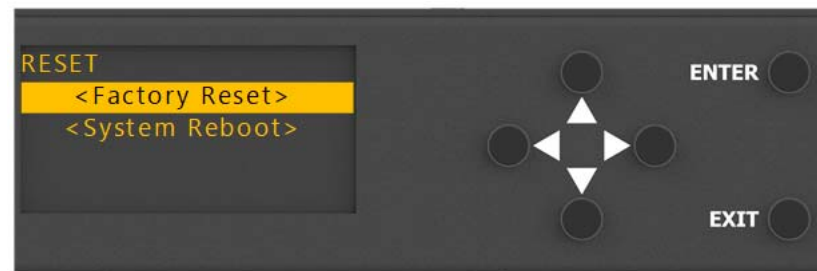
Field	Description
This VC ID	The numeric value may be changed by pressing the left or right arrow keys to increment the number. The value is dynamically changed, so there is no need to press ENTER.




Field	Description
On-Screen Panel	Indicates which panel the OSD is active on. To change this value, use the left or right arrow keys or the numeric keypad.
Timeout	Sets the time in seconds from the last button press to when the menu will disappear from the screen due to inactivity. The settings are OFF, 30, 60, 120 and 240. The OFF setting enables the menu to always be on the screen until a user intervenes.



Field	Description
Update All	Selecting will start the firmware update process on all components that have valid software on an inserted USB drive(s).
Update This VC	Selecting will start the firmware update process on the connected component if there is valid software on the inserted USB drive.



Field	Description
Factory Reset	<p>Pressing ENTER will revert the system back to factory settings except for panel color balance settings. This will be followed by a confirmation dialog box. A reboot will be required to take effect. A Cancel Factory Reset option will appear if “Yes” is selected.</p>  <p>Choosing and confirming this selection will disregard the reset request.</p>
System Reboot	Pressing enter will perform an electronic reboot of the system.





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O

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