MXWALL PRO V2

4-INPUT AND UP TO 12-OUTPUT VIDEO WALL PROCESSOR AND MATRIX SWITCH

USER MANUAL

Designed and Manufactured in the USA

Smart-AVI

1-800-284-2131

www.smartavi.com

OVERVIEW

TECHNICAL SPECIFICATIONS

MODEL	P20 Series	P40 Series
Classic Size	2U, 3U, 6.5U, 11U, 20U	2.5U, 4U, 6.5U, 11U, 20U
Input Interface Number	8/8, 16/24, 36/48, 76/88, 152/176	16/20, 32/40, 36/48, 76/88, 152/176
Output Interface Number	12/8, 18/12, 36/24, 72/60, 144/120	9/8, 18/12, 36/24, 72/60, 144/120
Input Interface Type	DVI / HDMI / DP / VGA / YPbPr / CVBS / SDI / IP / HDBaseT	DVI / HDMI / DP / VGA / YPbPr / CVBS / SDI / IP / HDBaseT
Output Interface Type	HDMI / DVI / IP	HDMI / DVI / IP
Input Resolution	1920 x 1200 @ 60Hz, 4092 x 2160 @ 30Hz	1920 x 1200 @ 60Hz, 4092 x 2160 @ 30Hz
Output Resolution	1920 x 1200 @ 60Hz	1920 x 1200 @ 60Hz
Image Layer in Each Display	2	4
Control Method	Front panel touch screen, RS232, IP	Front panel touch screen, RS232, IP

VIDEO	
Video Amplifier Bandwidth	3.2Gbps
Input Video Signal	Video (TMDS) 0.5~1.0Vpp
Input DDC Signal	5 volts
Compliances	HDMI 1.4 and HDCP
Pixel Rates	Clock frequency beyond 165Mpix/second
Format	4:4:4 and 4:2:2 data input formats
Input Card Format	4-port HDMI or DVI
Output Card Format	4-port HDMI or DVI
Video Input	Up to 3 cards *
Video Output	Up to 3 cards *
Video Type	RGB/YCBCR : 24/30/36-bits,YCBCR: 8/10/12/16/20/24-bits

CONTROL	
Front	2x8 keyboard with 4x40 LCD
RS-232	DB9 Female, 115200 BPS, N, 8, 1, No flow control
Network	RJ45, UDP

| OTHER	
Power Adapter	50/60Hz, 100~240 VAC
Dimensions	17 in (W) x 3.5 in (H) x 15 in (D)
Weight	20 lbs
Operating Temperature	32-122 °F (0-50 °C)
Storage Temperature	-4-149 °F (-20-65 °C)
Humidity	Up to 95% (No Condensation)
Emulation	Keyboard, Video and Mouse

WHAT'S IN THE BOX?

| PART NO.	Q-TY	DESCRIPTION
MXWALL-PRO-V2	1	4-Input 12-Output Video Wall Processor and Matrix Switch
CCPWR06	1	Power supply cord
	1	User Manual

MXWALL PRO V2 FRONT

MXWALL PRO V2 BACK
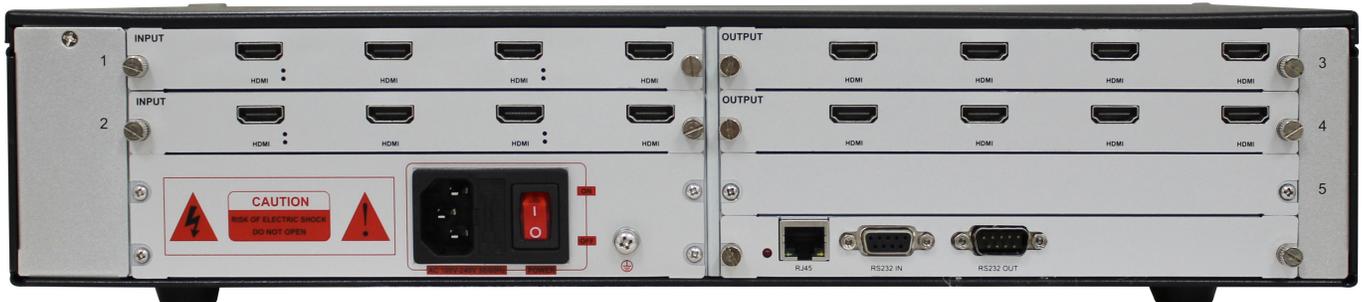
HARDWARE INSTALLATION

1. Position MXwall Pro V2 conveniently and keep it unplugged.
2. Connect displays to the MXwall Pro V2 and power on the displays.
3. Connect any video source to the MXwall Pro V2.
4. Optionally connect an RS-232 cable from a PC to the RS-232 port on the unit for additional control.
5. Optionally connect an Ethernet cable to the MXwall Pro V2 for additional control.
6. Turn on the MXwall Pro V2 and wait a few seconds for the unit to initialize.
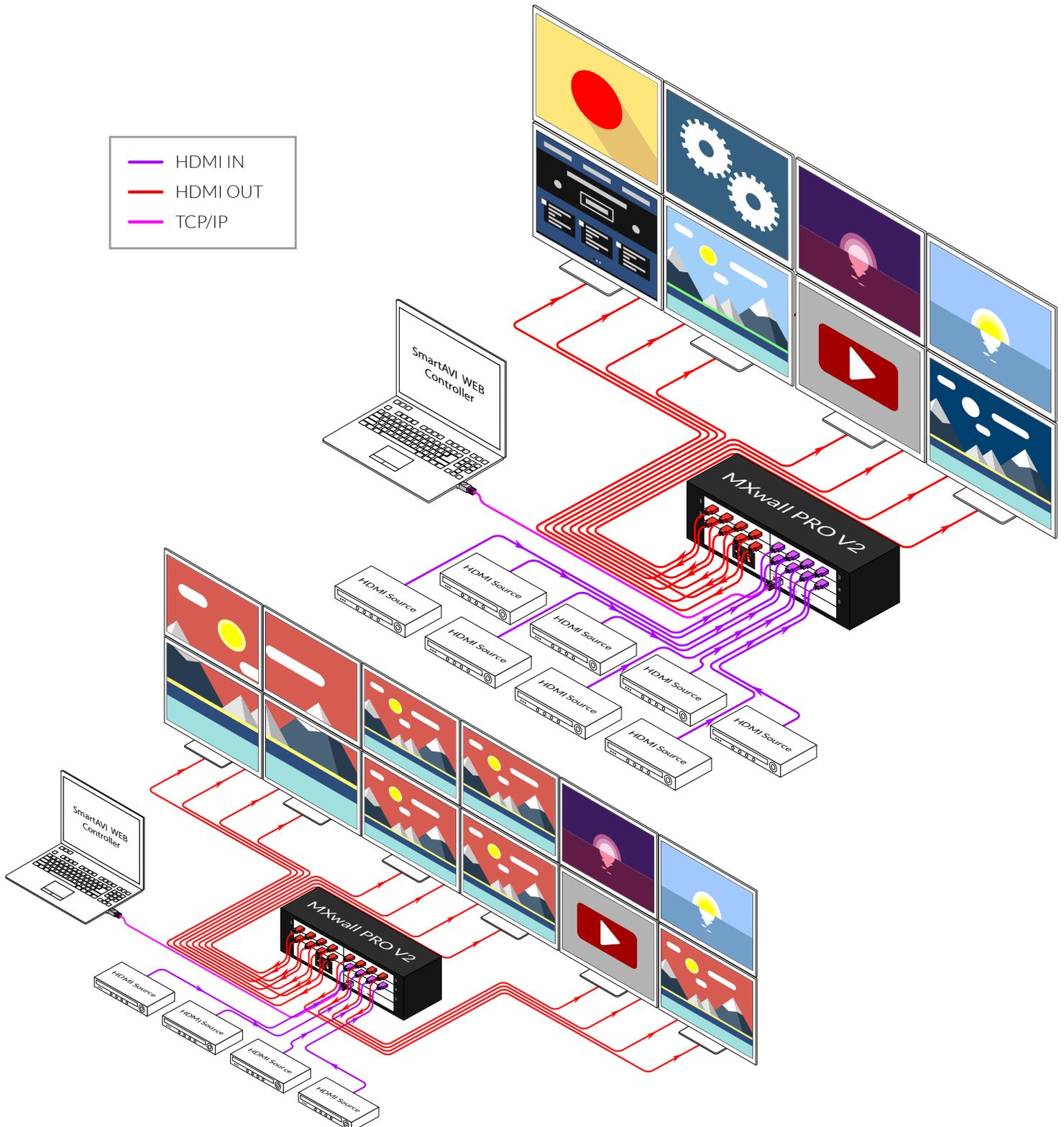
AVAILABLE CONFIGURATIONS

It is easy to create different configurations or modes that are easy to navigate through with the MXwall Pro V2. There are endless possibilities. Creating and switching between display modes is simple. The touchscreen front panel, on-screen-display, RS-232, and TCP/IP can be used to switch between modes at will.

VIDEO WALL MODE
Users can stretch an input image across 4 to 12 HD screens with screen resolution of 1920 x 1080.

INDIVIDUAL MODE
Users can route individual input images to each display individually.

QUAD MODE
Create 4 four proportional sections, each displaying one of any 4 input images.

User defined custom displays can be created with supplied software
Users can populate individual screens with multiple inputs. Add any of the input signals to play along side others within a single display.

FRONT PANEL CONTROL
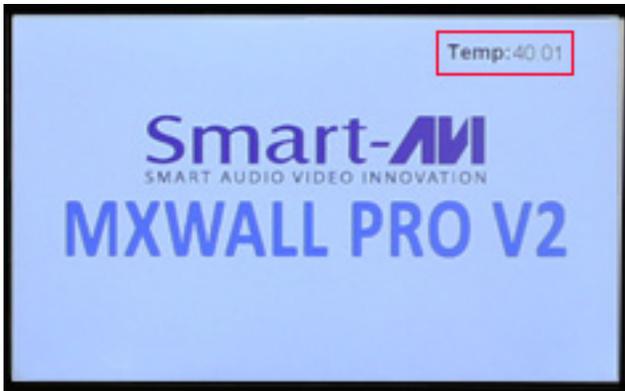
The MXwall Pro V2 front panel displays the temperature of the unit in degrees Celsius in order for users to monitor and prevent overheating.
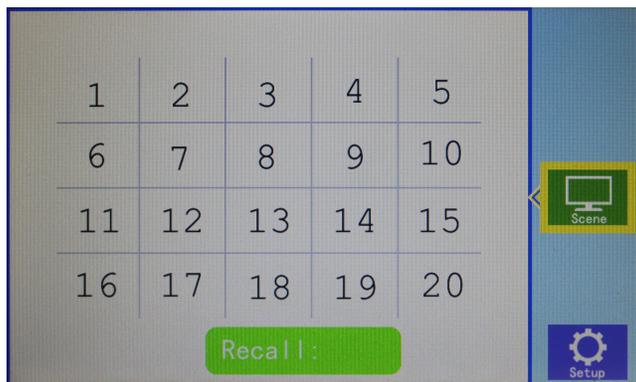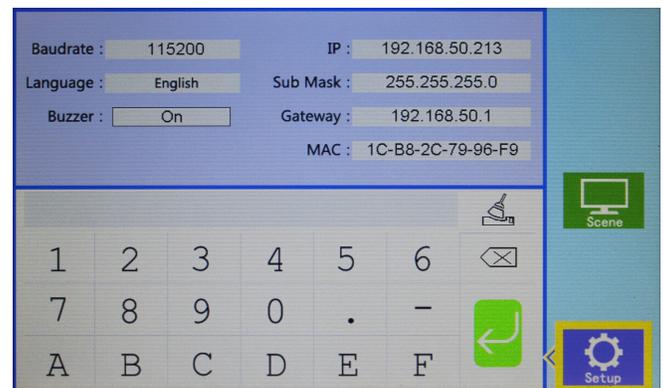
Many settings can be changed from the Setup page of the touchscreen front panel by clicking the white bar next to the setting name. Please note that the baud rate, MAC address, and language cannot be changed.

Buzzer: Turn the buzzer on or off.

IP address: Set a static IP address

Subnet mask: Set a custom subnet mask

Default gateway: Set the default gateway

The Scene page on the front panel allows for easy playing of preconfigured layouts. Simply press the number corresponding to the desired layout, then press 'Recall' to play the desired layout.

SOFTWARE INSTALLATION

1. Run **MXwall_pro_installer_32bit.exe**

2. A **Setup** window will pop open. Select where you would like to save the MXwall Pro V2 software. It is recommended that the default installation path be used. Click '**Next >**'.
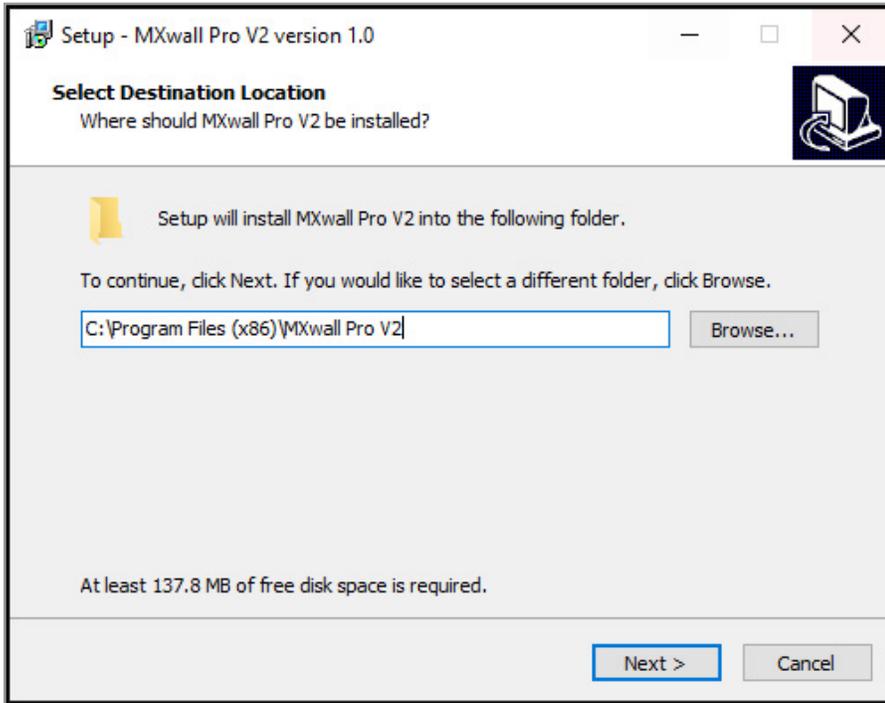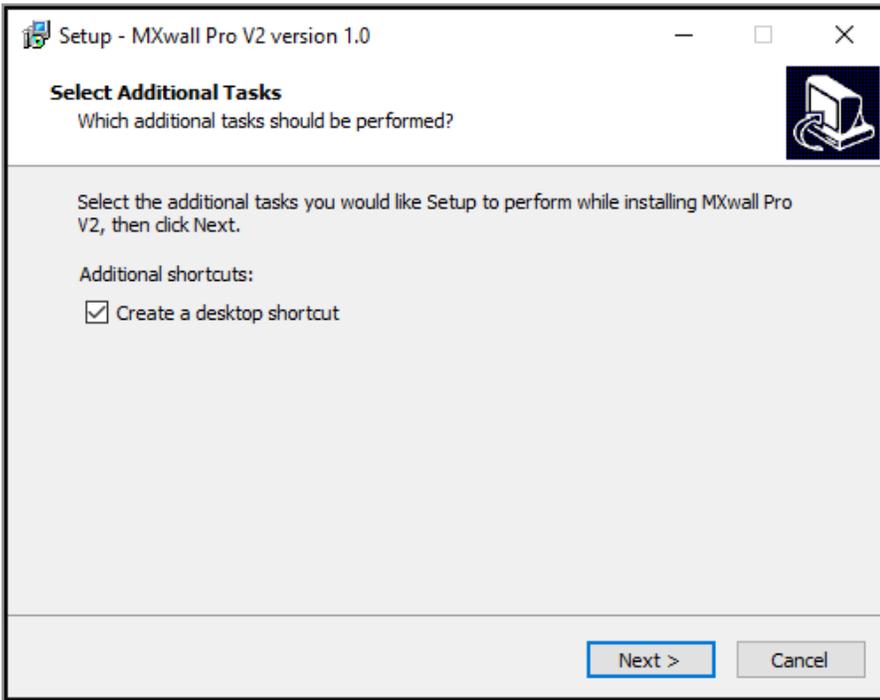

3. You will be asked to confirm the name of the **Start Menu** folder. Use the default name or choose a different name and then click '**Next>**' to continue.
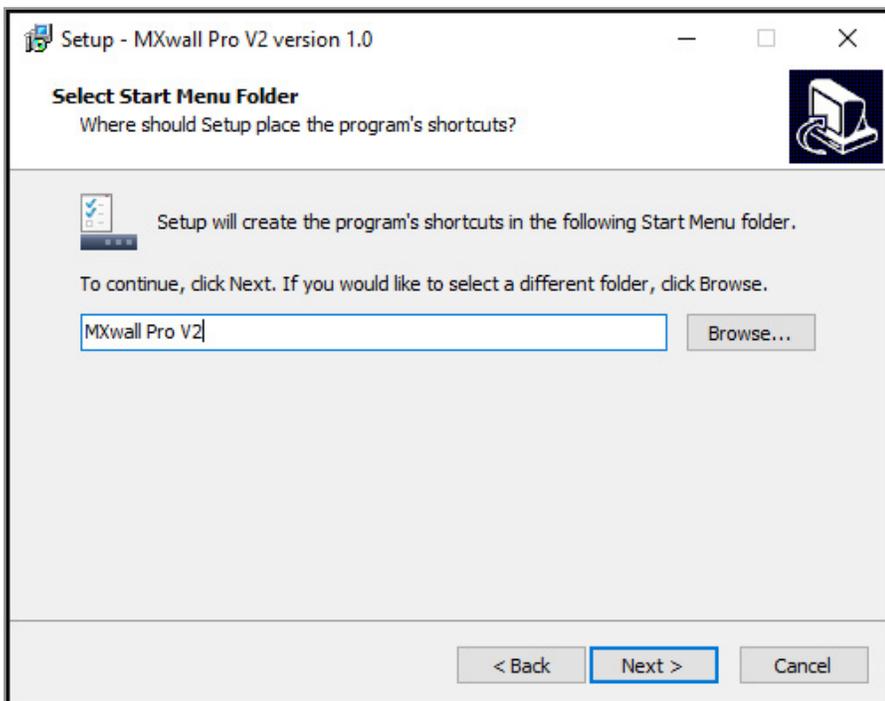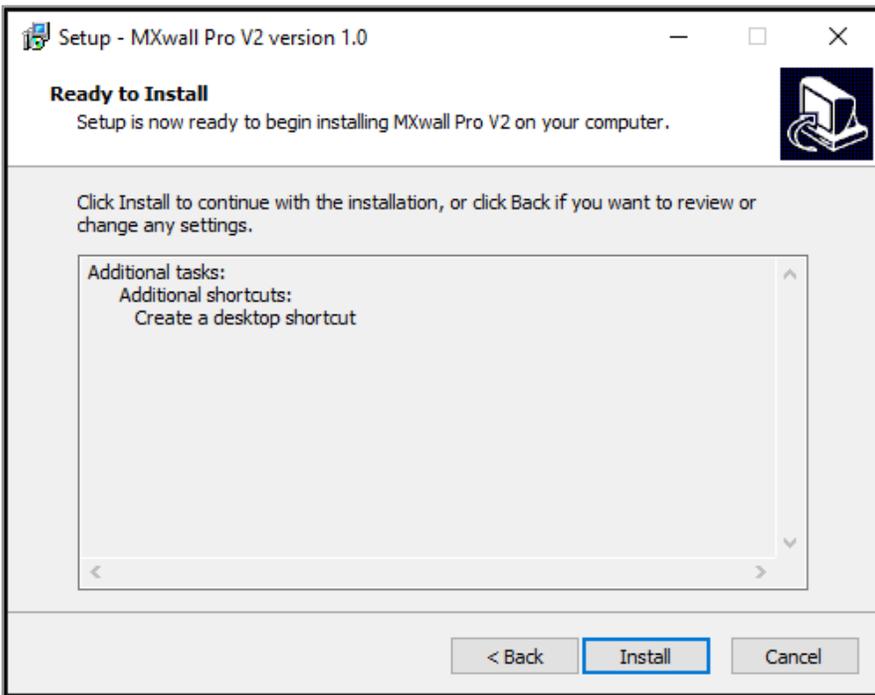
SOFTWARE INSTALLATION (CONTINUED)

4. You will be given the option to create a desktop shortcut. Then click '**Next >**'
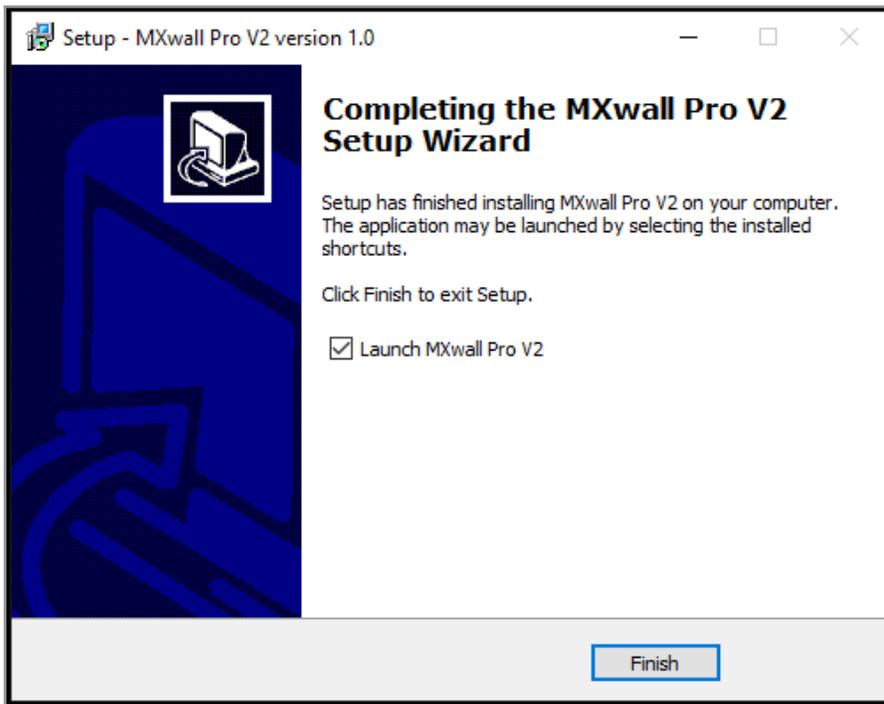

5. You will be given a prompt to confirm installation of the MXwall Pro V2 software. Click '**Install**' to continue with the installation.
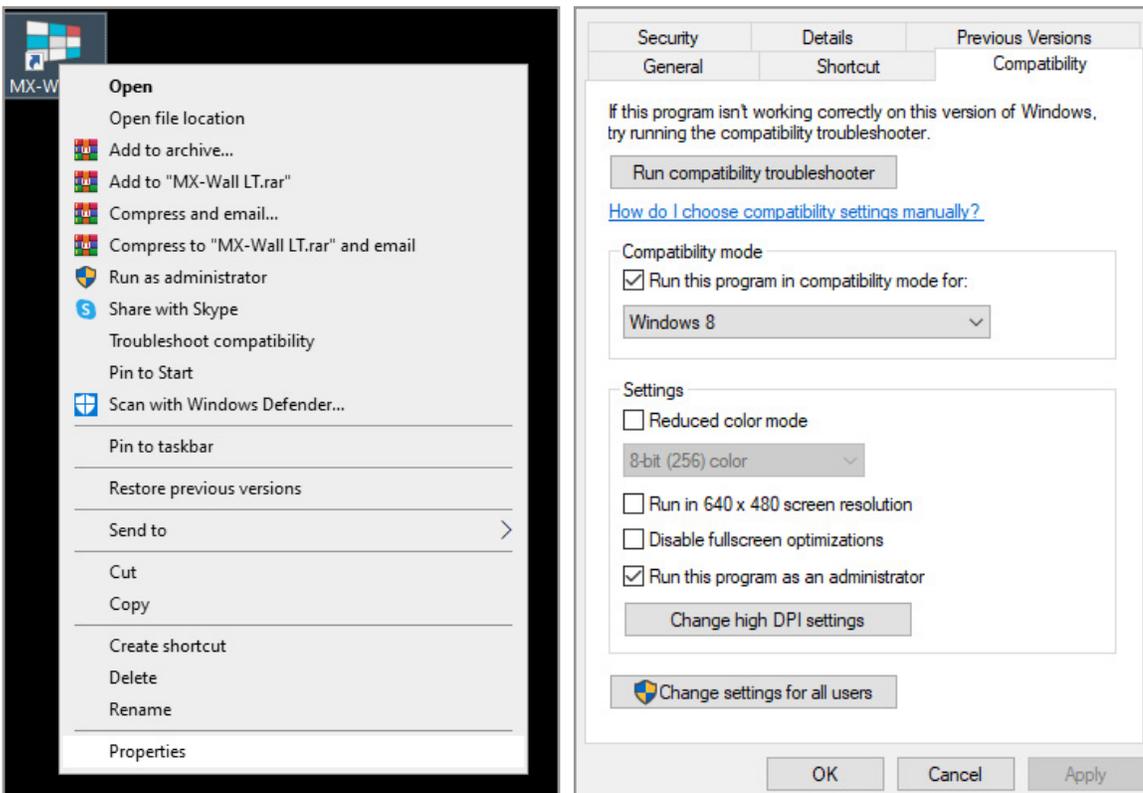
SOFTWARE INSTALLATION (CONTINUED)

6. When the installation is complete a window will appear stating whether the installation was successful or not. Click the '**Finish**' button to exit or launch the MXwall Pro V2 software.

7. The MXwall software needs to adjust some compatibility settings in order to function properly. Right click on the MX-Wall Desktop icon and select "**Properties**". From the Properties window select "**Compatibility**." Select "**Run this program as an administrator**" and "**Run this program in compatibility mode for:**" and select "**Windows 8**".

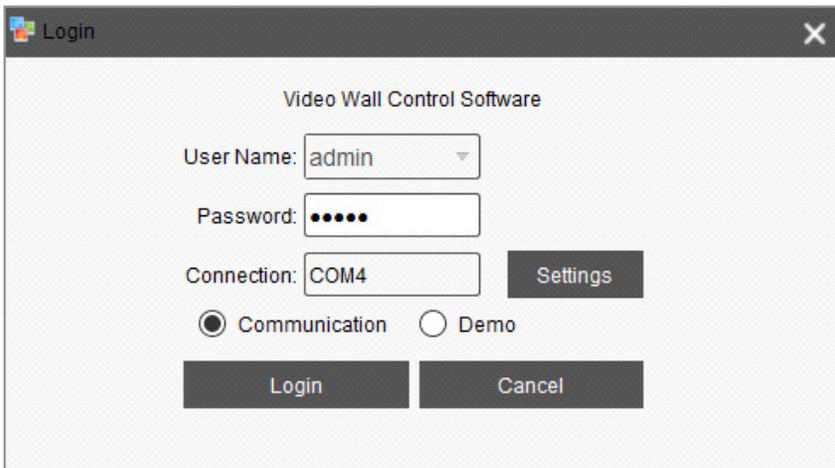# SOFTWARE INSTALLATION (CONTINUED)

8. See the section titled CONFIGURATION FOR 4U AND 2U UNITS for guidance on specific configuration for each type of unit.

USING THE SOFTWARE

Logging In

1. Run the **MXwall LT V2 Software Manager**.

2. Log in using the default **Account Settings**.
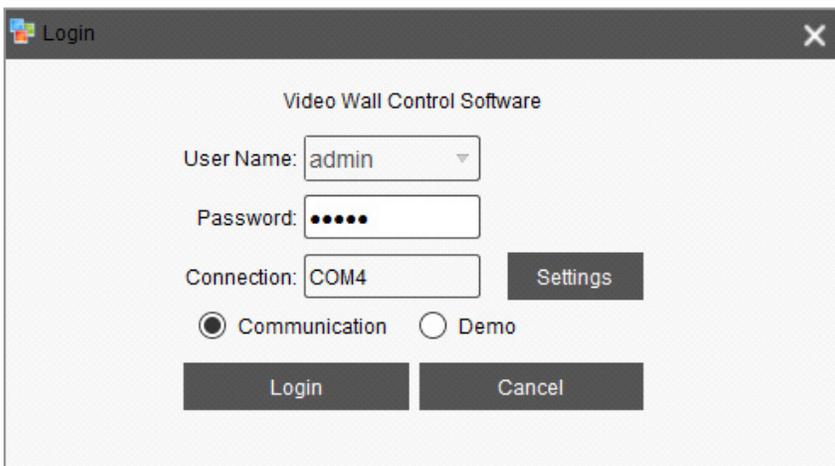   Username: '**admin**', password: '**admin**', then click the '**Login**' button.

Configuring Connection Settings

The connection settings can be configured at the login prompt or from the software manager. To configure connection settings from the login prompt:
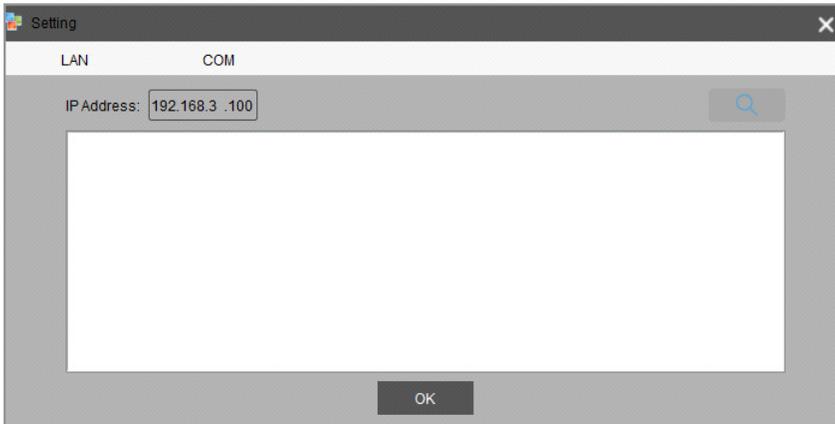
1. Click '**Settings**'

USING THE SOFTWARE (CONTINUED)

2. To connect to the MXwall Pro V2 unit over LAN, either manually enter the unit's IP address in the **IP Address** bar, or select the magnifying glass search icon which will automatically detect the IP address. Then select '**OK**'.

3. To connect to the unit over RS232, select '**COM**'. Enter the correct COM port and Baud Rate, and then press '**Connect**' and then '**OK**'.
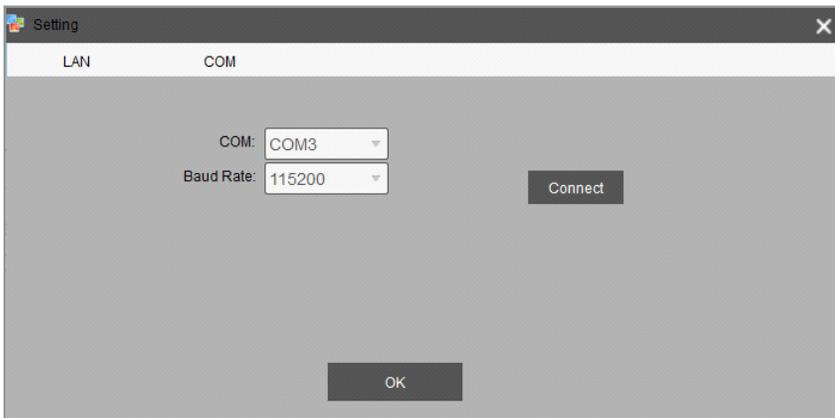
USING THE SOFTWARE (CONTINUED)
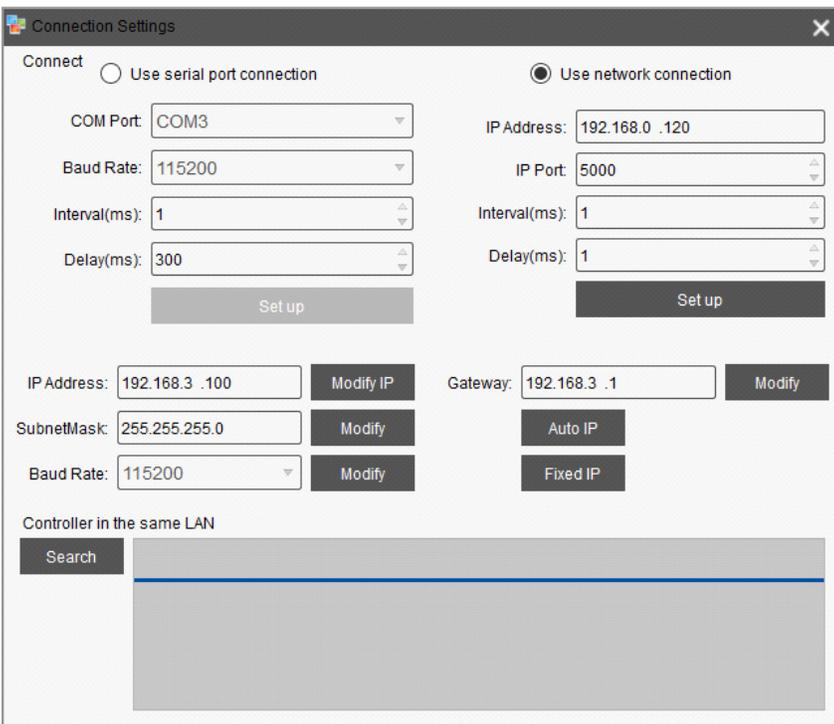
To configure the connection settings from the software manager:

1. Click the 'Connect' icon in the top navigation bar.
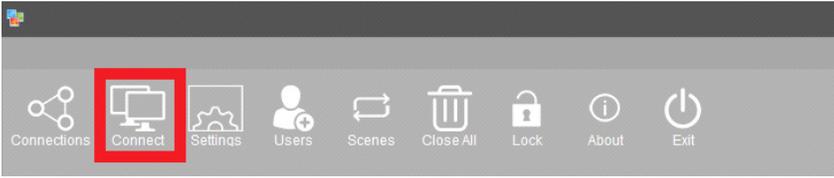
2. Here, choose whether to connect by network or serial port connection, enter the relevant information, then click 'Set up'.

3. Restart the software manager.

USING THE SOFTWARE (CONTINUED)

Setting IP Address Statically

The IP address of the MXwall Pro V2 unit can be set statically from the connection settings window as shown in figure below. Simply enter the desired IP address and then press '**Modify IP**'.
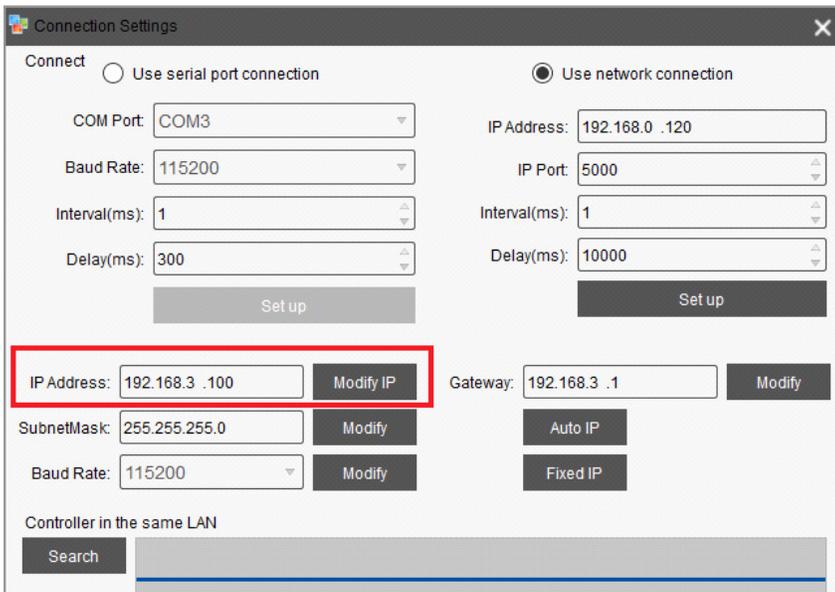
Creating Inputs and Views

The MXwall software manager represents output screens as a grid. In the figure below the highlighted square represents screen 1 on a grid of 4 screens. The input source channels are listed on the left-hand side of the manager. To map an input source to an output screen, simply drag and drop the channel icon into the square representing the desired output screen. Alternatively, click on the desired channel, and then click and trace a window within the desired output section(s) on the grid; double-click the window to fill the output section(s).
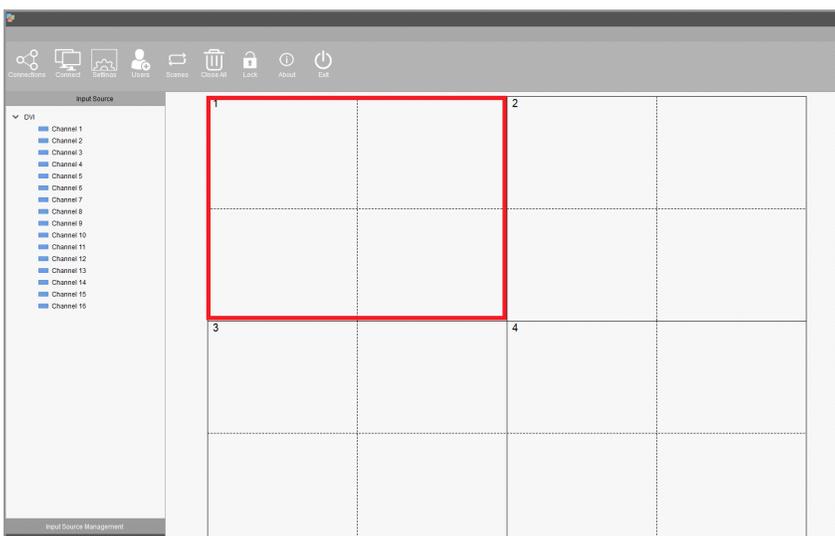
USING THE SOFTWARE (CONTINUED)

Input Source Pane

The various input channels can be managed from the Input Source Management Pane. Each channel number corresponds to the input port number on the back of the MXwall unit.
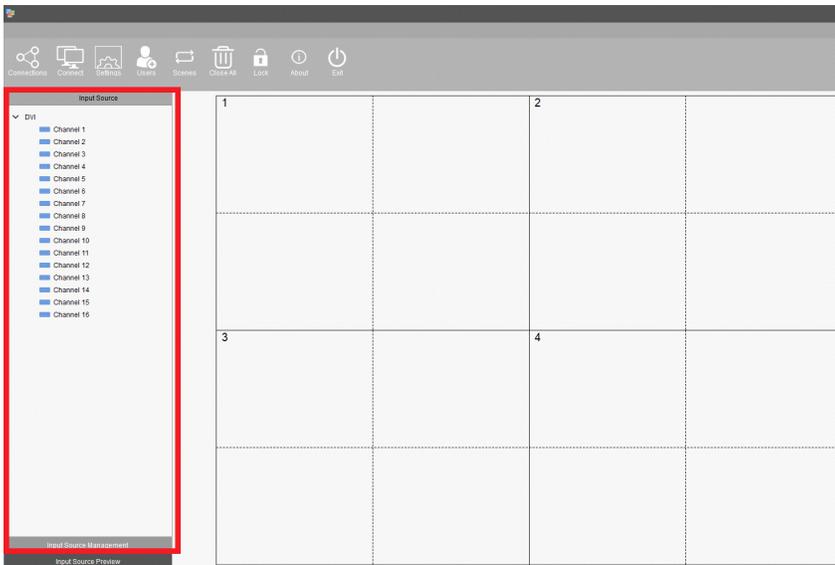
Changing Settings

1. To change video wall settings, click the settings icon in the navigation bar.
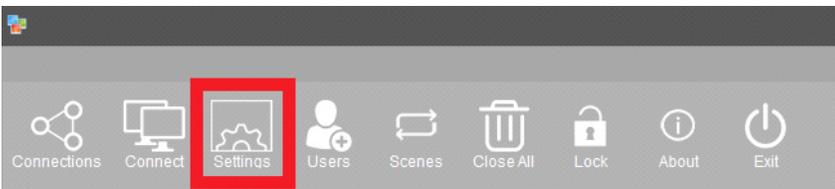
2. From the settings window, it is possible to change the resolution and refresh rate pairs, alter the start channel, and customize the number of rows and columns in the output section grid. After altering settings, click '**Create**' and then '**Modify MCU**' to save and apply the new settings.

USING THE SOFTWARE (CONTINUED)

Creating Layouts and Scenes

1. The MXwall Pro V2 allows users to create customizable layouts and then play them as scenes.

2. After creating the desired layout, select '**Autofill fields**' and then '**Add**'. This will create a layout.
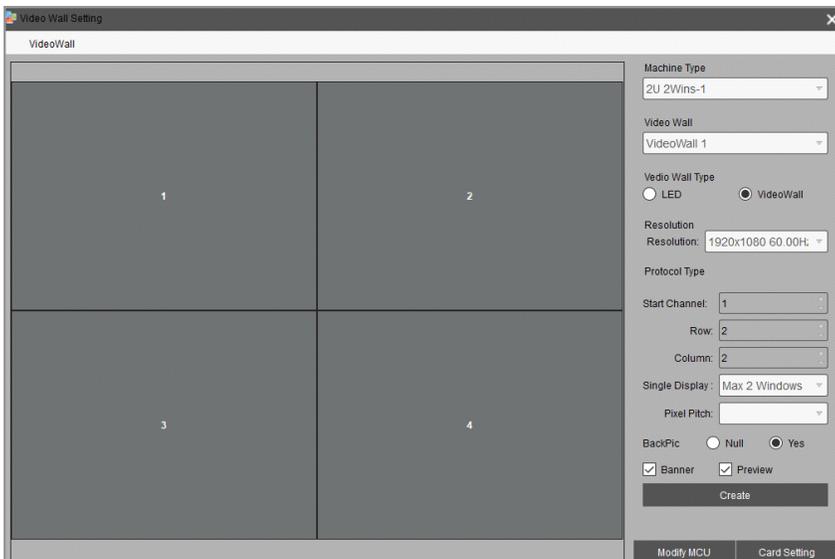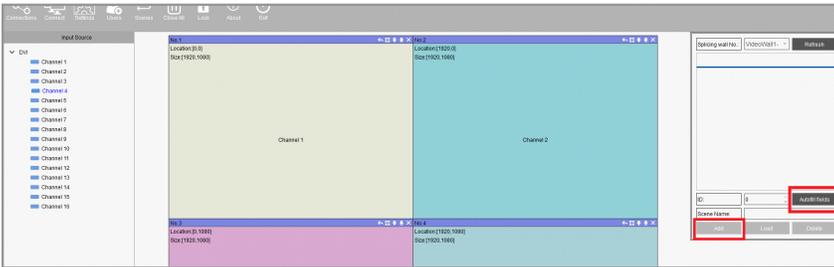

3. Then, in the navigation bar, select '**Scenes**'
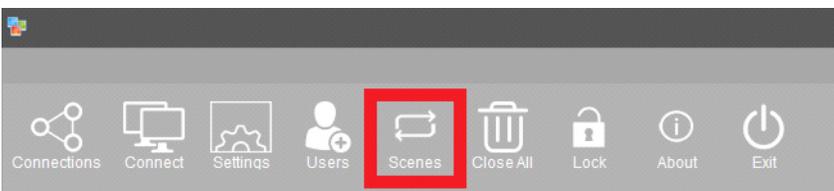
4. From the Scenes tab, select the appropriate layout(s), choose the time interval in seconds over which the layout(s) will play, and then click '**Add**'. Do this for up to 20 layouts in the order in which they will play.

5. Then, click '**Start**' to begin scene playback.
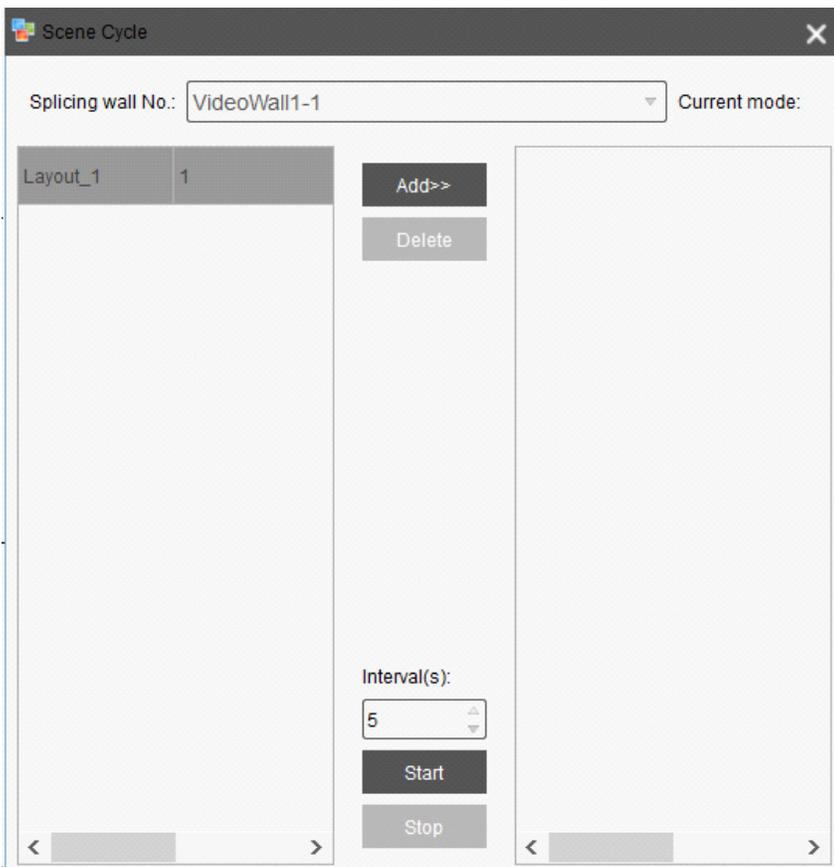
USING THE SOFTWARE (CONTINUED)

Users Permissions

To change user permissions, select the '**Users**' icon in the navigation bar.
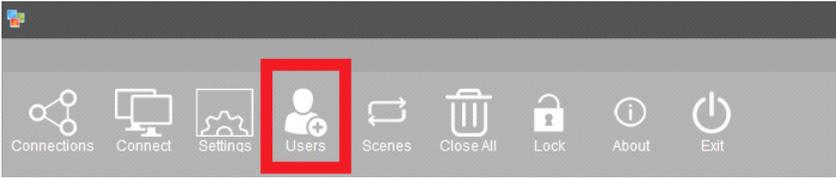
From this window, user permissions and passwords can be easily changed
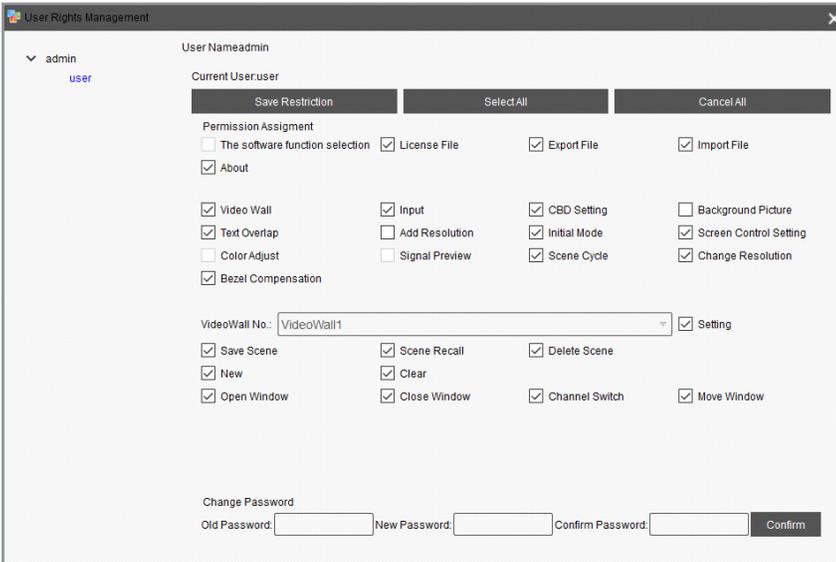
USING THE SOFTWARE (CONTINUED)

Creating Text Overlaps

Using text overlaps, you can create customized messages or labels which can be displayed along with specified input source channels. To create a text overlap, right click the desired channel and click "**Text Overlap.**" In this example, Channel 1 has been selected.
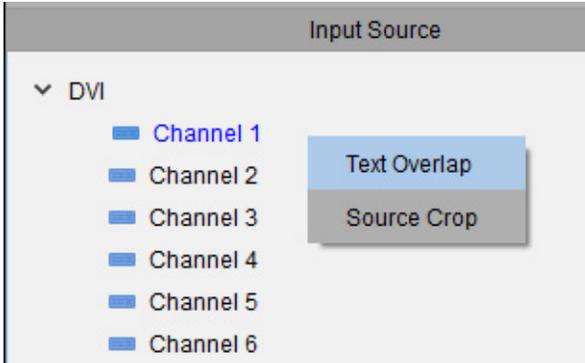
From the Text Overlap menu, you can specify the Overlap Text, the RGB values of the text, and the X-Start and Y-Start coordinates for the text. To display the overlap text click "**Send**" or "**Open**", and then click the Close "**X**" icon in the top right corner of the window. To remove the overlap text, click "**Close**".
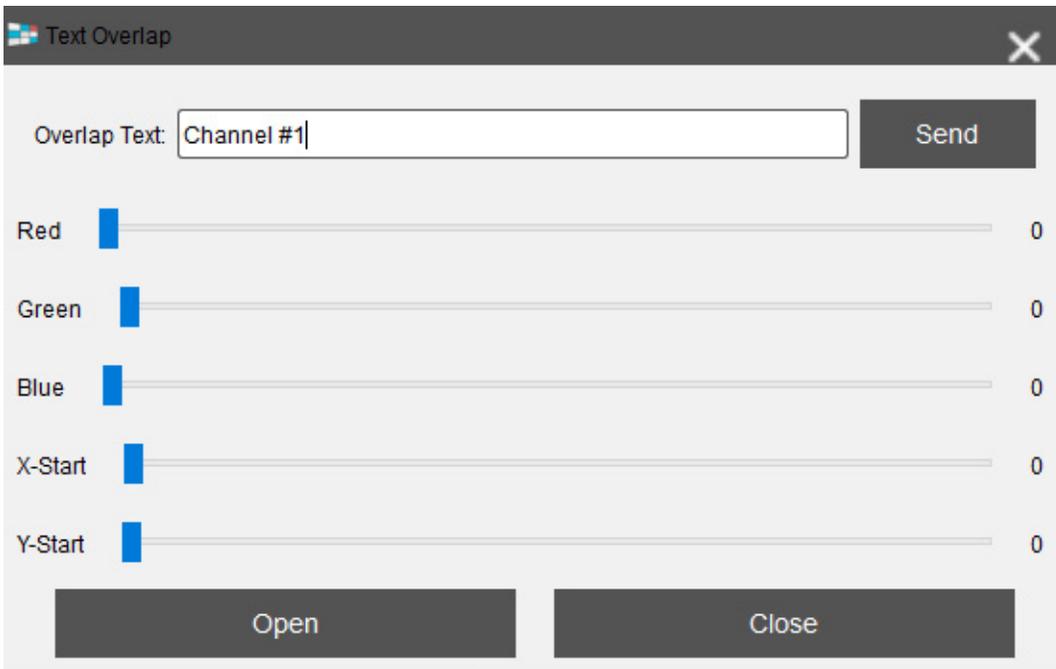
USING THE SOFTWARE (CONTINUED)

Cropping Source Image

To crop the source image for a specific channel, right click the channel's icon and select "**Source Crop**". In this example, Channel 1 has been selected.
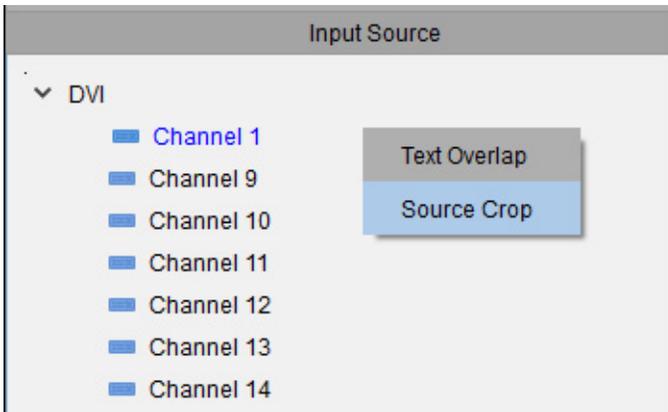
Here, you can change the start and end XY coordinates for the source image. When finished, click "**Confirm**".

Then confirm your changes by clicking "**OK**" at the warning prompt.

USING THE SOFTWARE (CONTINUED)

Changing Channel Names

To change the name of a given channel, double left-click the desired Input Source channel and enter the name of your choice.
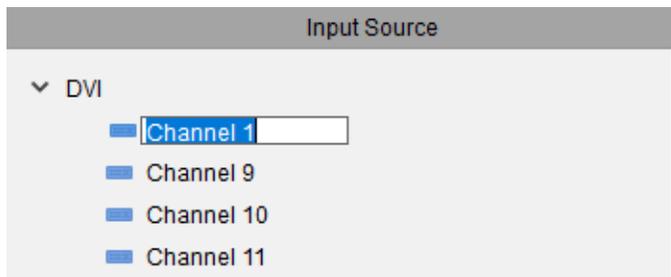
CONNECT TO THE NETWORK

To connect your MXwall to the network, first connect an ethernet cable from your network access point to the RJ45 jack on the back of the MXwall. You will need to enter 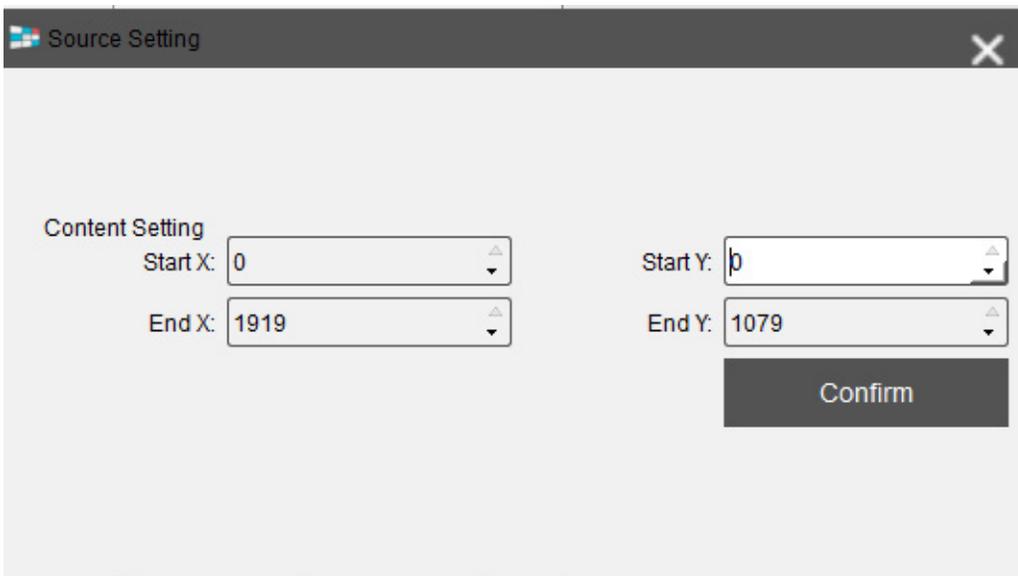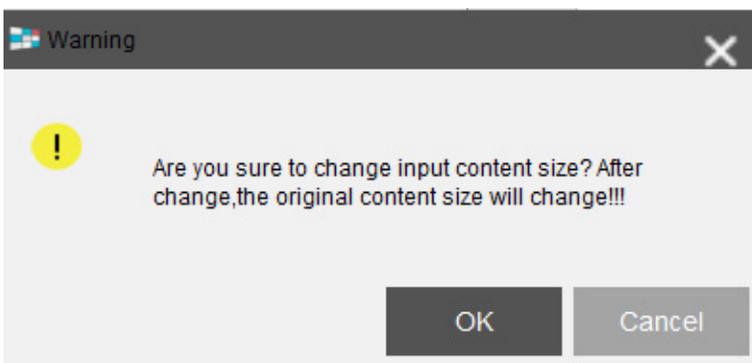the desired IP address and default gateway either on the Setup page of the front panel (see page 7) or from the Connection Settings tab of the software manager (see page 13).

To determine your default gateway and applicable IP address range on a Windows PC, first connect the Windows PC to the same network as the MXwall, then open the command prompt program and enter "ipconfig". Your PC's IPv4 Address, Subnet Mask, and Default Gateway will be shown in a manner similar to the screenshot below. From the MXwall software or front panel, enter the Default Gateway address, and then enter an IP address on the same subnet. For example, if my Default Gateway is 192.168.50.1 and subnet mask is 255.255.255.0, then all devices on the network will have an IP address of the form 192.168.50.X. Two devices on the same network cannot use the same IP address at the same time. Since my IP address is 192.168.50.138, I could give my MXwall an IP address of 192.168.50.139. If you have many devices on your network, check your router for available IP addresses before assigning one to your device and then, from the router, consider applying a static lease to the MXwall's IP address so that it does not change.

CONNECT TO THE NETWORK (CONTINUED)

```
Microsoft Windows [Version 10.0.18363.1139]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Support1>ipconfig

Windows IP Configuration


Wireless LAN adapter Wi-Fi:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 1:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 2:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . :
   IPv4 Address. . . . . . . . . . . : 192.168.50.138
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : 192.168.50.1

C:\Users\Support1>
```

SYSTEM ERROR

If during installation you receive the following error message, you will have to download the wpcap.dll and the C++ Redistributable.
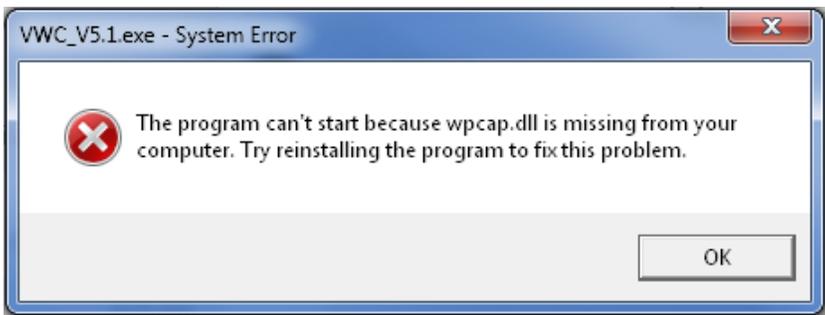
The official site to download wpcap.dll is winpcap.org.

C++ Redistributables are available for download at Microsoft.com. The MXwall software is a 32-bit program, so you will need to download the 32-bit C++ Redistributable. If your system is 64-bit, then it is recommended that you download the 64-bit version as well.

USING THE TABLET

INSTALLATION

The MXwall Pro V2 tablet software allows for greater flexibility and mobility while using the video wall. The tablet software functions with tablets running Android version 7 and above. Although the MXwall tablet software will work with tablets that use various screen resolutions, it is recommended that you use a 1080p capable tablet for the best user experience.

To install the tablet software, connect the tablet to your PC where it should be available for use as a file system similar to a USB stick. Simply drag and drop the file mxwall_pro_v2.apk into your tablet's file system folder and disconnect the tablet from your computer.

On many tablet products, you will need to enable "Apps from Unknown Sources" before installing mxwall_pro_v2.apk. To install, simply go to your tablet's file system, find the file mxwall_pro_v2.apk, click it, and press "Install."

CONNECTING TO YOUR MXWALL

In order for your tablet software to work with your MXwall, they must be on the same network. This can be achieved by connecting your MXwall to your wireless access point using the RJ45 port on the back of the unit and connecting your tablet to the same wireless network. If your MXwall was set with a static IP address, you will need to enable DHCP or statically set your MXwall's IP address to the same subnet as your wireless network using the front panel or PC MXwall software.

After running the MXwall Video Control Software App from your tablet, press the magnifying glass icon to automatically detect the IP Address of your MXwall and then press "Connect." Now you can use the tablet software in the exact same way you use your PC software.

CONFIGURATION FOR 4U AND 2U UNITS

If you have a 2U MXwall, set Machine Type to "2U 2Wins-2" and Single Display to "Max 2 Windows.

If you have a 4U MXwall, set Machine Type to "4U 4Wins" and Single Display to "Max 4 Windows.

TROUBLESHOOTING

No Power
- Make sure that the power adapter is securely connected to the power connector of the unit.
- Check the output voltage of the power supply and make sure that the voltage value is around 12VDC.
- Replace the power supply.

No Video
- Check if all the video cables are connected properly.
- Connect the computer directly to the monitor to verify that your monitor and computer are functioning properly.
- Restart the computers.

Keyboard is not working
- Check if the keyboard is properly connected to the unit.
- Check if the USB cables connecting the unit and the computers are properly connected.
- Try connecting the USB on the computer to a different port.
- Make sure that the keyboard works when directly connected to the computer.
- Replace the keyboard.

Mouse is not working
- Check if the mouse is properly connected to the unit.
- Try connecting the USB on the computer to a different port.
- Make sure that the mouse works when directly connected to the computer.
- Replace the mouse.

No Audio
- Check if all the audio cables are connected properly.
- Connect the speakers directly to the computer to verify that the speakers and the computer audio are functioning properly.
- Check the audio settings of the computer and verify that the audio output is through the speakers.

TECHNICAL SUPPORT

For product inquiries, warranty questions, or technical questions, please contact info@smartavi.com.

LIMITED WARRANTY STATEMENT

A. Extent of limited warranty

SmartAVI, Inc. warrants to the end-user customers that the SmartAVI product specified above will be free from defects in materials and workmanship for the duration of 1 year, which duration begins on the date of purchase by the customer. Customer is responsible for maintaining proof of date of purchase.

SmartAVI limited warranty covers only those defects which arise as a result of normal use of the product, and do not apply to any:

      a. Improper or inadequate maintenance or modifications
      b. Operations outside product specifications
      c. Mechanical abuse and exposure to severe conditions

If SmartAVI receives, during applicable warranty period, a notice of defect, SmartAVI will at its discretion replace or repair defective product. If SmartAVI is unable to replace or repair defective product covered by the SmartAVI warranty within reasonable period of time, SmartAVI shall refund the cost of the product.

SmartAVI shall have no obligation to repair, replace or refund unit until customer returns defective product to SmartAVI.

Any replacement product could be new or like new, provided that it has functionality at least equal to that of the product being replaced.

SmartAVI limited warranty is valid in any country where the covered product is distributed by SmartAVI.

B. Limitations of warranty

To the extant allowed by local law, neither SmartAVI nor its third party suppliers make any other warranty or condition of any kind whether expressed or implied with respect to the SmartAVI product, and specifically disclaim implied warranties or conditions of merchantability, satisfactory quality, and fitness for a particular purpose.

C. Limitations of liability

To the extent allowed by local law the remedies provided in this warranty statement are the customers sole and exclusive remedies.

To the extant allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event will SmartAVI or its third party suppliers be liable for direct, indirect, special, incidental, or consequential damages whether based on contract, tort or any other legal theory and whether advised of the possibility of such damages.

D. Local law

To the extent that this warranty statement is inconsistent with local law, this warranty statement shall be considered modified to be consistent with such law.

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