![Avenview logo - Control Your Video]

ABOUT THIS DOCUMENT

This document specifies the versions of PC Control software and the recommended steps to implement the LED Configuration, Adding Resolution and Pre Operation (Offline Mode).

Software Version v2.4.14.11

The firmware and software versions mentioned in this document has been tested as a single unit on all chassis of the AVXWALL, these newly added functions are fully supported by Avenview.

It is recommended that users read the entire document before attempting the listed functions on the AVXWALL UNITS and fully understand all the steps and procedures outlined in this document.

This document was last updated 09/29/2017

- Report any bug issues to: support@avenview.com

GENERAL INSTRUCTIONS

1. Before you begin to test the updated functions ensure the AVXWALL and your PC/laptop is connected with USB to RS232 cable or LAN via Ethernet port on the control card.
2. PC Requirements - Windows® XP/Windows® 7/Windows® 10
3. Ensure your laptop or desktop is plugged into AC power during the testing.
4. Please have a terminal Emulator program such as Putty or UART, this would be handy to temporarily test your control code.

Avenview USA
1100 Military Road, Kenmore, NY 14217
Phone: +1.716.218.4100 Fax: +1.866.387-8764
info@avenview.com

Avenview Canada
151 Esna Park Drive, Units 11 & 12, Markham, ON L3R 3B1
Phone: 1.905.907.0525 Fax: 1.866.387.8764
www.avenview.com

SOFTWARE DOWNLOAD

1. Download the new PC Control Software from the Avenview link for the AVXWALL

   Software Download Link: http://www.avenview.com/downloads/AVXWALL-2.4.14.11.exe

2. Once the files have been downloaded, please unzip the contents and save on the PC/laptop you are using.

3. Follow the Software guide below to test the new features that was added to the PC Software.

4. Open the Avenview AVXWALL 2.4.14.11 Control Software then navigate to the type of connection you prefer.

Connection Method	
1. Start PC Control software. 2. Locate the RS232/ETHERNET connector located on the main control board.	
3. Plug the RS232/ETHERNET into the unit and the PC/Laptop that has the Terminal Emulator. 4. After the PC has recognized the RS232/ETHERNET cable, please check device manager to ensure the COM port is detected. 5. After, choose COM/ETHERNET port in software.	**Hardware Setup**
6. Once connection is established, navigate to **Configuration** 7. Two choices are available for modifing the Resolution: 1. Under Resolution section the **Advance Timing** button 2. **Led Screen Wall** Section 8. Navigate to Resolution>Click on the Advance Timing button	

Avenview USA
1100 Military Road, Kenmore, NY 14217
Phone: +1.716.218.4100 Fax: +1.866.387-8764
info@avenview.com

Avenview Canada
151 Esna Park Drive, Units 11 & 12, Markham, ON L3R 3B1
Phone: 1.905.907.0525 Fax: 1.866.387.8764
www.avenview.com

9. Pop up window will appear - Resolution setting- under this section the user can adjust the timing parameters

LCD display signals

Key

vactive: Vertical resolution
hactive: Horizontal resolution

VBP: Vertical Back Porch
VFP: Vertical Front Porch
VSLEN: Vertical sync length

HBP: Horizontal Back Porch
HFP: Horizontal Front Porch
HSLEN: Horizontal sync length

VSYNC: Vertical sync
HSYNC: horizontal sync

Clocks per frame = lines per frame * Clocks per line

lines / frame = VSYNC + VBP + vactive + VFP + VSLEN

Clocks / line = HSYNC + HBP + hactive + HFP + HSLEN

Refresh rate = Pixel Clock / clocks per frame

10. **H-Front Porch** =Horizontal Front porch (HFP):
Number of PIXCLK pulses between the last valid pixel data in the line and the next HSYNC pulse.

11. **Vertical Front Porch** (VFP):
Number of lines (HSYNC pulses) between the last valid line of the frame and the next VSYNC pulse.

12. **H-Active Pixel** =Horizontal Active Pixel- Active frame width (hactive): Horizontal resolution.
- this can be adjusted to match your exact active horizontal resolution width per screen

13. **V-Active Line** =Vertical Active Pixel- Active frame height (vactive): Vertical resolution.
- this can be adjusted to match your exact active vertical resolution height per screen.

14. **H-Total Count** =Horizontal Total Count-

15. **V- Total Count** =Vertical Total Count-

16. **H-Sync Width** =Horizontal Sync Width- Number of PIXCLK pulses when a HSYNC signal is active.
- PIXCLK: Specifies the placing of RGB data on the bus.

17. **V-Sync Width** =Vertical Sync Width- Number of HSYNC pulses when a VSYNC signal is active.
HSYNC:Horizontal sync (FPLINE or LP) indicates the end of a line and the beginning of the next line.
VSYNC:Vertical sync (FPFRAME, FLM, SPS or TV) indicates the end of the current frame.
The next line index should restart at zero in the upper-left corner.

18. **H-Sync Polarity** =Horizontal Sync Polarity- describes the video signal sync properties.
Positive sync signal is normally logic 0, but goes to logic 1 when sync is active.

19. **V-Sync Polarity** = Vertical Sync Polarity-describes the video signal sync properties.
Positive sync signal is logic 0, but goes to logic 1 when sync is active.

Avenview USA
1100 Military Road, Kenmore, NY 14217
Phone: +1.716.218.4100 Fax: +1.866.387-8764
info@avenview.com

Avenview Canada
151 Esna Park Drive, Units 11 & 12, Markham, ON L3R 3B1
Phone: 1.905.907.0525 Fax: 1.866.387.8764
www.avenview.com

20.	**Refresh Rate** = is the rate in cycles per second (Hz) at which the displayed contents of a screen are periodically regenerated. Min 0 to 100 Max (Single increments).	
21.	**Reset** = To reset the values within the Resolution settings to factory default. **Apply** = To confirm and apply the changes you have manually entered in the Resolution Setting section to be save to the main control board. **Quit** = To exit the Resolution Tab window.	
22.	**LED Screen Wall** =refers to the LED Tiles with a 1:1 aspect ratio or 16:9 ratio **Width=** Total vertical resolution of the LED WALL**.** **Height=** Total horizontal resolution of the LED WALL. **Log Screen**= Total number of LED tiles in a Row and Column group.	
23.	Once the Screen Configuration is completed, navigate to **Basic Operation**	
24.	Avenview has added a new feature **Pre Operation**=User can create any window layout within the PC software without affecting the live videowall layout. **Apply**=Once this button is clicked the created window layout in the PC Software will be sent to the processor to be shown live on the active videowall. Three simple steps:- 1. **Click** (Pre-Operation) 2. **Create** (Drag and resize with mouse) 3. **Apply** (Apply)	
25.	If you have any further questions on the above guide, please contact us at the Technical Department via- Email: support@avenview.com Phone:1 866 508 0269	

Avenview USA
1100 Military Road, Kenmore, NY 14217
Phone: +1.716.218.4100 Fax: +1.866.387-8764
info@avenview.com

Avenview Canada
151 Esna Park Drive, Units 11 & 12, Markham, ON L3R 3B1
Phone: 1.905.907.0525 Fax: 1.866.387.8764
www.avenview.com