DIGIMORE ELECTRONICS CO., LTD

Video Wall User Guide

V2

Table of Contents

Setting up the Hardware 2

Network Connections 2

Installing the Monitors..... 3

Configuring your Network..... 3

Configuring the Video wall..... 4

Screen Node Installation..... 5

Controller installation 7

Configuring and using the Controller software 9

Configure Video wall controller 9

Using video wall Controller.....14

Importing Content 15

Organizing Content.....17

Create tag labels 17

Label content with Tag.....17

Sort out content with Tag label or type.....18

Showing Content on Video wall.....19

Managing Content 19

Dynamic Content Design.....20

Organizing Scenes.....24

Schedule Content for Video wall 25

Still Images 27

Supported image formats: 27

Video, audio Clips.....27

Supported video formats: 27

Chapter 1 – Installing and Configuring the Hardware

Installing and configuring your system includes the following steps:

- **Hardware Setup** – Setup computers, monitors and network for your video wall system.
- **Software Installation** – Install software for Screen Node and Controller.
- **System Configuration** – Customize your video wall configuration to suit your configuration requirements.

Each of these steps is described in the following sections.

Setting up the Hardware

A complete video wall installation includes the following elements.

Screen Node – Each monitor in your video wall must be controlled by a Screen Node computer. The Screen Node computer can be connected to the monitor via VGA, DVI or HDMI cable, or the computer can be embedded in the monitor. Screen Node computers must meet the following minimum requirements:

- Microsoft Windows 7
- One Gigabit Ethernet
- Dual core processor with 2GHz or faster
- 4GB RAM -Graphic card with at least 256MB dedicated RAM or higher
- At least 1GB or more disk space to store content

Controller – You must have one Controller for each video wall installation. The Controller software runs on a standard Screen Node computer with the following minimum configuration.

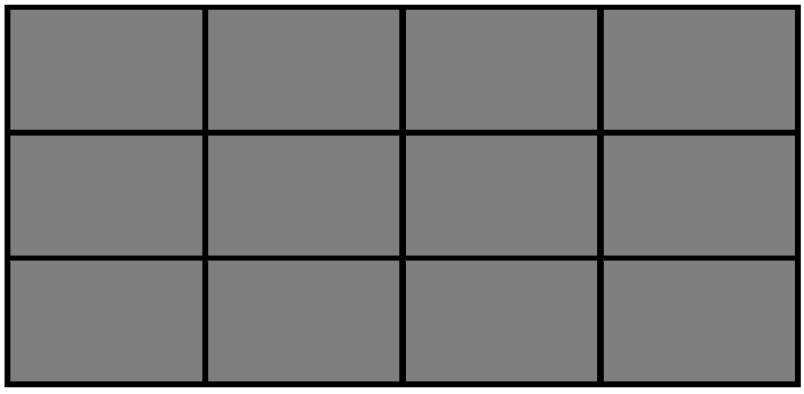
- Microsoft Windows 7
- One Gigabit Ethernet
- Dual core processor with 2GHz or faster (Quad core is strongly recommended)
- 4GB RAM (8GB or higher is strongly recommended)
- Graphic card with at least 512MB dedicated RAM or higher
- Monitor and graphic card is recommended to use 1920 x 1080 configuration or higher.
- At least 2GB of free space after the installation.

Network Connections

Gigabit Router Switch – Video wall uses multicast and broadcast protocols to communicate between the Controller and the Screen Nodes. To avoid any interference with other existing network, it is required to connect all Screen Nodes and the Controller to a Gigabit Router Switch.

Installing the Monitors

Start the physical installation by mounting the monitors in a physically contiguous manner. The result should look something like this:

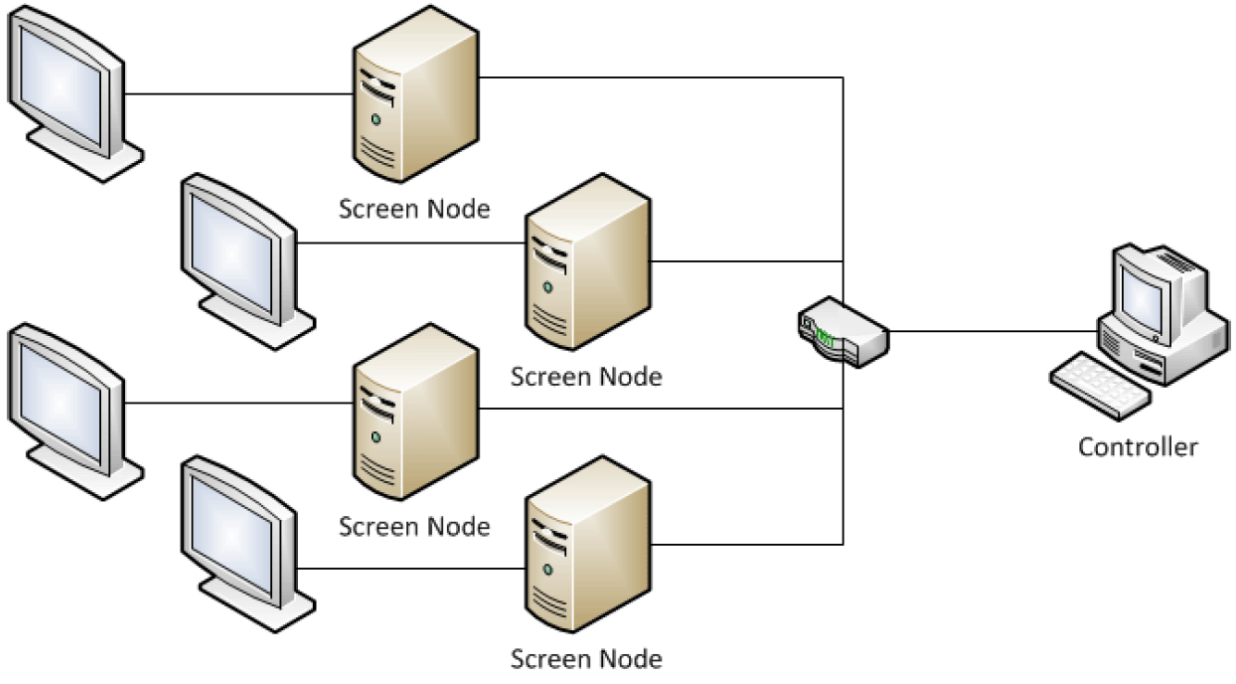


Calculate the total amount of power you need for the monitors, Screen Node computers and network equipment. Ensure that you do not exceed the power limits of any individual power circuit.

Caution: Depending on the size of your wall, you may need multiple power circuits to supply the total amount of power needed for your wall.

Configuring your Network

Each monitor requires a power cord and VGA, DVI or HDMI cable. Connect the cable of each monitor to the external Screen Node computer that will control that monitor. Connect each Screen Node computer to the Gigabit Router Switch. In this case each monitor/Screen Node computer pair is referred to as a Screen Node.



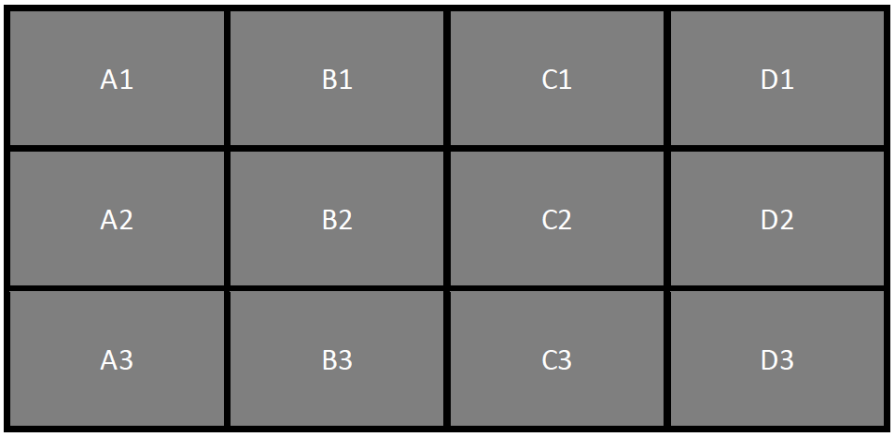
Configuring the Video wall

After your network is complete, you are ready to configure the video wall. Name the Screen Nodes in a grid manner, as follow:

- Columns names start at the upper left with A. Increase the letter part of the name by one for each additional column to the right

- Row names start at the upper left with 1. Increase the number part of the name by one for each additional row going down.

An example wall that is 3 monitors' high and 4 monitors wide is shown below.



To complete the Screen Node naming operation you can connect a keyboard and mouse to each computer or use a remote desktop utility to perform the entire operation from a single Screen Node computer, such as the Controller.

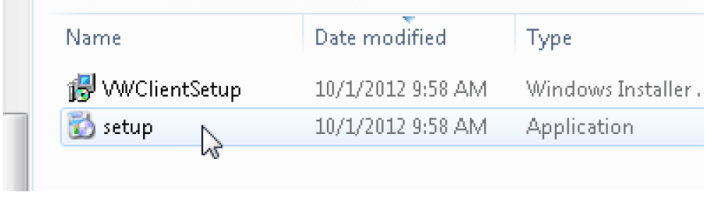
Chapter 2 – Installing and Configuring the Software

Software installation order

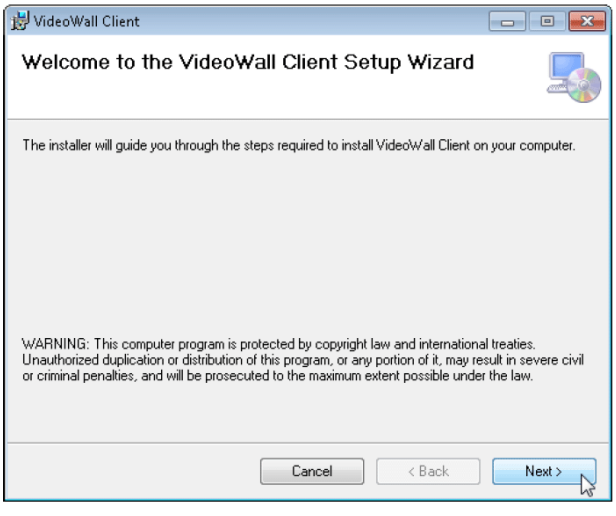
- Screen Node
- Video wall controller

Screen Node Installation

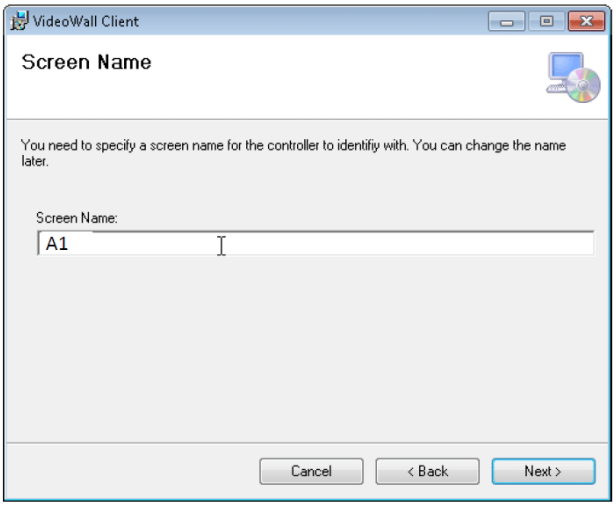
Once download the client software and un-zipped, double click on “setup” to start installing the software.



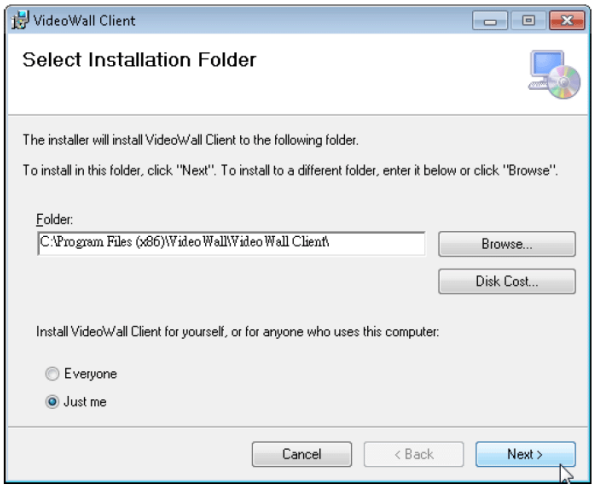
Click “Next” to continue



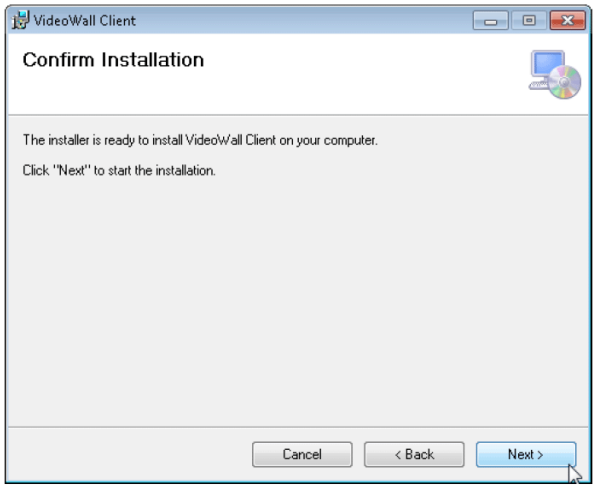
Type a screen name that was used when you plan the video wall configuration.



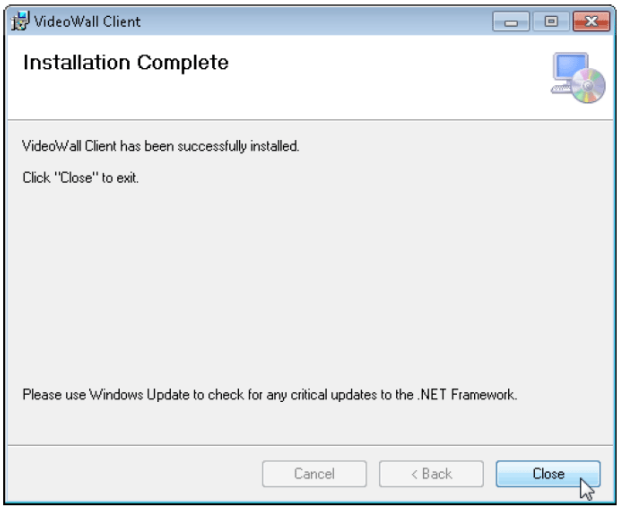
Click “Next” to accept the default installation folder.



And click “Next” again to start the installation.



Click “Close” to complete the installation.

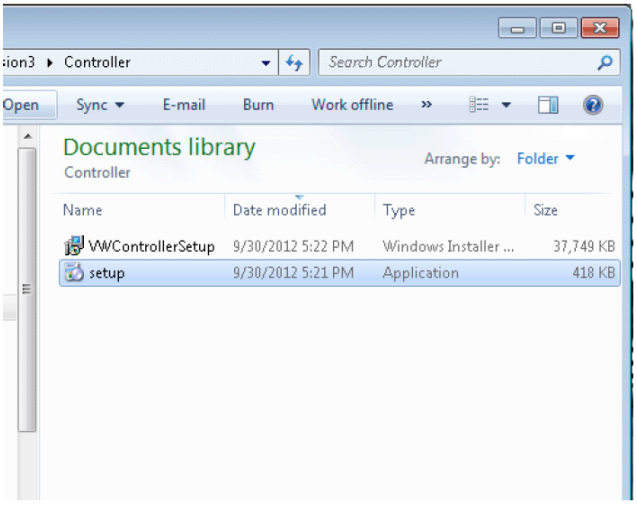


Please follow above steps on other Screen Node as well for A2, A3, /etc.

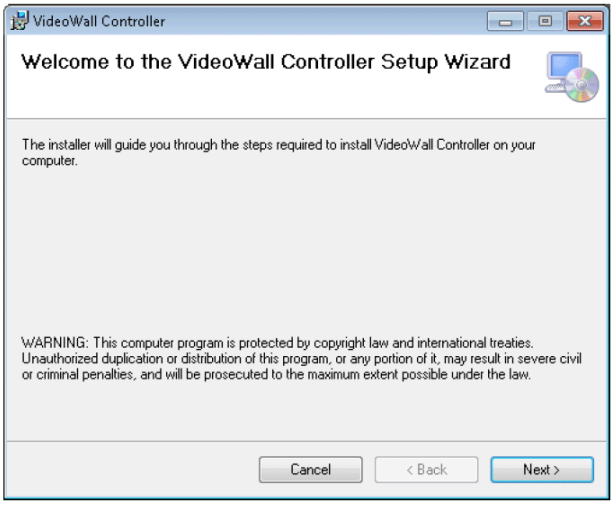
Once completed the Screen Node side installation, go to your controller computer and continue installing the controller software by following the next page.

Controller installation

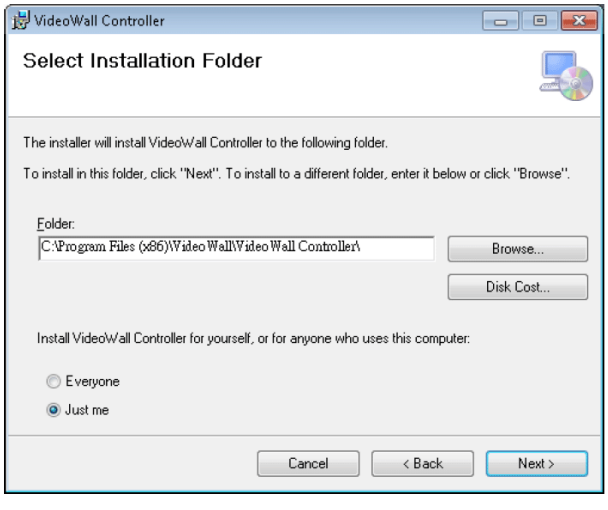
After download the controller software, unzip it and run “Setup” to start the installation process.



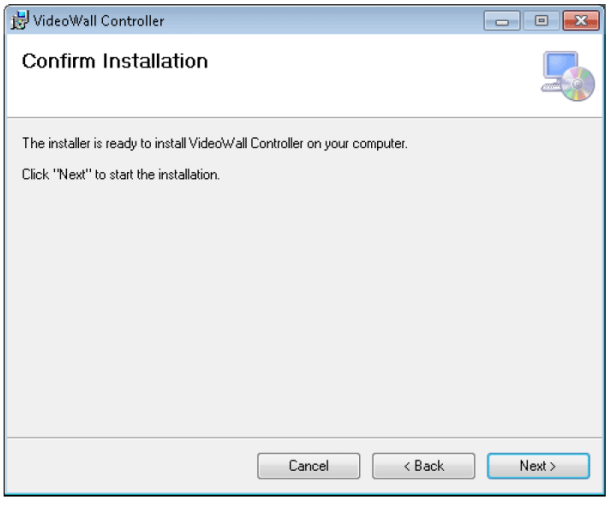
Click Next to continue



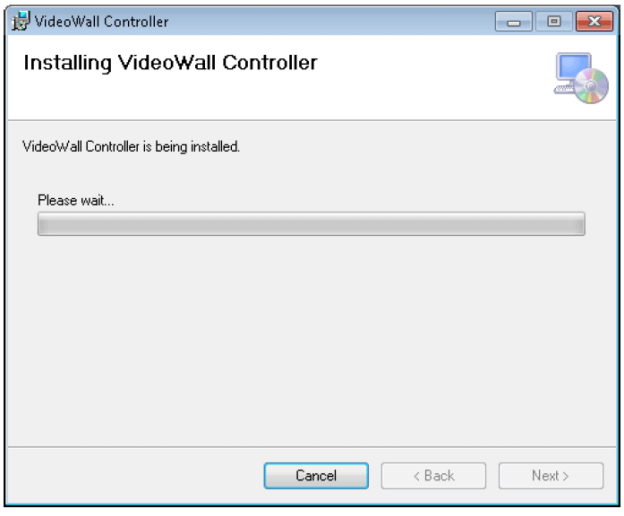
Default installation folder should be fine for most application. So just click Next



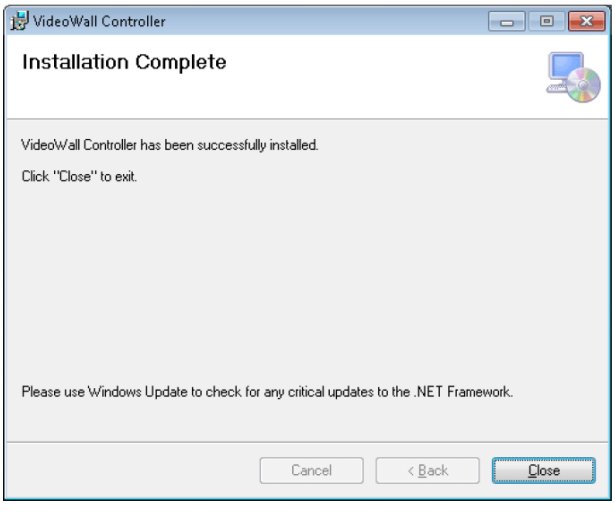
Click Next again to start the installation



Wait for a while for the installation to start and



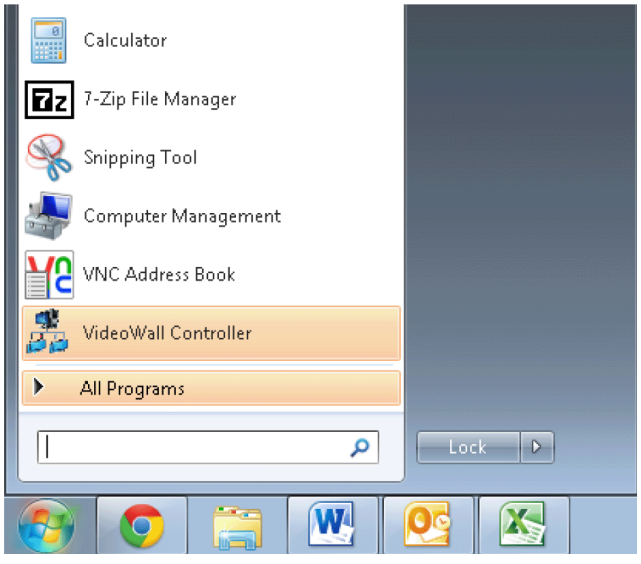
After the installation completed, click Close to finished the installation wizard.



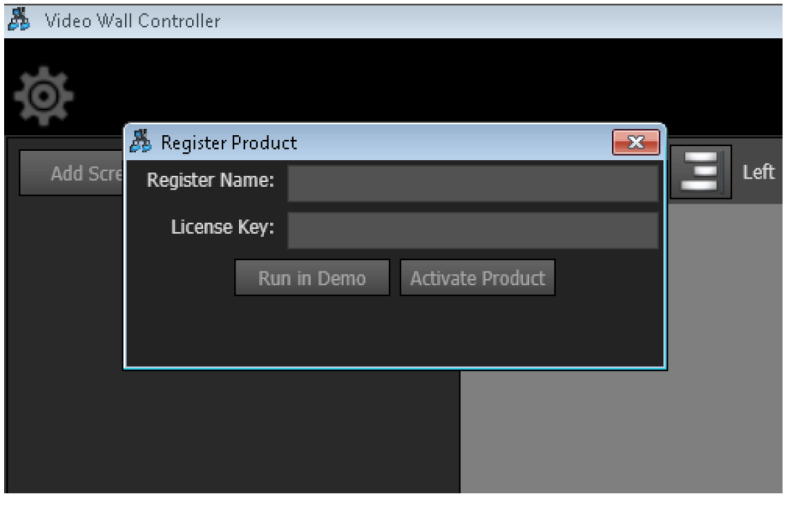
Configuring and using the Controller software

Configure Video wall controller

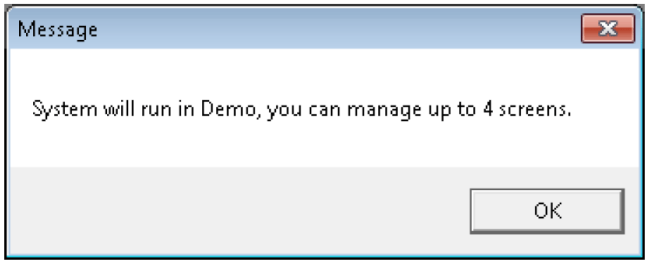
To run the video wall controller, click on windows start menu and select “Video Wall Controller”, or go to Start-> All Programs-> Video wall-> Video wall controller



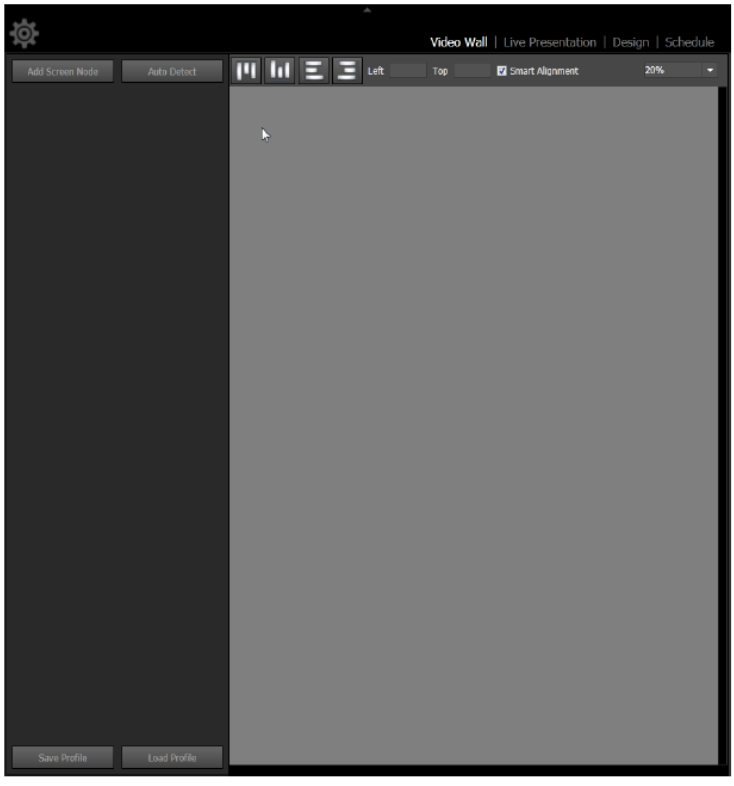
If you have a license, you can enter the name and license key to activate the software, otherwise, you can just click on “Run in Demo” to evaluate the software



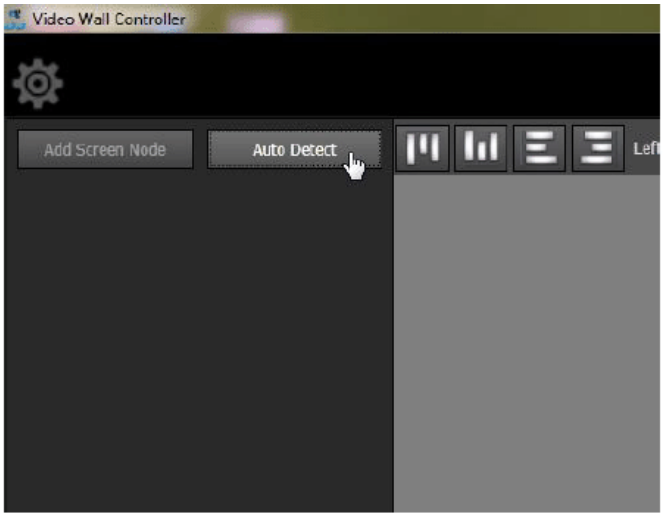
If you click on “Run in Demo”, a window will pop up, saying the demo version has screens limitation of up to 4 screens, just click OK to close the message window.



Video wall controller interface will be shown as below



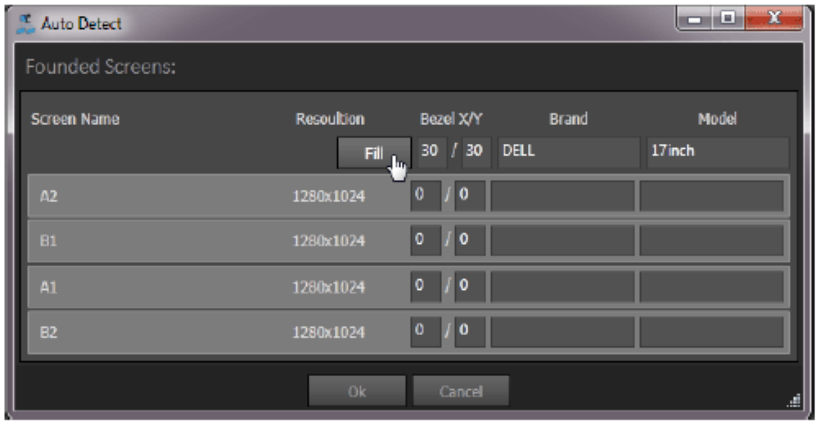
Click on Auto Detect to automatically detect all the Screen Node on the network.



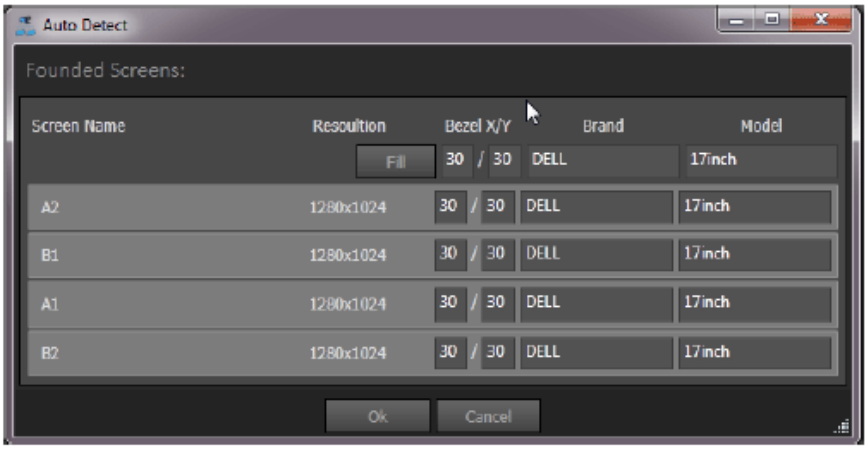
Screen Nodes detected will show as this



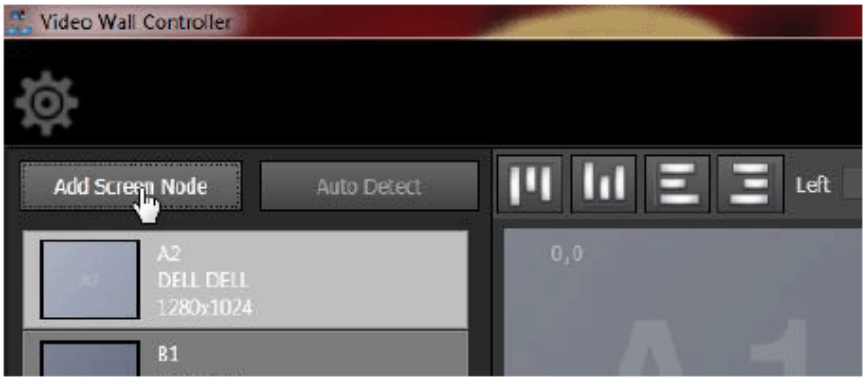
You can input the bezel correction, brand and model information all at once. And hit “Fill” button



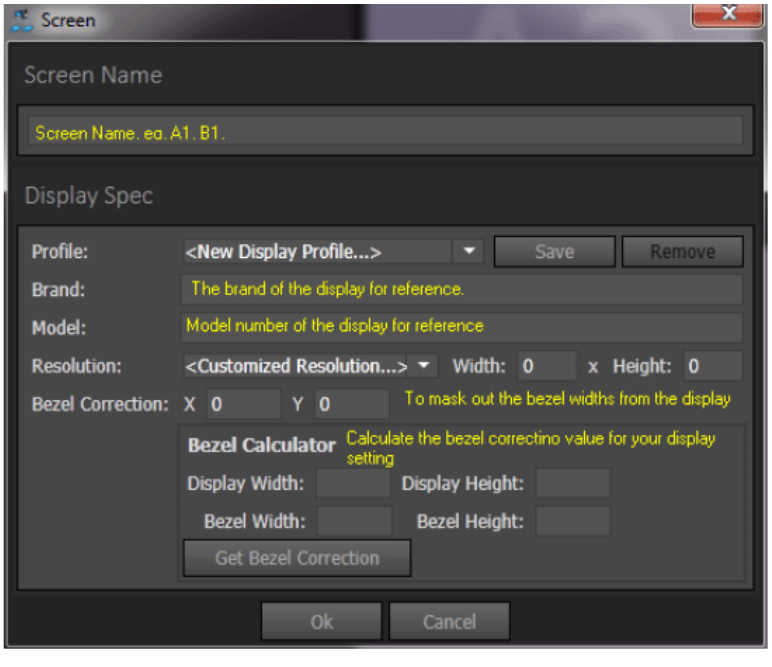
Information will fill up automatically to all Screen Nodes; then click ok to add all screens.



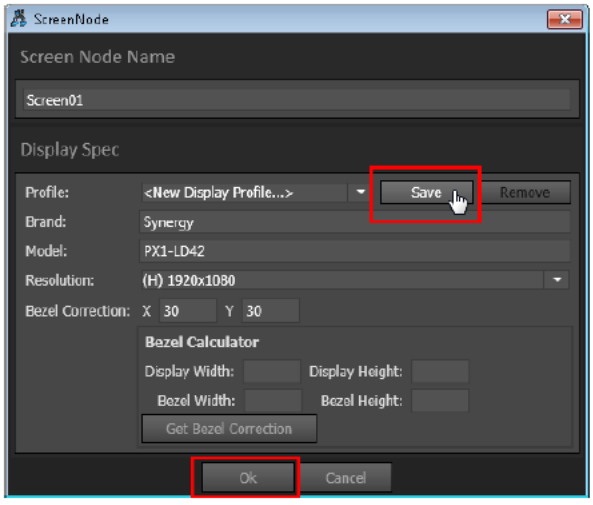
To add and setup Screen Node individually, click on “Add Screen Node”



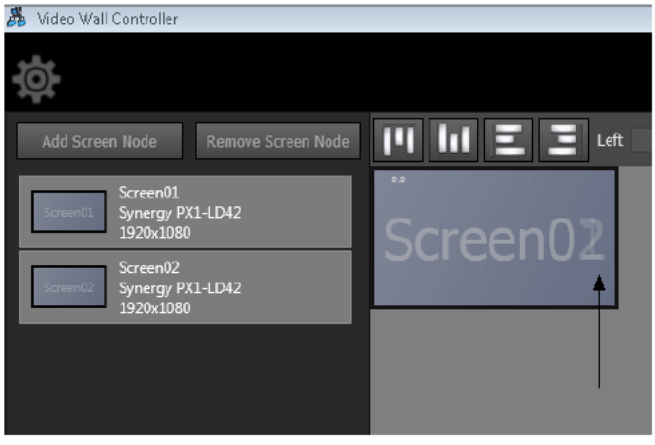
Screen node configuration window will pop up as below and fill out accordingly.



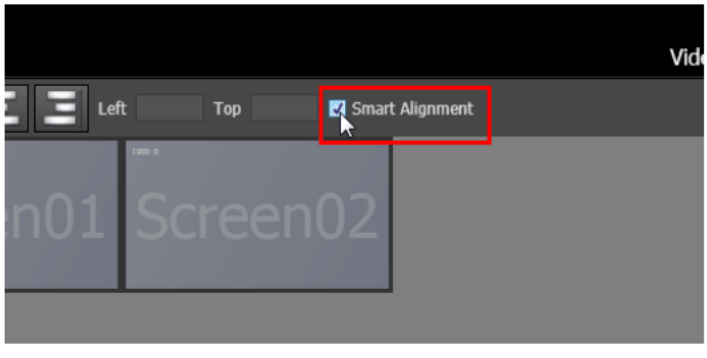
Once you fill up the configuration for the first screen, you can click Save to save the configuration and apply it to the rest of the screens while you are creating them. Once saved, click “OK” to finish setup the first screen.



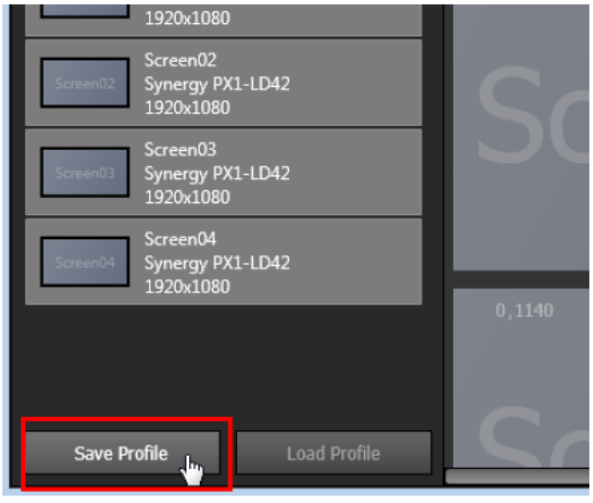
After created the second or the third screen or more screen, the screens node may be shown as overlapping like below. Just use your mouse to move their positions accordingly.



You can check the “Smart Alignment” to help you align the screen easier.

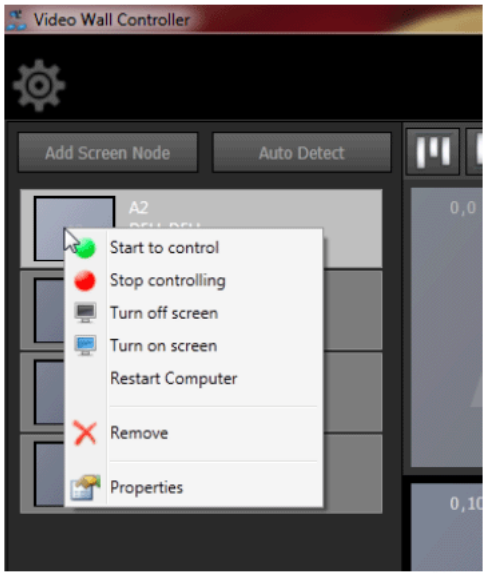


Once you finished configured the video wall setup, you can save the entire setup as a video wall profile for future use. So you don't have to create screen by screen from scratch for a new video wall setup.



Using video wall Controller

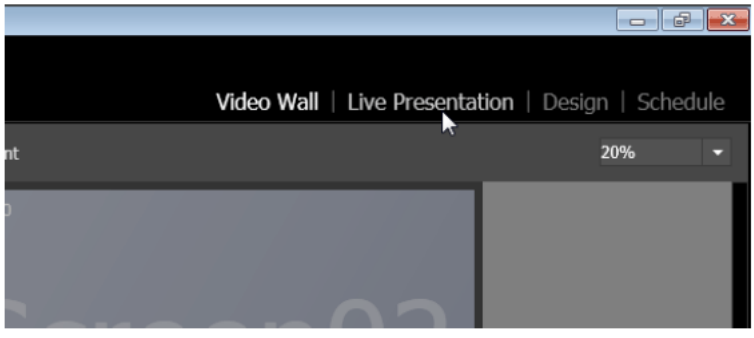
After finished install both Screen Node and Controller software, and have the screens setup for A1, A2, /etc. You can start the video wall client by right click on the Screen Node list and select "Start to control", by doing this, you will notice your video wall client computer screen will turn black.



Chapter 3: Import, Manage and Create content

Importing Content

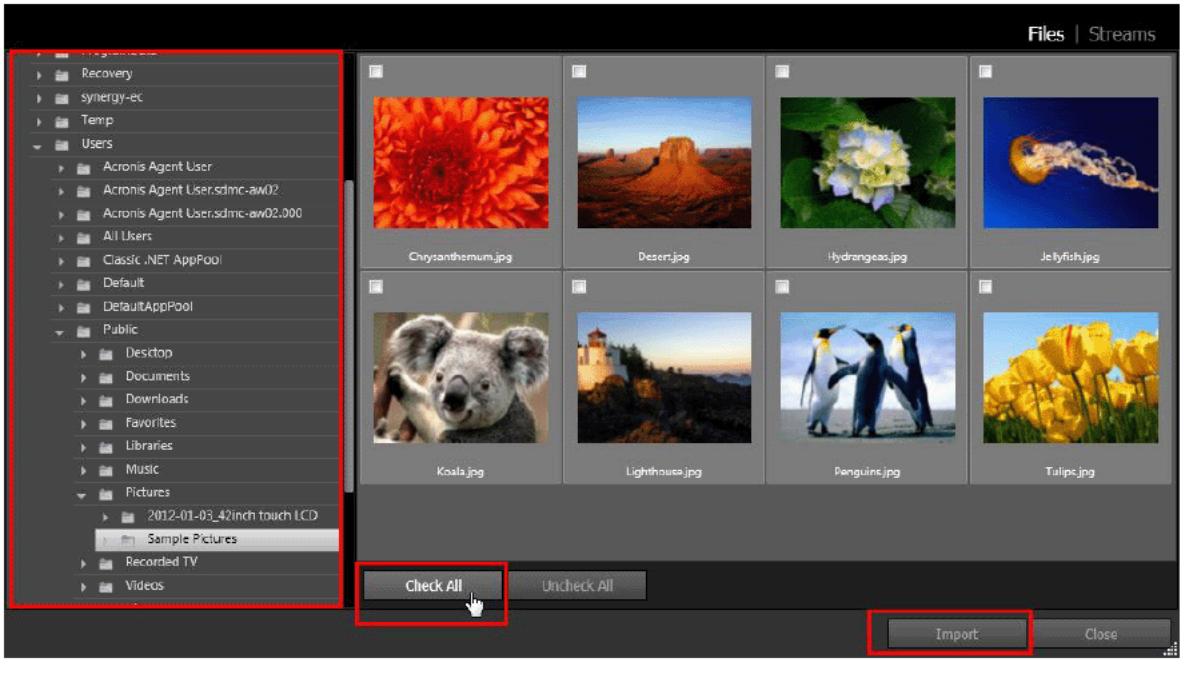
In order to import content, click on “Live Presentation” page



And on the bottom right corner, click on Import



Then in the import window, browse where your content are located on your computer, select individual content or select all by click on “Check All” and click “Import” to start importing content. Once finish, click close to close the import window.



Once content are imported, you can see them at the bottom panel, then click “Sync Files” to get these content synchronized with the client computers.



When the sync windows open, simply click “Start Sync” to complete the synchronization process. If your windows firewall pop asking for access permission, select “Allow”



Organizing Content

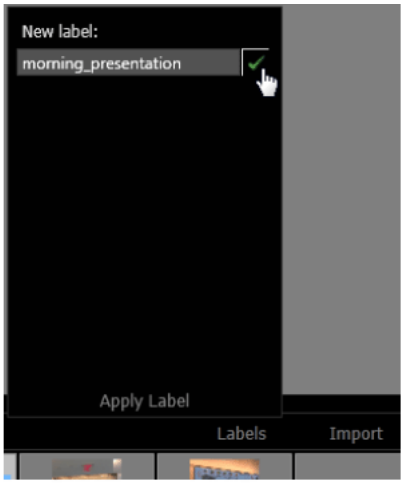
The software allows you to manage multimedia files with Tags, so you can sort them out easily for different presentation. Follow these steps to create and assign tags to your content.

Create tag labels

Simply click on “Labels”

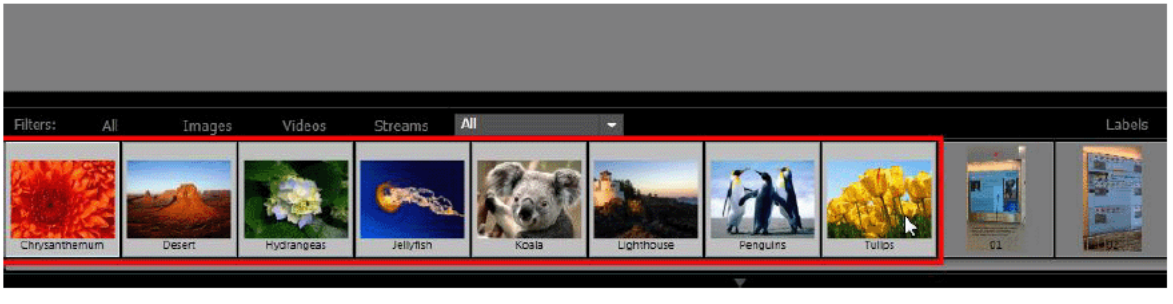


And type in the name of the label and hit the check mark to confirm.

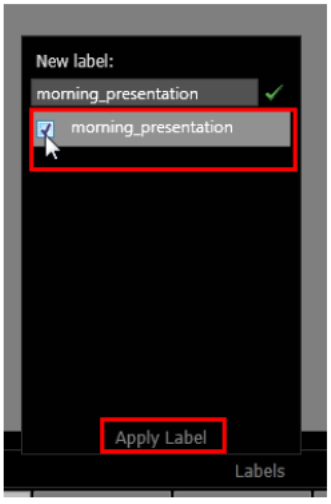


Label content with Tag

Select the content from the bottom window. Use shift key or control key to select multiple content at once.



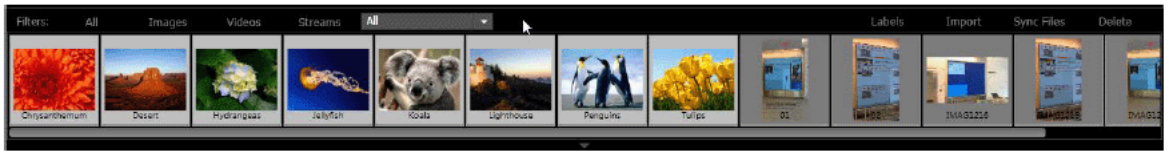
Click “Labels” and click on the Tag that was created for this batch of images, in this example “morning_presentation” and hit “Apply Label” at the bottom.



Sort out content with Tag label or type.

On the bottom left corner of the program, you can filter what content to show. “Images”, “Videos”, “Streams” or “Tag labels”. To use sort out by Tag, simply click on the drop down menu and select the Tag. In this example, “morning_presentation”

Before selecting the “morning_presentation” tag will s show like this.



Result after selected “morning_presentation” tag will sort out images with “morning_presentation” only.



Showing Content on Video wall

When content are synchronized on the client computer, you can click “Start Live Broadcast” button on the top, and simply use your mouse to drag content onto the screen, and the content should appear on the video wall end.



Managing Content

To resize content size, hold Alt key and use mouse to resize the content.

Mouse double click can fill up the covered area.

To rotate the media, simply click and hold on the bottom right corner of the media and move the mouse accordingly to tilt and rotate the content.

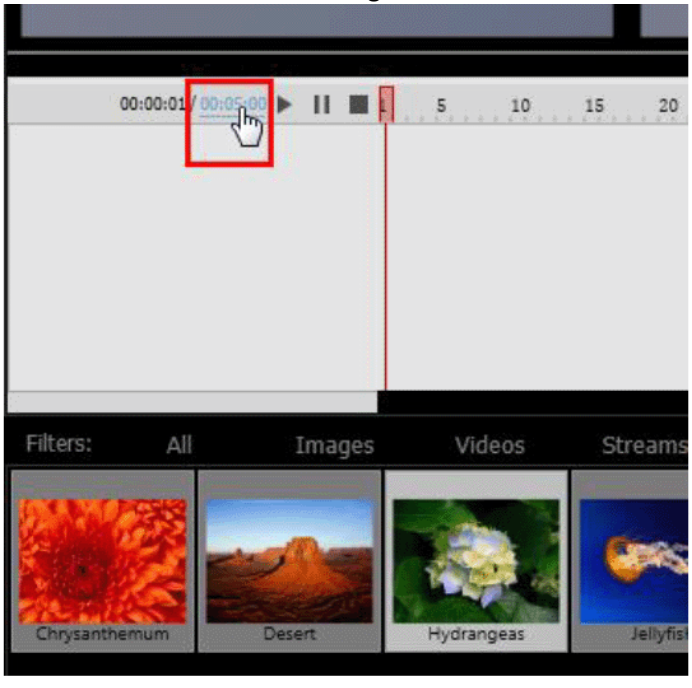
Dynamic Content Design

Under the Design section of the controller software, it allows you to create dynamic content for your video wall by adding timeline and key frame for each layer. Each key frame that you add, it can memorize the movement for that particular content at specific time frame. This includes the size, position, rotation, etc.

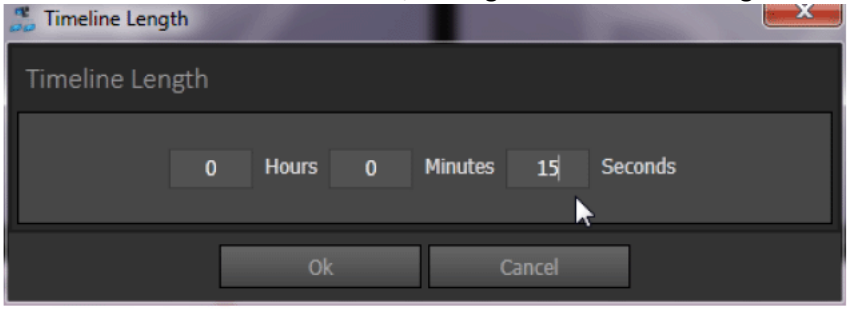
To have better understanding how this works, you can follow this step by step example.

1. Set the time length of this design clip.

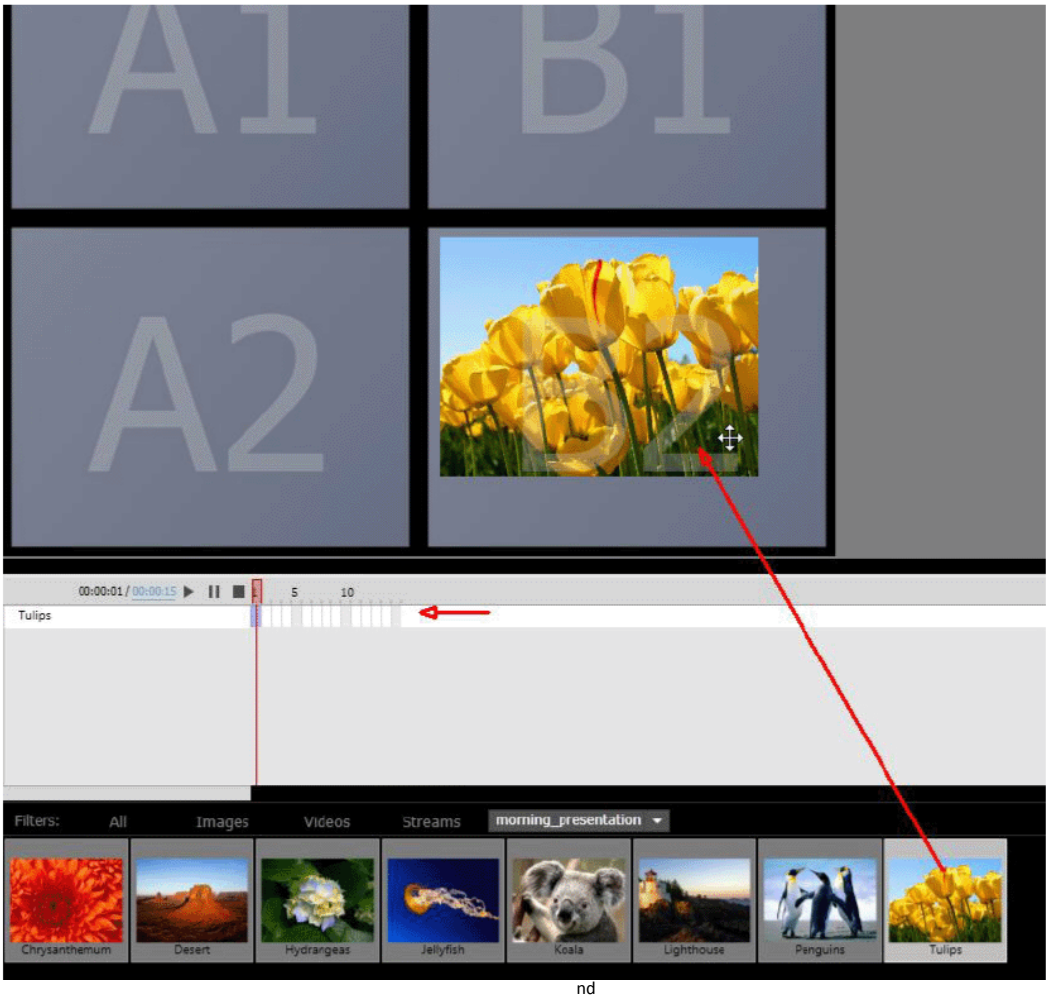
    a. Click on the time length at the left side of the timeline.



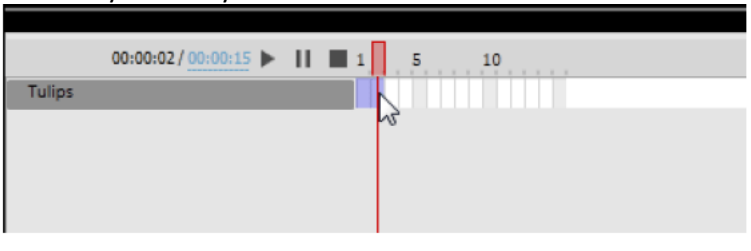
    b. Default is 5 minutes, change the timeline length to 15 seconds and click ok.



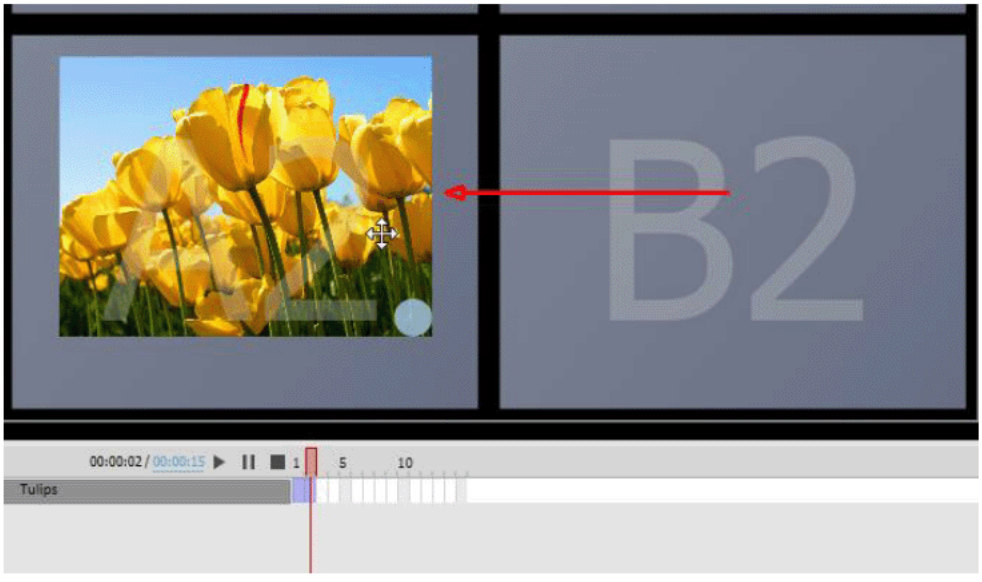
2. Drag and drop on image content from the bottom library onto the video wall area. This will create the layer of the image with 15 Secs length.



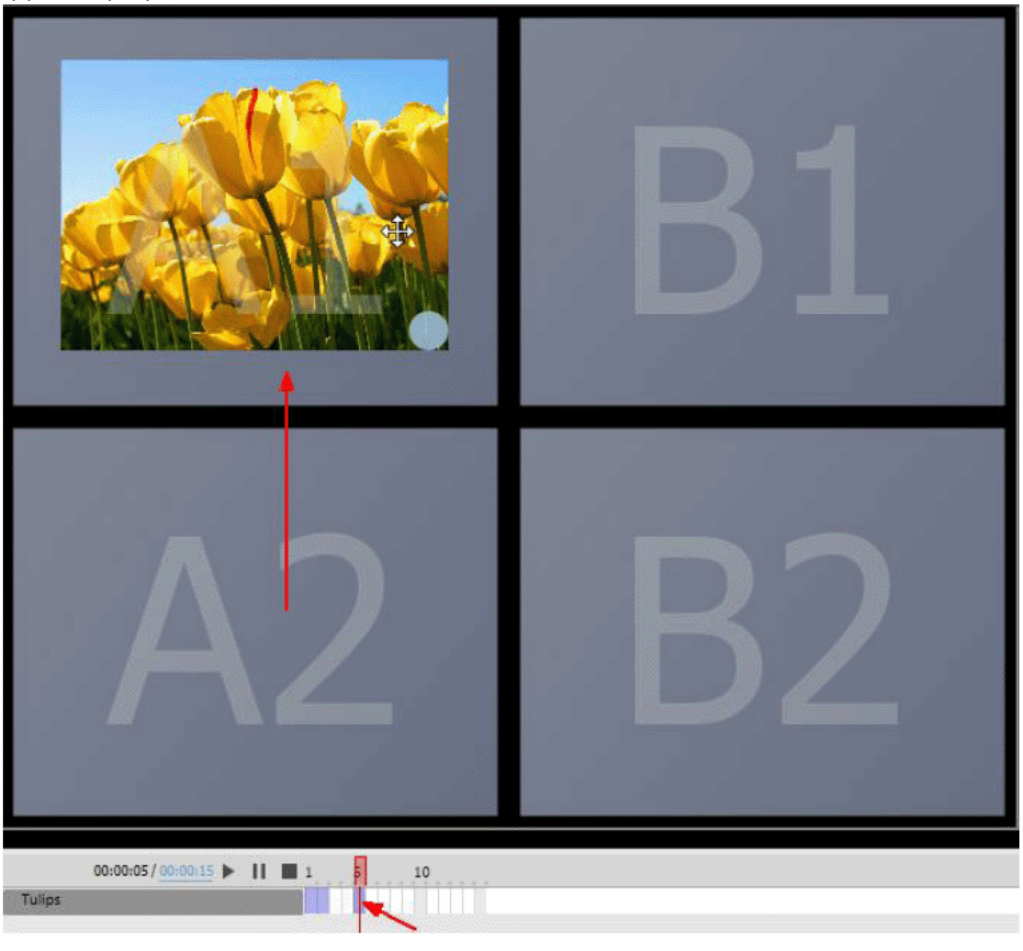
3. Add key frame by click on the time line at the 2nd second block and hit F8 on your keyboard.



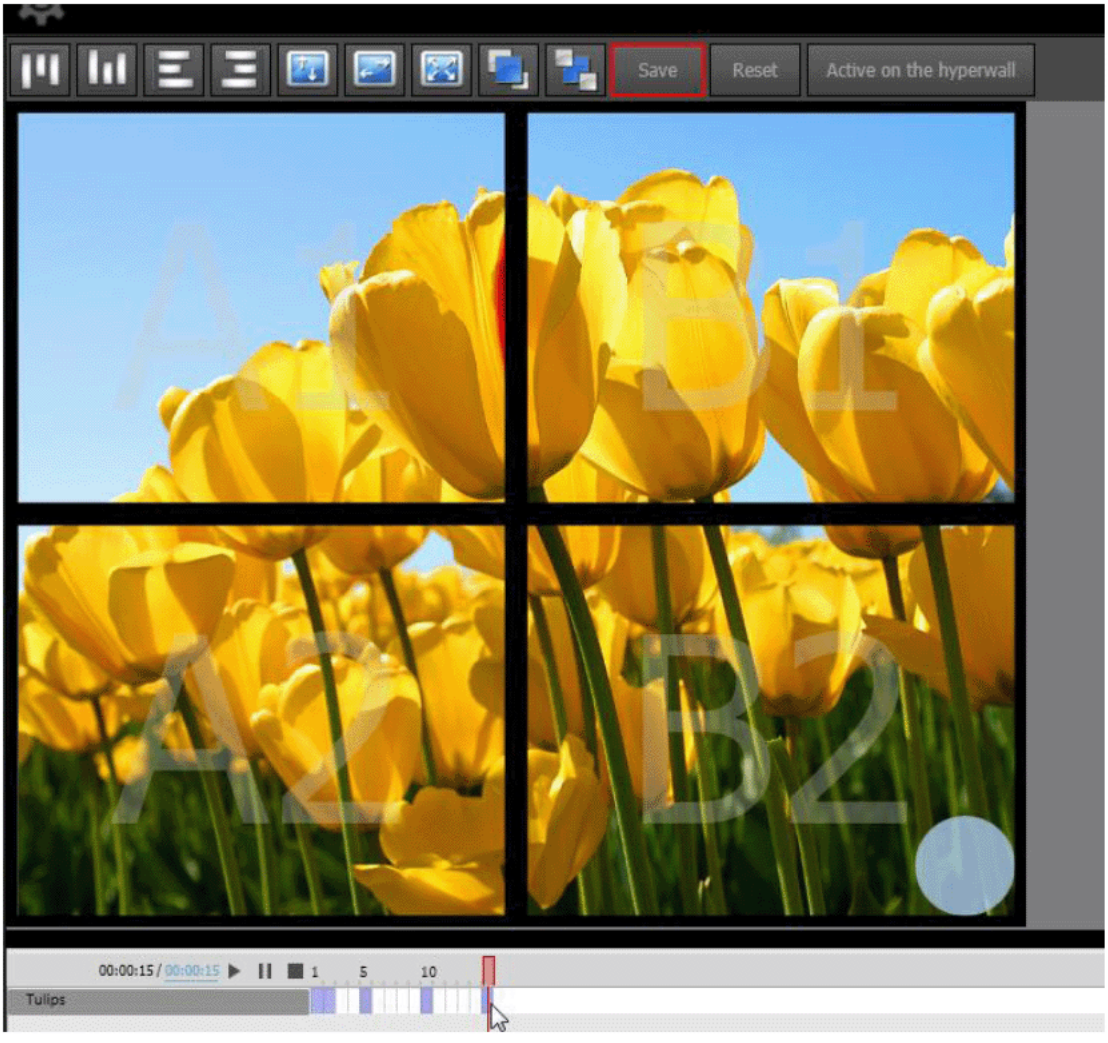
4. Assign a movement on that key frame by moving the image to the left side display (B2 -> A2).



5. Click on fifth second on the time line and hit F8 to add another key frame and move the image to the upper display (A2 -> A1)

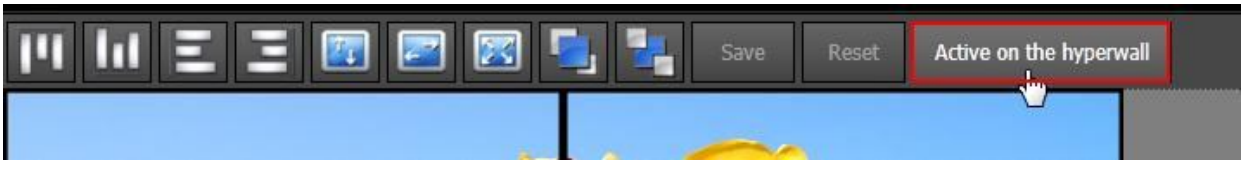


6. Now click on the tenth second and hit F8 to add another key frame and move the image to the right side display (A1 -> B1).
7. And lastly, click on the last second on the time line and add another key frame, and then move the image to the center of the display wall and double click to full screen to all four displays. Then click Save button on the top to save this Scene for future use in the Schedule section.



8. Now click on the play button above the time line for preview and it should play the dynamic content that we've design through these steps.

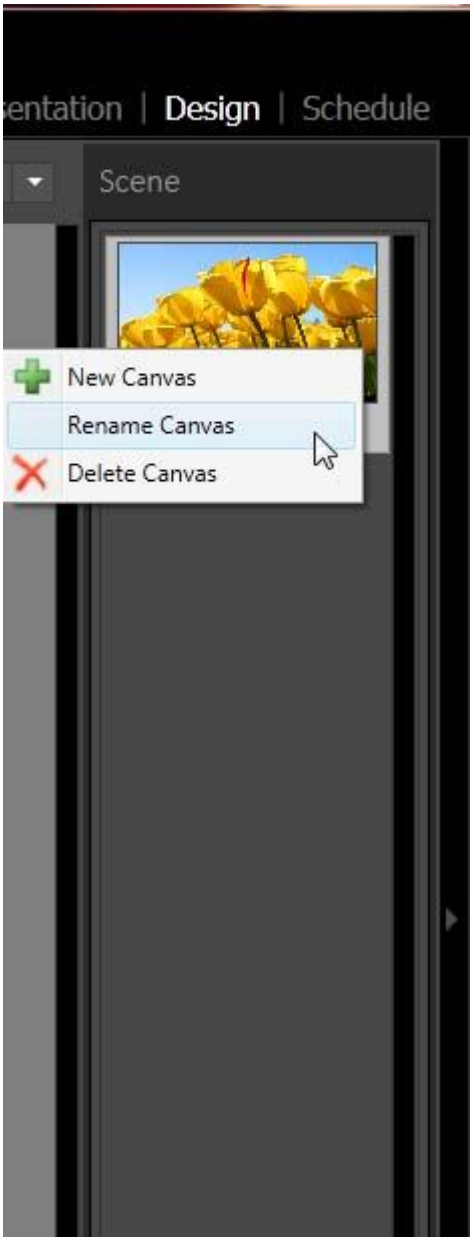
To push this to the video wall, simply click on the "Active on the hyperwall" button on top.



Organizing Scenes

On the right side under the “Design” section, click on the little triangle arrow to show the scene we’ve saved. And right click on the saved scene, you can rename or delete them.

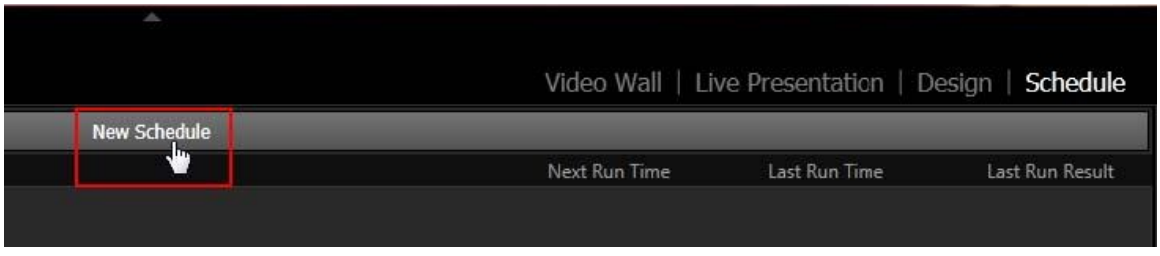




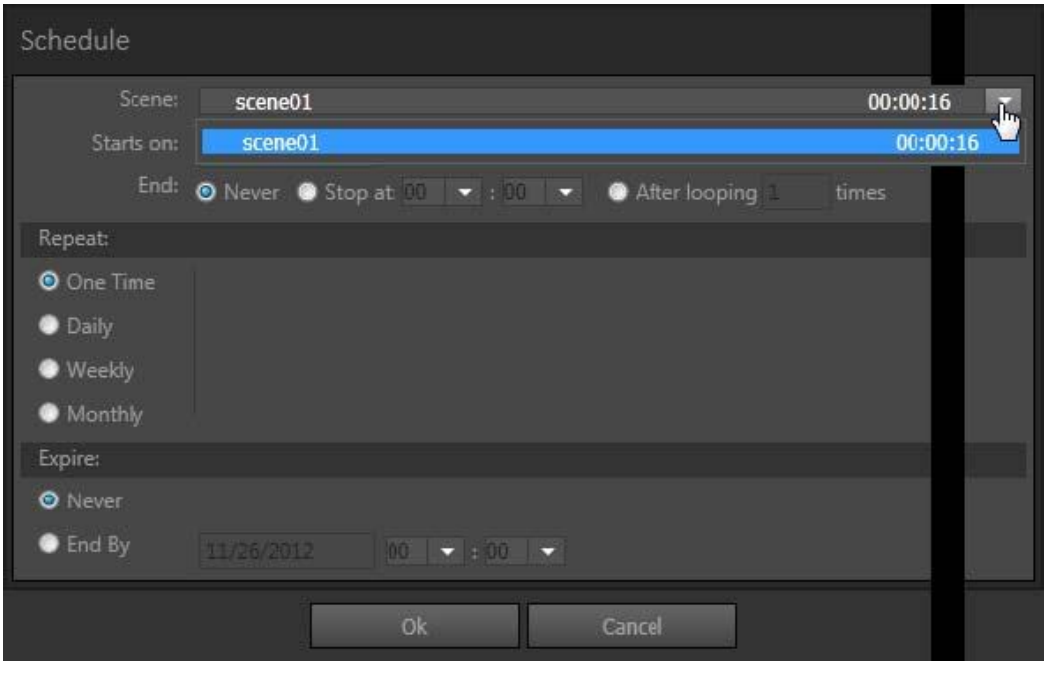
Schedule Content for Video wall

Under the Schedule section of the video wall controller, it allows you to schedule what and when to play the Scene we've created under "Design" section on the video wall.

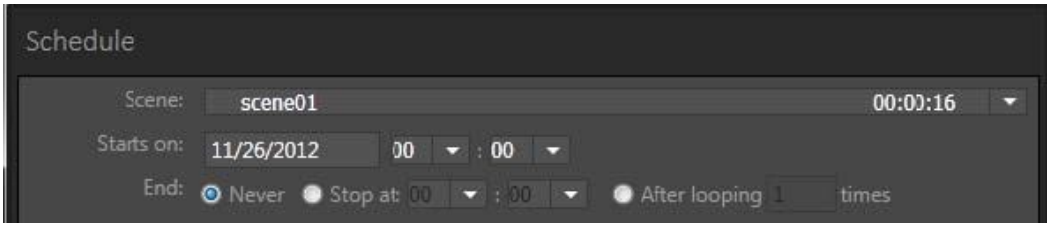
Click on "New Schedule" to start configuring the schedule.



Select the scene from the drop down list

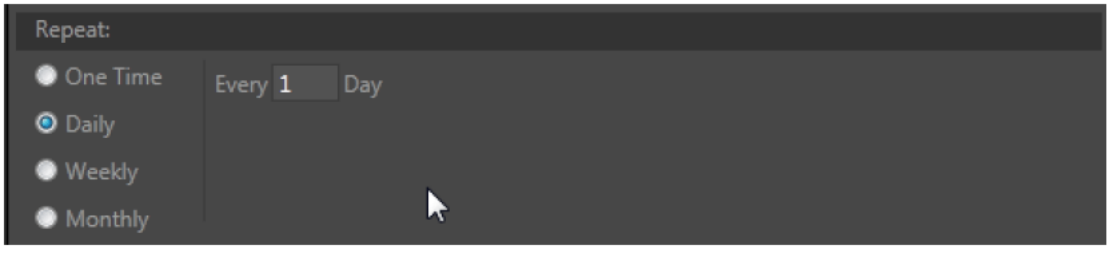


And you have the options to set when to start and when to end, or loop how many times.

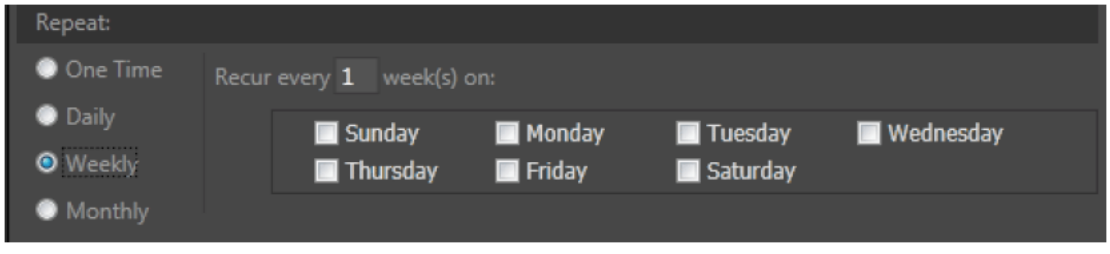


The screen can be play for one time or repeat in different method

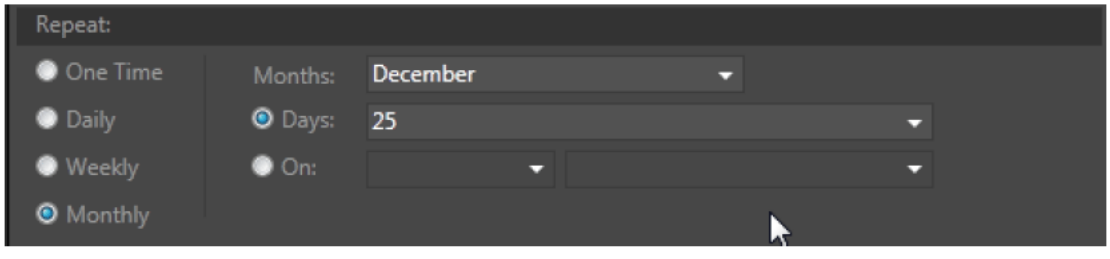
Daily



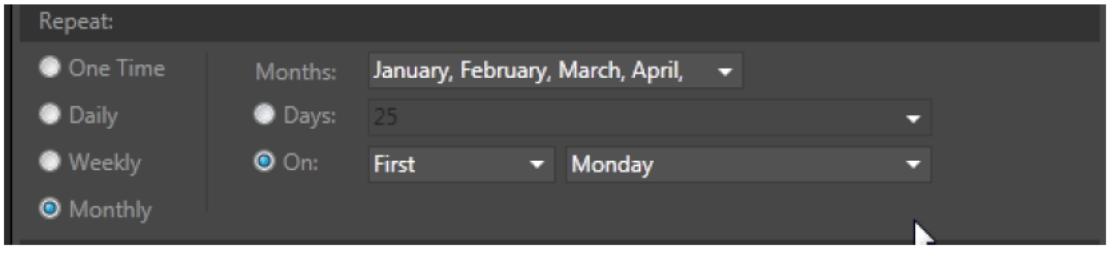
Weekly by Days



Monthly by specific date



Or monthly by specific day on specific week of the month specified.



Chapter 4: Video wall content guidelines

Still Images

This software support many types of images. All image files must be imported and sync with the screen nodes with the video wall controller.

Supported image formats: JPEG, TIFF, BMP, GIF and PNG

Video, audio Clips

Our system supports almost any modern multimedia files that are commonly used on the market.

Supported video formats: MPEG-1/2, DIVX(1/2/3), MPEG-4 ASP, DivX (4/5/6), XviD, 3ivX, H.261, H.263, H.264, WMV (1/2), WMV 3, WMV 9, Real Video, MP3, OGG, WAV, MIDI etc.