Showlogix Show & Media Control

Users Guide
Documentation Version 1.3.2
Software Version V1.5.1

Showlogix System Introduction and Overview

Showlogix is a complete show control and media server system. It is based on highly sophisticated and efficient core software that can handle an almost endless amount of tasks in precise timing and in very high reliability.

Showlogix is designed to play high resolution multi-display, multi-layer content. Showlogix synchronizes video, lighting, motion and many other devices, all on a standard IP network.

Showlogix consists of two major software components:

1. Showlogix Manager - A show control application with drag and drop programming.

   Showlogix Manager allows you to create and manage multiple displays, distribute media and manipulate video in real-time. You can control any Ethernet compatible device, such as DMX lighting (via Art-net), projectors, AV switchers, audio processors etc.

   Usually you will use one Showlogix Manager on a network.

2. Showlogix Player

Enables frame synchronized video playback across displays. Each display has up to sixty layers of video, audio, image or text with mixing options. By adding hardware capture devices, each layer can show an external input.
Showlogix can use up to eight displays on a single computer and have up to 255 computers on a single network. Displays may be mapped to create a large canvas in any arrangement and with any amount of displays.
For further flexibility Showlogix Player enables full 3D image warping and edge-blending.

Interactive access may trigger events and manipulate video in real time. This is done using touch screens or IR cameras.

Showlogix Manager can control:

- Hundreds of frame-synchronized displays and up to 60 layers of content
- Video effects
- Up to 32,768 DMX universes
- Unlimited external devices on an Ethernet network

There is no code to learn and no compilation. Easy graphical programming environment lets you drag and drop the commands on a logical tree and immediately create the show the way you vision it. Using the timeline you can add simple and complex commands that are frame-synchronized to time and video content.

Many sequences can run simultaneously and execute independently. Changes may be done in real time while the show is running. It is easy to position and reposition cues over many timelines and sequences.

Sequences may be started initially on power-up, by another sequence, by using display interactivity or IR cameras and by a variety of Ethernet compatible external triggering options, including: touch panels, third party control systems etc.

Showlogix Layer Concept

Showlogix uses 30 layers of content. Layer#1 is always the first layer, Layer#2 is placed on top of layer#1, layer#3 is on top of layer#2 and so on. These layers work across all displays on a certain group and behave as one big canvas (unless un-checked inside the Playlist editor).

A layer is actually a container of the media, it can hold one type of media at a given moment, it can be a video, image, audio file, or it can show an external input or scrolling text.

Layers may be manipulated at any time, by using any "video command". Manipulation made on a layer will set that parameter alone, without affecting other settings. So if, for example you have layer#4 playing a video and moving from one side of the canvas, it is possible to replace the playing video while the layer is in motion (and keeping all other caricatures). Other layers will not be affected.

A state of a layer will not change until a new command is sent. Any new video replacing a given video on same layer, will keep its size and any effects that were assigned to it.

Using a timeline, allows you to use another set of layers which are completely separated. So, you can use a timeline to play a full multi-display, multi-layer show and at any moment play another layer on your canvas without disturbing your timeline (for example: play a looped video which is not affected by time)

A timeline, pre-loads all files used in the timeline, all video settings are done with-in the timeline and may not be manipulated with video commands.

System Requirements

Hardware

If you are using Showlogix Manager for running the show or for logical command editing, you can install on almost any Windows XP, Windows 7 or Windows 8 computer. If you are using Showlogix Player or if using Showlogix Manager for timeline editing you will need a computer that will support your media files.

Every digital media network will have different technical requirements and the type and format of the media and number of layers and effects used, will determine the type of PC and graphics chipset to deploy.

As a minimum, we recommend a PC configuration that has a compatible RAM / CPU chipset combination, ideally assembled around a fast Intel processor and a graphics card with HD video playback support.

Showlogix Player is based on a new video engine which takes advantage of the capabilities of the latest hardware accelerated graphic cards. All video treatment and effects, keying and other blending possibilities are all computed in the GPU, All this in real time and with a very high image quality.

To support real time effects, a modern NVIDIA or ATI graphics card should be used.

Showlogix Player can use up to eight displays on a single computer. Each display fully supports standard capabilities, such as geometry correction and edge blending.

The hardware specifications in this document should only be used as a guideline. We recommended that you thoroughly test any combination of PC, graphic card, screen and media before any bulk purchase is made.

It is recommended to dedicate computers for the show and remove unwanted background applications or services. The best way is to take a new hard disk and then install Windows operating system, device drivers, DirectX, and Showlogix.

For most applications using synchronized playback, it is best to use playback computers with identical hardware and software. A good way of achieving that is to get one player computer working properly, and then clone its hard disk to the others.

Microsoft DirectX®
Latest Microsoft DirectX® is required. You will be prompted at the setup stage and download will be done automatically.
You can manually download the latest version of DirectX from:
http://www.microsoft.com/download/en/confirmation.aspx?id=35

Codec's
Reliable playback of video depends on the video codec's that you have installed on your PC.

Since version 1.4, the Showlogix Setup installs the free and trusted LAV filters, which are certified and published under the GNU license and are maintained by the open-source community.

The filters used by Showlogix may be changed and new filters may be added. This is done by installing any compliant DirectShow codec's. In this case you can use the Tweaker Tool (installed together with the Showlogix software) which allows you to configure your preferred decoders.

Other trusted and certified codec's:

Free and open source codec's

HAP codec- http://www.renderheads.com/downloads/2015/HapDirectShowCodecSetup.exe
FFdshow - http://sourceforge.net/projects/ffdshow-tryout/files/latest/download

Other codec's
http://www.mainconcept.com/products/plug-ins/decoding/decoder-packs.html

All computers in a Showlogix Player sync group should have the exact same codec installed. All video files in a sync group should be encoded in the same way and have same frame rate. For optimum playback, choose the frame rate of the graphics card to be a multiple of the video frame rate (Usually 30 frame/sec).

Computer Preparation

Disabling unwanted Windows functions
Screen saver, energy saving measures, automatic cleanup and Automatic Access Control (UAC) functions, will affect the performance. Before using Showlogix, disable them.

Network
It is recommended to deactivate automatic DHCP Server. If using DHCP, IP addresses may change on rebooting the computers. The Showlogix Manager will try to access the wrong IP's and will fail.
If this is not possible in your network, contact your network administrator to make sure that the DHCP Server doesn't change the IP numbers of the Showlogix Player Computers.

To configure a Showlogix Player computer, you must configure the PC Ethernet card. It is necessary to set two parameters, the IP address and the Subnet Mask. These settings are adjusted in the Windows Network Settings Dialogue.

To access this, select the "Start Menu"– "Control Panel" menu.
In the "Control Panel", double click on the "Network" Icon.
Select the "TCP/IP protocol" line and then press the "Properties" button.
Select the radio button marked "Specify an IP Address". Specify a unique IP number for each player by changing the last group of IP address digits. "Subnet Mask" should be the same on all computers

If your Showlogix system is not stand-alone but connected to a larger network, you should consult your network administrator for the correct IP number, subnet mask, and other parameters.

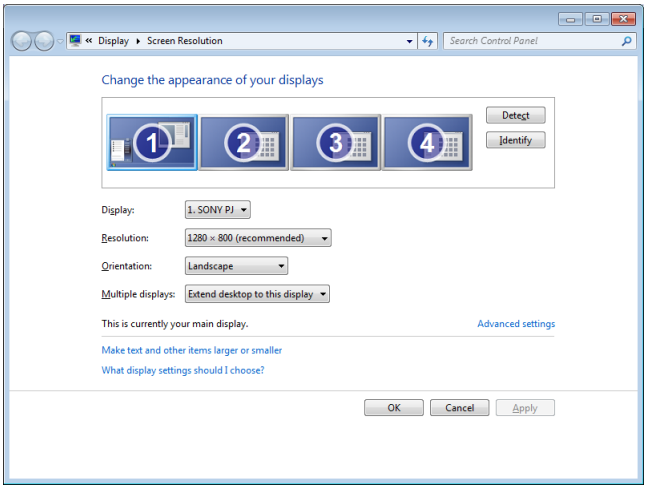
To start the Showlogix Manager or Showlogix Player automatically (usually used for unattended playback), add a shortcut to "C:\Documents and Settings\Programs\Startup"; this will start Showlogix automatically, when Microsoft Windows does.

Single or multi display configuration

For best results and reliability it is recommended to use one display for each Player computer on a Showlogix network.

It is possible to use more than one graphic card with several outputs each, to deliver a video server with up to eight independent outputs.

To configure the outputs of the graphics card correctly, the required display devices have to be connected and work correctly.



When Showlogix player is launched, it opens on display number#1 even if it is not the primary display. As soon as the Showlogix Manager connects to the first player (as long as multiple players are assigned), the remaining players will open according to the display number and will be connected to the Manager (The display number is not necessarily the same number as you see in the Windows Resolution screen). You can now use each display as if it is another player on the network.

License Keys

The Showlogix system requires a hardware (dongle) license key. Plug the key into any free USB (Universal Serial Bus) port on the manager and Player/s computer/s.

You must use only the dongle distributed with your installation. The dongle must be inserted into the USB port at all times.

You can run Showlogix Demo without a license key connected and it will be fully functional for editing, saving projects and demo purposes. In this case, the Showlogix Manager will work for a limited time and interactive and advanced features are not available. The Showlogix player will not play in full screen.

DMX over Ethernet using Art-Net protocol

To use Showlogix with an Art-Net device, you must configure the Art-Net device to work on same network segment as the Showlogix Manager. It is necessary to set two parameters, the IP address and the Subnet Mask. To change these settings, consult the device manufacturer's manuals.

For more information on the Art-Net Protocol please go to www.artisticlicence.com
Art-Net™ Designed by and Copyright Artistic Licence Holdings Ltd

External devices (Ethernet control)

Showlogix Manager allows controlling external devices or receiving commands from other programs or network devices using text strings sent to or received from a device through a TCP/IP or UDP connection.

These commands are defined by the device manufacturer, and you should consult their manuals to find out what commands your devices support. Typically a command will be a text 'string', or sequence of letters and numbers, that the device interprets and acts upon.

To do this, you must know the IP number and port number of the device to be controlled.

Motion Tracking

Showlogix uses a modified CCV.exe application which is an open source solution for computer vision and machine sensing. It takes video input from various cameras and video devices and broadcasts tracking data directly to the Showlogix Manager and Players.

This data is used to create multi-touch events and real-time visual effects.

The Showlogix system is able to receive many trackers on separate UDP ports and assign a surface to each display or group of displays.

CCV is based on the work done by the NUI Group Community and is released under the LGPL License.

This application is delivered free of charge without any warranty.

Software Setup/Installation

Install Showlogix Software by downloading the setup file from the internet
http://www.showlogix.com/ContentPage.aspx?id=108

Follow the online screens and prompts.

1. Close all programs before beginning software installation.

2. Carefully read the Showlogix license agreement. The software installation only proceeds if the "Accept" button is clicked and the license terms are agreed to.

3. The installer will install both Showlogix Manager and Showlogix Player.

4. If you don't have the latest DirectX installed, you will be asked to install it.

The installer adds a Showlogix Manager and a Showlogix Player icon to the *Windows Start Menu*, in a folder called Showlogix.

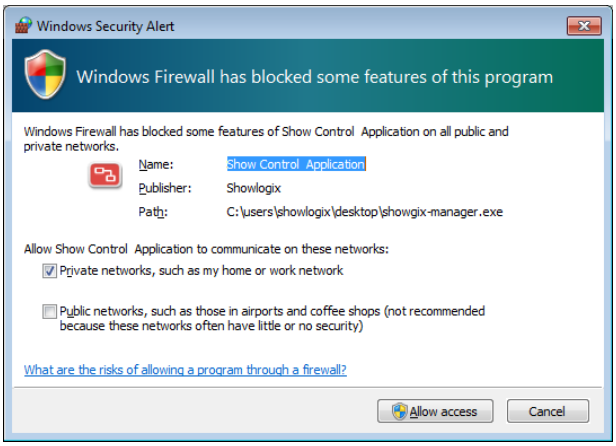
Launching the Showlogix Manager

When you start Showlogix Manager, a window will open offering four options:

After a few seconds it will automatically load the last project that was in use and go to "Run Mode". If this is the first time you open Showlogix Manager, it will open an empty project.

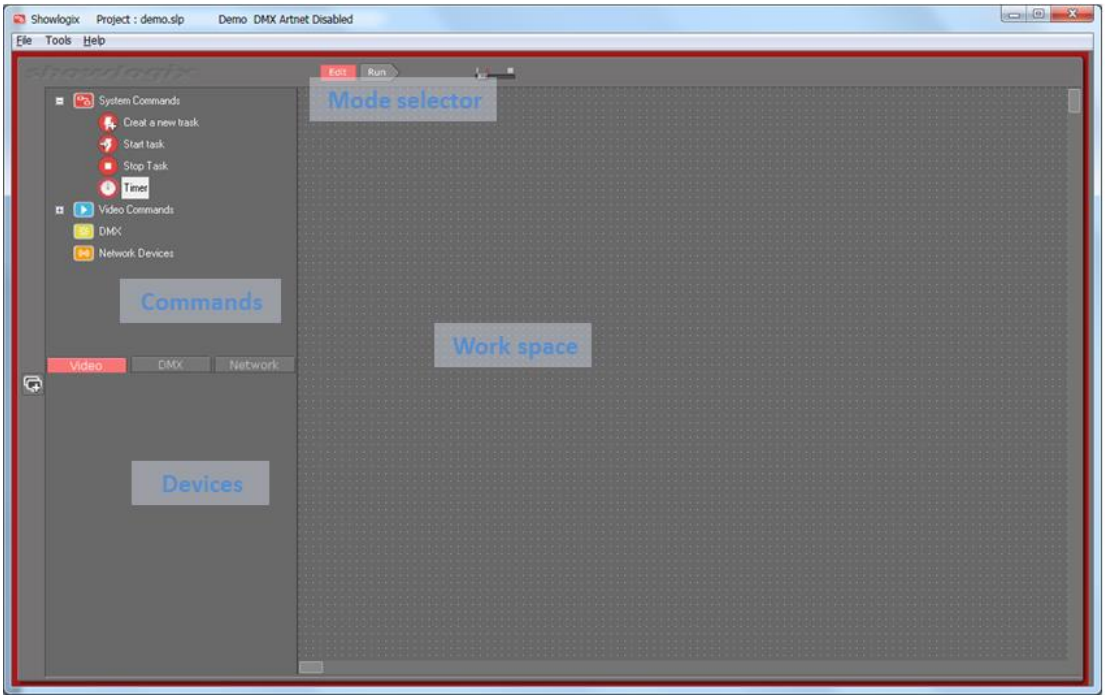
Blocking

If there is an active firewall, as Showlogix applications try to access the network, the firewall will display the following dialog:



Select "Unblock" option to allow Showlogix Manager to work correctly.
Changes made take effect immediately.
In some cases, the firewall needs to be configured manually or disabled.

General view



Run Mode

This is the mode for running shows.
In this mode Showlogix interacts with all devices and communications are open.
Most actions are done at this mode.
You cannot add/delete devices and commands.

Edit Mode

In Edit Mode you configure all devices in the project and program the show.
Commands are not active in this mode. Players will remove any playing file.

Devices

Under this box you'll configure devices that are controlled by Showlogix Manager. The devices are divided into three groups:

1. **Video-** Here you configure all Showlogix displays.
2. **DMX**- Here you create DMX scenes.
3. **Network**- Here you configure all external devices, to be controlled or to trigger event, using serial commands over TCP/IP or UDP network.

Commands

Under this box you'll find all available commands to be dragged to the Work Space. This list is updated dynamically according to the configured devices.

Work Space

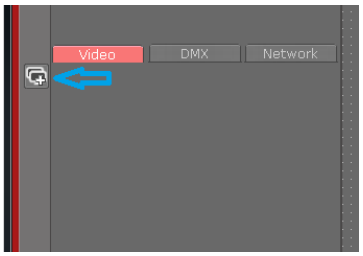
To this area you drag the commands to create the sequences of the show.

Video configuration

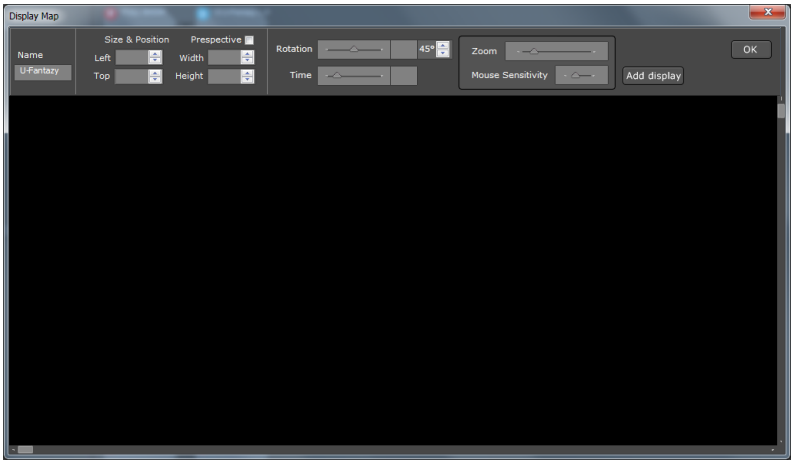
First you need to define a video group. A group is a set of displays which are controlled together, for example: a PLAY command will play a specific layer across all displays at the same time.
The Group also holds the default Display Map parameters.

There is no limit of amount of video groups used in a project.
Any display can be used in several groups and in different sync arrangements.

To create a group, go to "Edit Mode".

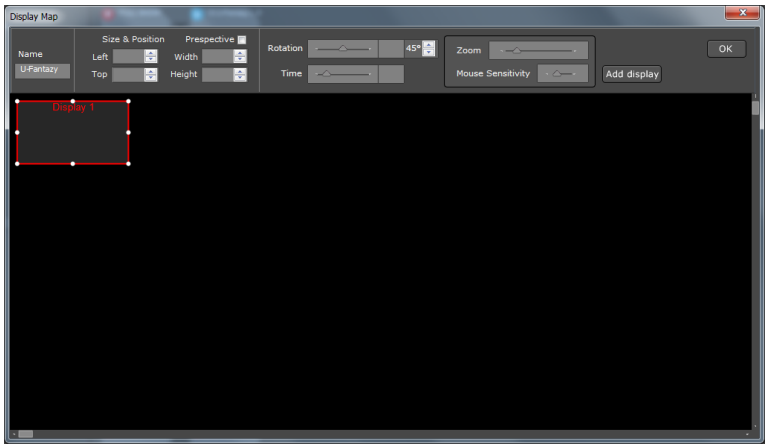


Press/drag the "Group" icon under the Video tab. The following window will open:

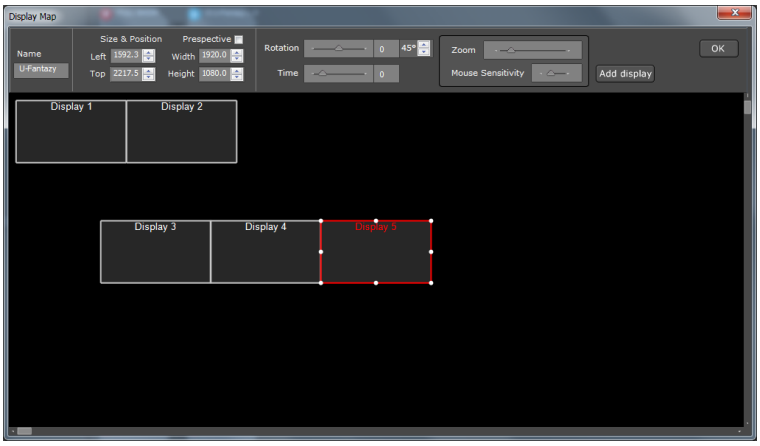


This is the display map, it allows you to arrange the displays and place them in respect to each other.

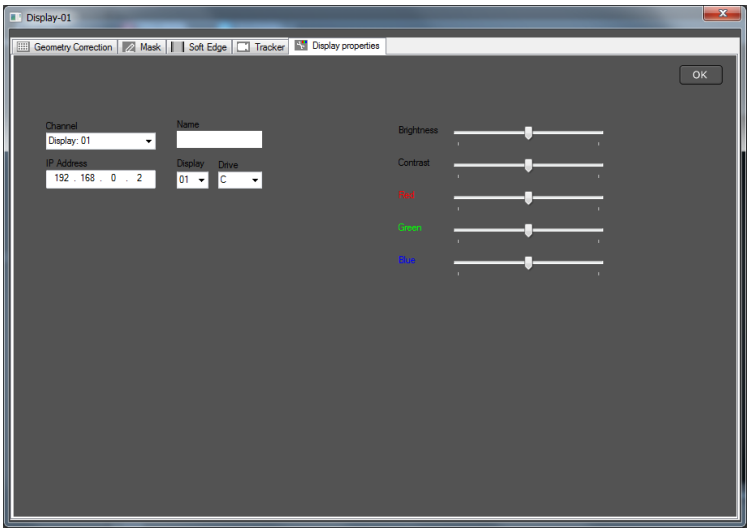
To assign displays to the group, press the “Add display” button, or right click on the surface to create a specific display.



Add as many displays to fit the number you want to assign to this group.



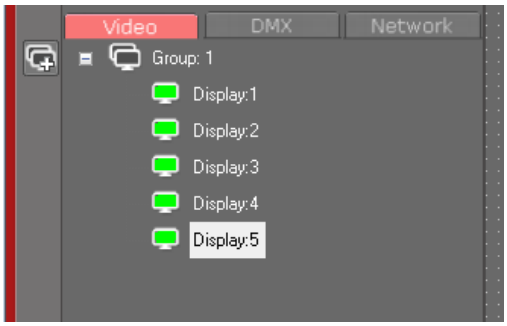
By double clicking on each display rectangle, you can set the display specifications:



Select a display number – this is set automatically.
Assign a name (not compulsory).
Set the IP number of the computer which the Showlogix Player is installed on.
Assign display number 1. If you are using multi display computer/s, keep same IP address and change the display number to fit the display you are using on the player computer

Assign a default drive on the remote computer.
This drive will be used by the Showlogix Player; a folder named "ShowLogix Media" will be created automatically on the selected drive. Showlogix Manager will upload all content to that folder and Showlogix Player will play all content from this folder (The drive and folder can be changed any time by using the "Switch media folder" command, even while the show is running).

After the group display map is closed, if the player computers are connected to the network and the Showlogix Player is open, the display icons will turn yellow and then green, showing connection has been established.



The first display on the list of each group is defined automatically as the master display. All synchronization follows to the master display's time-code.

Display Map

By using the display map function you can map the way videos appear across displays. The mapped data is then used by the "Move layer" command.

Every group has its default display map which is created while setting the Group.
This display map can be replaced at any time by another pre-configured display map.

A Display map holds information of the whole canvas and is configured by several video parameters:

- Display arrangement simulating physical placement, allowing to span images across displays
- Geometry correction of each display or for each layer
- Mask areas of each display or for each layer
- Soft edge blending configuration of 4 corners of each display
- Color correction of each display

By clicking on any display you can move a display freely. All changes affect players in real time.
The display sizes are in pixels. To see sizes relative to each other, check the "Relative" check box.

Display map can be pre-configured, saved, and then triggered by any incoming event to simultaneously, change mapping characteristics on all or selected displays. There is no limit to amount of display maps.

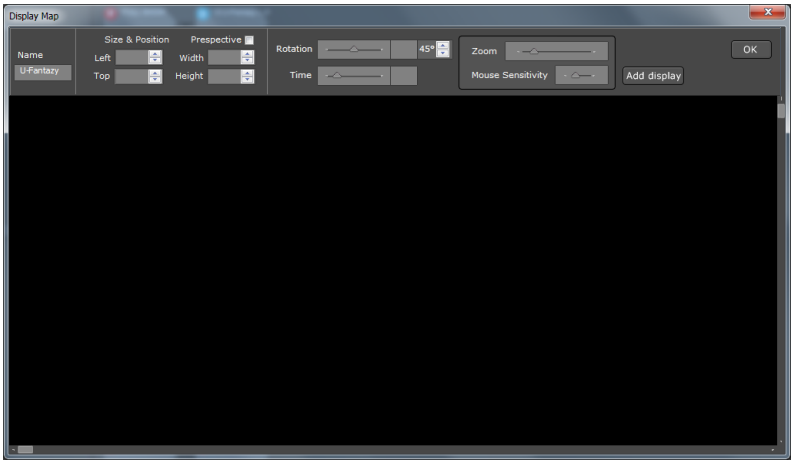
The display arrangement works only on layers that have been placed using the "Move layer" command. If a layer was not placed using "Move layer", it will open in full screen on each display separately.

Every "play" command has a check box allowing you to use current display map arrangement.
If not checked, files will be played relative to the display (each display is treated as a separate canvas). This is useful for playing pre-split large videos: Computers may not be strong enough to handle the required resolution as one large movie. In this case, they are played by splitting them into individual parts; each part includes only the portion of the frame which will play on each display. This checkbox does not affect geometry, mask, soft edge and color correction (which always use last assigned display map).

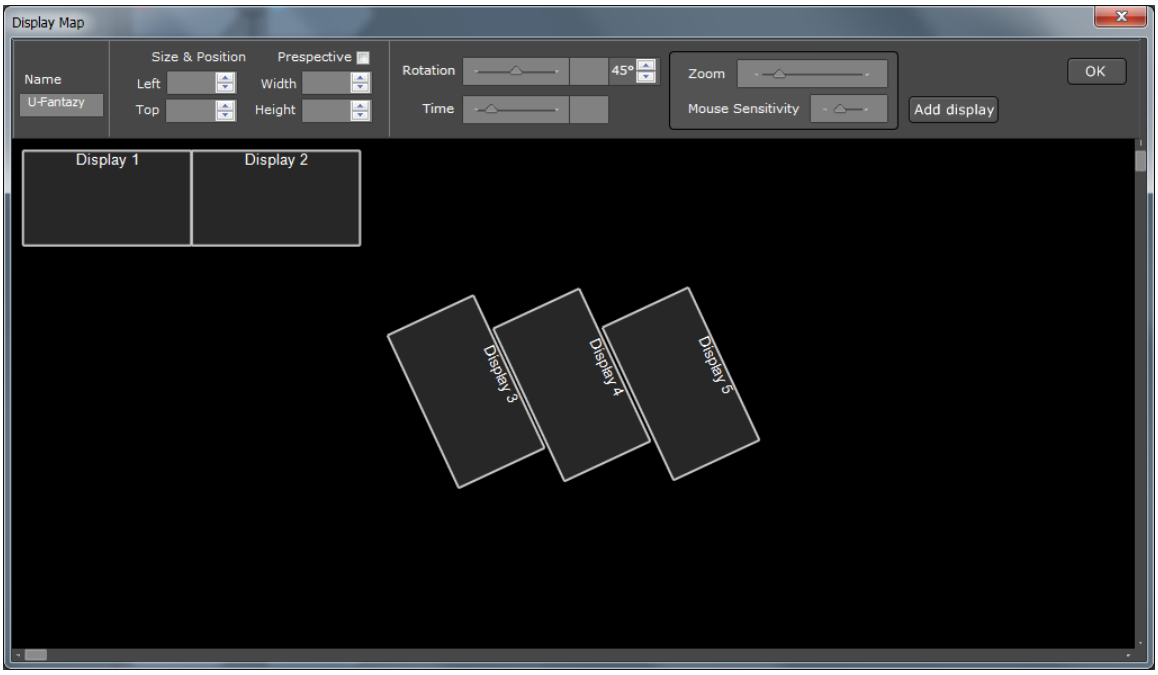
Display map configuration

To adjust the default display map, double-click on The "Group" icon.
To create a new display map to be triggered along the show, go to "Edit Mode" drag "Display map" and double click on the display map object

The following window will open:



This is the display arrangement window, here you add and arrange displays.
To add a display, press on the "Add display" button.
Drag a display to the desired position using the mouse. The size can be altered by clicking the white points. Add as many displays needed in this group. Any adjustment is updated on connected displays in real-time.



For fine tuning the position, width and height use the "Size & Position" arrows. The values are in Pixels. Alternatively, by checking “Perspective”, the values are the percentage relative to the whole surface.

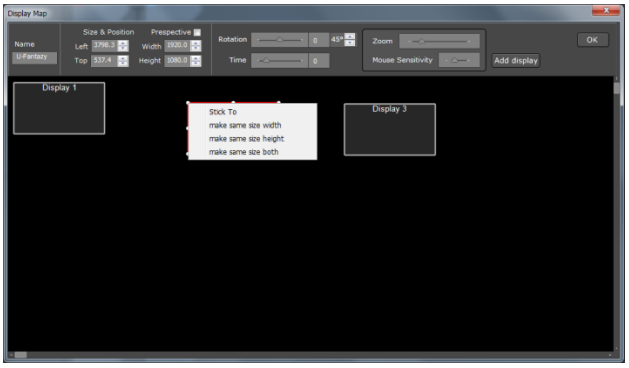
Name: A name is assigned automatically to a new group; this can be changed any time.
Rotation: Each display can be rotated individually. The values are in angle degrees.

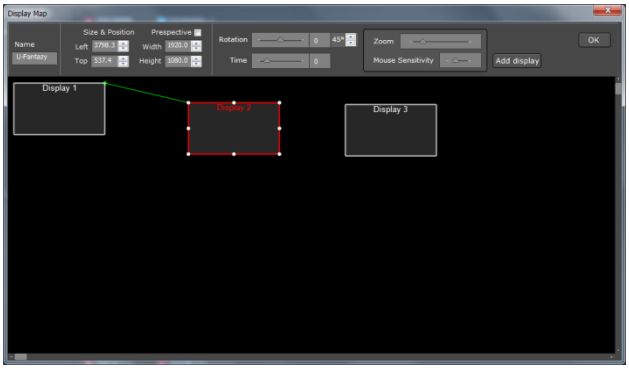
Time: Time can be used to compensate for moving displays. This can be used in productions where the display (LED, LCD...) itself is in motion.
Zoom: This will scale the view of the window.

Mouse sensitivity: This will influence the way displays move as mouse is dragged.

For fast positioning and sizing, right + click on the upper left point:

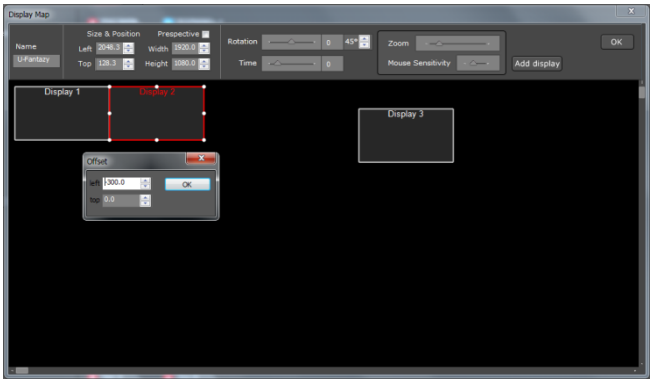
Stick To – will move the display and stick to the left of a second selected display.
Make same size width - will resize the display and fit to the width size of a second selected display.
Make same size height - will resize the display and fit to the height size of a second selected display.
Make same size both - will resize the display and fit both the width and height of a second selected display.

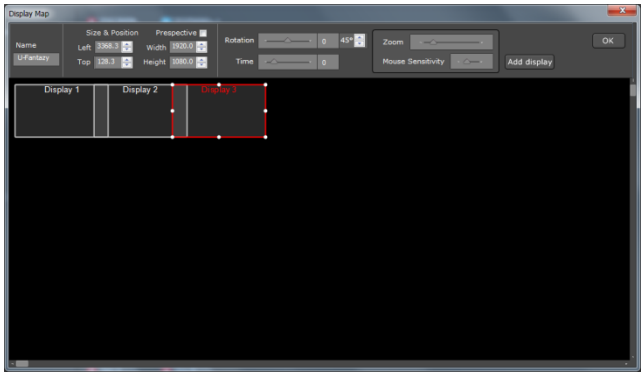




For fast overlapping and underlapping, right + click on the center of a display:

Offset – will open a dialog box. By selecting a number of pixels (+\-), the display will move to the new position.

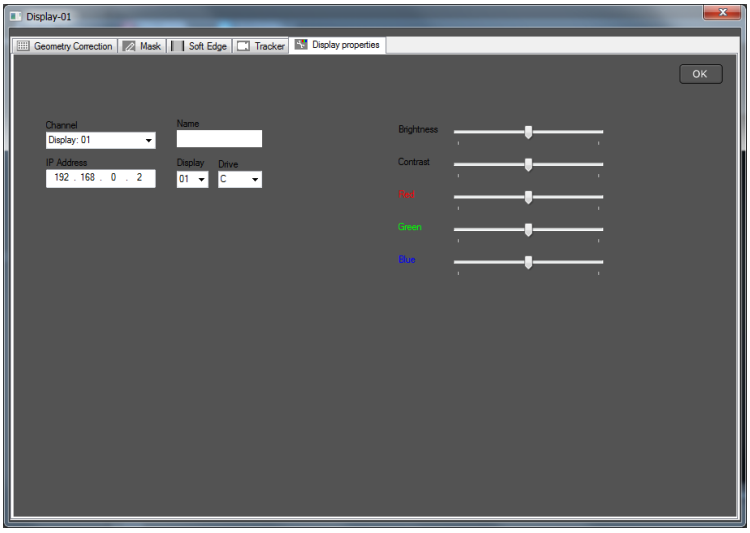


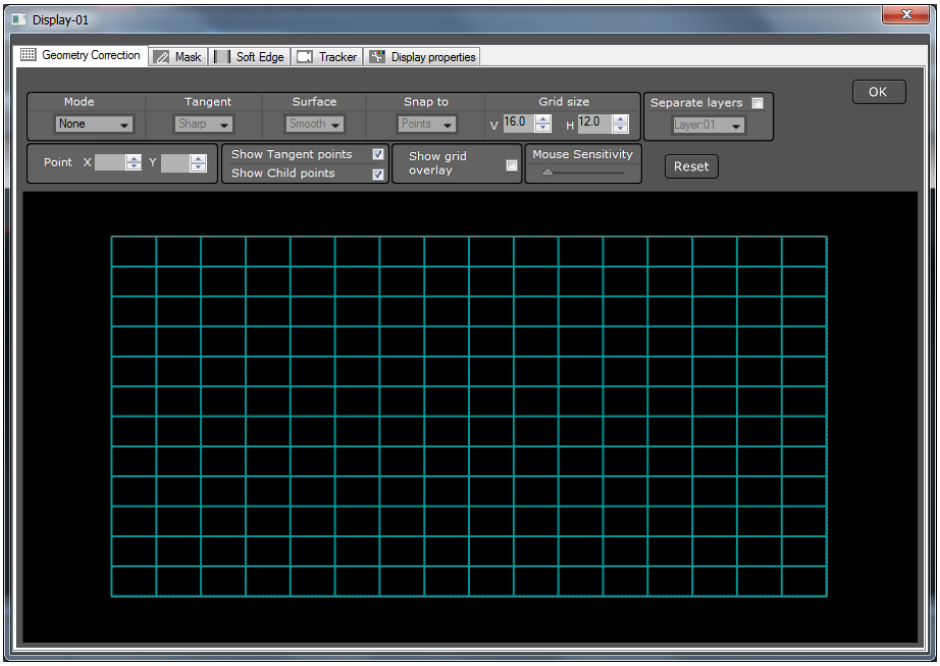


For further adjustments double click on each display:

Color Correction

Here you can adjust the color, brightness and contrast levels of the whole surface, this is used to balance different display devices or in the case you are using projectors with un-even lamp outputs.





Geometric correction via image warping is a process of digitally manipulating the image, and is used to fix projection issues in several circumstances:

1. **When the projected surface is not flat**. With Showlogix, images can be warped to fit virtually any non-standard 3D surface, like a dome or sphere. Showlogix can distort any standard media so it appears correct on any dimension or shape surface.

2. **When projector is off-axis to the screen.** Showlogix will compensate for any offset projector placement. Keystone, perspective and size can be accurately corrected for any off-angle projection, with perfect linearity adjustment.

3. **When more than one projector is used and overlap areas are created for seamless projection**. Showlogix will help achieve perfect pixel to pixel alignment needed for best projection blending while minimizing distortions.

3. **For Special effect**

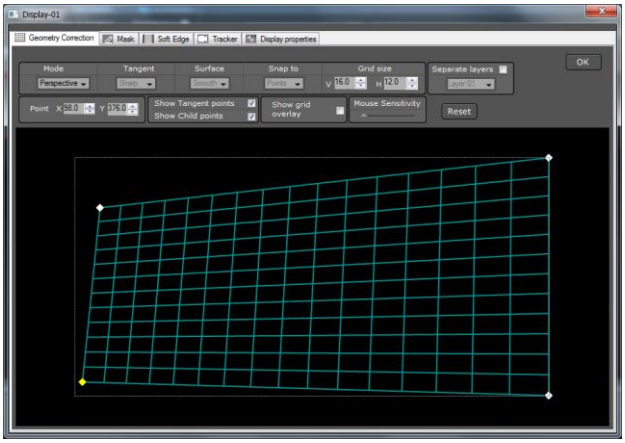
The Showlogix a geometric correction method allows you to create any kind of deform by setting any grid and adding a point almost anywhere on the surface. In addition you have a selection of deform controllers you can use.

To define what kind of deform you need for correcting your image, select from the "Mode" drop down menu:

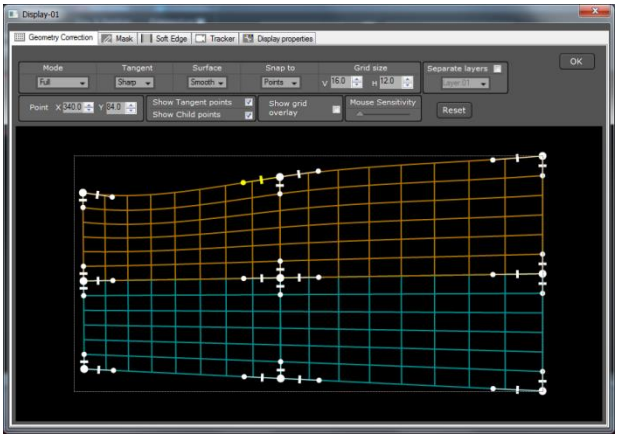
Mode

None- No deform is applied.

Perspective- used for perspective and keystone correction.



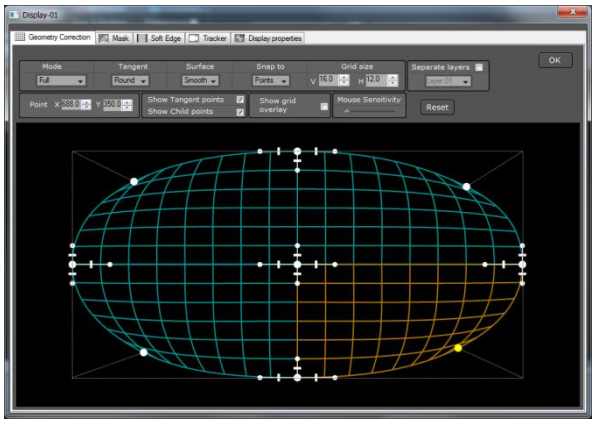
Full- At this mode you can add/remove as many point as needed by double clicking on the grid. Affected area will change color from green to orange on the grid. Child points will be added at certain circumstances, adding another level of control to your correction.
Several points can be moved together, using Ctrl+click to selected points and moving mouse or the "Point adj" arrows.



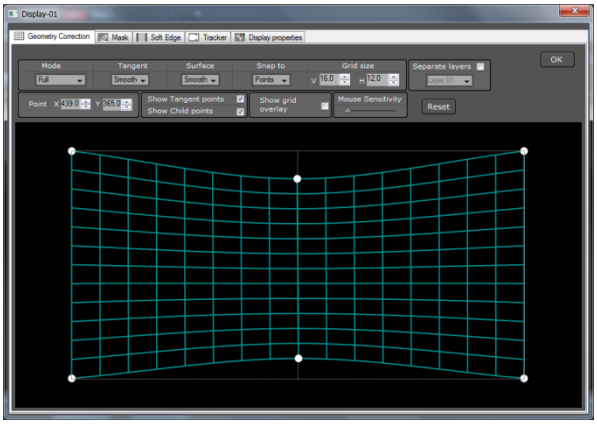
In full mode, you can define the way points behave:

Tangent

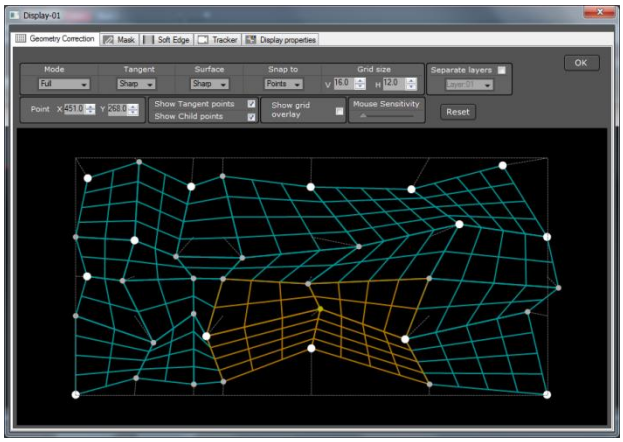
Round- Changes corner points to round points. They are used to project on ball shaped objects. For more accurate option, use free tangent and free surface.



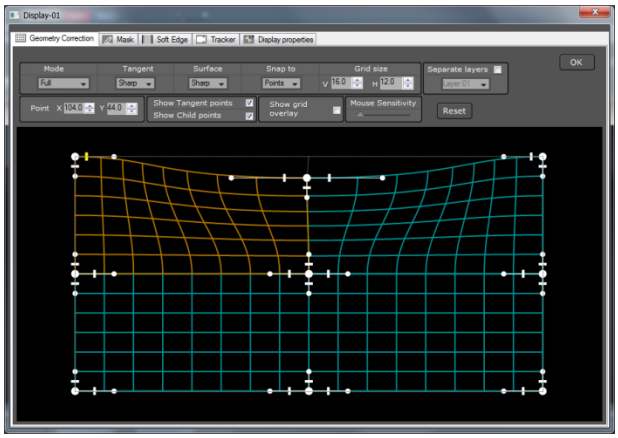
Smooth- Changes all points to smooth points. These are automatic points, adjusting a point will affect nearby points.



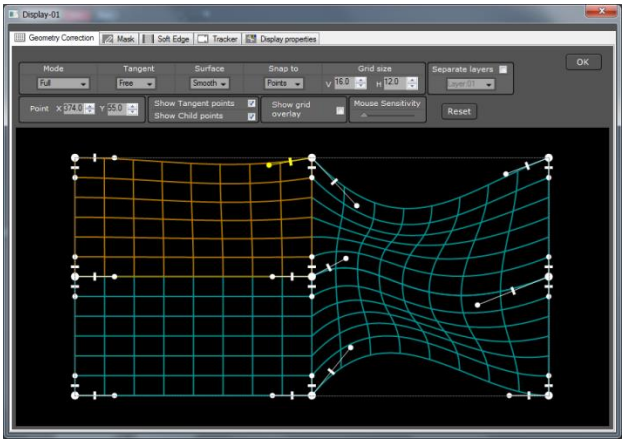
Sharp- Changes all points to sharp points. These are points used for projection on 3D polygon shaped surfaces, adjusting a point will not affect nearby points.



Mirror- Changes all points to mirror points. Adds 4 Bezier handles to allow full control over the 3D surface. Parallel handles will move simultaneously.



Free- Changes all points to free points. Adds 4 Bezier handles to allow full control over the 3D surface. Each handle will move separately, pull the bars for distribution of grid lines.



Surface

Smooth- Changes the behavior of the surface between points.

Sharp- Changes the behavior of the surface between points. This is used for projection on 3D polygon shaped surfaces.

Free- Changes the behavior of the surface between points. Adds 4 more handles to freely adjust surface.

Snap to

Grid- New points are created only on grid junctions.

Point- New points are created only in line of nearby points.

None- New points are created freely.

Grid Size
Grid size can be changed anytime to add flexibility

Reset- Resets both, perspective and full modes to default position

Point Adjustment- For better acuracy, you can click on any point or handle to change it's values using the up and down arrows. Selected item will turn yellow.

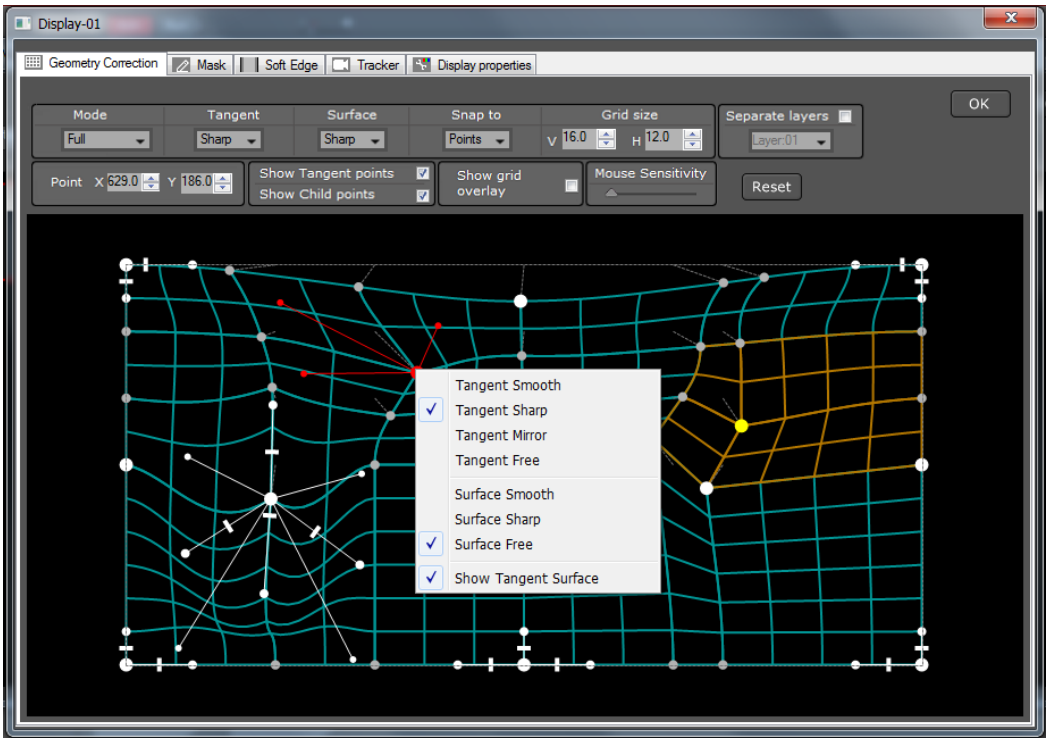
Show Tangent points– Un-check to hide handels on Mirror and Free tangent points.

Show Child points– Un-check to hide automatic child points.

Separate for each layer- In default, the layout is configured to adjust the whole surface.
By checking the box, the Layer drop down menu will be enabled. Now you can shape each layer separately.

Show grid on players- Draws a grid pattern on all players in the group. The grid will be drawn over playing files on background layer (1). Current player – green, other player – purple.

For greater flexibility, you can mix and match different types of points by Right clicking on any Control point to change its function.

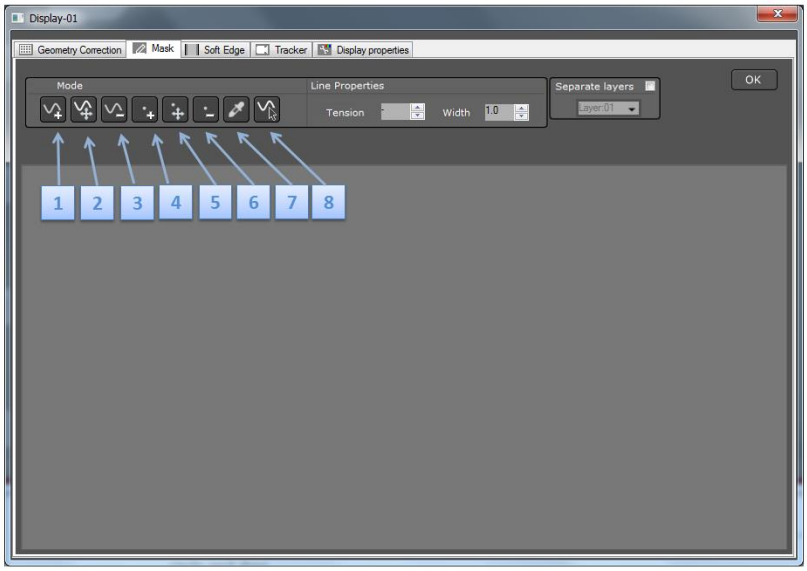


Mask

Masking is used to create a video image that is not rectangle, or to hide areas in the video layer. You can create your mask in any shape by using the Mask controller.

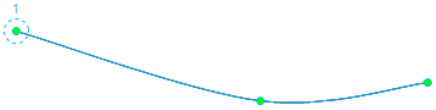
Mask configuration

To open the Mask controller screen, go to "Run Mode" right click on a "Player" icon, you wish to adjust, click on "Layout" and press the "Mask" tab.

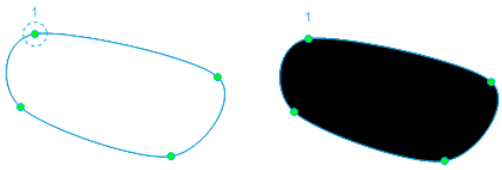


List of Tools

1. **Add mask** – draw a line to create a shape. Each mouse click on the surface will add a movable point. To close a shape you need to click the dotted circle

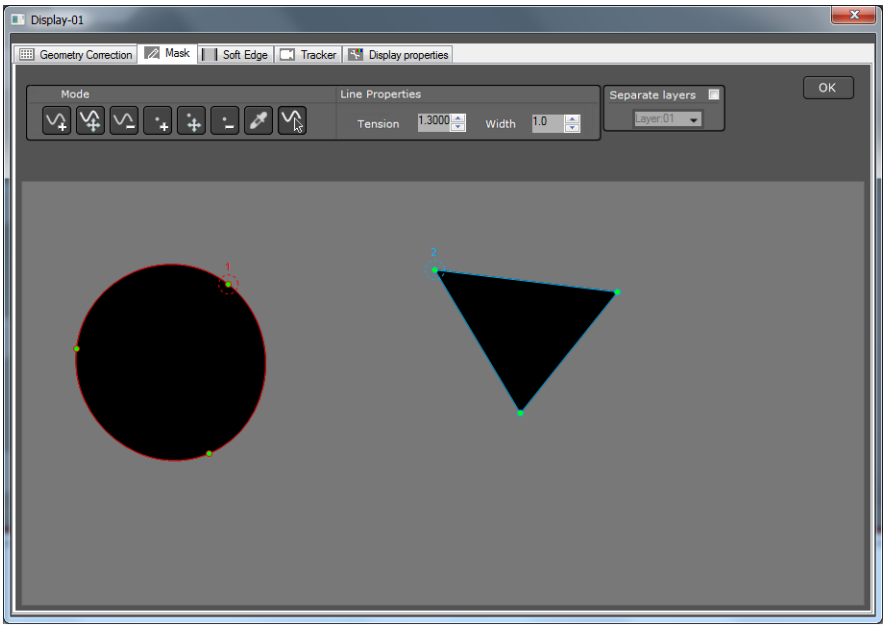


2. **Move mask**- Moves a mask by clicking on the small circle and drag.
3. **Delete mask**- Delete a mask by clicking the small circle.
4. **Add point** - Adds a point to existing mask. This is done by clicking on a point.
5. **Move point** - Moves a point by clicking on a point and drag.
6. **Delete point** - Delete a point by clicking on it.
7. **Fill** - Fills a shape with black. To fill a shape, you need to close it by connecting the end of the line to the beginning of the lines small circle.

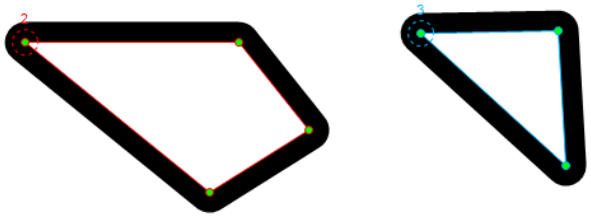


8. **Select** – Selects a mask by clicking on it. The color of the line will change to red. Now you can change the tension of the line.

Tension – This sets tension of the curve of each line selected by the "Select" tool. By changing the tension you can create different shapes **(**for example a rectangle or circle**).**



Width – This sets the width of all lines used.



Separate Mask for each layer- In default, the layout is configured to create masks on whole surface. By checking the box, the Layer drop down menu will be enabled. Now you can mask each layer separately.

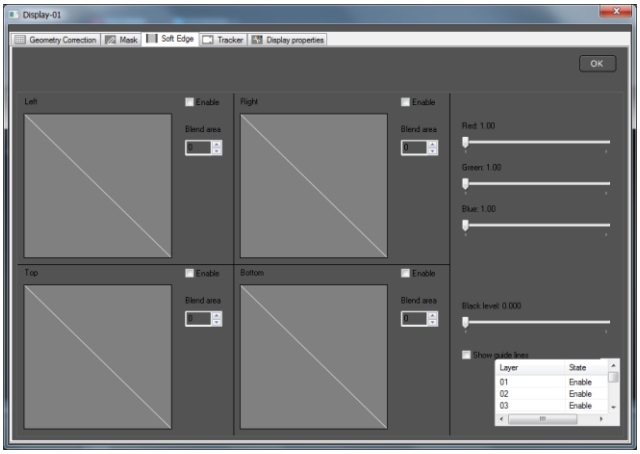
Soft Edge Blending

Soft edge blending is a method used to create a larger video display by combining the image of two or more projectors. When overlapping projectors, the overlapped region has higher brightness then the non-overlapped regions, so there is a need to feather the edges. The process of edge blending, involves manipulation of individual pixels to ensure perfect intensity over a specified blend zone.

If you plan to use pre-split files, you need to take care to split the media correctly with the overlapping areas and distribute the files across the different units.

Soft Edge configuration

To open the Soft Edge screen, go to "Run Mode" right click on a "Player", you wish to adjust and click on "Layout" and press the "Soft Edge" tab



Left/Right/Top/Bottom Enable check box – If checked, a feathering effect will be applied to the side of the output image, according to the overlapping percentage selected.

Blend area edit box – select percentage of the surface to apply soft edge. Two projectors that are overlapping should usually have same percentage.

Soft edge curve – simulates the intensity of the blended area. Points may be added, for greater flexibility, by right clicking on the curve. Before attempting to adjust the edge blend curve, make sure the projectors are set up properly.

Gamma Correction – Gamma correction on the overlapped area of each color separately.

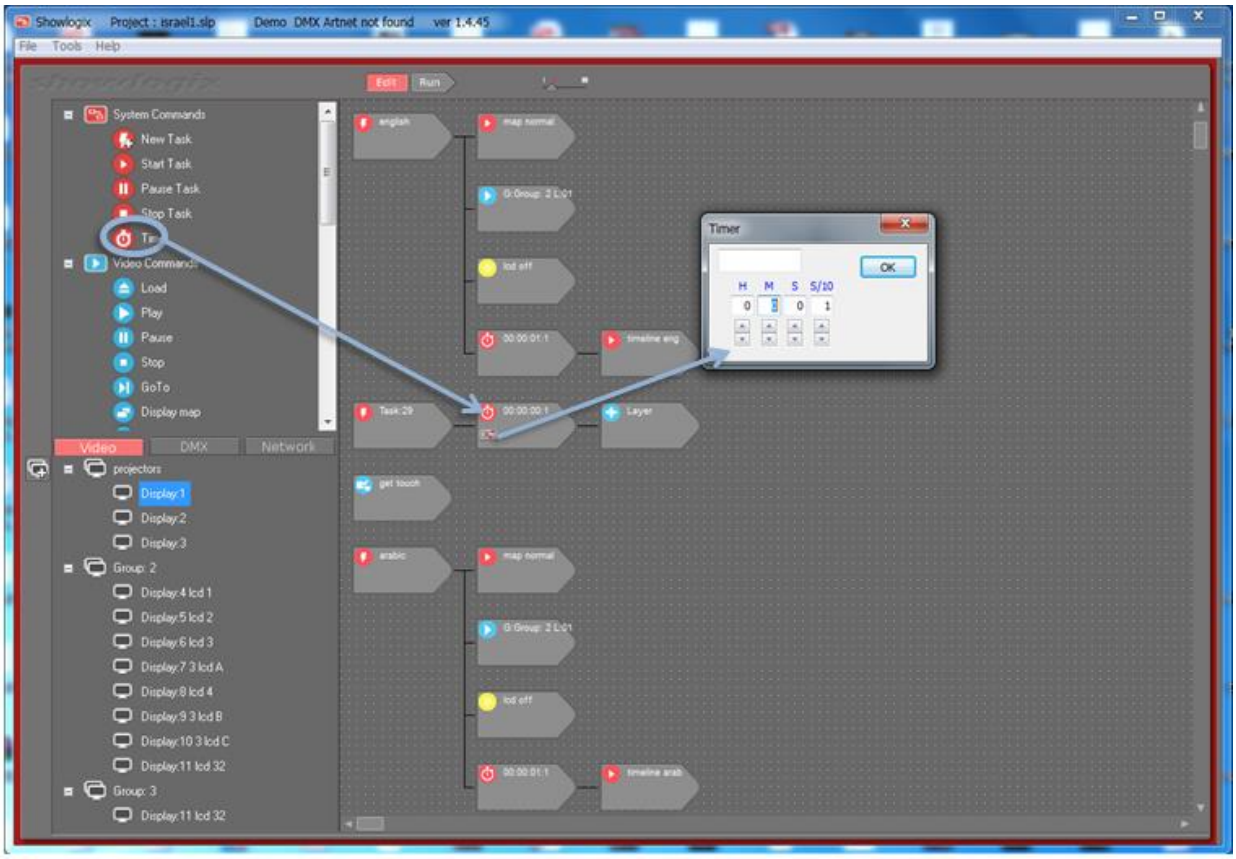
Black Level – Raises the brightness of the none-overlapped areas to compensate for the double light output of the overlapped projectors. Use this adjustment on a full black image.

Show guide lines – Draws a guide pattern on all players in the group. The pattern will be drawn over playing files on layer 1. Current player – green, other players – purple.

Logical Tree

With its drag/drop interface, the logical workspace allows you to build your entire show.

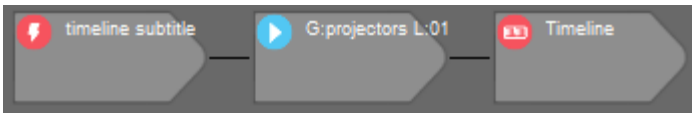
Commands can be dragged from the Toolbox on the left, and all their behavioral characteristics can be defined simply by pressing the edit button on the related object.



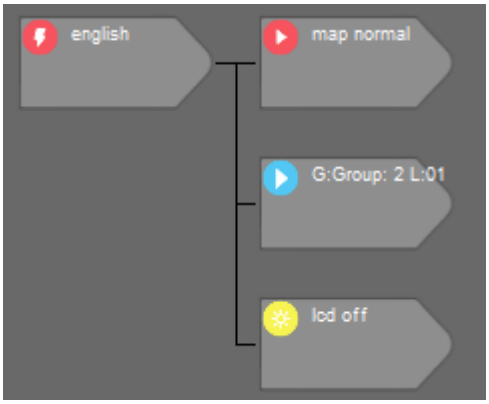
Logical Commands

There are two different commands that are used in Showlogix Manager's main logical tree:

1. Step commands - One command after the other.



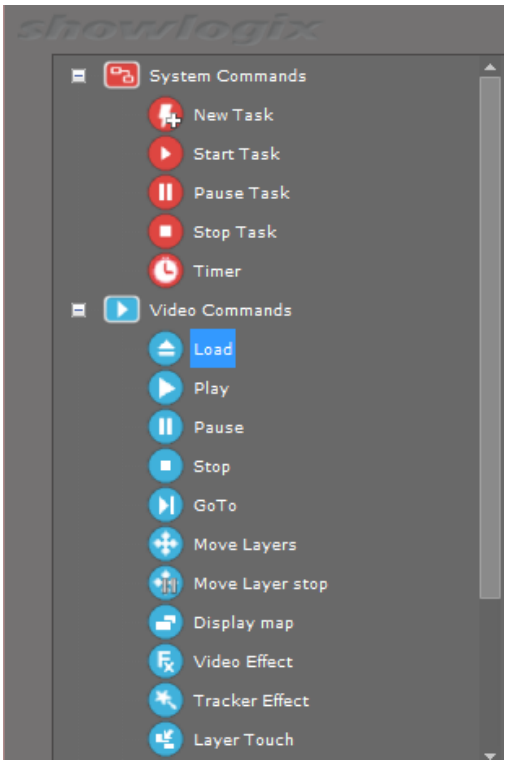
2. Parallel Commands -Two or more commands that are activated at the same time



The two types of commands can be mixed together in one sequence

Commands

The "Commands" list is available only in "Edit Mode". On the upper left side of the application you will see a tree with four main groups. Under each group, depending on your initial configuration, you will find the commands that are available for you to drag to the work-space.

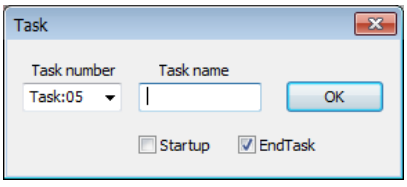


System Commands

New Task
Every sequence starts with a button. It is actually the trigger to start a sequence of commands.

There are several ways of triggering a task/button (in "Run Mode"):

- Hover with mouse over the task and press the green triangle.
- By dragging the "Start Task" command elsewhere in the project.



Task number –index number given automatically by the system
Task name- Give a descriptive name to remember what the task does.
Trigger at startup-checking will activate task as soon as the Showlogix Manager application is launched.
End task - checking will disable re-triggering the task while active

Start/Resume Task
Start a task. You can perform this command only on tasks that are used in the work space. If a task is in a pause state, this command will resume the task.

Pause task
Pause a running task. This command will also pause any playing video which was executed by the selected task. You can perform this command only on tasks that are used in the work space.

Stop task
Stop a running task. You can perform this command only on tasks that are used in the work space. Selecting "Stop All" from the drop-down list will stop all running tasks (except current one).

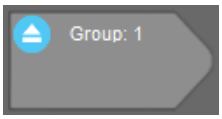
Timer
Add a pause for a certain amount of time.

Timeline
Add a timeline command

Video Commands

Before using Video commands you will have to create at least one Video group.
These commands work only on available video groups.

Load
A Load command will load the appropriate files in the background to be ready for a "play" command. The Load command will not stop any playing videos. You will have to assign a playlist by pressing the edit button on the "Load" rectangular on the work-space.
If files are playing and "Wait for end" is checked, new files will be pre-loaded and will play seamlessly at the end of current playback.



Play
The "Play" command has different characteristics depending on the situation it is being used:

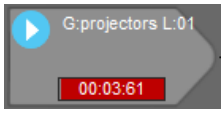
1. If a playlist is assigned (by pressing the edit button on the Play object), the command will replace files or external inputs on the selected layer, and will load and play files as fast as possible. Other layers will not be affected.

2. If no playlist is assigned, a "play" command will be sent to the selected layer on remote players and if files are loaded, they will start playing instantly. If paused, they will resume playback instantly. If files are not loaded or paused, there will not be any change on the player side.

If a command is dragged after a "Play" command, the command will be executed as soon as the playback of the master player is finished.
If the "Play" command is in "Loop", the next command will be executed each time the playback reaches the end.

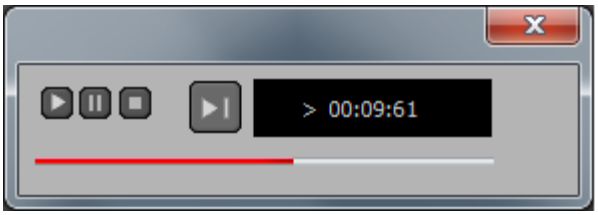
If you want a command to be executed while the group is playing, use the command in parallel to the "Play" or open a timeline for commands synchronized to video.

In "Run Mode" while the master player (first player on the group list) is connected, you will see the video state on the related object.



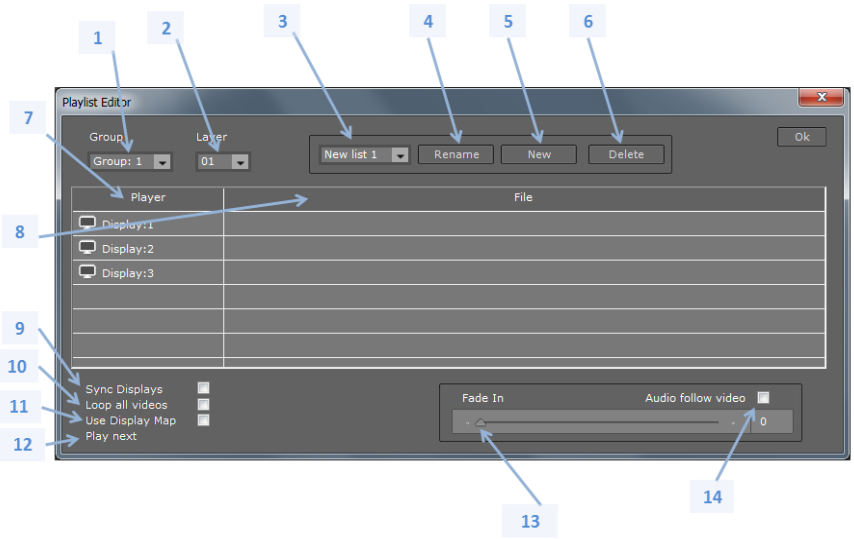
By pressing the timeline button on the "Play" object in "Run Mode", a player panel will open. This allows you to control the group of players. You can go to a randomly selected point anywhere in the video, while keeping all video players synchronized. This can be done in two ways:

1. Clicking anywhere along the duration bar.
2. Clicking on the "Locate" button and inserting a specific Time-code.



Playlist Editor

This dialog allows you to create playlists of video, audio, image files and external inputs. A playlist defines a single file or external input on a selected layer to play simultaneously across all players. You can play up to 30 layers on each player.



1. **Group dropdown box -** Select a group of players to apply the playlist to
2. **Layer dropdown box –** Select a layer to apply the playlist to
3. **Playlist Dropdown Box** – These are the available playlists, select a playlist from here or create a new one.
4. **Rename**- Give the playlist a name
5. **New**- Create a new empty playlist
6. **Delete**- Delete the current playlist
7. **Display Row**- This row will show available displays in the group
8. **Media Row** – Select the media by double-click on the row or drag media to this row
9. **Sync** - Check this box to use frame accurate cross-display sync between all the videos playing on the selected layer. You may choose to sync all of the players together or let players be 'independent' (not synchronized with the other players).
10. **Loop all**- Check to loop all files in the playlist
11. **Use Display map** – If checked video will play according to last "Move layer" command and current display map parameters.
12. **Play Next –** This can be used only inside the "Load" command.
13. **Fade time** – the media can be dissolved throe previous media. Here you can alter the length of time.
14. **Audio follow video-** check this box to fade also audio together with video dissolve.

By right clicking on each cell you can:

1. **Select File-** This will open a Windows browser to select a file to play as soon as this playlist is triggered by the Play command in Run Mode. You can also double-click on the row or drag media to this row.
2. **Loop On-** Check to loop the selected file.
3. **Upload** - Does full connect to an individual player and uploads the current media file.
4. **Remove-** removes the file or external input from the current Playlist.
5. **Select Input-** This will select an external input (1-10) to show as soon as this playlist is triggered by the Play command in Run Mode.

The “Playlist editor” can be opened by double clicking on a “Load” or “Play” object in the Work space.

Pause
Pauses a selected layer on all Players in the group. Click on the “Edit” button to select a layer to pause.

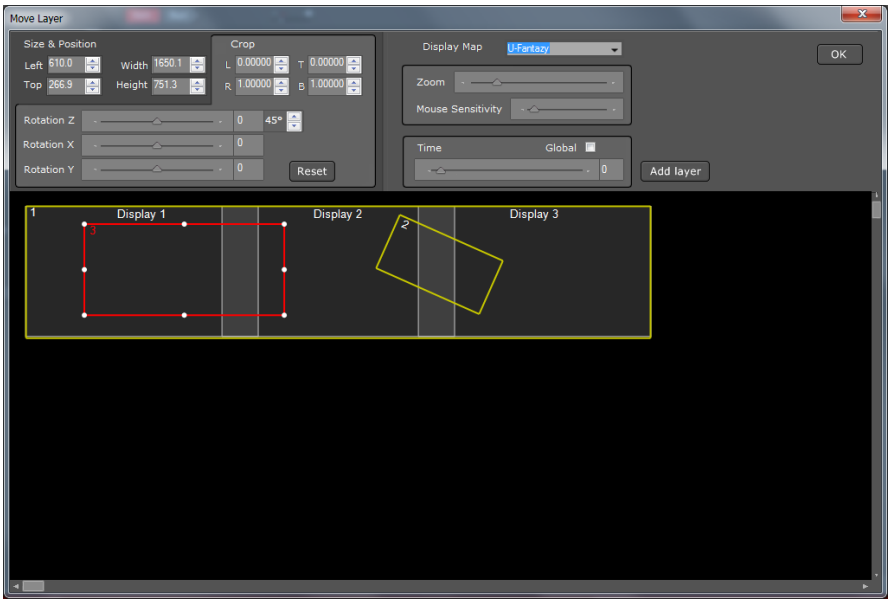
Go To
Moves videos to a specified Time code. This works on a selected layer on all players in the group. Click on the “Edit” button to select a layer and alter the time code.

Display Map
Sends a “Re-call Display Map” command to all players in the group. This will instantly recall a pre-saved Display Map to all players in the group. A “Display Map” holds all display arrangement settings, geometry, mask, soft edge and color correction parameters. Press the edit button on the object to create a new Display Map.
For detailed information go to the Display Map chapter.

Move layer
Sends a “move” command to all displays in the group. This will move the image on a specific layer or layers to a new location according to the time set. Parameters include size, position, crop and X Y and Z rotation.

Video will move across players on a group of synchronized players (as long as all players have same file playing on a given layer).

Press the edit button on the object to set the parameters.



Layers are positioned one on top of each other according to their number, for example Layer 2 will always be positioned over Layer 1.

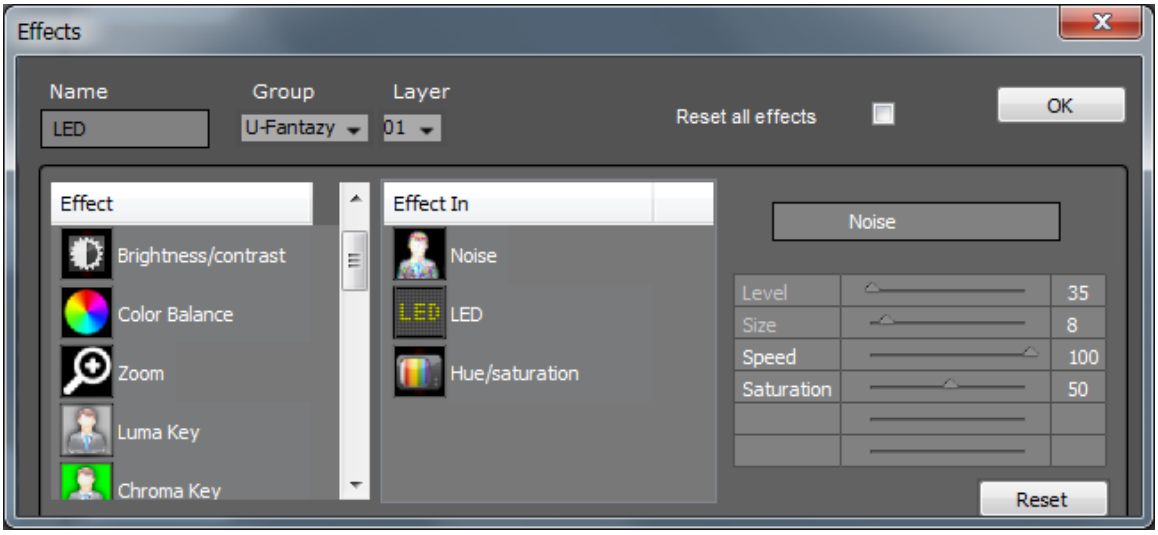
Stop Move layer

Immediately stops a layer in motion

Effects

Sends effect-command to a specific Layer on all players in the group. This will manipulate all players at once.

By pressing the edit button Effect object, the effect editor window will open:

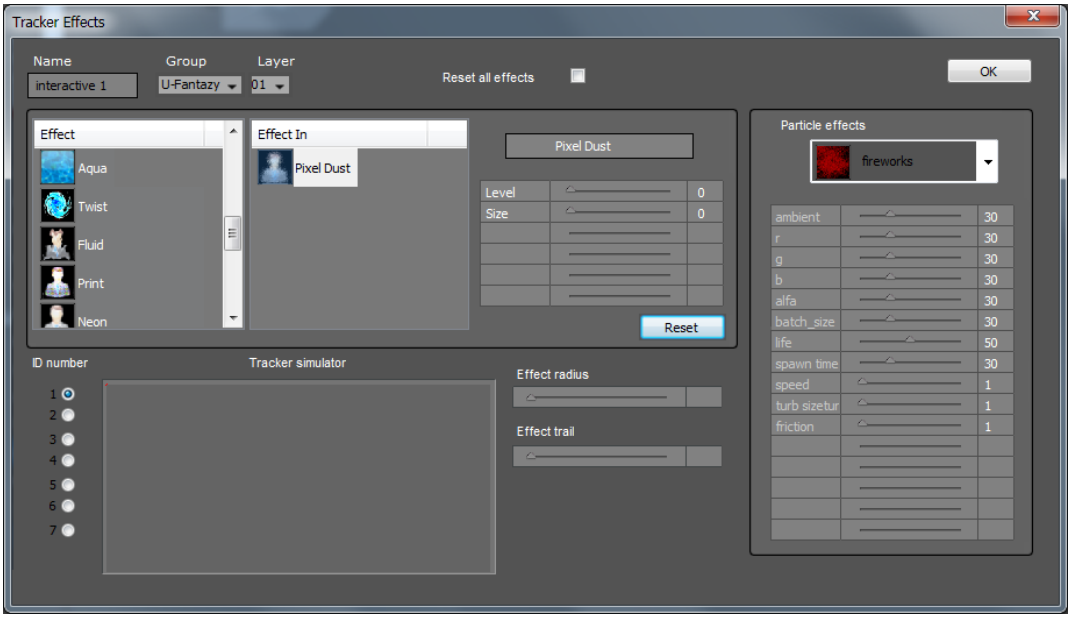


1. **Name** - Give a name which describes the effect behavior.
2. **Group** - Select the group to control.
3. **Layer** - Select the Layer to control.
4. **Effects** - This is the list of available effects.
5. **Effects in**- This the list of loaded effects. Select the effect to control. As soon as an effect is selected, the relevant control sliders will appear.
6. **Effects Control** – here you control the way the effect will act. Effects may be used in any combination.

Tracker Effects

Sends a tracker effect-command to a specific Layer on all players in the group. This effect is controlled via the Showlogix tracker application (for more details go to tracker Configuration).

By pressing the edit button on the Tracker Effect object, the editor window will open:



1. **Name** - Give the effect a name which describes its behavior.
2. **Group** - Select the group to control.
3. **Layer** - Select the Layer to control.
4. **Effect** - This is the list of available effects.
5. **Effects in** - This the list of loaded effects. Select the effect to control. As soon as an effect is selected, the relevant control sliders will appear.
6. **Effects Control** – here you control the way the effect will act. Effects may be used in any combination.
7. **Radius**- here you can set the radius of the effect.
8. **Trail**- here you can set how long the decay of the trail will last.

9. **Particle Effect List**- This is the list of available particle effects.

10. **Particle Effects Control** – here you control the way the effect will act. Each effect can be used independently.

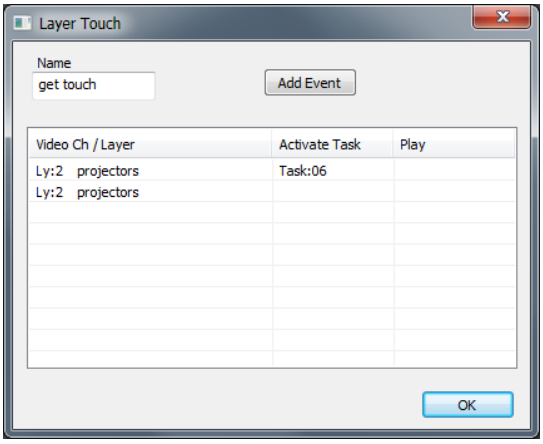
11. **Tracker simulator** – If no tracker is connected, you can simulate motion by selecting an ID (1-7), left-click on the surface, while the mouse is pressed, move it and the effect will be created on the player/s.

Particle effect can be created only on players with graphic cards supporting hardware vertex processing. "Hardware Vertex" must be selected (on the properties of the Showlogix Player panel).

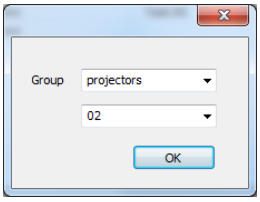
Layer Touch

The "Layer Touch" command can be dragged only to a new sequence (much like the "Task" command).
By dragging this command you can make layers interactive by using mouse/touch screens or using the Showlogix tracker method (for more details go to tracker Configuration).
Touching a layer may trigger any preconfigured task and/or launch a play command.

By pressing the edit button on the object, the editor window will open:



Add Event – Select the group and layer

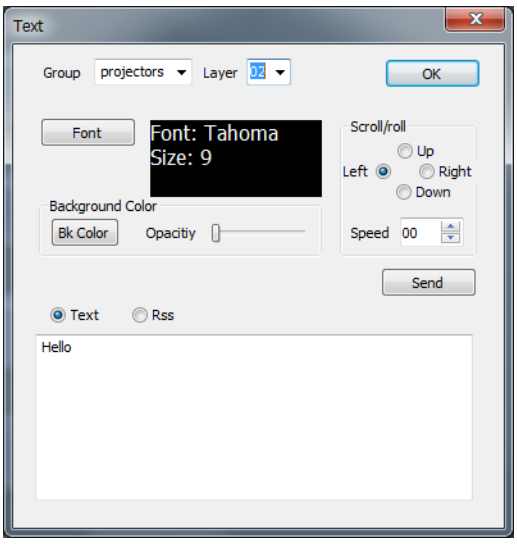


Double- click on the "Activate task" area to select a task to trigger. Double click on the "Play" area to trigger a playlist.

Text

You can use dynamic text or RSS feeds on any specific layer. Sending text will replace any playing file or external input. All effects and other manipulation may be used on text. Text may be static, scrolled or rolled. You can add background with transparency to scrolling text.

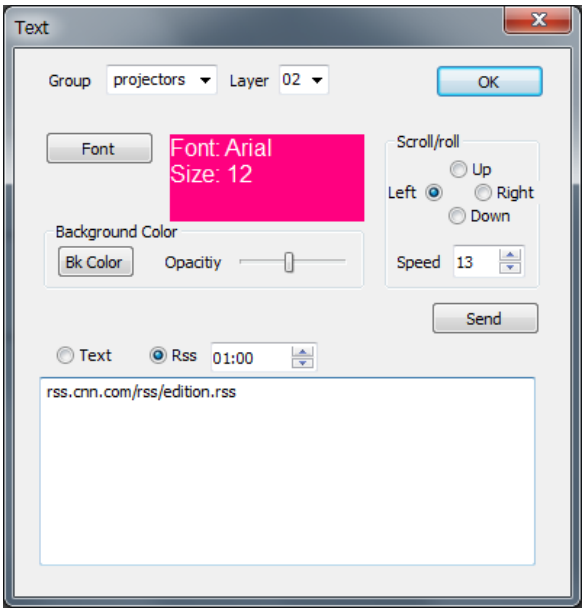
By pressing the edit button on the object, the editor window will open:



If "Text" is selected, the text in the edit box will be sent to the selected layer.

If RSS is selected, type an RSS address into the edit box, (do not use "http://" prefix).
The display players will attempt to get the text feed from this address. Refresh time can be edited.

For example:



Computer Control

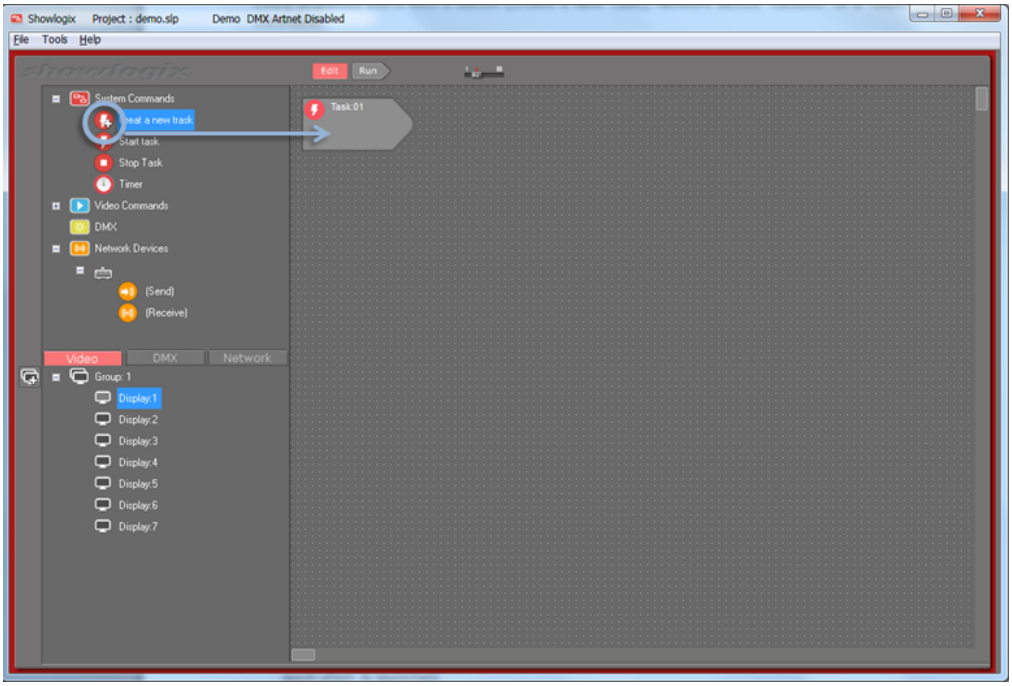
Sends a “Restart”, "Turn Off", "Turn On" or “Close Player” command, to all players in the group. This will Shut down, Restart or turn on a computer. You can also close player remotely.
For restarting or shutting down, the Showlogix Player on the remote computer must be up and connected to Showlogix Manager.
For turning on a computer, the Wake-On-LAN should be enabled in the BIOS and the Ethernet card of the computer.

Switch Media Folder

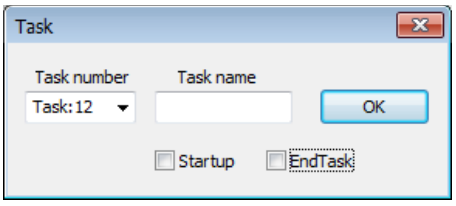
This allows you to dynamically change the folder to read and play files from. This is useful if you want to play different files using same file names without re-programing your project (for example a show with several languages).

Programming a Sequence
Every sequence starts with a button (Create a New Task), Network device "Receive" or a "Layer Touch" command.

Go to "Edit Mode". Drag the "Task" (Create a new task) icon to the work space. The following object will be created:



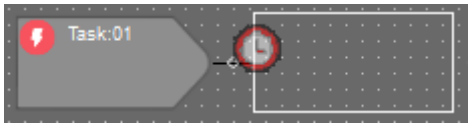
By pressing the edit button on the object, a Task dialog will open allowing you to edit the Task parameters:



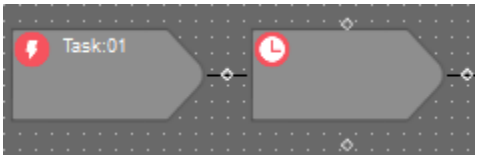
Task number –index number given automatically by the system
Task name- Give a descriptive name to remember what the task does.
Trigger at startup- allows you to specify if this task is executed as soon as the Showlogix Manager application is launched.
End task - checking will disable re-triggering the task while active

Click OK to save changes.

After a Button/Task is dragged to the work space, you can drag any of the available commands to create your sequence.

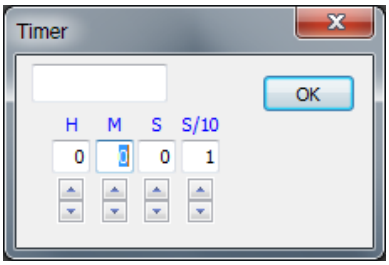


As soon as you start dragging a command, a connection point will be highlighted on the left side of the object. A new command will be created after you release the mouse on the connection point.

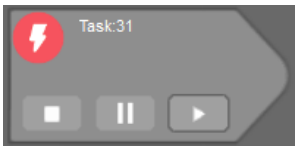


As soon as you start dragging the next command, all previous commands (accept the first Button/Task object), will appear with four connection points allowing you to add a command before, after or parallel (at the same time) to a command. A new command will be created after you release the mouse on a selected connection point.

To configure a command, double click on it and a dialog window will open according to the command. For example if you double click on a timer command, this window will open:



To test your sequence, go to "Run Mode", select the task by hovering over it and click the play button.

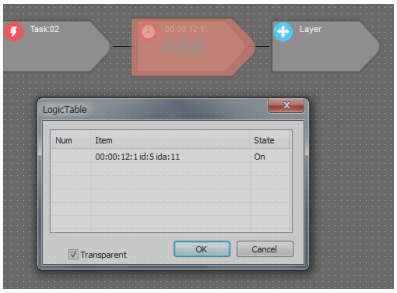


Logical Table

The Logical Table offers a tool to trigger a command only if the required condition is true or false. Otherwise, the command will be ignored. This table can be created on any command available on the work space.

Creation

Go to "Edit Mode" and right click on any object you'd like the condition to be created on and press Logical table.



The table will open, while table is open, go the object you'd like to use as a condition, hover over it and the logic table icon will pop up. Click on it and the object will be inserted in to the table.
Double Click On/Off to determine the condition.

There is no limit to the number of conditions used in each table.

Tracker

Showlogix uses the Showlogix_CCV tracker application, to send interactive data. This application encodes control data from a connected camera and sends it to any Showlogix Player that is assigned to decode the data. Showlogix Manager is able to assign and receive many trackers on separate UDP ports and assign a surface to each player or group of players.

Each player can receive data from one tracker.

This data can then be used to create touch events and dynamic effects on running videos.

Showlogix can map the Tracked data on several displays and non rectangle surfaces.

Tracker Quick Start Configuration

Software Setup/Installation

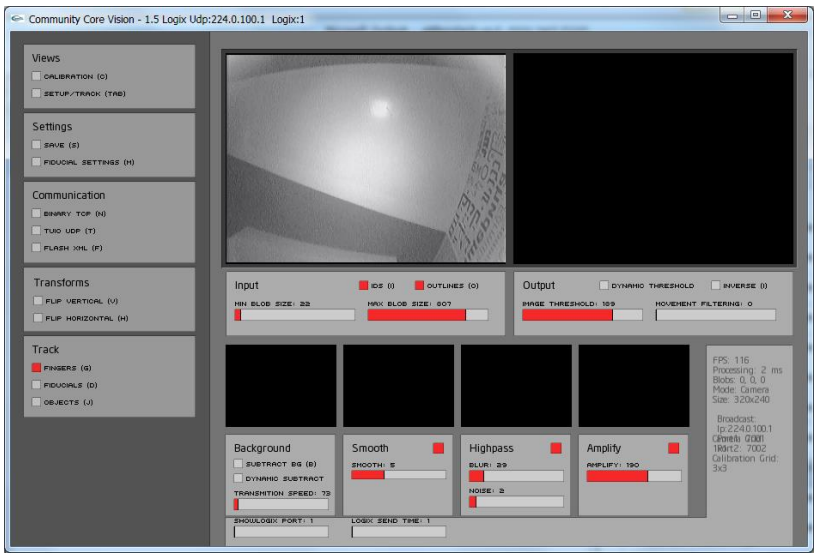
Install Showlogix Tracker by downloading the setup file from the internet
http://www.showlogix.com/ContentPage.aspx?id=108

Follow the online screens and prompts.

1. Close all programs before beginning software installation.

2. Carefully read the license agreement. The software installation only proceeds if the "Accept" button is clicked and the license terms are agreed to.

The installer adds a Showlogix Tracker icon to the *Windows Start Menu*, in a folder called Showlogix. Click on the icon. The application will launch and a camera or video image should be displayed under Input Image.



While no object is present, press the "background remove" button to capture the background. If in an environment where lighting changes often, turn on "dynamic subtract".

To track the darker areas, press "Inverse".

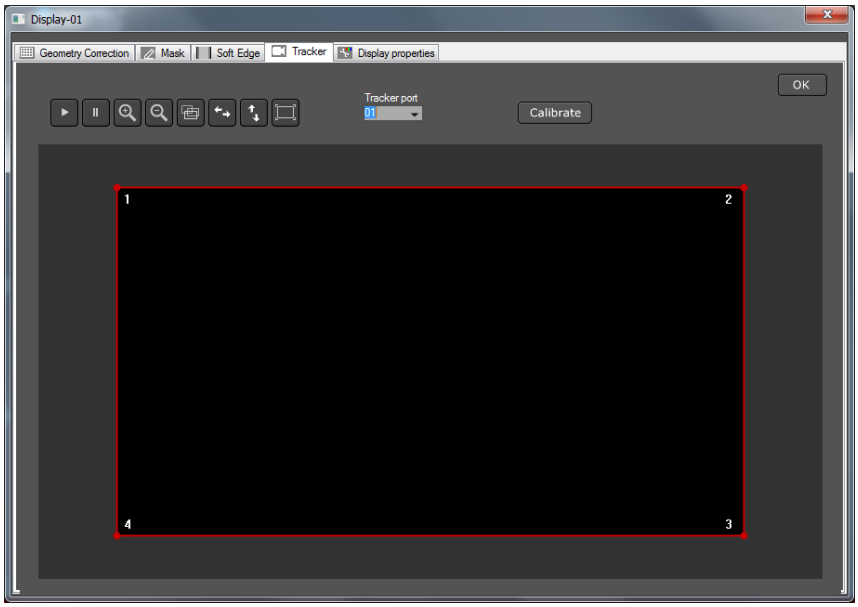
The goal is to have a final tracked image that has white blobs coming from the objects placed on the interactive surface

Calibration may be done using the tracker node, pressing "calibration (o)", however it is not necessary, as calibration is done easily using Showlogix Manager.

To allow tracking transmission, assign a Showlogix port using the "Showlogix port" slider

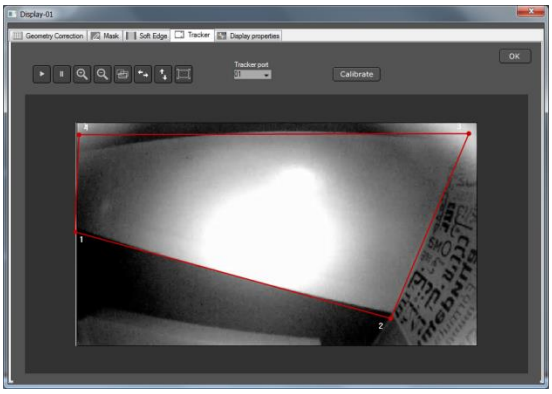
Configuration on the Showlogix Manager

Once trackers have been configured, assign UDP ports for each display used in the interactive surface. To do so, double click on the player icon on the left and press the "Tracker" tab



Select a port according to tracker nodes in use. The port can be found on the Showlogix tracker top bar.

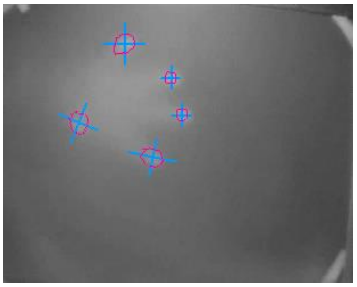
Now you need to calibrate each player to the tracking data.This is done by moving the red poligon to fit the surface you wish to track



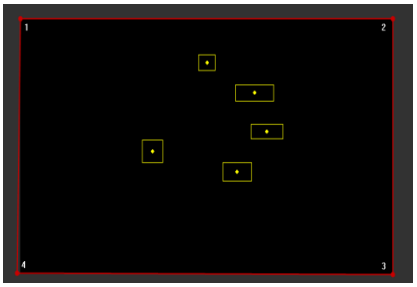
If tracker is transmitting and objects are tracked, yellow rectangles will appear simulating the tracked objects.

By pressing "Calibrate", if the player is connected, any object tracked will be simulated on the display as a yellow rectangle. Any layer used, will have a grey frame arround it (and will turn red if it is touched by a tracked object).

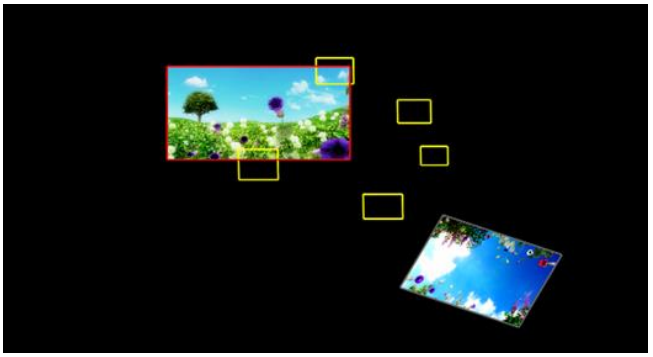
Tracker view



Tracker tab on Manager



Display



By moving your hand, an IR flah light or Laser pointer on each corner, you will see yellow rectangles both on the manager window and on the display simulating the motion.

Calibrating:
Move the object to a corner on the disply, you should see recangle/s projected on the display surface.
Move the corners of the red controller towards the yellow recangle till it apears cicling the object. Do the same on each corner of the display.

Manager uses 4 points for calibration and is suficient for most surfaces and applications. For more precise calibration and complex surfaces, use the Tracker calibration. Read the Showlogix Tracker user guide, for details.

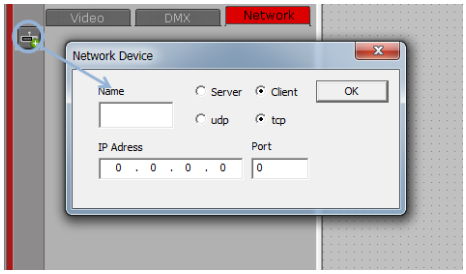
Network Devices

"Network Devices" allow serial commands to be sent or received in order to control devices or for controlling Showlogix Manager from an external device capable of communicating using the TCP/IP or UDP protocol.

This provides a way to hold all the IP settings required to communicate with a particular device in one place. Actions can then refer to the Device rather than having the communications settings encoded directly into the Action. This means that if the communications settings ever change, they can be adjusted in a single location.

Device Creation

Go to "Edit Mode".
Press/Drag the "Device" icon under the Network tab.



Assign a name.
If you are planning to communicate with the device as a client, press the "Client" radio button and set the IP number and port number of the device you want to control.

If you are planning to communicate with the device as a server, press the "Server" radio button and set the port number you want to assign for listening on the Manager computer.

Server - You can specify a network port that Showlogix Manager will monitor for incoming connections. If a remote computer or device tries to connect to this port, Showlogix will accept the connection and the icon will turn green. If the device does not use permanent connection, the icon will not turn green; however, commands will be received and acted upon.

Client – Showlogix Manager will initiate the connection, if a device accepts the connection, the device icon will turn green. If the network is disconnected for any reason, Showlogix Manager will reconnect automatically.

Default communication is TCP/IP, if your device accepts UDP, press the UDP radio button.

Every device you create, adds a device icon in the device list which has two kinds of commands "Send" for controlling external devices and receive for triggering events in Showlogix.

You can now use a "send" command Cue anywhere in the show by dragging the device onto a timeline or a logical tree and adding the appropriate string.

A "Receive" command can be dragged only to the main workspace. Receive actions allow you to execute actions when messages are received by Showlogix Manager. Incoming messages are matched against the string and if any incoming message matches a stored message it will trigger and execute a sequence of commands.

Network Devices Commands

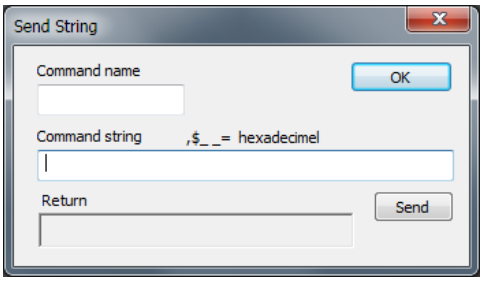
In the External Devices list you will find all the devices that were created in the project. By dragging a "Send" command you can enter the data to send to the device.

You can enter any characters into the edit box and they will be sent as-is. To send control characters that cannot be entered from the keyboard you enter a ",$" followed by the 2 digit hexadecimal number for the control character. If, for example, you want to send the "Enter" character, which has a hexadecimal code of 0D, you would enter ",$0D" into the edit box.

The Receive command can be dragged only to a new sequence (much like the "Task" command) "Receive String" defines the characters used to match against the received message to execute a sequence of commands.

Before using External Devices commands you will have to create at least one Device under the device Tab. These commands work only on available devices.

Send



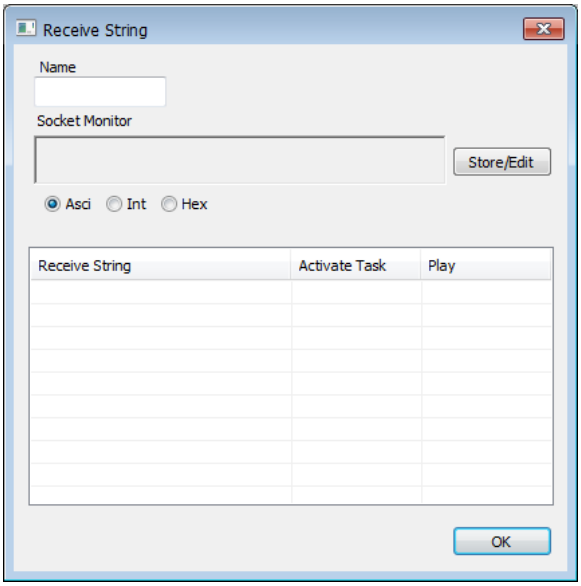
Command Name- Give a descriptive name to remember what the command does.

Command String- This defines the string of characters that are sent out.

Return- Here you can monitor what the device is sending back.

Test- This button performs the Action you have created.

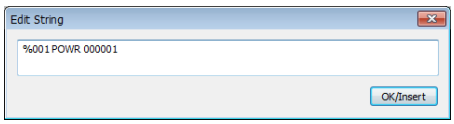
Receive



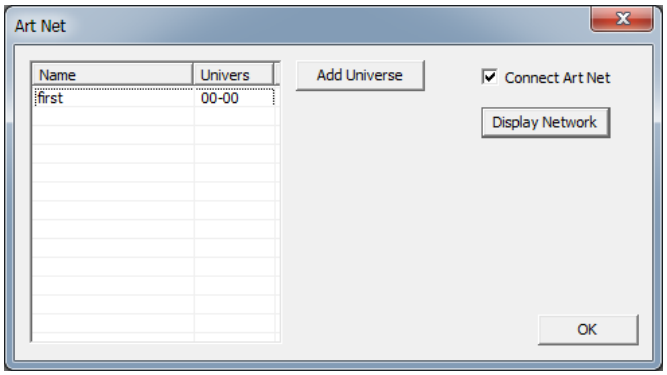
Name- Give a descriptive name to remember what the command does.

Socket Monitor- Here you can monitor what the server is receiving.

Store/Edit- This button stores the current data shown in the socket monitor as the receive string. You can edit this string to change the way the string is compared and triggers an event.

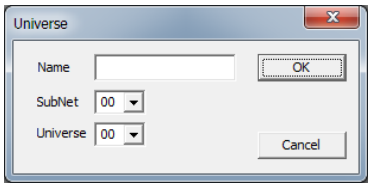


To allow DMX transmission over the Art-Net protocol, first you have to enable The Art-net communication. To do so, select “Art-Net Configuration” from the "Tools" menu.
Check "Connect Art Net" and press "OK"



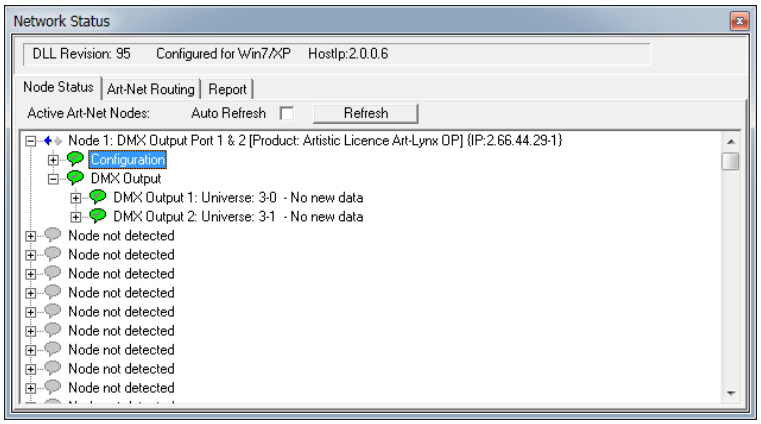
Now you can configure the Art-net universes used in your project: Re-open “Art-Net Configuration” from the "Tools" menu.

Press "Add Universe"



Assign a name (not compulsory).
Select subnet and universe according to Art-net nodes in use.
Add as many universes as needed.

If you do not know what universes you have on your network, press "Display Network" to find Art-net nodes on the network.



There are two ways to control DMX devices using the Showlogix Manager:

1. A graph that is synchronized to the videos time-code (see Time line programming).
2. Scene presets that are used anywhere in the show.

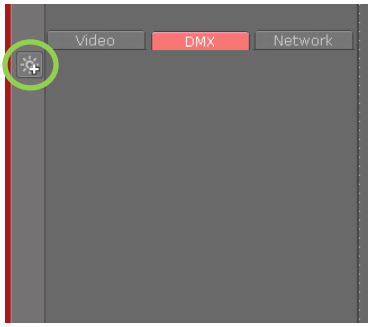
DMX Commands

Before using DMX commands on the work space, you will have to create at least one DMX Preset under the DMX tab.

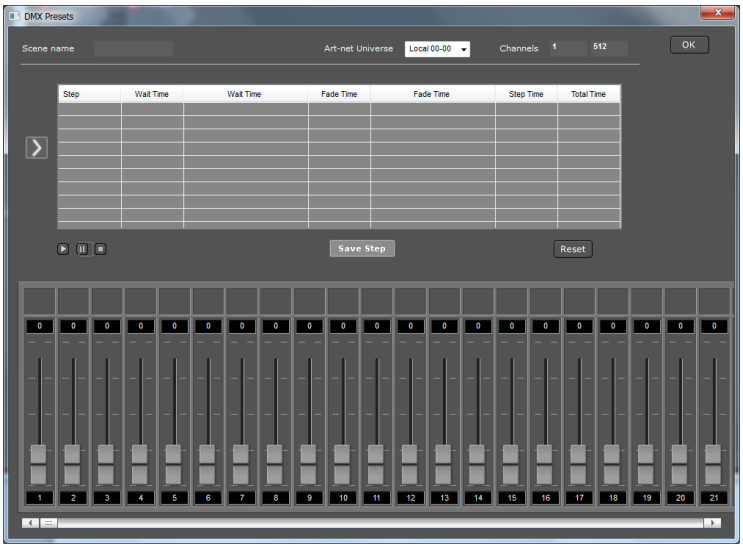
In the DMX list you will find all the presets that were created in the project. These presets can be used anywhere in a show

DMX Preset Scenes

Go to "Edit Mode".
Press/Drag the "Light Scene" icon under the DMX tab.



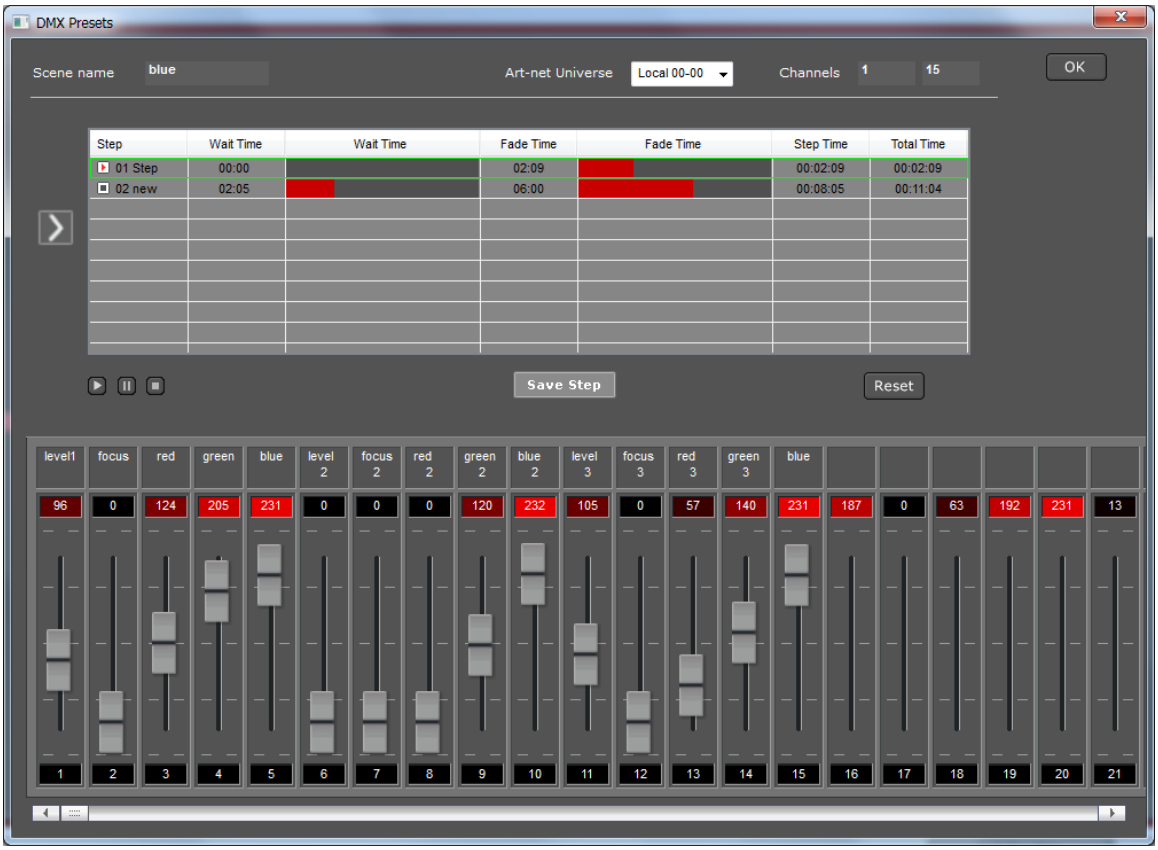
The following screen will open:



In the "Scene Name" edit box write a name for the scene.
Select an Art-net universe out of the drop down list, In the "Channels" edit box write the number of channels you are using in this scene.

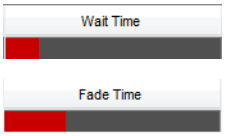
Test DMX devices by using the sliders. Assign a name to each channel by tapping the rectangular space above each slider and type the name you wish to give the channel. This name will follow the channel everywhere in the project. You can change this name anytime by opening a DMX scene and editing the text

Drag the Step icon from the left into the list



Design the step using the sliders.

To pause before the step starts, add "Wait time" by altering the time slider.
To adjust the fade time between this step and the next step, alter the "Fade time" slider



Save the step by clicking "Save Step"
To load a step, double click on the step line.

You can copy a step to another line by loading a step and then clicking on another line and then clicking on "Save Step"

Add as many steps as you wish to create the scene
To test the scene, click on the first line and then press the PLAY icon.

As soon as you are satisfied with the scene press the OK icon. This will close the screen and save it for later use in the project.

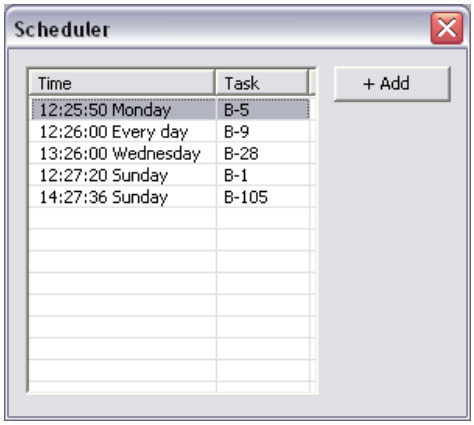
A new Icon will appear under the DMX tab. You can edit the scene any time by double clicking on the icon.

Scheduling Tasks

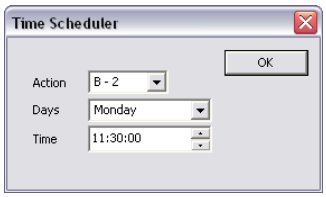
The Scheduler allows you to schedule Tasks to be done at certain times of the day, on a repeating schedule. You could use this, for example, to start a show in the morning and off at night. You can specify actions to occur only on certain days or every day.

Once you have added a scheduled Task it will be executed on the day and time you have selected. Showlogix Manager must be in "Run Mode" in order for this to occur.

Select Scheduler from the "Tools" menu to open the "Scheduler" dialog.



Add Button- Adds a new scheduled Task. This opens the Edit "Time Scheduler" dialog.



Action- Selects the task you want to execute when the scheduled time is reached. The drop-down list will show only tasks that were created on the work space.

Days- Select the days this Task should execute on. You can select a single day or all days.

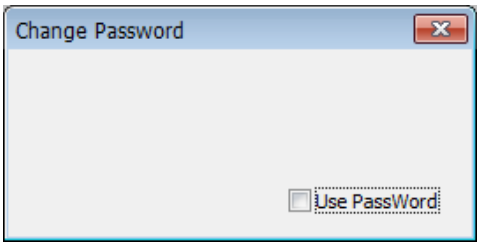
Time- Enter a time of day into the Time field. The time must be entered as a 24 hour clock time.

The list displays the currently scheduled Tasks. By double clicking on an item selected in the list, the Edit "Time Scheduler" dialog opens allowing you to edit the scheduled Task.
To delete a scheduled item, select it in the list, Right click and press Delete.

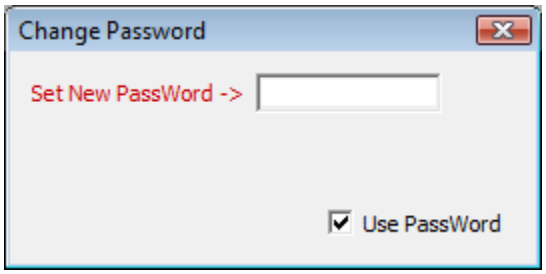
Creating Administrator Mode

After completing the programming and installing on site, you may want to limit the Showlogix Manager so it stays in "Run Mode" at all times. By using Administrator mode, un- authorized personnel cannot change programming.

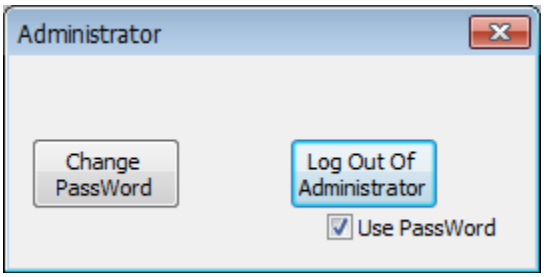
Select Administrator Password from the "Tools" menu to open the Administrator dialog.



Check the Use Password box and then enter a 4 digit number and press OK.



The next time you open the Administrator dialog, it will open with the two possibilities:



Logout of Administrator: Pressing on it will go to "Run mode" and remove the "Edit mode" buttons, disabling any change of programming.

Running Showlogix Player

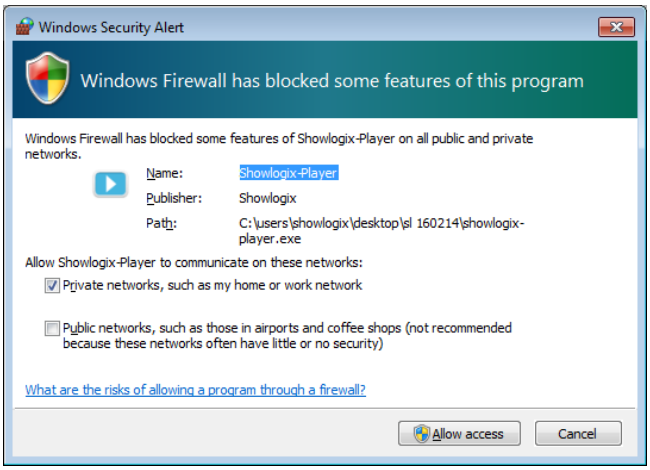
When Showlogix Player starts, It will open as a movable window, with the panel open.

As soon as the player connects with the Showlogix Manager, the panel will disapear and (if checked in the Options settings), it will go into full screen mode.

In adition the Showlogix FTP Server will start. This application is in-charge of receiving video content from Showlogix Manger. As soon as it is open, the icon will apear on the Windows taskbar.

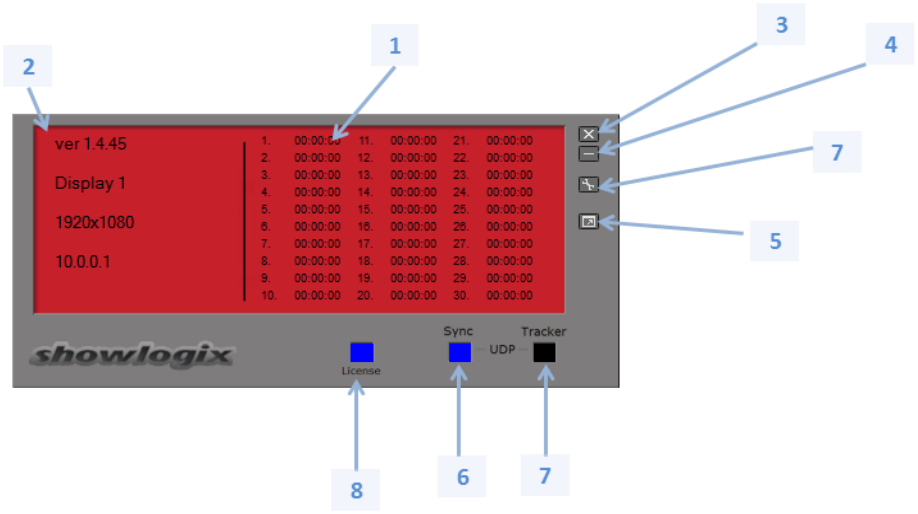
Blocking

If there is an active firewall, as Showlogix applications try to access the network, the firewall will display the following dialog:



Select "Unblock" option to allow Showlogix Player to work correctly.
Changes made take effect immediately.
In some cases, the firewall needs to be configured manually.

Showlogix Player is controlled remotely via network. To configure the options available, right click anywhere on the player window; the Showlogix Player panel will open.
To quit the Player, press "x" on the panel.



1. Duration bars – shows the current position relative to the duration and current time-code. Clicking anywhere along the bar will bring the video to that point. Each layer has a separate bar.
2. Display information view
3. Close player.
4. Close panel.
5. Open/close full screen.
6. UDP Sync send/receive indicator:

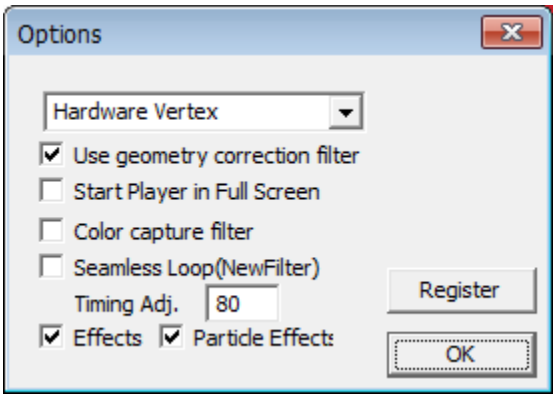
   Sync – multi-player synchronization:
   Black – Idle
   Blue - Master sending time-code information
   Green - Slave receiving time–code information
   Yellow – Slave waiting for UDP data - No UDP is coming in

7. UDP Tracker receive indicator:

   Black – No UDP is coming in
   Blue – Showlogix_CCV application is sending data

8. License information – color coded

Options settings



Vertex Drop down selection- selection of how the player processes vertex calculations. This depends on the graphic card in use. For best results use strong graphic card and Hardware Vertex. For weak graphic cards use Soft Vertex (in this case particle effects are not available).

Use geometry correction filter- Remove for testing or for low specification computers (in this case none of the advanced Showlogix player features are used but multi-display synchronization).

Start Player in Full Screen Video- If marked, the player opens in full-screen at player start-up after connection with the Manager.

Color capture filter – should be used for some input capture cards.

Seamless loop – Check to load a new filter each time a play command is sent. Adjust timing of loop and play next commands.

Effects- Un-check to disable all visual effects.

Particle Effects- Un-check to disable all particle effects.

Technical Support

Users can access our technical support line via email, usually with a response within 24 hours.

Send an email to info@showlogix.com with as much information about your system as possible. To enable a quick response we need to know the following details:

- Specification of the PC - including processor speed and graphics card
- Operating System
- Application Software
- Hardware / Software version in use
- The exact nature of the problem