



## Artist Show Control



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The follow table is provided for simple browsing of the help page. Normally the HTML help reader will display a navigation tree.

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## Cool Features

The list of Artist features on the right is continuously expanding therefore you should keep an eye on this list for project development.

[Fixture Control](#)  
[Automation](#)  
[User Interface](#)  
[Programming](#)  
[Effects](#)



## Fixture Control

- [Fixture](#) objects encapsulate the complexities of your attached DMX fixtures and enables Artist to provide fixture specific effects.
- Extensive library of [Templates](#) for fixtures covering all know manufacturers.
- [Template wizard](#) dialog for creating templates for custom fixtures.
- Active individual or multiple fixture group view with on screen drag and drop placement to provide representation of real world positions.
- [Fixture view](#) provides a real time visualisation of fixture output.
- Built in [Chase](#) patterns and specialised [Effects](#) for fixture parameters.
- [Matrix](#) control for effects and chases provides control of two dimensional fixture arrays.
- [Video and Image](#) output to matrix displays.
- Manual override of running cues allows you to change any of a fixtures parameters dynamically.
- Graduated colour mixing effect - see [Fanning](#).
- Pixel Array Fixtures
- Pixel Array control with graphics drawing surface fro effect and blends



## Automation

- [Start up options](#) to provide, automatic lamp on of discharge fixtures, initial user interface display modes, real time clock script, time-code script, cue list sequencing and activate cues.
- [System Commands](#) provide access to many of the operating system feature, Artist internal functions and other peripheral devices such as serial and MIDI ports.
- Data acquisition interfaces can be installed to provide digital inputs for triggering and controlling cues and scenes from external sources.
- [Real time control](#) to provide time of day and day of week programming.
- Sophisticated [Time code](#) control from MIDI Time code, audio, video and CD Audio files.
- Global scene, chase and effect control [Triggers, Rates and Ramps](#)
- [Artist Telnet Server](#) provides remote control over networks and Internet.

- [PowerPoint](#) slide show system commands provides show control for you presentations.
- [HTML](#) and [Flash MX](#) controlling Artist in a graphic way.
- [Audio](#) input and output is processed from a standard computer installed sound card or external audio interface.
- [Communications Manager](#) for serial input and output via the computers COM ports.
- [MIDI input](#) access to Artist System commands.
- [Industrial Automation](#) using USB DMX interface auxiliary port, Advantech optically isolated interface cards or USB data acquisition adapters.
- [DMX Manager](#) controls all output to fixtures via DMX devices on USB and Network.
- [Wysiwyg](#) interfacing for virtual design and programming.
- [DMX input](#) allows for access to System commands from a lighting console.
- [COM and .NET](#) provides properties and methods for system programmers to interface their applications.
- Using Windows XP Artist can be control remotely through Intranet/Internet.
- Infra-red and radio frequency handsets provide remote control functions.



- Dual data control paths in [Data Flow](#) allowing for overriding of programmed cues for programming and for live changes. The [Parameter Flags](#) indicate manual override.
- Multiple random access or sequencing of cues all concurrently.
- Configurable random access touch screen [Operator Interface](#).
- keypad [Cue](#) activation.
- [Theatre](#) style parameter access for programming and cue override.
- Many standard MIDI control panels can provide external user interface.
- Highly customisable [graphical user interface](#).
- [Security schemes](#) customise access to Artist functionality.
- Cue presetting function.
- Last activated cue level and rate adjustment from system commands.



- Fixture preset levels provides an method to instantly get light from a fixture as a prelude to programming. Always a good starting point.
- Automatic graduating of parameter values through '[Fanning](#)'. A rainbow effect is also provided for Colour mixing devices.
- Automatic [Chase](#) and [Effects](#) for every fixture parameter including rainbow colour sweeps, circles, squares and waves.
- [Scenes](#) allow for the creating of complex sequences that cannot be provided by the 'Chase' window. Scene can have individual fade in and hold times and can be trigger from many places in the system such as event flags, automatic timing or sound processed triggers.
- Background house lighting separated from effect lighting to prevent blackout. See [Cue List Properties](#).
- [Event](#) flags provide a method of triggering steps of a scene from some other scene, cue or external input. This can provide the nonlinear programming necessary for many complex environments.
- Automatic Archive [Backup](#) and [Auto save](#) features to secure program data.
- Global [Focus and Beam Indexes](#) for simple position changes in mobile systems.
- Graphical [Global DMX Patch](#) to simplify repatching fixture addresses.



The Effects generator contains an ever-expanding list of macros for setting effect parameters. Many of these effects can be output to matrix displays.

- Unique graphical matrix patterns for [colour mixing](#), dimmer and [movement](#) parameters.
- Fully adjustable parameters to create any [chase effect](#) with slopes.
- Image output to matrix displays.
- [Macros](#) for movement parameters provide a wealth of ready made effects.
- Continuous or up and down procession on all effect parameters provides a powerful and time saving way of making your effects less predictable to the observer.
- Smooth fade in of all dimmer effects for slick cue transitions.
- [Video](#) clip and live capture to DMX effect
- Scrolling text message Marquee



## Installation

The supplied installation media provides a Microsoft installer package file, ARTIST.MSI. Check the Artist Notes document for release details and information on installing connected device such as DMX and MIDI interfaces.

## Workspace

After having installed Artist you will need to run it. In Windows, click on the Start button in the task bar and select 'ShowCAD Artist/Artist'. Artist will load the 'Example' workspace which shows a sample nightclub installation. Take some time to click around and familiarise yourself with the interface.

The Workspace defines all the files that are loaded, the users preferences and window configurations.

## Fixtures

Access to all DMX channels is via Fixtures. Fixtures contain one or more channels and usually encapsulate all the channels of control of a physical lighting device (lamp, projector, strobe, motor etc.).

The advantage of this arrangement is that Artist can treat each parameter according to type. For example a dimmer channel will fade with the master fader while other channels remain unchanged. Also a programmer need know very little detail about the fixtures attached to the system since Artist presents the programmer with familiar controls for every parameter type.

## Your Interface

Artist is made up of a [Graphical User Interface](#) (GUI) which is customisable to a very large degree. We have tried to stay within Windows conventions for most of the aspects of the interface. If you are unfamiliar with Windows, take some time to explore this section before continuing.

## From Here

[Example Workspace](#)  
[Controlling Fixtures](#)  
[Scenes](#)  
[Cues](#)

a step by step account of how the example workspace supplied with the Artist install was created.  
 how to access the features of you fixtures and to start setting up your programs.  
 the first building blocks of your program  
 your programs. During playback, these are the operators main access

[Under the Hood](#)  
[Example Workspace](#)  
[Matrix Workspace](#)  
[New Workspace](#)  
[Fixture Control](#)  
[Operation](#)  
[Automation](#)  
[Use of Palettes](#)  
[Programming](#)



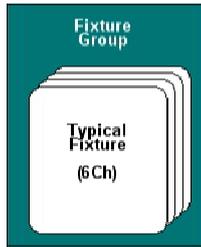
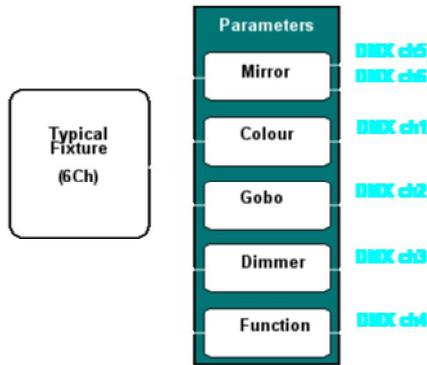
An understanding of some of the internal workings of Artist is key to realising the full potential of the system. This section gives a description of the connections between the main DMX elements within Artist.

This is a simplified discussion in that it does not cover the layers of [Automation](#) on top.

[Data Flow](#)  
[Parameter Flags](#)

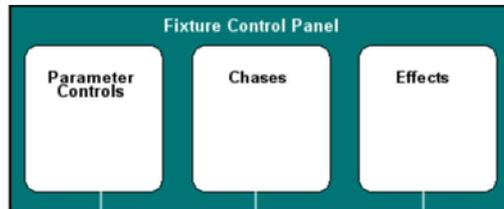
Fixtures are the representation of your connected light devices and are the only means of your programmed cues controlling them. It is therefore very important that the Fixture matches the connected devices.

In addition to defining the DMX channels required, the Fixture also defines values for colour, gobo, reset, lamp on and other key values.

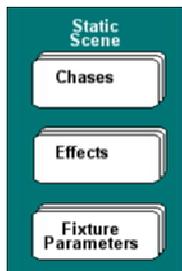


Fixtures are contained within groups. Each group must contain fixtures of the same type. Groups are created to contain fixtures which will commonly be called upon to work together. This allows Artist to provide chases and effects without the need for programming.

The Fixture groups are controlled as a single entity by the Fixture Control Panel. You can select parameters within the group to be controlled directly by the Parameter Controls, assign a Chase or an Effect to any parameter within the fixtures.



Effects provide built-in mirror/yoke movements, colour matrix patterns and many others.

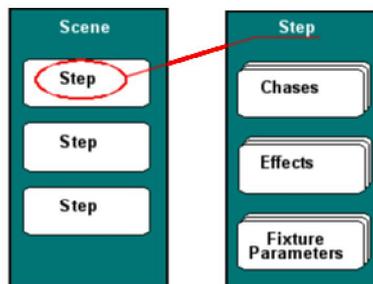


A Static Scene is a collection of data for parameters, chases and effects. Scenes can be manually activated but in general they are used as building blocks for cues. Scenes can also access or call other scenes.

Scenes can contain steps, that is to say they can sequence through different collections of data as described for the Static Scenes.

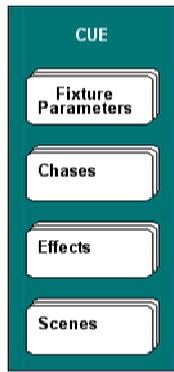
There are many methods of triggering steps, ordering steps and fading steps

These scenes provide a method for custom sequences such as mirror/yoke movements.



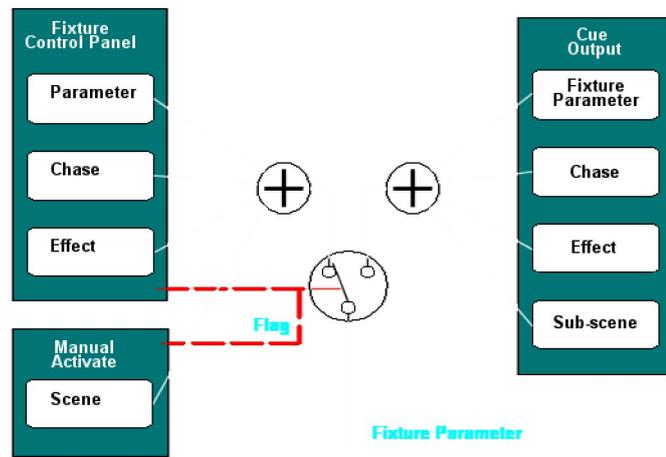
The Cue is the main object which can control all the other data objects discussed above. These are the main means of playing back programmed data for your show.

Cues are contained in user defined lists which can be linked together to provide interlocking of cues for mutual exclusivity amongst other special function.



This is a block diagram showing the final data path from manually activate objects in the Fixture Control Panel and Scenes on the one hand, and from the cue output on the other.

It graphically depicts the function of the Parameter Flags.



### Manually Activate

The blocks on the left of the above diagram show data from objects in the [Fixture Control Panel](#). Altering parameters through these causes the data path from cues destined for those same parameters to be blocked and output is then exclusively from the Fixture Control Panel and manually activated scenes.

The parameter data from the Fixture control panel (i.e. [Parameter](#), [Chase](#) and [Effects](#)) and [Scenes](#) are added together. This provides a means of offsetting the parameter data. The effects data can also be negative resulting in a subtraction from the level set by the Fixture parameter control.

### Cue Output

This is data from user programmed [Cues](#). They contain codes that access fixture parameters, chases, effects and scene the data from which are added together to produce the final output value for that parameter.

### Parameter Flags

The [Parameter Flags](#) indicate that the user has manually altered, via the [Fixture Control](#) panel, a parameters data or has manually activated a scene. When these flags are set the data path from Cues are blocked and data comes solely from the Fixture Control panel and manually activated scenes.

These set Flags also indicate data that will be saved to a Scene or Cue if required.



The parameter flags are an important part of Artist programming and use. They determine where an output gets it's source data and what data will be saved to cues and scenes.

Normally the output data comes from cues only. When a parameter flag is set the data from cues is disabled and the output data comes from the [Fixture Control Panel](#). (i.e. parameter, chases or effects) and from any manually activated scenes.

### What Flags look like

In the Fixture view a parameter's flag is indicated by a small square

flag icon in the top right corner of the fixture.



In the Fixture navigator a set flag is indicated by a red asterisk on the parameter. The parent Fixture image also has a red asterisk to indicate that one of its parameters has a set flag.



### How Flags are Set

Flags are set automatically when you change a parameter the Fixture Control Panel. Only the parameters changed are flagged.

Activating a chase or an effect in the Fixture Control Panel will set the specified Effect flag in all fixtures in the group.

Manually activating a scene will set the Effect flag of all parameters accessed by the scene.

### Flags in Operation

When a parameter flag is set, any data from cues will be blocked and only data from the Fixture Control panel (.e. Parameters, Chases and Effects) and manually activated scenes will be passed to the outputs.

This provides a method of dropping a parameter out of a cue in order to manually change its value. To return the parameter to the control of the cue or scenes, select 'Clear Flags' from the Fixture Control tool bar.

This is how the Palette works. It sets the flags of the selected parameters and sends levels direct to the outputs.

Manually activating Chases, Effects and Scenes will also override Cue by setting flags. This feature will be extended greatly in future versions.

### Flags in Programming

When the 'New' button in the Cue or Scene programming sections is clicked, a new Scene or Cue is created. The system then checks all the flags that are set and displays them in the Program Data dialog. There you can deselect any parameters or scenes that are flagged. Thus the system saves only data for those objects whose flags are set and checked in the dialog.

The flags are cleared when a new scene, cue or step is created or can be cleared by selecting 'Clear Flags' from the Fixture Control tool bar.



The Example.wsp workspace supplied illustrates the basic programming elements within Artist. A [Wysiwyg](#) plot file (also supplied), was used to render this picture.

It will continue to be developed and users should keep watching this article in future versions.



- [Parcan Cues](#)
- [Colour Mixing LEDs](#)
- [Moving Mirrors](#)
- [Moving Yokes](#)
- [Yoke Wash Fixture](#)
- [Photo shoot](#)

When working through this example workspace you should monitor the [Fixture View](#) to understand the effects. Select the appropriate fixture group as work through the cues.

Use the [Operator](#) window to select cue lists and activate cues.

If you have it installed you can also load the [Wysiwyg](#) plot in order to better understand what the cues are doing.

### The Fixtures

IN the client area click on the **Fixtures** tab to display the [Fixture View](#). The first group shown is the **Just 8 Par cans**. You can move through the fixtures groups using the blue left and right arrows on the tool bar of by select a group from the combo box.

The fixtures were installed using the standard SHOWCAD.TEM fixture template file and the **Fixture Wizard**.

Fixture Group Name	Description	Template used

Just 8 Par cans	8 par cans	Simple types/Parcan
Colour Mixing LEDS	32 colour mixing LED fixtures. 3 channels per fixture.	Simple types/Color mix dimmer
Moving Mirror Fixture	4 Miniscan HPE scans. These are 8 bit mirror movement fixtures.	Clay PakyMiniscan HPE
Moving Yoke Fixture	4 High end Studio spots. These are 16 bit yoke movement profile fixtures.	High End/Studio Spot 575
Yoke Wash Fixture	4 Martin Mac600. These are 16 bit yoke movement wash fixtures.	Martin/Mac600 (mode 4)

Notice that the fixtures have been laid out on the screen in a way that reflects their actual positions on the rig.

Notice also how fixture groups 3 and 5 share the same view again making easier to locate the fixtures by displaying their relative locations.

List 4 is set to display all the parameters of the fixture in a list.



Cue List 1 contains the **Parcan Cues**. These have been programmed as if they were part of a sequential show. The first three cues have various levels set in them and each has fade in, fade out and hold times set.

The fourth cue uses a chase and the fifth adds a level to all the fixtures with the chase running on top.

#### The Method

The [Theatre Interface](#) was used to set the levels on the par cans while viewing the output in the [Fixture View](#).

The levels for the first cue were set using the faders and clicking **New Cue**. The **All Parameters** filter in the [Program Data](#) dialog was selected and **Save + No Clear** to save the cue and leave the output levels as they are for further programming.

This method was used for the following two cues.

The fourth cue requires the parameter levels to be zeroed. The **Fixture Control/Chases** window was used to set up a chase on the par cans and **New Cue** clicked to save this using **Save + No Clear**.

With the chase from the previous cue still running a level was added to all the par cans using the faders again. Since these values add together with the running chase the master level of the chase was reduced to preserve the smooth fader in of each step.

#### The Fade Times

In the [Client area](#) select the **Cues** tab to display the cue list. Double-click on the name of the first Cue. This opens the [Cue Control](#) Panel where you can set fade in, fade out and hold times.

#### Operation

Artist is designed to allow any kind of operation of cues. You can simply activate any of the cues in the [Client area](#) while looking at the [Fixture View](#) to see the levels fading in. Activating any other cue in the list will cause a cross fade from the previous cue to newly activated one. However, as was mentioned, the cues in this list were designed to run sequentially.

Open the **Master/Cue Control** window and use one of the following methods to fade down the list,

- Step** Each successive click will activate the next cue in the list.
- Chase** This will run down the list using a predefined fade in and hold time for all the cues in the list.
- Seq** This will run down the list using the fade in, fade out and hold times defined within each cue.

Cue 3 has a the **Forced Wait** property checked meaning that when the **Sequence** reaches it it will hold until the **Step** function in the **Master/Cue Control** window is used to continue the sequence.

The Sequence will run through once only and hold on the last cue. The Loop property in [Cue List properties](#) can be checked to loop continuously.



This list of cues is designed to be used randomly. The operator selects the required cue and the previous cue fades out. It should be pointed out that this list runs independently and concurrently with cues in other cue lists.

#### The Method

**Mauve** : from in [Fixture View](#) all of the fixtures were activated. The [Color Mix](#) Dimmer control in the **Fixture Control/Parameters** window

was used to set the colour for all the fixtures simultaneously. This was saved as a cue by clicking **New Cue** in the **Master/Program Control** window and named **Mauve**.

**Cyan** : This cue was created in the same way.

**Cyan/Mauve** : This cue produces a graduated display from Cyan to Mauve across all the fixtures. This is achieved from the **Fixture Control/Fanning** window. Activate the fixtures you want in the graduation and adjust the first colour then the last colour. This was done across three different groups of these fixtures then save as a **New Cue**.

**Red/Green** : The cue was created in the same way.

**Rainbow Effect** : was created using the **Fixture Control/Effects** window. Activate the **Color Mix Dimmer** parameter, set the **Rainbow** effect from the combo box, set the rate and the spread. Save this as a cue.

### Operation

The **Cue List Properties** are set to **Interlock** action which ensures that only one cue can be active at any one time within the cue list. As a cue is activated it deactivates any cues in the same list that are active.



This list of cues is designed to be used randomly as requires in a live adlib situation such as a nightclub.

### The Method

From the **Fixture View** activate all the fixtures and set the **Preset Level**. This sets all the fixtures to a useful initial state for programming usually with dimmers up, shutters open, no gobo, no colour and with the mirrors centred. From this state it is easier to set up a look.

**Yellow** : yellow is selected for all fixtures in the **Fixture Control/Parameters** window. Use the green right and left arrows on the **Fixture** toolbar to select only one fixture. Set the position of this fixture using the **Moving Mirror** joy pad. Repeat to position all fixtures as required and create a cue.

**Purple/Yellow** : For this cue, from the **Fixture View** toolbar, activate **Odd** fixtures and set the purple colour and 'Gobo 1' in the **Fixture Control/Parameters**. Select **Even** Fixtures and select gobo2 and leave the colour as yellow.

**Can-Can** : A simple can-can effect was created by first setting green and open gobo to all fixtures. Next from the **Fixture Control/Chases** window the **Mirror Y-axis** was activated and the **Pattern** was set to **Alternate**. The master level of the chase was reduce to about 50% so that an offset could be added in the **Fixture Control/Parameters** window. To do this it is best to view the slider view in the **Moving Mirror** joy pad by click on the title button. The x axis slider should be centred and the the y axis set so that the chase is centred.

**Searchers** : This uses the **Fixture Control/Effects** window. Activate the **Mirror** effect and click **Default** to start. Then adjust the **Spread**, the **Rate**, the **x-y**.

Set the dimmers and colour in the usual way.

**Comets** : This is the same as the Searchers cue but with different colours and gobo and a dimmer chase. Set colour and gobo in the usual way and zero the dimmer parameters. Go to the **Fixture Control/Chases** window and activate the **Dimmer** chase. Select **Random** in the **Direction** combo box, in the **Rate Control** set the rate and click on the ramp button to make the chase step as opposed to fade.

**Jugglers** : The mirrors are positioned on a centre spot on the floor. Zero the level on all dimmers and activate a dimmer chase. Because the Miniscan dimmer parameter is fully open at 50% and beyond that is strobing function, set the level of the chase 50%. Adjust the rate and select a gobo then save as a **New Cue**.



This cue list is an example of using moving yoke fixtures in a sequential situation. For simplicity the gobo and colour are kept the same and attention is given to the yoke position.

[Movement Scene](#)

The following description uses a scene the creation of which is described in [Movement Scene](#).

### The Method

**Mauve** : From the **Fixture View** toolbar activate and set the preset levels for all the fixtures. In **Fixture Control/Parameters** set mauve and gobo 1. Set the position of each fixture for the opening position. Save this as a cue called 'Mauve'.

**Mauve 2** : Move the fixture positions to the next location and save as 'Mauve 2'.

**Mauve + move** : Zero the yoke parameter on all fixtures by right-clicking on the joy pad and selecting **Zero Level**. In the **Scene List View** activate the **Movement Scene** and double-click to open the **Scene Control Panel**. Set the **Fader Control** in the scene to **Control All**. Click **New Cue**. Here we need to perform a manual operation which in future versions will not be required. In order to achieve a smooth transition between cues the zero yoke parameters need to be delete. In the **Program Data** dialog uncheck them from the tree or you can delete them from the cue after you have saved it.

Save this as 'Mauve + move'.

**Centre** : For the last cue deactivate the movement scene and click on the **C** button in the **Yoke** joy pad to centre all the fixtures. Save this as 'Centre'.

## In and Out

In order to pre-position the parameters in the fixtures prior to open the dimmers we need to create a cue which is a copy of the first cue only with the dimmers zeroed.

From the [Cue Tree](#) view right-click on the 'Mauve' cue and select **Set Parameters**. This sets the parameters in the Fixture Control/[Parameters](#) to their respective levels. Zero the dimmer parameters and click **New Cue** in the Master/[Program Control](#) window. Set the cue name to 'In'. This cue will be added to the end of the list to move it click on the cue and drag it to the top of the list.

Similarly we need a cue at the end to fade out. Again right click on the last cue in the list and select **Set Parameters**. Set the dimmers to zero and click **New Cue**. Name this 'Out'.

## Fade times

Double-click each of the cues in the [Cue List View](#) in turn to open the [Cue Control](#) panel and set the fade in, fade out and hold times.

Also open the [Cue List Properties](#) and uncheck the **Loop at End** box in order that the list will run to the end and stop when the Master/[Cue Control](#) **Seq** button is clicked.



The purpose of this scene is to provide movement between precise positions and therefore this scene will contain only data pertaining to the Yoke parameters. The scene is intended to be used as a component in building a cue. Each time a cue accesses this scene it can change its settings such as level, rate, ramp, trigger, direction and others.

## The Method

From the [Fixture View](#) toolbar activate all fixture and set the preset levels in order to see what we are doing. Use the blue left and right arrows in the to select the first fixture only. Set the desired position of this fixture and repeat this for all the fixtures until they are all in the positions required for the first step of the movement.

Click **New Scene** in the Master/[Program Control](#) window. In the [Program Data](#) dialog select the **Position Only** filter and click **Save + No Clear**. This will save only the yoke parameters to the scene.

Now reposition all the fixtures to the next required position in the movement. In the Master/[Program Control](#) window click **New Step**. The settings in the [Program Data](#) dialog should already be those that you previously select and you need only click **Save + No Clear**. This will now add a step to the scene you created. There are now two positions defined in the scene.

Repeat this for all the required positions.

To test the scene zero all the Yoke parameters and activate the scene in the [Scene List View](#). Double-click on the scene name to open the [Scene Control Panel](#) and adjust the rate and ramp settings to useful default values. Set the **Default Link type** to **Linear** and the **Fader Mode** to **Control All**. This will mean that cues accessing this will fade and not snap the scene on.



This cue list can be used either sequentially or randomly. Notice that this fixture group displays all its fixture parameters.

[Movement Scene](#)  
[Colour Scene](#)

## The Method

From the [Fixture View](#) toolbar set the **Preset Levels** for all the fixtures to give us something to work with. Using the blue left and right arrow keys and the Fixture Control/[Parameters](#) window set positions on each of the fixtures.

**Blue/Mauve** : The first cue has a graduated colour mix. From the [Fixture View](#) tool bar select the **Color Mix** parameter. With all fixture active go to Fixture Control/[Fanning](#) and select the **First** radio button. Adjust the colour of this fixture then select the **Last** radio button and adjust the colour of the last fixture to produce the required graduated display. Save as a cue.

**Rainbow move** : With all the fixtures active zero all the yoke parameters. Activate the [Movement Scene](#) in the [Scene List View](#). You should open its [Scene Control Panel](#) set the **Count** to 1 and check the 'Hold' box. This means that the scene will run through the steps and hold on the last one.

Go to Fixture Control/[Fanning](#), select **Color Mix** parameter from the [Fixture View](#) toolbar and click **Rainbow**. Adjust **Brightness** and **Contrast**. Save this as the next cue.

**Colour dance** : In the third cue the fixture positions should be the same as the last step of the Movement scene but first we will set up the other parameters. Zero all the yoke and the colour mix parameters. Activate the [Colour Scene](#) and save this as a new cue.

To add the position data to this cue, first click **Clear All flags** in the [Fixture View](#) toolbar, go to the last step of the movement scene in the [Scene Tree](#) view, right-click on it and select **Set Parameters**. Now click **Add To** in the **Cue Programming** section of the Master/[Program Control](#) window. In the [Program Data](#) dialog ensure that only yoke parameters are going to be added and click **Save + Clear**.

**Wave** : In previous cues we have kept the parameter value from previous cues by clicking **Save + No Clear** in the [Program Data](#) dialog to avoid clear the parameter flags and then modified the parameters for the next cue. Now after creating the last cue we have cleared all the flags and now we have no output. We can set all parameter to the values contained in the previous cue by right-clicking on it and selecting **Set Parameters**.

Deactivate the **Colour Scene** and in Fixture Control/[Fanning](#) click on **Rainbow** and adjust as required. Set the dimmer parameters to about 50% and go to **Fixture Control/Effects**. Activate the dimmer effect, select **Wave** effect and adjust the **Size** to 50% and the **Spread** to 40%. This effect adds to the 50% level on the dimmer parameters.

**Out** : The last cue is an out cue and is just a copy of the previous one with the dimmers zeroed.



The purpose of this scene is to provide a one time, four point sequence and therefore this scene will contain only data pertaining to the Yoke parameters. The scene is intended to be used as a component in building a cue.

#### The Method

From the [Fixture View](#) toolbar activate all fixture and set the preset levels in order to see what we are doing. Adjust the position of the fixtures in unison in Fixture Control/[Parameters](#) window.

Click **New Scene** in the Master/[Program Control](#) window. In the [Program Data](#) dialog select the **Position Only** filter and click **Save + No Clear**. This will save only the yoke parameters to the scene.

Now reposition the fixtures, in unison again, to the next required position in the movement. In the Master/[Program Control](#) window click **New Step**. The settings in the [Program Data](#) dialog should already be that you previously select and you need only click **Save + No Clear**. This will now add a step to the scene you created. There are now two positions defined in the scene.

Activate the first fixture only and position it to an imaginary centre point. Activate each fixture in turn and position them on the same spot. Save this as the next step.

Select **Yoke** from the [Fixture View](#) toolbar. Go to Fixture Control/[Fanning](#) and select **First**. Use the joy pad to position the first fixture. Select **Last** and set the position of the last fixture. Fixtures 2 and 3 will be in positions proportional to these positions producing a graduation. Save this as the last step.



The purpose of this scene is to provide a rapidly stepping colour sequence and therefore this scene will contain only data pertaining to the colour mixing parameters. The scene is intended to be used as a component in building a cue.

#### The Method

From the [Fixture View](#) toolbar activate all fixture and set the preset levels in order to see what we are doing. Using the predefined pattern combo box in the select **Odd**. Set the desired colour for these fixture (i.e. number 1 and 3). Now select **Even** and set the colour for these fixtures.

Click **New Scene** in the Master/[Program Control](#) window. In the [Program Data](#) dialog select the **Color Only** filter and click **Save + No Clear**. This will save only the colour parameters to the scene.

Now set a new colour for the currently active fixtures (i.e. number 2 and 4). Select **Odd** and set the colour for these. In the Master/[Program Control](#) window click **New Step**. The settings should already be that you previously select and you need only click **Save + No Clear**. This will now add a step to the scene you created. There are now two steps defined in the scene.

This is repeated for step 3.

Activate all the fixtures and select **Color Mix** parameter in the [Fixture View](#) toolbar. Go to **Fixture Control Panel/Fanning** and click the **Rainbow** button and adjust **Brightness** and **Contrast**. Add this step.

Still in the Fanning window select **First** and adjust the colour for the first fixture. Select **Last** and set the colour for the last fixture and thus define a graduated colour display. Add this step.

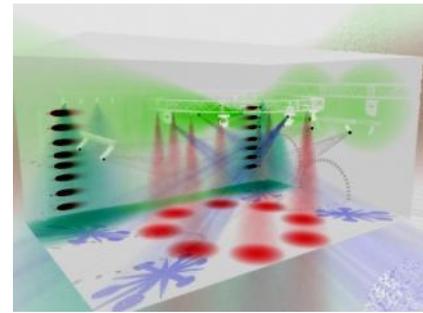
The last step is another graduated colour display.

Double-click on the scene name in the [Scene List View](#) to open the [Scene Control Panel](#) and adjust the rate to about 0.5 seconds, select **Random** direction, select **Control All** in the **Fader Mode** and select **Linear** in the **Default Link type** combo boxes.

Because we want the colour to snap between steps, click on the ramp button in the Rate control. The button will fill red and the steps will snap.



This list was created for the purpose of producing some Wysiwyg captures for our documentation, however, it is often useful to have a list of cue purely for a photo shoot.



Artist can control lighting arrays in very powerful ways. These are demonstrated in the MATRIX.WSP workspace supplied. For a discussion on this workspace and the methods it uses see [Colour Matrix](#) and [Mirror Matrix](#).



#### To start your own Workspace,

1. From the [Resource Tree](#) check in the [DMX Manager](#) that you have the necessary DMX512 interfaces installed correctly. Note that it is possible to program your workspace without the physical DMX512 interfaces installed.
2. Start the **Workspace wizard** from **Main Menu/Wizards/Workspace**. See [Workspace Wizard](#).
3. When the Workspace wizard is complete it will automatically run the [Fixture Wizard](#). See also [Installing Fixtures](#).
4. Get control of your fixture and check they are connected and defined correctly. See [Fixture Control](#), [Chase](#) and [Effects](#) control.

You now have a new Workspace ready to be programmed.



The fixtures installed in your Workspace can be accessed directly through the [Fixture Control Panel](#).

#### Parameter

The [Parameter](#) window displays the controls associated with the parameters of the fixtures displayed in the [Fixtures View](#). Activate the [Fixtures](#) you wish to control to direct the output of the controls in the parameter window to the desired fixtures.

Clicking in a control will show a red outline around it. This indicates that the control for that parameter has focus. This is reflected in each of the other **Fixture Control Panel** windows.

#### Fanning

The [Fanning](#) window controls the parameter that has focus for the activated fixtures. If the dimmer is the focus parameter and all the fixtures in the displayed group are activated then the functions of this window will work on the dimmer parameters of all the fixtures in the displayed group.

The type of control displayed will depend on the parameter that has the focus (the red outline in the parameter window).

#### Chase

The [Chase](#) window allows you to start a chase on any or all of the parameters of a fixture group. For example, to run a dimmer chase activate the chase in the list. You can then select the type of cross fade ramp, the step trigger source, the direction and the pattern. You can set the maximum level and the rate.

The levels of these chaser outputs are added to any levels that may have been set in the Parameter window. This is useful for setting offset levels to which the chase values are added.

#### Effect

The [Effect](#) window generates patterns for parameters based on how many axis the parameter has and the type of parameter. These are very powerful functions that can provide a fast way to produce creative effects.

The levels output from these waves are added to the any levels that may have been set in the Parameter window. This can be used, for

example, to set a centre position in the parameter window and then set a Effect to revolve around that position.



Operation of the system is often distinct from programming. In operation the main concern is the efficient playback of the programmed elements.

### Cues

The objective as a programmer is to leave the install such that it is as simple as possible to operate. Thus the goal is to have everything accessible through [Cues](#) in the [Cue List View](#). This view arranges cues in lists that can be easily viewed and activated via a column of buttons to the left of each cue name. The buttons can be made to respond in different ways set by [Cue List Properties](#) and several lists can be linked to be exclusive of one another.

### Notes

The [Notes](#) window can provide valuable information for an operator. Each cue list can have text notes associated with it.

### Master Control

The [Cue Control](#) window is also useful in operation. This provides master level and blackout functions. It also provides list chase and sequence functions.

### Keypad Operation

The keypad on your keyboard can be used (if the Num Lock is on) to activate any cue. Type in a number and press enter using the keypad. If you press enter again this will be the number of the cue in the currently displayed list. If you type another number and then enter, the first number will be the list and the second the cue.

### External Control

An external peripheral device can be connected to Artist to provide external control. Examples are, MIDI keyboard controller, MIDI control surfaces, Infra-red and radio frequency remote control handsets, digital/contact closure and analogue devices through data acquisition. See [Patch Inputs](#).

Artist [System Commands](#) are also accessible through [Serial Inputs](#) and [network](#) connections.

Artist can also be controlled from within other programmes such as PowerPoint (see [Automation](#)).

### Real time Control

This can provide a means for automatically starting a show at particular time and stopping a show at another time while still allowing for operator interaction. Or it could be programmed to start and change at certain intervals in a stand-alone situation. See [Real time control](#).

### Fixture Control

If your operator requires more control access can be given to the [Fixture List View](#), [Fixture Control](#) panel and [Palette](#). Together these provide a quick and easy override of cues data affecting excellent manual control.

### Security Schemes

To help you provide the optimum system for your operator [Security Preferences](#) also you to hide any windows and disable access to any function. So in a system where you do not want the operator changing the programming of the system you can lock out the edit functions and provide only the access required to operate.



Automation refers to processes that perform tasks without user interaction via the GUI. Activation and control is achieved through [System Commands](#) which can be accessed in a variety of ways.

#### [Patch Inputs](#) [Time](#)

where system commands can be accessed from MIDI, digital and other input sources.  
where system commands can be accessed according to real time or time code from SMPTE/EBU, MIDI or Multimedia.

#### Embedded

where system commands can be embedded in a Cue, a Scene or a Step within a scene.



The palettes provide fast access to colour, gobos, fixture positions (focus) and beam states. It is useful both during programming and in operation for providing a fast and easy manual override of programmed cue data, for example, changing a fixture colour or changing a fixture or group fixtures to a new position.

These palette indexes are reference by cues that use them therefore if the data in the index is altered the change will be reflected in the cues that reference it.

### Quick Change

Activating any Fixtures and clicking a colour in the **Colour Palette** causes the active fixtures to change to that colour. If the fixture does not contain the selected colour it will remain unchanged. Fixture that have a mixing device will be sent the necessary data to produce the selected colour.

The palette indexes work across fixture group meaning that any active fixture in any group will change.

The Brush, Focus and Beam palettes works in exactly the same way. However, while the colour and Brush palette provide pre-defined data the Focus and Beam palettes must be programmed to be of use.

### Focus and Beam

The Focus and Beam, palette are slightly different in that they require programming. These palettes consists of an array of buttons called **Indexes** which can be named and assigned parameter data. You can, for example, set a **Beam** button to provide data to make the beam of every fixture come on. What makes it so useful is that only active fixtures are affected, so although the button may contain data for every fixture, data is only sent to active fixtures.

The **Focus** palette is only for fixture parameters that have the Position attributes set. In general these are the Yoke and Mirror types.

The **Beam** palette is for fixture parameters that have the **Beam** attribute set. These are usually dimmer, shutter and any effect that is not a gobo.

### Creating an all 'Beams on' Index

- In the [Fixtures](#) view activate all fixtures in the current group. Using the Fixture Control Panels set the level you want to set for all fixtures. This will set the parameter flags. You can then set the levels required in other fixture groups if required. You can do this at a later stage if you want.
- click on the **Store Beam** button in the **Beam** palette window. This will open the **Add Beam data** dialog.
- the tree view displays all the fixture parameters that have the Beam attribute and have their parameter flags set. Each item will be displayed as checked indicating that it will be stored. To avoid storing any item, uncheck it.
- The combo box displays a new Beam index name. You can change the name or select an existing index to add these data to. If you select an existing index data stored for fixtures other than the ones checked in the tree are unchanged.
- click **OK** to store.

In general an index will contain data for fixtures in more than one group.

### Set all Beams on Using Palette

- Activate the [Fixtures](#) you wish to access either in the usual way using the fixture view or using the [Fixture Navigator](#). The advantage in this is that you can activate fixtures in any group by double-clicking their icons.
- click on the Beam index. All those selected fixture will be on.

### Creating a Centre Floor focus position

- Using the [Fixtures](#) view set the preset levels for all fixtures in the group. The preset levels will, in general, set the beams to on.
- using the joypad, position one fixture at a time to point to the centre of the floor.
- click on the **Store Focus** button in the **Focus** palette window. This will open the **Add Focus data** dialog.
- the tree view displays all the fixture parameters that have the position attribute. Each item will be displayed as checked indicating that it will be stored. To avoid storing any item, uncheck it.
- Type 'Centre Floor' in the combo box.
- click **OK** to store.

### Point all Fixture to the Centre floor

- Activate the [Fixtures](#) you wish to access either in the usual way using the fixture view or using the [Fixture Navigator](#). The advantage in this is that you can activate fixtures in any group by double-clicking their icons.
- click on the 'Centre Floor' index. All those selected fixture will be pointed to the centre of the floor.



Programming is essentially about creating cues, which are the objects activated in order to play back a show. A simple cue would typically access the [Parameters](#) of a [Fixture](#) directly. More complex cues will access [Scenes](#), [Fixture Chases](#) and [Effects](#). Still more complex the cues may be outputting MIDI, serial and other [System Commands](#).

All of these objects obey various rules depending on the type of parameter and object. [Data Flow](#) diagrammatically illustrates how data moves through the system.

This section presents a series of practical articles that together aim to provide a tutorial of system programming.

It is assumed that you have already created a workspace and have installed your fixture. See [New Workspace](#).

[Best Practice Simple Cue Set Parameters Cue with a chase Mirror chases Cue with an Effect Movement Scene Using Sub-scenes Editing Objects ShowRobot](#)



The article describes the process of programming and the best ways to save time and effort. This recaps the previous articles to give a general overview of the process.

### A new Workspace

- Create a new Workspace using the [Workspace Wizard](#). This will produce a blank set of files for you to create your show.
- Install all system Fixtures using [Fixture Wizard](#). This informs Artist of all the fixture devices connected to your DMX512 lines.
- Position your fixtures on the combined [Grid View](#). This provides a meaningful representation of your rig and thus makes it easier and faster to access your fixtures.
- Test all system fixtures and Control panels. As you test your fixtures set some common and useable positions, such as the centre floor. This position is useful for servicing purposes also. So set the fixture in each group to a centre floor and click 'Add to Focus Palette' and name the placeholder. As you are programming the system you should save as many common positions as possible to the palette. These will prove very useful.

### Programming

- Usually the preset levels on the fixture control panel provide most beam settings you will require. However, you may want to save special strobing or prism effects in [Beam Palette](#) placeholders to be used repeatedly.

### Finishing off

- Before leaving the system in the hands of the operator, set up a [Security scheme](#) to prevent unauthorised access.



### Static Cue with 1 second fade

This example will show how to make a simple cue from four moving mirror fixtures arranged within a group. This will be a static cue with each fixture having the same colour and gobo.

- Display the Fixture group in the [Fixture List View](#). You will see all the parameters are displayed in the [Fixture Control Panel](#).
- Select all the fixtures selecting 'All' in the combo-box of the [Fixture Control tool bar](#).
- From the [Fixture Control tool bar](#) click 'Fixture presets'. This will place the fixtures in a state that makes them readily programmable. The shutters and dimmer will be open and the mirrors will be centred. All other effects will be off. Notice that the [Parameter Flags](#) are set on all the parameters of the fixture.
- Change the colour on all fixtures by selecting the colour control, then the gobo etc.
- Select an individual fixture by clicking the horizontal arrows on the Fixture Control toolbar.
- Move the mirror on the selected fixture and select the next fixture and repeat until all the fixtures are where you want them.
- Click the [Program Control](#) tab in the [Master frame](#). When you are programming you should always have this window open.
- Select the cue list you want to put the new cue in and then click 'New Cue'. This will open the [Program Data](#) dialog.
- Notice this displays all the changed parameters of the fixtures you are working on. Type in the name you want for your new cue and click OK.

Now click on 'List' in the Program control window. This will open the [Cue List View](#) and display the list that you added the new cue to. Now when you click on the cue it will reproduce the look you had when you saved.

By default the new cue has a fade in, hold and fade out time of zero. These can be altered by opening the [Cue Control](#) panel by double-clicking the name of the cue or selecting properties. Setting a fade in and out time of one second will cause only the dimmer to fade in over one second. The position will also fade from where it currently is to the new position. All other parameters will snap to the values in the cue.



This is a very powerful and often used function. It can be used to edit Cues, Scene and Steps or it can be used to copy from any of these objects to another object.

[Editing a Cue](#)  
[Cloning Cues](#)  
[Copying](#)



The simplest, but by no means the only, method of editing any of the contents of a programmed cue is the 'Set Parameters' method.

View the cue in question in the navigator view and right-click on the it. Select 'Set Parameters'. This sets all the parameter setting in the Fixture Control panel to those values contained in the cue. You can now simply alter any of the parameter controls and then, from the Program Control window, click 'Add To'. This will open the Program data dialog and you can simply click 'Save and Clear'. The cue is now altered.

This method is very powerful and can be used for Scene and Steps of scenes.



### Another of the same

Often you will want to make many programmes that are all basically the same but for a few minor changes. The cloning method is the best way to achieve this. To clone the cue from the previous example,

- Select the cue.
- Click 'Set Parameters'. By right-clicking on the cue in the list or tree views. This will set the parameters of the fixtures as they were when the original cue was set up.
- Now, alter any of the parameter in the [Fixture Control Panel](#). For example purposes set an new position for each fixture.
- In [Program Control](#) click 'New Cue' to open the cue data dialog.
- Enter a name a click OK.

You now have two cue with the same colour, gobo and effect settings but each with different positions. Give this cue a one second fade in and out time. Now try activating each of the two cues in turn and see how they behave.

### The Power of Cloning

You will find that this method is one of Artist's most powerful features. Previous users of ShowCAD or Masterpiece would use sub-scenes over an over primarily to conserve memory resources. The limitation of this is that always down the line you want to change some part of the sub-scene without effecting all other cues using that sub-scene. Sub-scenes are catered for but not recommended. Artist's sub-scenes are used primarily to provided point to point movements and custom chase patterns.



One of the fastest ways to program is to create cues as you go. then you can use the 'Set Parameters' function on any of you cues and save the data as a Scene or as a Step. This method is complete interchangeable and allows you to quick transfer or copy data from one object to another.



### A simple cue with a Chase

This is example is much the same as the [Simple Cue](#) example only this includes chase effects on the fixture dimmer parameter.

- Select all the fixtures and set the preset levels from the [Fixture Control Tool bar](#).
- Now right-click the dimmer and select 'Zero Level'. This will zero the levels on all the dimmer channels.
- Open the [Fixture Chase](#) control. You will see Dimmer in the list.
- Double-click in the 'On' column at the Dimmer row. This will activate a chase with default settings. You will see the dimmer chasing.
- Set the speed of the chase.
- You can also explore some of the other settings such as trigger, direction and pattern.
- Now store this as a 'New Cue'.

### Adjusting the rate

If you now activate this cue in the Cue List you will see the chase that you created. If you now double-click the cue to display its control panel you can use the rate control to proportionally alter the rate of any contained chases, effects or scenes.



### A simple cue with a Chase

This is example is much the same as the [Simple Cue](#) example only this includes chase effects on the fixture dimmer parameter.

- Select all the fixtures and set the preset levels from the Fixture Control tool bar as in the previous example.
- Now right-click the mirror and select 'Clear and Zero'. This will zero the levels on the mirror channels and clear the flag.
- Open the [Fixture Chase](#) control. You will see Mirror-X axis and Mirror-Y axis in the list.
- Double-click in the 'On' column at the Mirror X axis row. This will activate a chase with default settings. You will see the mirror panning.
- Double-click on the 'Ramp' cell. A list will open. Select Sine 2. This is particularly useful for mirror parameters.

- Set the speed of panning.
- Double-click in the 'On' column at the Mirror-Y axis row. Now a tilt chase will be activated.
- Again set the ramp to 'Sine 2' and adjust the rate.

### Adjusting the range

You probably do not want the sweep to be the full range of both the X and Y axis of the fixture. You can adjust the chase 'Level' to limit the extent of the sweeps. You can now add level to the parameter. The value set is added together with the chase level to produce the final level. Thus you can adjust the extent by adjusting the level of the chase and the position in the joypad.

- Click once on the Mirror-X axis row and adjust the Fader to 50%. This will result in the sweeps being from zero to half the maximum travel.
- In the fixture control panel adjust the joypad to 25% of the maximum travel. Now the sweeps are centered travelling from 25% to 75%.

You should now have a look where the fixtures are sweeping in a non-repeating pattern.

### Save as a Cue

You can now save this as a new cue to add to your list.

- In the Program Control window select the List you wish to add the cue to.
- Click 'New Cue'. This will display the Program data dialog.
- Check the selected data in correct, set the name for the new cue and click 'OK'.



### A Cue with an Effect

This example uses an effect to produce two dimensional movement in a fixture.

- Select all the fixtures and set the preset levels from the [Fixture Control Tool bar](#).
- Now right-click the mirror/yoke parameter and select 'Zero Level'. This will zero the levels on all the position channels.
- Open the [Effect Control](#). You will see Mirror/Yoke parameter in the list.
- Double-click in the 'On' column. This will activate an effect with default settings. You will see the position moving.
- You can now explore some of the settings of an effect.
- Now store this as a 'New Cue'.

### Adjusting the rate

If you now activate this cue in the Cue List you will see the chase that you created. If you now double-click the cue to display its control panel you can use the rate control to proportionally alter the rate of any contained chases, effects or scenes.



### A Four point move

This example shows how to make a scene that causes the fixture mirror to move between four positions. This will be used as a sub-scene within a cue and so it will contain only mirror data.

- Select all fixtures and set the preset levels from the [Fixture Control Toll bar](#).
- In the [Program Control](#) window select the scene group in which to create the new scene.
- Select the first fixture only and position it where it is required for step one of the movement.
- Then select each of the other fixtures in turn and position them where required for step one.
- In the [Program Control](#) window click 'New Scene' in the 'Scene programming' section. This will open the Program data dialog.
- Notice that the data that is checked to be added contains colour, gobo and effect channels.
- Select the 'Position only' radio button. Now you notice that only the position parameters are checked.
- Enter a name for the new scene (e.g. "4 point move") and click 'Ok'. Notice that the selected scene in the Scene Programming section is now the one you have just created.

A scene called "4 point move" has now been created in the select scene group. Because you selected 'Position only' only the position parameter flags have been cleared therefore the dimmer, colour and gobo settings that you had are still in effect.

### Adding steps

Now to add the other three steps.

- In the window ensure that the selected scene in the Scene Programming section is the one you just created and click the 'Scene' button. This will display the contents of the scene in the Navigator and set all the fixture parameters. You will find it useful to start from the position of the first step.
- Now select the first fixture and position it where required for the second step of the move.

- Select each of the other fixtures in turn and position them as required for the second step.
- Click 'New Step' and the Program data window will open. It should only show position data as selected in the previous part of the operation.
- Click 'Ok'
- Repeat until all four steps of the move are completed.

### Testing the movement

The movement has been designed as a sub-scene to be used within another scene or cue and therefore does not contain any data for any other parameters other than position. In order to see the move,

- Select all the fixture and set the preset levels from the Fixture Control tool bar.
- In the [Fixture Control Panel](#) right-click on the joypad and select 'Zero Level'. This will zero the output of the position parameters in all the fixtures to prevent it being added to that from the scene.
- In the [Program Control](#) window click on 'Group' in the 'Scene programming' section. This will display the group containing the scene you created.
- Activate the scene. You will now see the movement of the sub-scene.
- Double-click on the scene name in the scene list view. This will open the [Scene Sequence](#) control panel from where you can adjust the speed and other parameters affecting the movement.



Sub-sceneing is a way of saving settings or moves that can later be added to cues. It can be added to as many cues as you like and each cue can provide different rates, master level, ramp and triggers.

In the [Movement Sub-scene](#) example you created a sequence of four positions in a group of fixtures. Now we are going to make a usable cue using it as the basis.

- Activate all the fixtures and set the preset levels from the [Fixture Control Tool bar](#).
- In the [Parameter Control](#) right-click on the joypad and select 'Zero Level'. This will zero the output of the position parameters in all the fixtures.
- Activate the movement scene. You will now see the movement of the sub-scene.
- Double-click on the scene name in the scene list view. This will open the [Scene Sequence](#) control panel from where you can adjust the speed and other parameters affecting the movement.
- Adjust the gobos, colour and effects as required.
- In the program control window click 'New Cue' in the cue programming section. This will create a new cue.

You can use any number of sub-scenes in this way. Also, each time you use a sub-scene the parent cue sets the rate, trigger, level etc. In this way the same sub-scene can run a different speeds etc.



The main menu and the tools provide various method of changing the information contained within an object. Some objects can be copied or moved on to others.

#### [Copy, Cut & Paste](#)

#### [Drag & Drop](#)

## Editing Scenes and Cues

### Set Parameters method

If you right-click on a Scene, Step or Cue and select 'Set Parameters', the data it contains will be set to the Fixture control panels and outputs. Also if sub-scene data is contained this too will be set.

This also sets the Program Control window parameters to make it easy to save the data back to the containing object.

Now you can open the Fixture control panels and adjust the parameters as required. Then you can save the data back to the Cue or the 'Scene/Step' by clicking 'Store' in the appropriate section of the Program control window. You may also choose to Store the data as a new Cue or Scene. This is a very powerful way of creating new scenes based on previously programmed scene.

### Link Edit method

This method is best for making changes blind. That is without the changes being output.

Select all the link objects within a single scene that you wish to change. Right-click on any of these and select 'Edit content'. This will open the [Link Edit](#) window in the Master frame. You can then adjust the values of these Link objects and store them back to the scene or cue.

See [Link Edit](#)



Right click on the Link object in the navigator tree and select properties. This will open a control panel with the control for the parameter link you have selected.



In either the Client area list views or the navigator tabs, selecting an object will enable the cut and copy tool bar buttons and menu items. When an item is selected performing a Cut operation will gray the object and copy it to the windows clipboard. This means that the object will be removed from its current location on a subsequent paste operation.

#### To move an object,

1. select the object to move
2. from the main menu select Edit\Cut. The object now appears greyed.
3. display the group you wish to paste the object into
4. select the object prior to which you wish to paste your moved object.
5. from the main menu select Edit\Paste. Now the greyed object is removed and pasted in to its new location.

#### To copy an object,

1. select the object to copy
2. from the main menu select Edit\Copy
3. display where you wish to copy to
4. select the object prior to which you are going to copy to.
5. from the main menu select Edit\Paste



This is a method of moving and copy objects using only the mouse.

#### To move an object,

1. make sure that you can see both the source object and the destination. You can view the source from the [Navigator frame window](#) or the [Client frame window](#). You can move the object between these to windows.
2. position the cursor on the object you want to move
3. press and hold down the left mouse button
4. now as you move the mouse (still holding the left button down), an image of the object you are moving follows the mouse.
5. move until you are over the destination.
6. let go the mouse button and the object is moved

#### To copy an object,

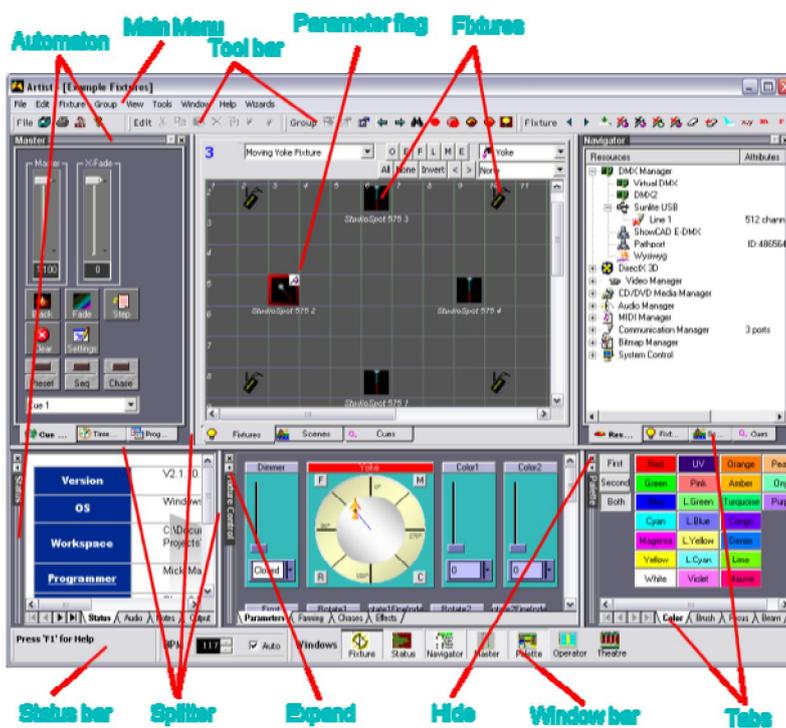
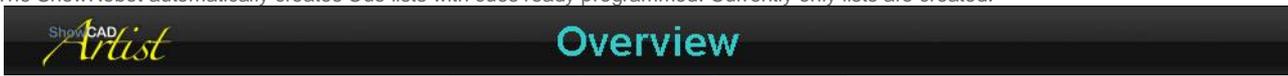
1. do operations 1 through 5 above
2. then, before letting go the mouse button, hold down the 'ctrl' key on the keyboard. A '+' character will appear indicating that you are going to perform a copy operation.

3. let go the mouse button and the object is copied.
4. let go the 'ctrl' key



## UNDER CONSTRUCTION

The ShowRobot automatically creates Cue lists with cues ready programmed. Currently only lists are created.



- [Workspace](#)
- [System Options](#)
- [Control bars](#)
- [Fixture Control](#)
- [Master frame](#)
- [Navigator frame](#)
- [Status frame](#)
- [Palette frame](#)
- [Operator GUI](#)
- [Theatre Interface](#)
- [Advanced GUI](#)

### Docked Frames

The screen is made up of several windows docked together. All of these, except the centre window (the Client), can be hidden, detached, sized and positioned. They can even be dragged on to a separate screen in a multi-monitor system.

To undock a frame, double-click on the window's gripper bar or right-click in the window and uncheck 'Allow Docking'. This will float the window. You can position the detached window by clicking and dragging on its gripper bar. As you move it around it will try to dock to another convenient position if docking is allowed. To prevent it from docking to the main frame again, right-click in the windows and uncheck 'Allow Docking'.

### Gripper bar

The gripper bar is used to drag the window to a new location by holding the left mouse button down. Double clicking on it will cause the frame window to detach from the application main frame.

### Hide button

The hide button, indicated by a small 'X', removes the frame window. It can be restored again from the Window menu item.

### Splitter bar

The Splitter bars separate each frame window. Positioning the mouse pointer over one will cause the pointer to change appearance. Holding the left mouse button down will allow you to drag the splitter bar to a new position, thus re-sizing the contained windows.

### Expand/Collapse

The collapse button is beside the Hide button. It causes the window to occupy all of the application space on the horizontal plain.

**Tabs**

Some frame windows contain tabs. These tabs are different views within the frame window.

**Status bar**

This displays occasional information to the user and progress of operation that that some time.

**Window bar**

This bar contains button that allow you to hide or show any of the main dockable windows except the Client.



The Artist workspace is made up of the user defined layout of Artist's windows and the file containing the programmed show data. These files are, in general, viewed in the central client area which has tabs for quick selection and are,

- [Workspace Wizard](#)
- [Fixtures](#)
- [Scenes](#)
- [Cues](#)
- [Content Object](#)
- [Templates](#)
- [Patch Inputs](#)
- [Timed Events](#)
- [Loading files](#)

Fixtures	This tab defines all the fixture you have installed in this workspace.
Scenes	This tab contains all the sub-scenes you have created.
Cues	This tab contains all your cues.
Templates	This tab is used during fixture installation an contains the templates for any fixtures you may install.
Patch	This tab patches external devices to Artist System Commands.
Timed events	These tab contain timed events.

Activating the tab associated with each of these workspace files will display the view and the main menu and tool bars will change according to the view selected.

When you save your workspace, data about how you have set up the client windows are also saved, ensuring that when you boot Artist it appears the way you left it. These are the Workspace file types.

File type	Filename	Contained objects
Workspace	<WorkspaceName>.wsp	This file defines which Patch, Time event, Fixture, Scene and Cue files are loaded. It also contains information about the window layout and appearance.
Fixture	<WorkspaceName>.fix	This file contains the installed fixtures.
Scene	<WorkspaceName>.scn	This file contains your sub-scenes.
Cue	<WorkspaceName>.clt	This file contains your cues.

The remaining files types all have names that are independent of the workspace file name.

File type	Extension	Description
Patch	.pat	patches MIDI, DMX and Data acquisition inputs to System Commands.
Template	.tem	fixture template file. Only used for installing fixtures or creating new templates.
Real time events	.rtc	real time events.
MIDI time events	.mtc	MIDI Time code events.
Audio events	.atc	Audio file events.
CD events	.ctc	CD events.
Video events	.vtc	Video file events.

**Creating a Workspace**

You can create a new Workspace from the main menu by selecting File/New/Workspace. This will open the [Workspace Wizard](#).

**Backup and Restore**

The Workspace is backed up on you hard drive each time it is changed. Previous copies are not overwritten; they are archive and can be selectively restored. See [Backup](#).

**Copying a Workspace**

Often you may want to make a duplicate Workspace that you can tinker with without upsetting what you have programmed to date.

If select from the Main menu File/Save As a dialog will appear requesting a Workspace filename. Enter a new unused name and this will create and load a duplicate Workspace leaving the original in tact.

Other settings such as, [Resource Settings](#) are only saved as you exit Artist. Therefore it is important to shut down Artist properly.



Running this wizard will step you through creating a new Workspace.

[Details](#)  
[Templates](#)  
[Confirmation](#)

The steps are,

<a href="#">Workspace details</a>	Set the workspace name and other details.
<a href="#">Templates</a>	Select the template file from which to install your fixtures.
<a href="#">Confirmation</a>	Check details and confirm.



### Page 1 Workspace details

<b>Directory</b>	Enter the directory you wish to save you new workspace to or use the default. The button to the right of the edit box allows you to browse the system directories.
<b>Workspace name</b>	enter the filename of the workspace to create or use the default. The wizard checks for workspaces that may have the same name in the selected directory.
<b>Programmer</b>	enter your name if you wish to be know as the creator of this workspace. The wizard provides the Windows logon name as the default
<b>Venue</b>	enter the name of the venue you are programming the workspace for. The wizard provides the Windows registered organization as the default.
<b>Date created</b>	the current date is used for this field.

[Next](#)



### Page 2 Templates

Select the template file you wish to load. By default it loads the SHOWCAD.TEM file found in the 'My Workspaces\Templates' folder which is supplied with Artist. This contains the fixtures that ShowCAD have collected templates for. If you are a new user you should use the default file. If you find that there is no template for one of your fixtures, contact ShowCAD or make one yourself (see [Create a new Template](#))

Use the button to the right of the edit box to browse for a file.

[Previous](#)   [Next](#)



### Page 3 Confirmation

This displays a summary of the details you have entered. Study these carefully to ensure they are correct. If they are, click 'Finish'.

A new Workspace will now appear and you will be asked if you wish to start the [Fixture Wizard](#) which you should do if you are ready to install your fixtures.

If any of the details are incorrect you can use the '<<Back' button to alter your entries.

[Previous](#)



### Fixture Group

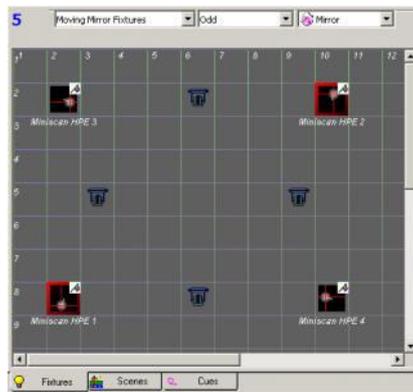
The first combo box selects the active Fixture group. All fixtures in a group are of the same type (i.e. spawned from the same template). This allows Artist to provide many ready to use feature such as chases and parameter effects.

The fixtures are represented by square objects which can be icons or an active graphic of the active parameter selected by the third combo box. The objects can be positioned anywhere on the background grid providing a representation of the fixtures location in the real world (i.e. the rig). All these features are designed to make finding the

[Parameter Flags](#)  
[Group Properties](#)  
[Installing Fixtures](#)  
[Line up Fixtures](#)  
[Fixture Properties](#)  
[Offset Address](#)  
[Redefine Fixture](#)  
[Accessed by](#)  
[Context Menu](#)  
[All Parameter view](#)  
[Global Soft Patch](#)

fixtures in your rig intuitive. Also this can be useful for fixtures that are arranged in a matrix, making it easier to select columns and rows and so forth.

See [Properties](#)



### Moving around the view

You can move the Fixture view around by clicking and holding in the view and moving the mouse or using the scroll bars in the conventional way.

### Positioning fixture in the view

You can use the ['Line up icons'](#) function arrange the fixtures either in a line or matrix.

The following operation can only be carried out if the fixture positions are unlocked. This setting is access either from the 'main menu/View/Lock Positions' or from the Group Properties dialog.

Now if you click and hold in the view but outside of any fixture you can stretch a rubber band over a group of fixtures. These will highlight with a white border indicated that they have been selected. Now click and hold on any of the selected fixtures and drag the selected group to a new location.

You move an individual fixtures by click and holding on it and dragging to a new location.

### Activating and Controlling Fixtures

Clicking a fixture will activate it - indicated by a red border around it - and clicking again will deactivate it. Activating a fixture means that it is connected to the parameter control in the [Fixture Control panel](#) allowing you to adjust any of it's parameters.

You can also use the second combo box in the Group bar to activate patterns of fixtures, i.e. odds, evens and suchlike. There are also buttons that provide the same functionality.

If the fixture positions are locked you can click on a fixture, hold and drag across other fixtures to active more than one.

### Tool bar

This tool bar provides easy access to frequently used programming functions.

Previous Fixture	activates the fixture numerically previous to the currently active one.
Next Fixture	activates the fixture numerically after the currently active one.
Fixture Preset	Sets the preset levels of the active fixtures.
Clear Active Parameter Flag	clears the parameter flags of the active fixture.
Clear Parameter Flags only	clears the parameter flags of all fixtures.
Clear Effect Flags only	clears the effects flags of all fixtures.
Clear All Flags	clears both effect and parameter flags in all fixtures.
Zero active outputs	zeros the parameter output of the active fixtures.
Zero all outputs	zeros the parameter output of all fixtures.
Store Beam	stores the current beam settings in a palette place holder.
Store Position	stores the position settings in a palette place holder.
Set memory	Memorises the current parameter values.
Restore memory	Restores the parameter settings stores by previous use of 'Set memory'

### Chases and Effects

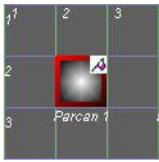
The parameters of the fixtures contained within a group can be made to chase in various patterns. See [Chases](#).

Effects are ready for use and depend on the type of parameters you are accessing. These effects provide the fastest and most powerful programming within Artist. See [Effects](#).

## Parameter Flags

Home
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Next

Parameter and Effect flags are central to Artist operation and programming.



As you adjust any of the fixture parameters in the Fixture Control window a flag is set to indicate the change.

This flag also stops any cue data from reaching the fixture parameter. Thus you can override cues manually.

Whenever you use any program data saving function the data selected for storing are those parameters with the Parameter Flag set.



If an effect or a chase is running the Effect flag is set and has the function as the Parameter flag.



This flag shows that both Parameter and Effect flags are set.

### Mask Flags

These flags apply to effects and chases. You can set and clear these flags using the right-click context menu or holding the **Shift** key (for effect mask) or the **Control** key (for chase mask) while clicking on the fixture.



This flag is displayed when a fixture is excluded from a chase. Fixtures marked with this flag are masked from the parameter chase.



This flag is displayed when a fixture is excluded from an effect. Fixtures marked with this flag are masked from the parameter effect.

### Flip Flags

These flags are only displayed if the either a parameter or an effect flag is showing in a mirror or yoke parameter. They indicate that the X, the Y or both X and Y axis' are flipped for the active effect.



This flag indicates the x-axis of the position parameter (mirror or yoke) is inverted for the effect.



This flag indicates the y-axis of the position parameter (mirror or yoke) is inverted for the effect.



This flag indicates that both the x and y axis' of the position parameter (mirror or yoke) are inverted for the effect.

## Group Properties



The first section of this dialog applies only to the active fixture group.

Group name	enter the name of the fixture group
Personality	select the group personality. (For future use)
View	select the view. If you select dedicated view then only the fixtures in this group will be displayed. If you select any other view then any other fixture groups assigned to the same view will also be displayed in a combined view.
Default Matrix	This is the default matrix size used for fixture group effects.
Scaled view	If this is checked then the fixture grid will be scaled down in order to fit the client window area without the need for scrolling.
Snap fixture to grid	If this is checked, when a fixture is moved it will snap to a grid position, otherwise, it will be positioned exactly where you dropped it.
Show fixture name	If this is checked the fixture name will also be displayed beneath the fixture icon.
Display active parameter	If this is checked, instead of displaying the fixture icon, the active parameter is displayed. This is an active display meaning that it will show exactly what is happening to that parameter.
Display all Parameters	If this is checked all the fixtures parameters are displayed in a multi-columned list.
Hide Tree Fixtures	You can hide the fixtures in navigator tree. This increase system performance and is recommended for groups with more that 100 fixtures.

The next section of this dialog pertains to all Fixture groups.

X size	set the horizontal size in grid units of the fixture grid
Y size	set the vertical size in grid units of the fixture grid
Lock fixture positions	If this is checked the position of the fixture icons cannot be changed.



Before installing fixtures, you should read [Special Considerations of Fixture Groups](#) to find the best way to arrange your fixtures to take advantage of Artist's automatic features and to facilitate efficient navigation.

- [Considerations](#)
- [Define Group](#)
- [Choose Template](#)
- [Addressing](#)
- [Confirmation](#)
- [Fixture to Clone](#)

To Install Fixtures select Wizards/Fixture Wizard from the main menu bar. The Wizard has the following steps,

<a href="#">Define Group</a>	Enter a name for the fixture group.
<a href="#">Choose Template</a>	Select the template to spawn the fixture from.
<a href="#">Addressing</a>	Specify the number of fixtures and their DMX address.
<a href="#">Confirmation</a>	Confirm the entered details.

You will now see that your new fixtures appear in both the Fixture view and the Navigator Fixture tree. Notice that the address of the second fixture follows on from the last channel of the previous fixture. If the addresses you entered conflict with another fixture, another available address is given.

### Adding Fixture to a Group

You can add more fixture to a group at a later date by selecting 'Add Fixtures' from the Main menu when looking at the Fixture view or by right-clicking in the Fixture view. The steps are,

Fixture Group	displays the fixture group that the fixtures will be added to.
<a href="#">Choose a Fixture to clone</a>	Select the fixture within the group to use as the template for the new fixtures.
<a href="#">Addressing</a>	Specify the number of fixtures and their addresses.
<a href="#">Confirmation</a>	Confirm the entered details.

### More Details

You can resolve conflicts and find missing fixtures using the [Snagging Tools](#).

Your fixtures are now ready to control, see [Fixture Control Panel](#)

After installing fixtures you may choose to edit individual fixture templates. See [Editing Fixtures](#).



Artist uses the arrangement of fixture group to create chases, to allocate colors, gobos, positions and effects. Therefore it is important to compartmentalize fixture of a particular type and in a particular area to optimize these features. The follow tips give you some clues.

- a fixture group should contain fixtures of the same type. Small changes such as gobo type and color type are no so critical as is the number and resolution of fixture parameters.

- fixtures in a line on the same bar make a natural group.
- fixture in a scattered array for color wash purposes.



### Step 1 Define Group

Enter the name of the group of fixtures. This is usually the name of the product combined with a location description. Do not make the name too length otherwise navigation can become clumsy.

[Next](#)



### Page 2 Choose a template

Select from the tree, the template for your fixture. The folders in the tree represent manufacturers. To the left of this is a '+'. Click this to display the folder contents. Click on the name of the template relating to your fixture.

The 'Simple Types' template group contains useful generic (not manufacturer specific) template types.

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### Page 3 Addressing

Number of Fixtures	Enter the number of fixtures to be in this group.
DMX line	Select the DMX line to connect them to. You may not have any real DMX lines installed as yet. Artist provides 'Virtual DMX' lines that you can later redefine when real lines are connected.
DMX Manager	this allows you to open the DMX Manager properties dialog to add or remove DMX universes.
First address	Set the address of the first channel of the first fixture in the group. All other fixture addresses will be contiguous to this.
View	Select the view to assigned the group to. Usually 'Dedicated view'.
Personality	A description of the fixture function. (For future use).

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### Page 4 Confirm details

Check the details and make any alterations necessary by clicking '<<Back>' before clicking 'Finish'.

The [Line up Fixtures](#) dialog will open to allow you to define how the fixtures are arrange in the view.

The wizard will now ask you if you want to repeat the operation.

[Previous](#)



The tree view displays the Fixture Group and its fixture contents. Highlight a fixture to use as the template for those fixtures you are adding.

You can only add fixtures of the same type to the group.



This dialog allows you to automatically align you fixtures in a matrix.

Number of Fixture Columns	set the number of required columns. The rows are automatically calculated.
Number of Fixture Rows	set the number of required rows. The columns are automatically calculated.
Column spacing	the fixture spacing between columns.
Row spacing	the fixture spacing between rows.

On clicking 'OK' the fixture will be arranged in the required way. The default matrix size for this group will be set accordingly.



Open a fixture's properties by right-clicking on it in the Fixture navigator and selecting 'Properties'.

### Address Tab

- Fixture name** enter the name to be given to this fixture or use the automatically assigned name.
- Fixture image** Select the image to be displayed in list and tree views. This default image is provided by the template used to create the fixture.
- Fixture address** The first combo box allows you to select which interface port to use, the second selects which DMX line to use and the edit box is used to enter the physical address.

If you change the address it may conflict with another fixture. See [Snagging tools](#)

### Attitude Tab

This dialog provides a means of defining where and in which direction the fixture is. The fixture location displays where in your space the fixture is located. This is defined in the virtual space map. The fixture orientation can be defined by adjusting the slider on the control. Therefore a moving fixture the orientation is not the zero position but the centred position.

- Fixture Location** this is the fixture's location in the rig
- Fixture Orientation** use this to indicate the direction the fixture is pointing in. This makes positioning the fixture beam much easier.

You can change the parameter properties also. You might want to change the colours or gobos of only one fixture for example.



Sometimes it is necessary during installation of a lighting system to alter the DMX assignments of your fixtures. You can offset the addresses of a group of fixtures as follows,

- In the Fixture Navigator tree, right-click on the required fixture group.
- Select 'Offset Addresses'.

The list shows all the fixtures within the group that you are about to alter. You can remove fixture from the list by selecting them and click on 'Remove'.

Use the combo box to change the DMX line used. If the DMX line is already correct select 'No change'.

Set the address offset value. This value can be a positive or negative value that will be added to each of the Selected Fixtures.

Click 'OK' to set the new addresses to the selected fixtures.



During programming you may find that a more up-to-date, or more appropriate template should be used for the fixtures that you have already installed. You can use the 'Redefine' dialog to convert your fixtures to the new template.

**The template that you use to redefine the installed fixtures must have the same number of channels and in the same order as the original template. You will be prompted if there is a discrepancy.**

From the Fixture Navigator tree, right-click on the fixture group you wish to redefine, and select 'Redefine'. This open the 'Redefine Fixture' dialog.

The List shows all the fixtures in the group. Check the ones you require to change - it is usual to change all of the fixture since it makes no sense to have a mixed group.

Select the template you are going to use from the tree.

Click 'OK' to redefine all the selected fixtures. The fixture will retain their names and locations on the view.



Use this function to display a list of Cues and Scenes that access a particular Fixture Group, Fixture or Fixture Parameter.

Right-click on the Fixture Group, Fixture or Fixture Parameter in question and select 'Accessed by'.

The displayed list shows the Cues and Scenes that access the object.

If you click on any Scene or Cue in the list, the navigator will display the usage of the object.

If you double-click it the navigator will display the contents and the window will close.

Fixture Groups are access by embedded Effects.

Fixtures and Fixture Parameters are accessed by Chases, Scenes, Steps and Cues.



You can right-click, either on a fixture or not, in the fixture view to display a context menu with the following functions,

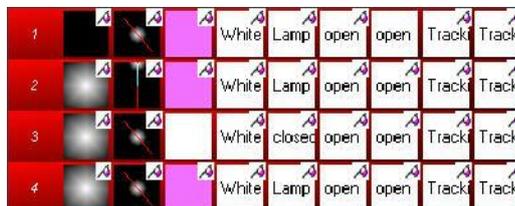
Previous Group	display the previous group.
Next Group	display the next group.
Group Properties	display the fixture group properties dialog.
New Fixtures	install new fixture in a new group.
Add Fixtures	add more fixtures to the current group.
Line up icons	displays a dialog to allow automatic arrangement of fixture icons.
Clear All Parameters	clear all parameter flags
Clear All Effects	clear all effect flags
Clear All Flags	clear all effect and parameter flags
Clear Active Parameters	clear the parameter flag only on activated fixtures.
Clear All Fixture Masks	clear all chase and effect masks on the active parameter.
Zero All Outputs	zero all parameters outputs.
Effect Mask	toggle the selected fixture's effect mask.
Chase Mask	toggle the selected fixture's chase mask.
Toggle Active Effect Masks	toggles the effect mask state of the active fixtures.
Toggle Active Chase Masks	toggles the chase mask state of the active fixtures.
Flag	toggle the selected fixture's parameter flag.
Zero Parameter	sets the selected parameter's output level to zero.
Flip X	this will invert the x axis of the parameter in the active effect.
Flip Y	this will invert the y axis of the parameter in the active effect.
Toggle Active Flip X	toggles the flip X state of the active fixtures.
Toggle Active Flip Y	toggles the flip Y state of the active fixtures.

Right-clicking on a fixture selects it and is indicated by a white border around the fixture.



This view is selected from [Group Properties](#) and display all the parameters of the fixture contained in the group. The right-click [Context Menu](#) pertains to what ever parameter was clicked on.

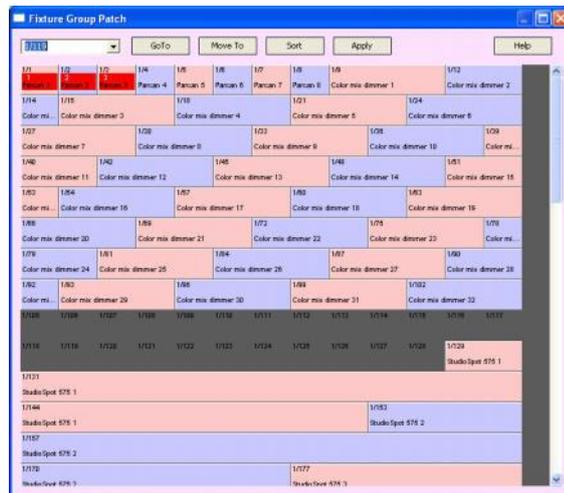
Activate fixtures by click on it's number.



This dialog is accessed either from **Main Menu/Tools/Global Soft Patch** or by right-clicking on the **DMX Manager** in the **Resource Navigator**.

It displays all the DMX channels currently configured and graphically displays the address location of each fixture installed. It provides and drag and drop mechanism for easily manipulating the addresses of installed fixtures.

You can make alterations simultaneously with controlling fixtures in the usual way in order that you can monitor the effect of your changes.



## Moving one fixture

You can change the address of one fixture at a time by clicking in the first address cell of the fixture, holding the mouse button down and dragging to an unoccupied cell and releasing the mouse button. The fixture is now displayed at the new address cell.

As you drag the mouse around the screen a red box displays the location where the fixture will be located. If there is insufficient free address cells the red box is not displayed.

## Selecting multiple fixtures

You can select multiple fixtures to move at once by clicking on each required fixture while holding the keyboard **Ctrl** key. Each selected fixture is indicated by highlighting the name of the fixture in red.

Once the fixtures have been selected click on the first cell of the first fixture and drag to the required new location.

The selected fixtures need not be contiguous (i.e. with no spaces) but they will be sorted contiguously to the destination address in the order in which they were selected as indicated by the white number in the highlight fixture name.

## Address Format

The address format used in this dialog is **universe/address**.

Where **universe** is a character (see table) representing the type of interface followed immediately by the index of the universe within that interface, and **address** is simply the one based DMX address on that universe.

<b>V</b>	Virtual DMX
<b>D</b>	ShowCAD DMX2
<b>U</b>	Sunlite USB
<b>E</b>	ShowCAD Ethernet
<b>P</b>	Pathport

e.g. P2/128 is DMX channel 128 on universe of the Pathport interface.

## Move To

You can use the **Move To** button in place of dragging to a new location. Enter the address in address box (see [Address Format](#)), then click on the **Move To** button. To enter an address in the address box you can right-click in the required address cell in stead.

## Selecting a block of fixtures

Click on the first cell of the first fixture in the block to move. It will be highlighted to indicate that it is selected. Hold down the keyboard **Shift** key and click on the first cell of the last fixture in the required group. Now all the fixtures between the two selected are also selected. You can now click on the first cell of the first fixture and drag the group to the new location or use the **Move To** function.

## Dynamic Scrolling

You can scroll the dialog whilst dragging fixtures by holding the mouse just above the bottom of the address list to scroll up, or just below the top of the address list to scroll up.

## Address box and GoTo

Clicking on the GoTo button will cause the display to scroll to the cell address in the address box (see [Address Format](#)).

The addresses entered in the address box are added to a list which can be displayed in the drop down list. These address are memorised so that each time the Patch is displayed these addresses are available.

## Sorting Addresses

If you have a contiguous block of fixtures who's order you wish to alter, hold the **Ctrl** key down and click on each fixture in the order you wish them to be in. As you do this you will see the order number in white above the name of the fixture. Release the **Ctrl** key and click on the **Sort** button.



Scenes are, essentially, programming building blocks for use in constructing cues. They can provide fixture movement or special sequencing for fixture parameters that are not provided by chases or effects. Equally a scene can be static (no stepping) to provide a set of preset levels to be used time and again in cues.

Scenes can be accessed within other scenes or from within cues. They are not intended to be accessed directly during playback of a show. Instead they should be accessed from within cues.

Scenes are contained within groups for ease of navigation. The following are the columns in the list,

Scene	Level	F. Control	Co...	Rate	Type
1 Moving Yoke move 1	%100	Control All	3	6.490	Site 2
2 Wash movement	%100	Control All	4	5.320	Linear
3 Colour sequence	%100	Control All	6	0.500	Linear
4 Cyan/mauve mixers	%49	Dimmers Only	32		

[Group Properties](#)  
[Creating Scenes](#)  
[Editing Scenes](#)  
[Accessed by](#)  
[Add Scene/Cue](#)

<b>Scene</b>	the name and the icon of the scene. There are different icons for static and sequential scenes.
<b>Level</b>	shows the scene's master level
<b>F. Control</b>	displays the scene's master fader function
<b>Count</b>	the number of times the chase will run
<b>Rate</b>	an active scene's rate
<b>Type</b>	an active scene's ramp

Scenes are activated by the Side bar buttons to the left of the scene icon. By default activating a scene will not affect scenes others within the same group. This behaviour can be altered from Main menu/Group.

<b>Latch</b>	the activate button acts as independent on/off buttons
<b>Interlock</b>	activating any scene, deactivates any previously activated scene

The side bar buttons will be red if a scene has been activated manually. It will be blue if a scene is being accessed as a sub-scene by another scene or a cue.

### The Group bar

The bar at the top of the view contains a combo box which is used to select the scene group.

This bar will display a red asterisk if the contents of the view are added to or altered in anyway indicating that the file must be saved if the changes are to be retained.



The edit box provides a means for changing the scene group name.

The combo box allows you to select the action of the activate buttons.

<b>Latched</b>	the activate buttons are independent of each other. Click to activate, click again to deactivate.
<b>Interlocked</b>	the buttons are interlocked together such that only one can be active at any one time.



When creating Scenes you must specify in the [Program Control](#) window which Scene Group the Scene is to be store to.

[Scene Static](#)  
[Scene Sequence](#)

A Scenes contains an array of [link objects](#) to any other object in the system except a Cue object. They can provide individual level data and properties to each target object. A Scene can have one or more steps. This means it can act like a chase and be triggered by many sources.

Create a [Scene Static](#).

1. open the [Fixture Control Panel](#) and adjust the parameters of the Fixtures. Activate any fixtures in any groups you wish.
2. in the 'Scene programming' section of the Program control window click 'New Scene'.
3. this opens the [Program Data](#) dialog where you can check the data you are about to store.
4. Click 'Save' and a new Scene is stored in the group you selected.

Note: only parameters whose flags were set at the time store was pressed will be saved to the scene. Also any [Fixture Chases](#), [Effects](#) or Scenes active at the time will have links stored in the created Scene.

### Create a Scene Sequence

The first time you use the store button in the programming section, a Scene Static is created. This is a scene with only one step. If you select a previously stored Scene in the program control window and click Step, the data is added as a second step and the Static becomes a Sequence.

1. in the 'Scene programming' section, select the scene group you want to store the scene in.
2. select the scene you are going to add sequence steps to.
3. set up the fixture parameters and scene you wish to add to the scene
4. click on 'Step'
5. the [Program Data](#) dialog opens.
6. on clicking 'Save' a step will have been added to the scene as indicated by the icon.

You can continue to add steps to the scene in the same way. As long as you do not select any other function the 'Scene Programming' section will be ready to add a step to the last save scene.

These are the basic methods of creating scenes. The subject is much deeper than this. See [Editing Scenes](#)



With these scenes you can access any fixture parameter, chase, effect or other scene in the system.



### Control Panel

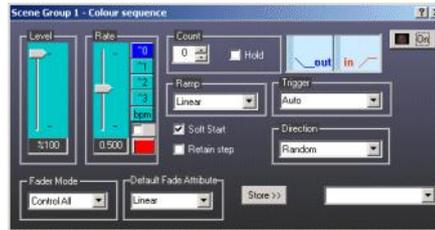
Right-click the scene object and select 'Control Panel' or double-click the scene in the list view to open the Control Panel. The panel has the following controls,

<b>Level</b>	proportionally adjust the level sent to the contained link objects.
<b>Fader Mode</b>	select the type of overall Level control.
	No Control the Level has no function
	Control All the Level controls all objects contained in the scene
	Dimmers Only the Level only affects the level of dimmer parameters.
<b>Default Fade Attribute</b>	the scene level is controlled proportionally with parent fade.
	Linear this is the same as Linear at present.
	Non-Return to Zero the scene level is snapped on at the top of the parent fade.
	Snap at End the scene level is snapped on at the start of the parent fade.
	Snap at Start not defined at present.
	Snap on Both not defined at present.
<b>On Store</b>	activate/deactivate the scene
	this function is only available when the control panel has been opened by selecting <b>Properties</b> on a link object in the cue or scene navigators. You make blind alterations and store them back to the parent scene or cue.



[Step timing](#)

With scenes each step can access any fixture parameter, chase, effect or other scene in the system.



### Control Panel

Right-click the scene object and select 'Control Panel' or double-click the scene in the list view to open the Control Panel. The panel has the following controls,

<b>Level</b>	proportionally adjust the level sent to the contained link objects. The affected objects depends on the Level Mode.
<b>Rate</b>	the speed of the chase stepping and fading. See <a href="#">Rate and BPM Control</a> .
<b>Fader Mode</b>	<p>No Control the Level has no function</p> <p>Control All the Level controls all objects contained in the scene</p> <p>Dimmers Only the Level only affects the level of dimmer parameters.</p>
<b>Count</b>	the number of times the last step in the scene is output before the scene automatically deactivates. Zero means continuous repeat.
<b>Hold</b>	if this box is checked and the count is non-zero the scene will hold on the last step. Otherwise it will simply deactivate.
<b>Ramp Trigger</b>	select the shape of the fade in and out slopes. select the trigger source for the chase stepping. See <a href="#">Triggers</a> .
<b>Direction On</b>	select the direction of the sequence. activate/deactivate the chase
<b>Soft Start</b>	this means the first step will fade in according to the fade in time of the scene. Otherwise the first step will snap on.
<b>Retain Step</b>	normally a scene will start at its first step. This will cause the scene to retain the current step when deactivated in order that it can start from this step on a subsequent activation.
<b>Default Fade Attribute</b>	this determines how the Level of the scene is control when sub-scened. This is the default Link Attribute. <ul style="list-style-type: none"> <li>Linear the scene level is controlled proportionally with parent fade.</li> <li>Non-Return to Zero this is the same as Linear at present.</li> <li>Snap at End the scene level is snapped on at the top of the parent fade.</li> <li>Snap at Start the scene level is snapped on at the start of the parent fade.</li> <li>Snap on Both not defined at present.</li> </ul>
<b>Store</b>	this function is only available when the control panel has been opened by selecting <b>Properties</b> on a link object in the cue or scene navigators. You make blind alterations and store them back to the parent scene or cue.



You can assign individual fade in and a hold times to steps of a sequential scene. By default the timing for scene steps is provided by the Control Panel 'Rate' control. The steps shown in the navigator window are normally called 'Step'. If a step contains individual fade in and/or hold time then it is displayed as 'Step  $t1/t2$ '. Where  $t1$  is the fade in time and  $t2$  is the hold time for the step.

### To set timing to a step,

- right-click on the step in the navigator window.
- select 'Properties'. A rate slider is displayed.
- with the box unchecked set the fade in time. This time is the whole step time.
- uncheck the box and set the percentage of the set time required to hold.
- close the window and observe the updated text for the step.

### To reset default timing

- right-click on the step in the navigator window.
- select 'Properties' to display the rate fader.

- click on 'Zero'

See [Rate and BPM Control](#).



The contents of a scene are viewed in the [Scene Tree](#). This shows the contents of a scene as a collection of [Step Objects](#) and [Link Objects](#). These objects can be deleted, copied or moved. See [Editing Objects](#)

### Editing a Static Scene

You can add or edit data in a scene by the following method.

- Right-click on the Scene and select 'Set Parameters'. This will set the Fixture Control panel and scenes. It will also set up the 'Scene Programming' section of the 'Program Control' window.
- Adjust or add any data in the Fixture Control panel.
- Click on 'Store to' in Scene Programming section of the 'Program Control' window.

### Editing a Scene Step

You can add or edit data in a scene step.

- Right-click on the Step in the Scene navigator tree and select 'Set Parameters'. This will set the Fixture Control panel and scenes. It will also set up the 'Scene Programming' section of the 'Program Control' window.
- Adjust or add any data in the Fixture Control panel.
- Click on 'Store to' in Scene Programming section of the 'Program Control' window.



Use this function to display a list of Cues and Scenes that access a particular Scene.

Right-click on the Scene in question and select 'Accessed by'.

The displayed list shows the Cues and Scenes that access the scene.

If you click on the any Scene or Cue in the list, the navigator will display the usage of the sub-scene.

If you double-click it the navigator will display the contents and the window will close.



First select a scene of cue from either of the tree views and then click one of the following functions/

### As a Link

This function allows you to select Scenes to be linked to a parent Step, Scene or Cue. This is an alternative method to the usual function provided by the [Program Control](#) window. You cannot link Cues in this way.

Scenes that are link to a parent object are activated and deactivated when the parent is activated or deactivate. Also, the settings for the scene, such as rate, level, trigger etc, as set by the parent.

### As a Command

This function adds a [System Command](#) to a parent Step, Scene or Cue in order to activate a Scene or a Cue. By default this System command is triggered when the parent is activated and is unaffected when the parent is deactivated. Another difference from linking is that the parent does not set the Scene or Cue settings, these remain default.

An options dialog opens allowing you to alter the default system command attributes.

On at start of fade in	the command activates as the parent starts fading in.
On at end of fade in	the command activates at the end of the parent fade in.
On at start of fade out	the command activates as the parent starts fading out.
On at end of fade out	the command activates at the parent of the parent fade out.



Add deactivate	check this box to add a deactivate command as well as activate
Off at start of fade out	the command deactivates as the parents starts to fade out.
Off at end of fade out	the command deactivates at the end of the parent fade out.

Activating a scene from a system command in this way set the flags of the contained fixture parameters. This can be useful for creating an override to running cues. See [Cue Override](#).



Cues are the method of system playback. All other items are accessible through cues. A cue can be assigned fade in, hold and fade out times assigned using the Cue Control Panel. The objects contained within a cue are acted upon in different ways depending on what type of object they are.

Cue Name	Level	Fade In	Hold	Fade Out
1 Cue 1	100.0	1.863	1.291	1.863
2 Cue 2	100.0	2.204	2.055	2.204
3 Cue 3	100.0	2.055	1.824	2.055
4 Strobe	100.0	3.880	0.000	3.880
5 Parcan chase	100.0	2.395	Waiting	2.395
6 Parcan chase with level	100.0	2.395	1.662	2.395
7 Wash	100.0	0.725	0.000	0.725

[Group Properties](#)  
[Creating Cues](#)  
[Control Panel](#)  
[Editing Cues](#)  
[Scene Sequence](#)  
[Cue List Sequencing](#)  
[Add Scene/Cue](#)

### Activating Cues

Cues are activated in a variety of ways.

- Client area** in the client area the cue list has a column of buttons. Clicking on these will activate the cue.
- Keypad** The keypad on your keyboard can be used. See [Keypad](#).
- System commands** system commands can be used many ways. Timed events, real time events, input patching (digital and MIDI) and embedded in another cue.
- Cue Control** the Step, Seq and Chase modes in the [Cue Control](#) window can be used to activates cue within a list.
- Operator GUI** this touch screen interface makes activating cues very simple.
- Boot** cue can be activated on boot up.

### View

The list view has the following columns.

- Cue Name** the icon and the name given to the cue.
- Level** shows the scene's master level
- Fade In** displays the cue's fade in time
- Hold Times** displays the cue's hold time
- Fade Out** displays the cue's fade out time

The hold times are normally greyed out since they are only used when the **Seq** mode is active or if **Force Hold Times** is checked in the [Cue Control Panel](#).

When a cue is activated the times display a bar graph that dynamically indicates the progress of the fade.

### The Group bar

The bar at the top of the view contains a combo box which is used to select the Cue List.

This bar will display a red asterisk if the contents of the view are added to or altered in anyway indicating that the file must be saved if the changes are to be retained.



The Cue list properties dialog has three tabs.

### Global

This tab sets the way that the Cue List behaves in relation to other lists.

### Cue

This tab sets the way that Cues behave within a list.

## Access

This tab define various external and internal access properties.

### Display in Operator mode

If this is checked (default) the list will be displayed in the Operator GUI. Hidden otherwise.

### Dynamic Fader Control

The options defines how the cues of this list will respond to the [Dynamic Fader](#) system command.

<input type="checkbox"/>	<b>Catch</b>	if this box is checked the fader will not respond until the input level matches the cue's present level thus preventing snap changes.
<input type="checkbox"/>	<b>Activate</b>	if this box is checked then the cue will automatically activate when the level is more than zero and will deactivate when it is zero.
<input type="checkbox"/>	<b>Set Last Cue</b>	If this box is checked the last cue activated is memorised for use with the <a href="#">Linear Control</a> System Command.

### MIDI Page Size

This number should be set to the same as the number of MIDI keys assigned to cue activate. The [Page up and page down](#) system commands can be used to page through a cue list that is longer than the number cue activate keys available. The Cue list view shows a red rectangle to indicate the first cue of the current page.



When programming you should have the [Program Control](#) window open. This displays the cue storing functions.

### To store a cue,

- set the fixtures using the [Fixtures](#) view and the [Fixture Control Panel](#)
- select a cue list in the 'Cue Programming' section of the [Program Control](#) window where the cue will be created.
- click on 'New Cue'. This will open the [Program Data](#) window.
- click 'Save'.

This cue is now stored and can be view from the [Cue List View](#) or [Cue Tab](#) on the [Navigator window](#).

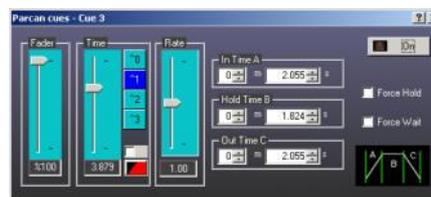
### Adding Scenes

You can add scenes to a cue simply by activating the scene and, from the Program control window, clicking Store or New. All the properties of the scenes, such chase pattern, level, speed etc., are stored in the cue. This means that when the cue is played back it sets the properties of the scenes.

The way in which the scene responds to the fade in and out of the cue can be set in the same way as with the fixture parameters, by setting the attributes from the link object in the Cue navigator window.



This panel controls the associated cue properties.



<b>Fader</b>	this adjusts the overall level of the cue. This usually only affects the level of Dimmer parameters and the level of sub-scenes and parameter effects.
<b>Time</b>	Without the check box checked this adjusts the In and Out times to be the same. With the check box checked it adjusts the proportional hold time. See <a href="#">Rate and BPM Control</a> .
<b>Rate</b>	this affects the rate of sub-scenes and effects that may be being accessed by this cue.
<b>Force Hold times</b>	if you check this box, the cue will automatically deactivate after the set Hold time. This option has no effect in <b>Seq</b> or <b>Chase</b> modes
<b>Force Wait</b>	when the cue list is in Seq mode cues normal hold for the time specified before fading out and starting the fade in of the next cue. This causes the cue to hold indefinitely or until the Step function or another cue is activated.
<b>In time A</b>	the time it takes for the cue to fade in
<b>Hold time B</b>	the hold time is used for cues that have the 'Hold times' check box checked or when the 'Seq' button is used in the Cue Control tab in the master section.
<b>Out time C</b>	the time it takes for the cue to fade out.
<b>On</b>	to activate/deactivate the cue.

Some of the above function such as the Time control can alter multiple selected Cues. Select all the Cues you wish to alter and adjust the Time control and will change all the selected Cues to those values.



The contents of a cue are best viewed in the [Cue Tree](#). This shows the contents of a cue as a collection of [Link Objects](#). These objects can be deleted, copied or moved. See [Editing Objects](#)

### Editing a Cue

You can add or edit data in a cue by the following method.

- Right-click on the Cue and select 'Set Parameters'. This will set the Fixture Control panel and scenes. It will also set up the 'Cue Programming' section of the 'Program Control' window.
- Adjust or add any data in the Fixture Control panel.
- Click on 'Store to' in Cue Programming section of the 'Program Control' window.



This dialog creates a scene sequence from the cues in the currently selected cue list. Each cue will become a step in the scene and the scene will be added to the currently selected Scene Group in the [Program Control](#) window.

<b>List</b>	Displays the cues in the order they will be added as steps to the new scene.
<b>Up</b>	Move the highlighted cue one place upwards in the list.
<b>Down</b>	Move the highlighted cue one place downwards in the list.
<b>Remove</b>	Remove the highlighted cue from the list.
<b>Check box</b>	If this box is checked fade and hold times will be added to each step of the scene corresponding to those set in the cue.
<b>Create</b>	The scene is created using these scenes in the order they appear in the list.
<b>Cancel</b>	Close the dialog without creating the scene.
<b>Text box</b>	This is the name that will given to the new scene. By default this is the name given to the cue list from which the cues are taken.
<b>Help</b>	Displays the help.



Each list of cues can be made sequence by setting the **Seq** or **Chase** modes. These are found in the [Cue Control](#) window.

### Seq Mode

Starting with the selected cue in the [Cue Control](#) window each cue is faded in and held for the times specified in the cue. When the hold time has elapsed the next cue's fade in starts and the current cue fades out.

### Chase Mode

Starting with the selected cue in the [Cue Control](#) window each cue is faded in and held for the times specified in [Cue Control/Settings](#). Each cue fades and hold with these same times.

### Forced Wait

You can set a cue to **Force Wait** in the [Cue Control Panel](#) which will pause the **Seq** or **Chase** at this cue until :

Step	clicking the <b>Step</b> button in the <a href="#">Cue Control</a> window will advance to the next cue and resume the <b>Seq</b> or <b>Chase</b>
XFade	using the <b>Xfade</b> slider in the <a href="#">Cue Control</a> window will perform a manual cross-fade to the next cue. Once complete the <b>Seq</b> or <b>Chase</b> will continue.
Activate	if another cue is activated the <b>Seq</b> or <b>Chase</b> will continue from there.
Restart.	Stopping and restarting the <b>Seq</b> or <b>Chase</b> will continue.

### Loop

If the **Loop** box in [Cue Control/Settings](#) is checked then when the bottom of the list is reached the sequence will go back to the top of the list and continue.

If this option is not checked the sequence will stop at the bottom of the list.

### Randomise

If the **Randomise** box in [Cue Control/Settings](#) is checked then the running order of the cues shuffled. The Loop function has no effect and

the **Seq** or **Chase** modes will continue until stopped by the operator.



See [Add Scene/Cue](#).



The contents of cues, scenes and fixtures are viewed from the navigator view. Each of these main objects contain yet more objects.

[Parameters](#)  
[Control Objects](#)  
[Step Object](#)  
[Link Objects](#)

**Parameter** These objects are part of Fixtures. They represent the variable channels of control such as mirror, colour, dimmer etc.

**Step** These are to be found in Scenes with more than one step. These step objects themselves contain more content objects.

**Link Objects** These objects are the link between a cue or scene to the output elements of the system. There are links to parameters, chases, scenes and system commands.



These are contained within [Fixtures](#) and [Templates](#). They define the output channels associated with a fixture axis of control. The parameter defines the output channel offset addresses, range and type of control. Each parameter contains a [Control Object](#) that is used to change the parameter data values.

Dimmer	most fixtures have a dimmer parameter. It is specific to the intensity of the light output of the fixture and is the only parameter that is zeroed when a cue is deactivated.
Colour Mix	the colour mixer is specific to fixture that have a colour mixing element to them. It can also be used to define LED and neon devices as three channel colour mixing devices.
XY Joy pad	this parameter type is used for X and Y axis mirror type fixtures.
Polar Joy pad	this parameter type is used for yoke type fixtures.
Colour, Gobo, Effect etc.	these parameter types are used for all other fixture parameters.



These are contained within parameter objects and provide the user interface to change the parameter data.

The available controls are,

[Dimmer Control](#)

[Mirror Control](#)

[Yoke Control](#)

[Color Select Control](#)

[Gobo Select Control](#)

[Color Mix Control](#)

[Focus Control](#)

[Iris Control](#)

[Rotation Control](#)

[Shutter Control](#)

[Function Control](#)

[Effect Control](#)



This is found with a [Scene Sequence](#) and contains an array of [Link Objects](#) to parameters and scene. There can be any number of step objects within a sequential scene. These objects can be moved or copied between scenes. See [Editing Objects](#).



These are found within scenes and cues and, as the name suggests, provide a link to other objects outside the scope of the object they are contained within. They provide all the information necessary to make the object they link to do what ever the programmer requires. They can be viewed and edited from the navigation windows. [Fade Attributes](#)

The way they interact depends on the Fade Attribute assigned.

You can also view the target object by right-clicking on the link and selecting 'Find Target'. This will display the target object in the navigator tree view and the client area.



The way that a parameter behaves in response to a cue or scene is determined by its default fade attribute which can be altered by right-clicking on the link and selecting **Fade Attribute**. You can select multiple links in order to change them simultaneously.

#### Parameter and Scene Attributes

<b>Linear</b>	the link fades the output element in a linear and dipless manner.
<b>Non-Return to Zero</b>	same as Dipless except the output does not return to zero.
<b>Snap at start of fade in</b>	the link snaps the output to the required level at the beginning of a fade.
<b>Snap at top of fade in</b>	the link snaps the output to the required level at the end of a fade.
<b>Snap on both</b>	not defined.

A link is given one of the above values when stored in a cue. See the information on parameter or scene to understand the default values assigned.

#### Embedded System Command Attributes

<b>Command at start of fade in</b>	the command will be trigger when the parent cue or step is activated.
<b>Command at top of fade in</b>	the command will trigger when the parent cue or step fade in completes.
<b>Command at start of fade out</b>	the command will be triggered as the parent cue or step fade out starts.
<b>Command at bottom of fade out</b>	the command will be triggered when the parent cue or step deactivates.

#### Default Parameter Fade Attributes

This table shows the default fade attributes set when you save a cue or scene.

Parameter	Attribute
<b>Dimmer</b>	Linear
<b>Mirror</b>	NRZ
<b>Yoke</b>	NRZ
<b>Color Select</b>	Snap at Start
<b>Gobo Select</b>	Snap at Start
<b>Color Mix</b>	Linear
<b>Shutter</b>	Snap at Start
<b>Effect</b>	Snap at Start
<b>Focus</b>	Linear
<b>Rotate</b>	Linear
<b>Iris</b>	Linear
<b>Function</b>	Snap at Start

#### Scene Fade Attributes

The default fade attribute can be change so that each time a scene is used in a cue the altered attribute will be used.

See [Scene Static](#), [Scene Sequence](#)





[Add or Edit a Template](#)  
[Template Properties](#)  
[Parameter Controls](#)  
[Parameter Properties](#)  
[Template Wizard](#)

A template contains all the information required by the system to install a manufacturer's fixture. It contains detailed information about colours, gobos, mirror type and resolution. It also provides on screen controls tailored to each parameter making for ease of programming.

When installing a fixture in the system you select which template to use. Once the fixture is installed the template is no longer required.

You can create your own template files using the template editor.

The view displays the contents of the currently loaded templates file. This is divided into groups that represent the manufacturers of fixtures and are named as such. Select the groups from the group combo box.

Within each group is the list of templates for that manufacturer's fixtures. These templates are provided by ShowCAD Control Systems, however you can create your own templates using the [Template Wizard](#).

You can also edit some of the parameters of a template in the template tree view by right-clicking on it and selecting 'Properties'.

### The Group bar

The bar at the top of the view contains a combo box which is used to select the manufacturer group.

This bar will display a red asterisk if the contents of the view are added to or altered in anyway indicating that the file must be saved if the changes are to be retained.

### Installing Fixtures

You can install Fixtures by double-click on the required template. This will run the Fixture wizard and set this template to use.



Before creating a new template, check with the [ShowCAD Web Site](#) that a template is not already available for the fixture.

Make sure you have accurate information regarding the channel layout of your fixture, including the parameter levels for such things as colour and gobos. It is recommended that you have full technical details, including such things as angular movement. Artist cannot control your fixture correctly if the template is inaccurate or incomplete. Programming is simplified by it knowing as much as possible about the fixtures connected to it.

If you are adding a new template it is recommended that you put them in a new file of your own.

#### To create a new template file,

- from the Main Menu bar select File/New/Template File
- if a template file is currently loaded you will be asked if you want to close it. Click OK.

This will add a new tab to the client area called Templates. A group called "Template Group 1" has already been created. You can rename this as you please.

#### To create your new template,

- from the Main Menu select Wizards/Template Wizard. This will launch the template wizard which will take you through the process.

Using the [Template Wizard](#) ensures that the the template you create conforms the ShowCAD's conventions regarding layout and size and is therefore the recommended method.

#### To edit a template

Right-click on the template and select 'Edit Template'. This will open the template wizard with the settings of the template which you can then alter.

## ShowCAD Artist Template Properties

◀ Back   ■ Home   ▲ Up   ▶ Next ▶

### Port Tab

[Channel Offsets](#)  
[Template Functions](#)

**Template Name** enter the name to given to this template.

**Fixture Port Type** select the type of output port that fixtures created using this template can be assigned to.

**Image** select the image that will be displayed in list and tree views to present this template and its created fixtures.

## ShowCAD Artist Channel Offsets

■ Home   ▲ Up   ▶ Next ▶

When you create a template you need not pay any attention to the order in which parameters are defined. This dialog allows you to correctly assign channel offsets to the parameters.

**List** displays the offsets assigned to parameters. Select the offset you wish to change and use the Move up or Move down buttons to change its position.

**Move Up** Moves the selected offset up the list. Its offset value will change accordingly

**Move Down** Moves the selected offset down the list. Its offset value changes accordingly.

## ShowCAD Artist Template Functions

◀ Back   ■ Home   ▲ Up

These are common functions that a fixture performs. These are functions such as Reset, Lamp On and Lamp Off. If a fixture has these functions the template should make use of functions since these three functions are easily accessible in a global way within Artist.

**List** this displays the list of parameters defined in this template. Use the check box to select a parameter as part of the selected function. Click on the name of the parameter to display its control in the Control pane.

**Function** this combo box lists the available functions. Select the one you wish to define. Already defined function are displayed with a red button and undefined with a gray button.

**Time** set the time that the levels should be presented to the fixture for in order to activate the function. This cannot be zero..

**Control** when a parameter is checked in the list, the control is displayed here to allow level adjustment.

### To define a Function

1. Select the function you wish to define from the combo box
2. In the List view click the check box(es) of the parameter(s) that need to be set in order to access the function.
3. select each parameter name in turn. The parameter control will appear. Set its required level.
4. set the time that these values are required to be present on the parameters in order to perform the function.

## ShowCAD Artist Parameter Controls

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The parameters in a fixture are adjusted by the user via on screen controls. These controls can be tuned to the specific requirements of the fixture and presented to the user in a [Fixture Control Panel](#) which provides all the controls required to control a fixture.

[Effect Control](#)  
[Dimmer Control](#)  
[Mirror Control](#)  
[Yoke Control](#)  
[Focus Control](#)  
[Switch](#)  
[Iris Control](#)  
[Shutter Control](#)  
[Zoom Control](#)  
[Level Control](#)  
[Speed Control](#)  
[Function Control](#)  
[Rotation Control](#)  
[Gobo Select Control](#)  
[Color Select Control](#)  
[Color Mix Control](#)

The following controls are defined.

Type	Preset	Palette	Values	Slider	Zeros	IntensityCode
Dimmer	100%	Beam	Percentage	Y	Y	Y Linear
Mirror 8 bit	127, 127	Position	Decimal	N	N	N NRZ
Mirror 16 bit	32767,32767	Position	Decimal	N	N	N NRZ
Yoke 8 bit	127, 127	Position	Decimal	N	N	N NRZ
Yoke 16 bit	32767,32767	Position	Decimal	N	N	N NRZ
Shutter	255	Beam	Decimal	Y	Y	N On at Start
Gobo	0	Beam	Decimal	N	N	N On at Start
Colour	0	Colour	Decimal	N	N	N On at Start
Colour mix	0	Colour	Percentage	N	N	N NRZ
Colour mix dimmer	100%	Colour/Beam	Percentage	N	Y	Y Linear
Focus	120	Beam	Decimal	Y	N	N NRZ
Effect	0	Beam	Decimal	N	N	N On at Start
Rotate	0	Beam	Decimal	Y	N	N On at Start
Iris	0	Beam	Decimal	Y	N	N Linear

<b>Function</b>	0	None	Decimal	N	N	N	On at Start
<b>Speed</b>	0	None	Percentage	N	N	N	On at Start
<b>Zoom</b>	0	Beam	Decimal	Y	N	N	Linear
<b>Level</b>	255	None	Decimal	Y	Y	N	Linear
<b>Switched</b>	255	None	Decimal	N	Y	N	On at Start

Some more notes on types follow.

<b>Dimmer</b>	In general a fixture should have a dimmer. The dimmer parameter is affected by the system master fader. Therefore, if a fixture has no dimmer it will not be blacked-out or faded. If a fixture has no dimmer but does have a shutter, then the shutter should be defined as a dimmer.
<b>Mirror</b>	This is used for fixtures that have an X-Y type of positioning. Defines 2 channels if set to 8 bit and 4 channels if set to 16 bit. The X and Y axis angular range must be defined. By default they are 180° and 90° respectively.
<b>Yoke</b>	This is used for fixtures that have a rotating base and a tipping head. Defines 2 channels if set to 8 bit and 4 channels if set to 16 bit. The rotate and tip ranges must be defined. By default they are 360° and 270° respectively.
<b>Color Mix</b>	Used in fixtures which have a color mixing facility. Defines 3 channels with can operate as Cyan, Magenta, Yellow or Red, Green, Blue mixing.
<b>Colour Mix Dimmer</b>	The parameter is designed for colour mixing using 3 colour neon or LED devices. It will respond to the Master fader so that it behaves like a dimmer parameter. In all other respects it behaves like a Colour mix parameter.
<b>Others</b>	All other parameter have the same kind of control with slider ranges, shortcut values, bitmaps and colour.



This control is design for fixtures with effect channel such as a prism.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



The Dimmer control is used for fixture parameters that control the light output. For fixtures that do not implement a dimmer, use the shutter channel. For ordinary lamps use this control.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



This control is designed for use use with Pan and Tilt mirror channels. The range of the axis is arranged in a square with (0, 0) in the bottom left corner (MaxX, MaxY) in the top right. Clicking and holding in the square allows you to move the crosshair position and thus the fixture's mirror. In addition there are three small buttons these are,

[Properties](#)

- M** (Memory) clicking sets the memory to the current position
- R** (Restore) restores the previous position stored by the memory button
- C** (Centre) sets the joy pad to its mid point in both X and Y directions

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Output Properties](#)



### Movement Angular range

Use this to set the range of movement specified by the manufacturer. If it is not known, leave as default.

- X - axis** this the pan or horizontal movement angular range. Enter the value in degrees.
- Y - axis** this is the tilt or vertical movement angular range in degrees.

### Show Mem buttons

Checked to display the memory and recall button on the control

### Parameter Orientation

By default this points North at zero degrees. This should not be adjusted unless the fixture has more than one mirror control. Some centre piece fixture have more than one mirror movement usually arranged radially. You can use this control to set the orientation angle of each mirror.



This control is designed for use with yoke fixtures. The range of the fixture is represented by a circle. The crosshair show the relative position of the beam. Clicking and holding in the circle allows you to change the position. There are four buttons whose functions are,

[Yoke Properties](#)

- M** (Memory) clicking sets the memory to the current position
- R** (Restore) restores the previous position stored by the memory button
- C** (Center) sets the yokes mid point in both the rotate and tip axis
- F** (Flip) in yoke fixtures these are always two ways to achieve a position. This button allows you two choose between the two

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Output Properties](#)



### Movement Angular Range

These value are required for Artists self calibrate and recalibrate functions.

- Rotation this is the pan range of angular movement
- Tip this is the tilt range of angular movement

### Parameter Orientation

For most fixture the default of zero should not be changed.



This control is design for fixtures with a beam focus channel.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



This control is design for parameters that are require to snap to a leel when a cue is activated and return zero when deactivated. This could be a motor and effect projector or similar.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



This control is design for fixtures with an iris channel.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



This control is design for fixtures with a shutter in addition to a dimmer. If the fixture has only a shutter, use the Dimmer Control for this.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



This control is design for fixtures with a zoom channels.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



This control is design for any parameter which has a increase/decrease effect that cannot be easily described as any of the other [Properties](#) control types.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



## Control Tab

The Shortcuts sections allows you to set up commonly used levels that can be selected from the shortcut button. The button can display labels, colors or bitmaps.

### Setting up a shortcut

1. Select the type of short cut from the combo box (Label, Color or Bitmap)
2. then set the button display by clicking the arrow
3. set the level from the spin/edit control
4. Store.

### Edit a shortcut

1. Select the shortcut from the list. This will put the shortcut values into the various controls
2. Edit the button display, the type and/or the value
3. Click Store

### Remove a shortcut

1. Select the shortcut from the list.
2. Click remove

### Label Display

This dialog also provides a facility to change the way variable levels are displayed

- Decimal** the variable levels are display in a decimal range. For 8 bit parameters this is in the range 0 - 255, for 16 bit 0 - 65535
- Percentage** displays the variable as a percentage of the maximum level
- Fraction** displays the variable as a fraction of one.
- Hexadecimal** display the variable in base 16

### Show Slider

This check box is checked by default. Unchecking it will cause only the button to be displayed. This useful for parameters that only require discrete levels to be set.

## Control Ranges Tab

Many fixtures have more than one variable parameter on one channel. Some may have the Dimmer, Iris and Shutter all on one channel. This, obviously means they cannot be used simultaneously.

The level control can be divided into ranges to facilitate this. You can define the Dimmer as 0 - 100, the Iris as 101 - 200 and the Shutter as 201 - 255.

### Adding a Range

1. Enter the name of the new range in the edit box
2. Set the minimum value in the first spin/edit box
3. Set the maximum value in the second
4. Click Store

### Edit a Range

1. Select the range from the list. This will fill the fields with the current values for that range.
2. Edit the name, minimum and maximum as required
3. Click Store.



This control is design for fixtures with a speed channels for movement or any other parameter.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



This control is designed for fixtures with a function control channel.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



This control is design for fixtures with rotate channels(s) for color, gobo, prism etc.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



The Gobo control is used to control a fixtures gobo channel. Bitmaps may be defined for each gobo in the fixture and spin ranges can be added.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



The Color control is used to control a fixtures color selector channel. This should not be used for color mixing channels. The control can display the actual colors available within the fixture and spin ranges can be added.

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

[Parameter Properties](#)

[Control Shortcuts](#)

[Control Ranges](#)

[Output Properties](#)



This control is design for fixtures with three channel color mixing fixtures.

[Properties](#)

Once this control is inserted, right-click on it to change the control properties. The following properties can be changed,

**Properties Color Tab**

From here you can select whether the fixture is RGB (red, green, blue) or CMY (cyan, magenta, yellow) filtering.

[Parameter Properties](#)

[Output Properties](#)



### Color Format

**RGB** this sets the color mixer to be a Red, Green, Blue control. Most fixtures are CMY

**CMY** this sets the color mixer to be a Cyan, Magenta, Yellow control

**Dimmer** if this box is checked the three parameter channels are treated as dimmers. This means that the parameter will fade out with a cue.





Right-click on the parameter of either a template or fixture and select 'Properties'.

[Preset Level](#)  
[Control Shortcuts](#)  
[Control Ranges](#)  
[Output Properties](#)

- Parameter type** This combo box contains the types that this parameter can be changed to. Commonly you may have defined a mirror movement when it should have been a yoke, or shutter when it should be a dimmer.
- Parameter name** You may change the default name if you must, though it is preferred to stick to the default.
- Resolution** This cannot be altered and shows the select resolution for the parameter. It is defined by the type property.
- Output type** this shows which output type has been defined. It cannot be altered.
- Link type** the is the code type used when accessed by a scene or a cue. See [Link Objects](#)
- [Preset Level](#)** Set this level to a useful test level. This level is used by the fixture test feature and light on functions. When the preset level on a fixtures control panel is used, it send this value to the fixture. In general these preset values are set to give an open, centred and white beam that may be used as a useful programming starting point.

### Changing Type

Changing the type of a parameter may alter its position within the fixture/template. For example, if you change a shutter, which would be positioned after the position parameter, to a dimmer it will be reposition before the position parameter. This is of no consequence when dealing with a template, however, a fixture requires that all other fixtures in the group be changed to suit. You will be prompted to alter the function to change the other fixture in the group.



The preset level is used to test a fixture and to provide usefull programming levels.

### Dimmer

For dimmers this level should be maximum. This will provide a light on function and will allow you to see the other parameters as they are being tested.

### Mirror and Yoke

For mirrors and yokes this should be approximately 50% tilt and 50% pan. In other words in the middle of the range of movement. This will provide a useful position for the beam during testing.

### Gobo, Color, Effect, Rotate

These parameters should be usually zero. In other words no color, gobo, effect or rotate.

### Iris

The iris should be set to maximum beam width.

### Focus

Choose a level which would focus a gobo at a useful distance from rig to floor.

### Shutter

The shutter level should be open.



Shortcuts are quick select values. In an implemented fixture template, the box underneath the slider provides a dropdown list that can display the decimal, percentage or hex value of the slider, or a color, a bitmap or a label. Whenever the slider is moved, the box displays the sliders value. If you select an item from the dropdown list, the item's color, bitmap or label is displayed.

*It is very important that you set these values for color and gobo channels in particular, since the palettes depend on these to determine what levels to set for a particular color or gobo*

### To create a shortcut,

- first select Label, Bitmap or Color from the Combobox
- then click on the dropdown arrow of the Multibutton control. This will display either an edit box (for labels), a bitmap list (for bitmaps) or the Window color dialog (for colors)
- select or edit the required display item

- set the value in the spin-edit control required for this item. If a fixture is connected to the DMX line, you can observe its behaviour to the set value.
- click store. The range will appear in the list

In most fixtures the color select channel (for example) has a specific value to select a color. You can create a slider control with a dropdown list containing these selectable colors.

### Show Slider

When this value is checked a slider will be permanently visible to adjust the parameter values. Even if this box is not checked, you can see a slider by right-clicking within the control area.

### Label Display

Select the output value representation.

<b>Decimal</b>	8 bit - values 0-255; 16 bit - values 0-65535
<b>Percentage</b>	displays parameter level as a percentage of the maximum level
<b>Fraction</b>	displays parameter level as a fraction of the maximum value
<b>Hexadecimal</b>	8 bit - value 00-FF; 16 bit - values 0000-FFFF



By default the range of a slider control is that of the resolution of the parameter it is attached to i.e. 255 decimal or 65535 decimal for 16 bit parameters. Some fixtures combine variable parameters on one channel. For example, a fixture channel might have a range of values for the iris and another for the dimmer. Defining ranges in the Slider control will provide a column of small buttons that allow you to select these ranges. When selected, the Sliders values are limited to those of the range.

### To create a range,

- type the name of the range in the edit box. The first letter of this name will appear in the range button and when selected it will appear in the title of the control
- set the low limit of the range in the first of the spin-edit controls. If a Fixture is connected to the DMX line, you can observe its behaviour to the set value.
- set the high limit of the range in the second spin-edit control. If a Fixture is connected to the DMX line, you can observe its behaviour to the set value
- click store. The range will appear in the list

You may have created a color selector using colors in the Shortcuts, but some fixtures also have a continuous rotation range. This, in addition to the color shortcuts allows you to specify the continuous rotation range.



This dialog displays the channel offsets and ranges of the output channels associated with a template or fixture. When designing a template it is important that pan and/or tilt move in the conventional way as defined by ShowCAD. If a pan or tilt axis does not conform, you must set the Invert check box for that axis.

### Mirror Convention

With the fixture mirror pointing away from your point of view, moving the Joypad to the left should move the beam to left, and moving the Joypad forward should move the beam forward.

### Yoke Convention

With the limit point of the yoke pointing towards you, moving the Joypad in anti-clockwise direction should rotate the beam in an anti-clockwise direction, and with the rotation at 50% moving the Joypad forward should move the beam forward.

### Channel Offsets

It is recommended that you don't set the channel offsets from here since it is easier to do once all these controls have been added from the [Fixture Template Properties](#)

<b>MS</b>	most significant channel offset
<b>LS</b>	least significant channel offset
<b>Min</b>	minimum level of channel
<b>Max</b>	maximum level of channel
<b>Invert</b>	check to invert output



The template wizard will step you through creating a template for a fixture. This is only required if your fixture does not appear in the [Page 1](#)

template file supplied by ShowCAD.

[Page 2](#)  
[Page 3](#)  
[Page 4](#)  
[Page 5](#)

*This process should not be undertaken by novices since there are many considerations in making a fully functioning template.*



This wizard takes you through the steps for creating a Fixture Template. You should be prepared with the details of your Fixture as supplied by the manufacturers.

### Define Template

- Select the Template Group where you wish to create the new template.
- Enter the name you wish to give your template
- Enter the number of channels that the fixture uses. This must include any unused channels within the range defined for the fixture. Unused channels will be assigned a dummy parameter.
- Select the image you wish to represent you fixture.
- Optionally select the DMX line that the fixture is connected to to allow dynamic adjustment.
- Optionally enter the address of the fixture to allow dynamic adjustments.

### Dynamic Adjustment

If you have the fixture you are designing the template for connect and you have set the address details on [Page 1](#) you adjust the preset, shortcut and range data dynamically. That is, just se the levels and monitor their effect of the fixture as you go.

[Next](#)



### Add Parameter

This page is used to add the parameters that the fixture contains.

- From the combo box, select the parameter that most suits the one you are going to define. See [Parameter Controls](#) for definitions of each of the selectable parameter types.
- Click 'Add 8 bit' or 'Add 16 bit'. The parameter will appear in the list box.
- Repeat these step to add all the parameters featured in the fixture.

If you wish to remove a parameter that you have added, highlight it in the list box, and then click Remove.

[Previous](#)   [Next](#)



### Set Channel Offsets

This page allows you to set the order of the parameters in you fixture. This is the address of the channels within the fixture. The left column of the list box shows the current offset address of the parameter axis.

To change the position of an axis, click on it to highlight it the use either the 'Up' or 'Down' button to move the axis within the fixture.

[Previous](#)   [Next](#)



### Set Parameter Properties

Each parameter you have defined has been created with default settings. You will need to select each parameter in turn and set specific properties for each. This is an important step since Artist depends on this information to make programming and operating faster and more powerful.

To set the properties of a parameter click on the parameter to highlight it and click the 'Properties' button.

It is possible to set these properties after you have created the template by right-clicking on each parameter in the Template tree view.

### Dynamic Adjustment

If you have the fixture you are designing the template for connect and you have set the address details on [Page 1](#) you adjust the preset, shortcut and range data dynamically. That is, just se the levels and monitor their effect of the fixture as you go.

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## Define Fixture Functions

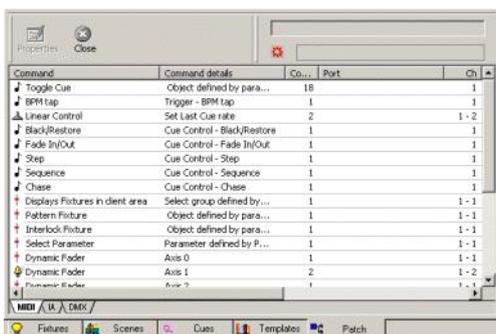
If a fixture has them it is important that you should define the following functions,

**Reset**                      the function that resets the fixture.  
**Lamp ON**                    the function that strikes the fixtures discharge lamp.  
**Lamp OFF**                  the function that turns of the fixtures discharge lamp.

For each function that exists in the fixture,

- Select the function in the combo box
- Click the check box of each parameter that needs to be set for the function.
- Click on the name of a checked parameter to display its control.
- Set the level of the control that executes the function.
- Set the time that the parameter should be at that level for before returning to the normal state.

[Previous](#)



[DMX Inputs](#)  
[MIDI Inputs](#)  
[Data Acquisition](#)  
[Redefine Port](#)  
[Patch Wizard](#)

This lets you patch input signals to Artist [System Commands](#). The inputs for these command functions can be any of the following.

[MIDI Inputs](#)              any MIDI port connect to the computer will provide MIDI messages to Artist. This can be connected to MIDI Keyboard controllers or any other MIDI device to provide control over Artist.  
[DMX Inputs](#)                DMX data input to Artist can be connected to internal system commands.  
[Serial Inputs](#)             serial input has a fixed format.  
 Industrial Automation    Artist can access some Advantech Industrial Automation interfaces to provide real world input from contact closures, analogue sources etc.

The window contains tabs for the input assignments for MIDI, DMX and AI.

[MIDI](#)     MIDI input patch data  
 IA        Data acquisition input.  
[DMX](#)     DMX patch data

Each of these displays the assignment objects associated with them.

Sometimes it may be necessary to define the ports used by your patch. See [Redefine Port](#).



If [Pathport](#) is installed you can monitor a 512 channel xDMX window and use this to trigger System Commands. The patched channels are

listed in this window.

### Adding a Patch

- Select the Patch Wizard from Main Menu/Wizards.
- Select 'Pathport' from the combo box
- Click 'Next'

See [System Commands](#) for the rest of the procedure.



Artist will decode MIDI message, MIDI Time-Code (MTC) and MIDI Show Control (MSC) and patch then to system functions.

### MIDI Messages

To add MIDI message patches to the [MIDI Patch View](#), right-click and select 'Insert'. This will open the MIDI Patch dialog.

The Source section defines the MIDI message you wish to decode.

<b>Port</b>	select the MIDI port the message will be received from
<b>Message</b>	select the MIDI message
<b>Channel</b>	select the MIDI channel
<b>Param1</b>	this depends on the type of MIDI message
<b>Keys</b>	only displayed for Note messages. It allows you define all, white or black keys only
<b>Count</b>	the number of sequential messages to decode.

The command section defines the Artist command that the above message will access.

<b>Command</b>	select the artist command
<b>Param1</b>	select the value. You may assign the variable field of the MIDI message to this.
<b>Param2</b>	select the value. You may assign the variable field of the MIDI message to this.

### Predefined Patches

The 'My Documents/My Workspaces/Templates' directory contains several patches that have been designed for common MIDI control devices.

You can merge any number of these files in to you patch file.

### Merging Patch files

- Create or open a patch file.
- Select 'File/Merge a Patch File'
- Select the file to merge.



This is the preferred human interface method for Artist when used in an dance effect environment.

The PCR50#2.PAT and PCR30#2.PAT files are predefined patches for the EDIROL PCR50 and PCR30 MIDI Keyboard controllers respectively. These patches are used with the overlay templates provides in PCR.DOC.

To use this patch you use must select Memory 3 of the PCR.

- Press 'MEMORY' - displays the current MEMORY number.
- enter new memory number (i.e. 3) using keys.
- Press 'ENTER'.

On power up the PCR by default loads MEMORY 0. You show change this behaviour in order to load the last memory loaded before power off.

■

- Press 'EDIT' - displays "EDT".
- Press 'SYSTEM' - displays "SY0"
- Press the key marked '7' - displays the current mode.
- Press the '1' key - displays 'LAN'.
- Press 'ENTER'.



**Overlay A Rotary controls**

MASTER	This controls the Master fader level in the Cue Control window.
XFADE	This controls the XFade function in the Cue Control window.
CUE LIST	Rotating this control will select the displayed cue list in the client area.
BPM	This sets the BPM rate. If BPM was automatic it is overridden by rotating this control.
FIXTURE GROUP	Rotating this control selects the displayed Fixture3 group in the client area.
FIXTURE PATTERN	Rotating this control selects one of the activate patterns.
FIXTURE ACTIVATE	Rotating this control activates an individual fixture.
PARAMETER	Rotating selects the active parameter.

**Overlay A Buttons**

The buttons MEMORY, MIDI CH, PROGRAM CHANGE and EDIT are unchanged in their functions from those defined in the Ediol manual.

BPM AUTO	Sets the BPM timers to automatic.
TOUCH SCREEN	Displays/Hides the operator touch screen.
THEATRE	Displays/Hides the theatre gui.
ZERO	Zeros the active parameter levels.
FIXTURE PRESET	Sets the preset levels to the active fixtures.
CLEAR FLAGS	Clears all effect and parameter flags.

**Overlay B**

The function of the sliders in this section depends upon the currently display client window.

Fixture view	Each slider adjusts the level of an axis of the current active parameter.
Cue List view	Assigned to the level of each of the first 8 cues in the currently displayed cue list.

**Overlay C**

BLACK	Cue Control blackout/restore function.
FADE	Cue Control fade out/in function.
CLEAR	Clear all active cues.

**Overlay D**

The pitch wheel which also incorporates the modulation lever are assigned to the last activated cue. Rotating the wheel alters it's rate and pushing the modulation lever forward dims the level to zero. Both of these controls return to a fixed position.

**Keyboard**

The patch defines the first 10 white keys as Cue lists (pcr50 only); the next 18 white keys as Cue activates.

You can select Cue lists 1 through 10 with the first white key (PCR50 only) of the keyboard or by rotating the CUE LIST control. You then activate the cues in the displayed list using the next 18 white keys.

1	Cue Control Preset function
2	Cue Control 'Seq' on currently displayed cue list.
3	Cue Control 'Chase' on currently displayed cue list.
4	Cue Control 'Step' on currently display cue list.
5	
6	this is the BPM tap function. Tapping this key with music will synchronise the BPM timers.


EDIROL PCR30/50

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The PCR50#1.PAT and PCR30#1.PAT files are predefined patches for the EDIROL PCR50 and PCR30 MIDI Keyboard controllers respectively.



- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li><b>A</b> Fixture Presets</li> <li><b>B</b> Clear All Flags</li> <li><b>D</b> Select Fixture Group</li> <li><b>E</b> Select Pattern</li> <li><b>F</b> Activate Fixture</li> <li><b>G</b> Select Parameter</li> <li><b>H</b> Select Cue List</li> <li><b>L</b> BPM tap</li> <li><b>M</b> Axis 0</li> <li><b>N</b> Axis 1</li> <li><b>O</b> Axis 2</li> <li><b>P</b> Axis 3</li> <li><b>R</b> Axis 4</li> <li><b>S</b> Axis 5</li> <li><b>T</b> Axis 6</li> <li><b>U</b> Axis 7</li> <li><b>V</b> Last Cue Through rate</li> <li><b>W</b> Last Cue Level</li> <li><b>1</b> Blackout</li> <li><b>2</b> Fade</li> <li><b>3</b> Step</li> <li><b>4</b> Sequence</li> <li><b>5</b> Chase</li> </ul> | <ul style="list-style-type: none"> <li>This function will set the preset levels of the activated fixture in the displayed Fixture group.</li> <li>Clears all parameters flags.</li> <li>Rotate to select the displayed fixture group.</li> <li>Select the built-in activate fixture patterns.</li> <li>Activate an individual fixture.</li> <li>Select the active parameter for adjustment with faders H through K.</li> <li>Rotate to select the displayed cue list.</li> <li>tap this to set the system BPM timer.</li> <li>to adjust the select parameter</li> <li>The pitch bender controls the last activated cue's through rate. Bend to the left reduces speed and to the right increases. The bender will return to normal when released.</li> <li>Adjusts the last cue level. Returns to maximum when released.</li> <li>blackout/restore function</li> <li>fade in/out function</li> <li>Cue control 'Step' function</li> <li>start Cue list sequence</li> <li>start Cue List chase</li> </ul> |
|---|--|

The patch also defines the first 10 white keys as Cue lists; the next 18 white keys (pcr50 only) as Cue activates.

**Cue Activation**

You can select Cue lists 1 through 10 with the first white key (PCR50 only) of the keyboard or by rotating knob H. You then activate the cues in the displayed list using the next 18 white keys. This allows you to activate up to 10 X 18 = 180 cues.

**Fixture Control**

You can select the fixture group by rotating knob D.

You can activate the fixtures within the displayed group by either rotating knob E to select one of the built-in patterns or rotating knob F to activate an individual fixture.

You can set the Fixture Preset levels by pressing button A.

Having activated the fixture you can select the active parameter by rotating knob G.

Now using faders M through U you can control the values of the selected parameter. How the faders connects depends on the parameter.

	Fader M	Fader N	Fader O	Fader P
<b>8 bit Level control</b>	Level	-	-	-
<b>8 bit Mirror</b>	Pan	Tilt	-	-
<b>16 bit Yoke</b>	Pan MSB	Pan LSB	Tilt MSB	Tilt LSB
<b>8 bit Colour Mix</b>	Red/Cyan	Blue/Magenta	Green/Yellow	-

You can clear the parameter flags by pressing button B.

ShopCAD Artist **Kenton Control Freak**

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The Control Freak has 16 faders and 16 buttons which send MIDI messages. There are 64 program settings that define what messages are sent.

**FREAK#1.pat**

Patch file uses the factory settings for the Freak.

**Program 0 - For Cue List 1 (Latched) dimmer levels for effects and houselights.**

Fader1 - Fader16      Activate and fade Cue 1 to 16 in Cue List 1  
 Button1 - Button16      mutes for dimmers.

**Program 1 - General operation and Programming**

Fader1      select client view type (Fixture, Scene, Cue)  
 Fader2      select list/group in current type  
 Fader3      select interlocked fixture  
 Fader4      select fixture activate pattern  
 Fader5      select Parameter  
 Fader6      parameter axis 0  
 Fader7      parameter axis 1  
 Fader8      parameter axis 2  
 Fader9      parameter axis 3  
 Fader 10      BPM rate  
 Fader 11      last active thru rate  
 Fader 12      Master fade  
 Fader 13      XFade  
 Fader 14      Master fade

**Program 2 - For Cue List 2 (Latched) dimmer levels for effects and houselights.**

Fader1 - Fader16      Activate and fade Cue 1 to 16 in Cue List 2

**FREAK#2.PAT**

This patch requires the Control Freak to be reprogrammed. For this purpose several MIDI files (.mid) are located in the 'My Workspaces\Templates' directory. These can be dumped to the Control Freak to configure it for this patch.

**Dimmer list 1**

Fader1 - Fader16      Activate and fade Cue 1 to 16 in Cue List 1  
 Button1 - Button16      mutes for dimmers.

**Dimmer list 1**

Fader1 - Fader16      Activate and fade Cue 1 to 16 in Cue List 1  
 Button1 - Button16      mutes for dimmers.

**Random Access**

Fader1 - Fader16      Activate and fade Cue 1 to 16 in Cue List 1  
 Button1 - Button16      mutes for dimmers.

**Fixture control**

Fader1 - Fader16      Activate and fade Cue 1 to 16 in Cue List 1  
 Button1 - Button16      mutes for dimmers.

You can download a useful PC application for programming the Control Freak from <http://www.kenton.co.uk>

ShopCAD Artist **Roland PC200**

◀ Back   ■ Home   ▲ Up   ▶ Next ▶

The PC200 is a simple and inexpensive MIDI keyboard controller. The PC200#1.PAT predefined patch provides a default set up suited to a nightclub environment.



<b>Cue Lists</b>	The first 10 white keys are assigned to select cue list.
<b>Cue Activate</b>	The next 18 white keys are assigned to cue within the displayed list.
<b>BPM tap</b>	The last white key is assign to the BPM tap function.
<b>Blackout/Restore</b>	Black key 1

Fade in/out	Black key 2
Step	Black key 3
Sequence	Black key 4
Chase	Black key 5
Last Cue through rate	Pitch bender
Last Cue level	Modulation control
Master fader	Data entry control



This topic cover interfaces supplied by Advantech that provide direct digital and analogue input to the Artist host computer.



Often you may want to define the MIDI ports assigned to the patch objects. For example, if you load a predefined patch file the ports will need to be assigned to the ports on your computer.

This dialog displays the ports used by the patch in the list. If you select any of these you can redefine the port by selecting a new one from the combo box.

Click 'OK' to defined.



The patch wizard steps you through connecting peripheral input devices to Artist [System Commands](#)

The path the wizard takes will depend on the choices you make as you go through each dialog. When you are at a particular dialog click 'Help' or press 'F1' on your keyboard to display context help.

[Select Interface](#)  
[MIDI Message](#)  
[Set MIDI note](#)  
[Set key pressure](#)  
[Control Change](#)  
[Program Change](#)  
[Channel Pressure](#)  
[Pitch Bend](#)  
[Summary](#)  
[Digital Input](#)  
[Command](#)  
[Select trigger point](#)  
[System](#)



### Patch Wizard - Select input interface

The combo box lists all the input interfaces that are available in your computer.

Select the interface that you wish to receive data or messages on.

### Predefined Patches

The list box shows all the predefined patches found in the 'My Workspaces\Templates' directory. You can add one or more of these to your patch by double-clicking on the patch name.

Each patch has [Notes](#) on how the patch is implemented.

PCR50#1	nightclub implementation of the Roland PCR50 keyboard controller
PC200#1	nightclub implementation of the Roland PC200 keyboard controller
PC1600#1	Peavey PC1600 MIDI controller
FREAK#1	Kenton Control Freak.



### Select MIDI Message

Select from the combo box the message you wish to receive.

The number box is used to set the number of contiguous messages to decode in this patch object. This will depend on the type of message.

The contiguous messages will then send an incremented value to the System command. Thus, if the System command activates a cue the extra data can be used to determine (by Parameter) which cue is activated.

Simply, this means that one patch can be used to assign 16 keys to activate 16 cues rather than patch each one individually, which you can still do if preferred.

### Example

If you select 'Note on/off' and set a number of 16 this patch will decode all 16 notes from the one you select on the next page.

If you select 'Control Change' and set a number of 16 the patch will decode the control change on the channel number you select on the next and the 15 channels after that.

### Capture

As you press keys on your MIDI keyboard you will see the message displayed in the text box. If you click 'Capture' the wizard setting are set to that MIDI message.



### Patch Wizard - Set MIDI note

**MIDI Channel** Select from the combo box the channel number to receive the message on. If you select 'OMNI' the message will be received on any channel.  
**Note type** Select white, black or all notes to be displayed in the Note combo box.  
**Note** Select the actual note to receive.

*Note: the sequential number from the previous page will do the following*

All notes	will decode the number of note from the start note.
White notes	will decode the number of white keys from the start note.
Black notes	will decode the number of black keys from the start note.



### Patch Wizard - Set key pressure

**MIDI channel** Select from the combo box the channel number to receive the message on. If you select 'OMNI' the message will be received on any channel.  
**Note type** Select white, black or all notes to be displayed in the Note combo box.  
**Note** Select the actual note to receive.

*Note: the sequential number from the previous page will do the following*

All notes	will decode the number of note from the start note.
White notes	will decode the number of white keys from the start note.
Black notes	will decode the number of black keys from the start note.



### Patch Wizard - Set controller type

**MIDI channel** Select from the combo box the channel number to receive the message on. If you select 'OMNI' the message will be received on any channel.

**Controller** Select the controller type from the combo box.

*Note: the sequential number from the previous page will decode the same message on the specified number of channels.*



### Patch Wizard - Set program

**MIDI Channel** Select from the combo box the channel number to receive the message on. If you select 'OMNI' the message will be received on any channel.

**Program number** Select the MIDI program number to receive.

*Note: the sequential number from the previous page will decode the the contiguous number of program change messages from the one specified.*



### Patch Wizard - Set channel pressure

**MIDI Channel** Select from the combo box the channel number to receive the message on. If you select 'OMNI' the message will be received on any channel.

*Note: the sequential number from the previous page will decode the same message on the specified number of channels.*



### Patch Wizard - Set pitch bend

**MIDI Channel** Select from the combo box the channel number to receive the message on. If you select 'OMNI' the message will be received on any channel.

*Note: the sequential number from the previous page will decode the same message on the specified number of channels.*



### Patch Wizard - Summary

This page of the wizard shows a summary of the properties for the patch you are creating or editing. Check this information carefully and go back to edit any incorrect information or click 'End' to complete or 'Cancel' to discard changes.



### Patch Wizard - Set input information

<b>Port</b>	Select the port (or byte) of the digital input device to receive	
<b>Action type</b>	<b>BCD byte</b>	Receive the whole byte and use the binary coded decimal value (0 to 255) to pass to the command.
	<b>BCD byte pulse</b>	Receives a byte as a pulse. It assumes that the inputs will return to zero. Thus valid codes are 1 to 255.
	<b>BCD nibble low</b>	Receive the lower nibble and use the binary coded decimal value (0 to 15) to pass to the command.
	<b>BCD nibble low pulse</b>	Receives the lower nibble as a pulse. It is assumed that the inputs will return to zero. Thus valid codes are in the range 1 to 15
	<b>BCD nibble high</b>	Receive the upper nibble and use the binary coded decimal value (0 to 15) to pass to the command.
	<b>BCD nibble high pulse</b>	Receives the upper nibble as a pulse. It is assumed that the inputs will return to zero. Thus valid codes are in the range 1 to 15
	<b>input line -</b>	Receive a bit and pass to command on high to low transition.
	<b>input line +</b>	Receive a bit and pass to command on low to high transition.
	<b>input line both</b>	Receive a bit and pass to command on either the high to low or low to high transitions.
<b>Select input</b>	Select the input from the combo box.	
	<b>Input</b>	Select the specific input line of the port to receive.
	<b>BCD</b>	

If you select nibble or byte 'Input value', the BCD value of that part of the input port will be passed to the command. This will result in a command for each value of 1 to 15 for a nibble and 1 to 255 for a byte.

If you select an absolute value, the command is triggered only when that value appear on the input nibble 9or port.

A bit is regarded as a single input line.

A byte is 8 bits. This is the size of a port of a digital interface device.

A nibble is 4 bits. Thus a digital interface port has 2 nibble designated upper (input 5 - 8 ) and lower (inputs 1 - 4)



**Patch Wizard - Select Artist Command**

Select the Artist System Command from the tree. See [System Commands](#).



When using [Embedded System Commands](#) the first page of the wizard request where on the parent object fade the command should trigger. See [Fade Attributes](#).

Command at start of fade in
Command at top of fade in
Command at start of fade out
Command at bottom of fade out



The following system command messages can be decoded.

Timing Clock
Undefined F9
Start
Continue
Stop
Undefined FD
Active Sensing
System Reset

No extra parameters are associated with these commands



There are five sources of time data that can be used to trigger Artist's [System Commands](#).

[Real time View](#)  
[Time code View](#)

RTC	the system real time clock
MTC	MIDI Time Code
ATC	Audio Manager audio file playback
VTC	Video Manager video file playback
CTC	Disk media (CD/DVD) playback

Artist has many timed sources through which you can automate your shows.

**Real time clock**

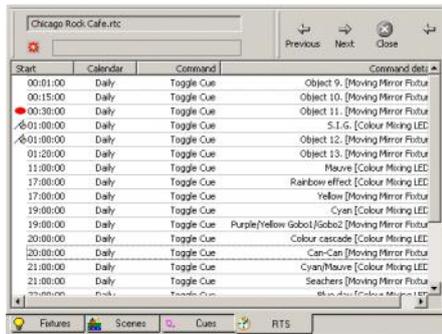
The PC has a real time clock built in to it that is used to display the time of date on the task bar. The accuracy of this clock can be enhanced in many ways including internet time servers.

The real time events feature of Artist also includes a seven day calendar allowing you to create events that only happen on particular days.

**External time code**

Artist can interpret MIDI Time Code (MTC) message sent to it by Windows. Many Windows installed devices can send these messages as response to time code from an external source. First is the MIDI input port. Some computers have a MIDI input port available that a user can input MTC from some external device. Some installed devices can input raw SMPTE analogue data from a tape machine and convert this to MTC either internally or externally.

To Run timed Events see [Time Control](#)



[Event Wizard](#)  
[Creating a Show](#)

The view displays the real time events in the currently loaded RTC file. The columns are,

Time	the time the event fires.
Calendar	the days of the week the event fires on.
Command	the System Command to trigger.
Command details	extra details of the system command.

When the Real time transport is put in to Play mode a flag will appear in the 'Time' column that will be triggered next. The last triggered event is signified by a red dot.

**The Tool Bar**

File name	this box displays the name of the loaded RTC file.
Previous	when the Real Time Control is in Stop mode this button fires the event previous to the last event fired.
Next	when the Real Time Control is in Stop mode this button fires the event after the last fired event.
Close	close the RTC file.



You can create a new Real time event by selecting Wizards/Real Time from the main menu or by right-clicking in the Real time view and selecting 'Add Event'. This will open the Wizard.

The real time wizard steps you through the process of connecting a real time event to a system command.

**Set event time**  
Days of the week  
This is the time the event will fire and trigger the system command assigned to it. By default all the days of the week are selected resulting in the event firing daily. Deselect those days you do not wish the event to fire.

To set the time, click on the required field of the event time and use either the mouse wheel or the keyboard arrow keys.

The next pages of the Wizard sets up the command. See [System Commands](#).



This is a short guide on how to use and set up real time events. The key to understanding what you can do with these events is in the power of the [System Commands](#) that connect real time events with Artist functions.

**Define your cues**

Before actually creating your events you should put your cues in a list and develop some idea of the order in which they will activate. It is good practice to step through the days events manually to see that the transitions are correct.

**Keep it simple**

Initially, at least, it is very important to keep it simple. You only make life more difficult if you create unnecessary cues and events. If you find that at 9.00PM you want to go through four colours at one minute intervals you should not create four events (9.00, 9.01, 9.02 and 9.03), you should, instead, create a scene that has four steps each containing the required colour and have the cue that is triggered at 9.00PM start the scene with one minute intervals.

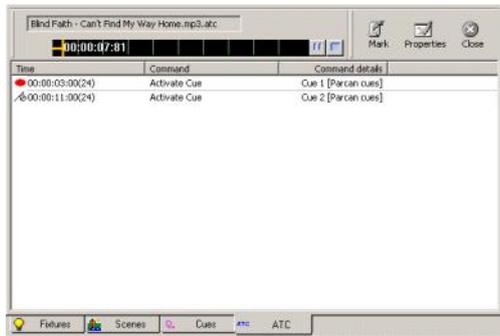
**Make Artist work for you**

Often people want to start and event and finish an event. Unless this is specifically required you should let Artist's cue list action do this for you. By default the cue list is in 'Interlock' mode. This means that as a cue is activated an previous cue will be deactivate. This means that simply by creating an event to activate a cue can, simultaneously, deactivate the cue activated by the previous event.

**Let it Play**

The problem with real time events is that twenty-four hours is a long time to sit around which is why the first point in this discussion is so important.

The Time Control section in the Master Frame is where you start the events. You can also set this to automatically start when Artist boots up. This is import is for any reason Artist is shut-down unintentionally.



[Event Wizard](#)  
[Event Files](#)  
[Creating a Show](#)

This view displays the time coded events in the currently loaded ATC, MTC, CTC or VTC file. The columns are,

Time	the time code at which the event will fire.
Command	the System command that will be triggered when the event fires.
Command Details	extra system command details.

When the appropriate time code transport is put in to Play mode a flag will appear to the left of the event that will be triggered next. The last triggered event is signified by a red dot.

**Tool Bar**

File name	displays the file name of the currently loaded time code file.
Time Gauge	Audio, Video and CD/DVD time code files also display a Time Gauge. This proportionally displays the current time position within the file. Clicking at any point on the gauge will change the playback position. It also has Stop and Play/Pause buttons.
Mark	When the appropriate transport is in Record mode clicking this button will create an event with the current time code and with a blank system command that can be edited later.
Properties	not implemented yet.
Close	Closes the currently loaded time code file. You will be prompted to save changes.

The time code event file contains a list of system commands that are stamped with a time code. When a time code stream is input to Artist and the relevant transport is in play mode the commands will be activated at the time specified.

**Manually adding events**

When the relevant time code transport is in Stop mode, clicking on 'Mark' on the view's tool bar will open the 'Time code Wizard'. Follow the steps to add a time stamped [System Commands](#) to the list.

**Dynamically adding events**

With the relevant transport control in the [Time Control](#) window set to Record mode and the time code source is streaming, pressing 'Mark' will insert a time stamped event in to the list. It will not open the wizard to set the system command. Instead it inserts a default system command which you can edit later.

In this mode you simply press 'Mark' in real time each time you want to mark an event. Pressing the 'QWERTY' keyboard

space bar has the same effect.

In Record mode you can also capture Cue activations. That is to say, if you use your usual method for activating cue a time stamped event will be inserted with a Cue activate system command.

### Editing System commands

Right click on an event in the time code list and select 'Edit Event'. This will open the wizard pages and allow you change the time and the associated system command.

### Editing times

Often you need to tighten up the timing of events in your script. To do this the transport should be in stop mode. Select the event and you will see an in place time edit control. Click in the field you wish to edit and adjust the time.



You can create a new time code event by selecting 'Wizards/Real Time' from the main menu or by right-clicking in the time code view and selecting 'Add Event'.

To edit an event select the event and 'Event/Edit Event' from the main menu, or right-click on the event and select 'Edit Event'.

These actions will open the Wizard.

The time code wizard steps you through the process of connecting a time code event to a system command.

**Set event start time** This sets the time at which the event will fire and trigger its system command.  
**Capture** This button simply sets the event time to that displayed in the [Time Control window](#)

To set the time, click on the required field of the event time and use either the mouse wheel or the keyboard arrow keys.

The next pages of the Wizard sets up the command. See [System Commands](#).



Time code events can be trigger from the following sources,

MTC	MIDI Time Code from any suitable device in the <a href="#">MIDI Manager</a> .
ATC	Audio file installed in the <a href="#">Audio Manager</a> .
VTC	Video file installed in the <a href="#">Video Manager</a> .
CTC	Disk media (CD/DVD) in the <a href="#">CD/DVD Media Manager</a> .

All time code event files are the same basic format but are named to be specific to the event source. All these files reside in the Workspace directory.

### MIDI Time Code Event file (MTC)

Several user named MTC files can exist on disk but only one can be loaded at any one time. The available files are listed in 'MIDI Manager/MIDI Time code files' in the Resources tree.

#### Creating MTC

In the Resources navigator open the MIDI Manager and right-click on 'MIDI Time Code files'. Select 'Create MTC'. Or, you can select 'File/New/MIDI time event file' from the main menu.

#### Loading MTC

In the Resources navigator open 'MIDI Manager/MIDI Time code files' and right-click on the file to load. Select 'Load MTC'. Or, you can select 'File/Open/MIDI time event file'

### Audio wave (ATC)

Each audio file can have it's own time code file. This file can load automatically when the file is played or it can be preloaded. When it is loaded any other Audio manager time code file will unload. The available files are listed in Audio Manager/Time code files in the Resources tree.

#### Creating ATC

In the Resource navigator open the Audio Manager/Waves and right-click on the file. Select 'Create ATC'. This will create an ATC file with the same name as the audio file with '.atc' extension added.

#### Loading ATC

In the Resources navigator open 'Audio Manager/Waves' and right-click on a file with the blue 'atc' overlaid icon. Select 'Load ATC'.

### Video clip (VTC)

This has the same behaviour as the Audio manager except that a Video manager time code file can be loaded at the same time as an Audio file time code. The available files are listed in Video Manager/Timecode files in the Resources tree.

#### Creating VTC

In the Resources navigator open Video manager and right-click on the required file. Select 'Create VTC'. This will create a VTC file with the same name as the clip file with the '.vtc' extension added.

#### Loading VTC

In the Resources navigator open Video Manager and right-click on a file with the blue 'vtc' overlaid icon. Select 'Load VTC'.

### CD Audio (CTC)

A time code file can be associated with the CD disk ID and will load automatically when the CD disk is mounted. The available files are listed in CD Audio Manager/Timecode files in the Resources tree.

#### Creating CTC

In the Resource tree open 'CD/DVD Media Manager' and right-click on 'CD/DVD time code files'. Select 'Create CTC'. Or, select 'File/New/CD/DVD event file' from the main menu.

#### Loading CTC

In the Resources navigator open the 'CD/DVD Media Manager/CD/DVD time code files' and right-click on the required file. Select 'Load CTC'. Or, select 'File/Open/CD/DVD time code file' from the main menu.



This is a short guide on how to use time code events. The key to understanding what you can do with these events is in the power of the [System Commands](#) that connect time code events with Artist functions.

#### Define your cues

Before actually creating your events you should put your cues in a list and develop some idea of the order in which they will activate. It is good practice to step through the cues manually to see that the transitions are correct.

#### Keep it simple

Initially, at least, it is very important to keep it simple. You only make life more difficult if you create unnecessary events. Identify the important changes that are required and start by creating cues for these points in your show. You can then go back to the beginning and start to add the smaller details. This iterative approach ensures that you will have a complete show in the shortest possible time. Any spare time you have can be used to add detail and finesse.

#### Use Scenes for fast events

If you find that you want to have a sequence at some point it is easier create a scene for the sequence and have a cue access that scene at the appropriate time event. This approach makes your time code events file easier to read and requires less editing.

#### Make Artist work for you

Often people want to start an event and finish an event. Unless this is specifically required you should let Artist's cue list action do this for you. By default the cue list is in 'Interlock' mode. This means that as a cue is activated an previous cue will be deactivate. Thus simply by creating an event to activate a cue the previous cue is simultaneously deactivated. This emphasises the important of manually stepping through your cue in the cue list before mapping out the event times.

#### Let it Play

The Time Control section in the Master Frame is where you start the events. You can also set this to automatically start when Artist boots up.



#### Open Artist

When Artist launches it will usually reload the Workspace and any other files that were loaded in the previous session.

#### Launch with a specific Workspace

You can force Artist to launch using another Workspace by double-clicking on the workspace file (.wsp).

#### Open another Workspace

While Artist is open you can open another workspace in the following ways,

- From the main menu select File/Open/Workspace and select the file.
- double-click on a workspace file (.wsp) in your file browser. This will cause Artist to close the current Workspace and open the selected file.



Various system wide settings can be set from the Main menu/Tools/Preferences.

[File Saving](#)  
[Control](#)  
[Security](#)  
[Start up options](#)

<a href="#">File Saving</a>	directory and file saving settings
<a href="#">Control</a>	some global control settings
<a href="#">Security</a>	setting up security schemes to limit user access
<a href="#">Start Up</a>	what Artist does when it starts up.



**Auto save**

Checking the auto save box will cause Artist to save the open files to the system hard disk periodically. This period in minutes is set using edit box provided.

*Please note this option does not persist from the previous session. You must check this box on booting Artist if you want to automatically save you programming during the current session.*

**Workspace directory**

When you create a new Workspace or restore one from backup it is stored in the directory define in the edit box. The browse button allows you to select another directory. This directory is also used for the [boot workspace select menu](#).

There are some other data files contained in sub-directories of the Workspace directory.

Sounds	this contain audio wave files. See <a href="#">Audio Manager</a> .
Videos	this contain video clip files. See <a href="#">Video Manager</a> .
Images	this contain user created images for use in fixture effects. See <a href="#">Bitmap Manager</a> and <a href="#">Effects</a> .
Templates	this contains fixture template files for creating fixtures.
Backup	this contains your workspace backup archive.

**Prompt for Save on close**

Check this box if you want to be asked if you need to save the files when Artist is closed. If this box is not checked Artist automatically saves any changes you have made during this session.

**Don't Close if cues running**

If this box is check Artist will not close if any Cues are currently active. You must stop all cue activity before closing.



**Joypad Mouse Acceleration**

Sticky Pad	if checked the joypad behaves as a sticky control when clicked (i.e. as if the mouse button were held down)
Enable	enable mouse acceleration using DirectX.
Acceleration	rate of mouse acceleration

**Cue Activation**

Restore blackout	if a cue is activate when the system is in blackout, the blackout state is reset and the cue is activated. Previous cues are not reactivated.
Maximum master level	When a cue is activated the Master level is set to maximum ensuring that the master level cannot be left unintentionally at any other level.





Artist has a set of four access policies, known as **Security Schemes**, which can be used to prohibit access to elements of Artist and of the workspace.

This property page is only accessible from within the **Installer** scheme.

### Defining the Security Schemes

From the main menu select **Tools/Preferences** to open the Preferences dialog. Select the **Security** tab.

Select a scheme to show the features available in the **Windows** tree view. If a password is defined for the scheme it will be shown in the **Scheme password** edit box.

Change the settings and password you require for that scheme and select another. Usually you will find that the default settings for each profile will give you the security you need.

### Selecting a scheme

You select a scheme from the main menu **File/Security Scheme**. If the selected scheme requires a password a dialog will appear.

Once a scheme has been selected closing Artist will save this as the default scheme when Artist is next booted.



As Artist is started up you can set the following actions to take place automatically.

### Main Window

The main Artist window can be forced in to one of the following modes at start up.

Normal	The Artist window will be saved as it is stored in the workspace in the normal way.
Maximised	The Artist window is shown maximised.
Minimised	The Artist window is shown minimised.
In Tray	The Artist window is not shown and Artist is represented by an icon in the Windows status bar. You can right-click on the icon to select some limited functions. Any detached windows will be shown.

### Check boxes

<b>Lamp strike</b>	A lamp on signal is sent to all installed fixtures at start up.
Select Workspace	at start up Artist displays a dialog that the user must select a workspace from. This list contains those workspaces found in the default workspace directory.
Auto Boot	Artist will launch when the computer is booted.
Theatre GUI	the Theatre GUI with open at start up.
Operator GUI	the Operator GUI with open at start up.
<b>Real Time</b>	automatically start real time control. You can also set this in the Time Control window.
<b>Time code</b>	automatically start time control. You can also set this in the Time Control window.
Hot Plugging	not recommended.
Force What's New	check this to display the 'What's New' document when Artist is next launched.

### Auto-start Cues

You can select cues to activate upon Artist booting. Please note that these cues will be overridden if the real time script or time code scripts are set to start on booting.

The cues that will start automatically are displayed in the list box.



Menu, Status and Tool bars are the main method of the user issuing commands to Artist.

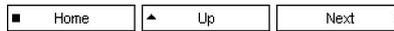
Menus display a list of command with both text descriptions and icons.

Toolbars contain icons that represent their commands and display mouse hover tips.

Status bar is located along the bottom of the main application window.



[Menu bar](#)  
[Context Menus](#)  
[Tool bars](#)  
[Status bar](#)



This is the bar at the top of the application frame which gives access to the menus. These menus relate to the currently displayed client [Views](#) and navigator [Tree Views](#). When you change to another view type the menu items will change also.

Clicking on a title in the bar will popup a Menu. Some of the items in the menu may be 'greyed-out', which indicates that that function is not available.



Context menus are popped-up by clicking the mouse right button over a window or an object. The menu displayed depends on what object or window was clicked on. It is specific to the functions that will be required. Menu items that are not available are shown 'greyed-out'.



These are the bars containing icon representations of some menu items. When a tool button is greyed out it means that there is no function available. Some windows have their own tool bars within the window.



Save All	Save all workspace file and any other files open in the client window.
Print	Print the displayed document in the client area.
Panic	Resets Artist to a default state.
Help	Opens the help file.



Cut	cuts the highlighted object to the clipboard.
Copy	copies the highlighted object to the clipboard.
Paste	paste the contents of the clipboard to before the selected object.
Delete	delete the highlighted object.
Edit Content	edit the contents of the selected object.
Set Parameters	copy the contents of the selected step, scene or cue to the Fixture Control for editing.
Set Program	set the program window and navigator to the selected step, scene or cue.



Properties	display the properties of the selected object.
Group Properties	display the properties of the current group or list.
Previous Group/List	display the previous group or list.
Next Group/List	display the next group or list.
Find Active	display the next group with active objects.
Deactivate in Group	deactivate all objects in the displayed group.
Deactivate All	deactivate all objects in the displayed document type.
Reset Fixtures in Group	reset the fixtures in the displayed group.
Reset All Fixtures	reset all fixtures in all fixtures.
Lamp on Fixtures in Group	Send Lamp On command to fixture in the displayed group.
Lamp on All Fixtures	Send Lamp On command to all fixtures.



Activate previous fixture	activate the previous fixture in the displayed fixture group.
Activate next fixture	activate the next fixture in the displayed fixture group.
Set Preset levels	set the preset levels on all the parameters of the activated fixtures.
Clear active Parameter flags	clear all parameters flags in active fixtures in the current group.

Clear Parameter flags only	clear all parameter flags in all groups.
Clear Effect flags	clear all effect flags in all groups.
Clear Effect and Parameter flags	clear all effect and parameter flags in all groups.
Zero active parameter	set the active parameter in the current group to zero.
Zero all outputs	set all parameters in all fixture groups to zero.
Store Beam	store the currently flagged fixture parameter of Beam type to a Beam palette index.
Store Position	store the currently flagged fixture parameter of Position type to a Position palette.
Set Memory	memorize all the parameter values of active fixtures in the current group.
Recall Memory	recall all the parameter values to the active fixtures in the current group.



The Status bar is located along the lower edge of the main application window. It contain the following sections,



This bar displays prompt text and on the fly error messages.



This bar controls the BPM timer.

If **Auto** is checked then it tracks the BPM rate of the incoming audio signal.

If **Auto** is not checked the rate can be adjusted by the spin control.



This bar is used to control the visibility of the frame windows docked in the main application window.

Fixture	display/hide the <a href="#">Fixture Control</a> window.
Status	display/hide the <a href="#">Status window</a> .
Navigator	display/hide the <a href="#">Navigator frame</a> .
Master	display/hide the <a href="#">Master frame</a> .
Palette	display/hide the <a href="#">Palette frame</a> .
Operator	display/hide the <a href="#">Operator GUI</a> .
Theatre	display/hide the <a href="#">Theatre Interface</a> .



Fixture are controlled from the Fixture Control panel. This is a tabbed dialog window containing dialogs pertaining to the following features.

- Parameter** This dialog contains the controls defined in the fixture. There is a control for each of the fixture's parameters.
- Fanning** This is a tool for graduating parameter values across selected fixtures within a group.
- Chases** This dialog provides the tools for creating chase patterns across fixtures.
- Effects** This dialog creates effects particular to the parameter type.

[Parameters](#)  
[Fanning](#)  
[Chases](#)  
[Effects](#)

Fixture objects are controlled from various sources. Cues and Scene send previously stored data to fixtures due system playback. Control of the fixture by the user can be achieved in four main ways.

The fixture group that the control panel accesses is the active fixture group in the client area. Changing this active group also changes the displayed controls.

[Overview of GUI](#)

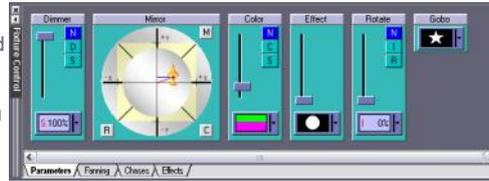
[Palette frame window](#)

## Parameter Flags



This dialog provides direct access to the activated fixtures in the active fixture group. It shows all the controls necessary for positions, levels etc. These controls will depend on the type of fixture displayed in the fixture view.

This window works in concert with the [Fixture View](#) which allows you to activate and view fixtures.



## Selecting Fixtures

The [Fixture View](#) allows you to activate any fixtures within the active group by click on their icons. The parameter control will alter the fixtures that are active and the flags for those active fixture parameters will be set.

The top bar in the Fixture View contains a combo box that provides activate patterns for quickly selecting all, odd, even, etc., fixtures.

## Parameter Control

Normally data for fixture parameters are provided by cues and scenes. However, when a parameter control is changes on the fixture control panel, a flag is set in each active fixture to indicate that data is now coming from the control panel and that data from the cues and scenes are blocked. The [Parameter Flags](#) are also the main means of determining what data is to be saved to cue or scene during programming since they indicate the parameters that the programmer has changed. The controls in the control panel indicate that a parameters flags is set by changing the name background colour to red.

## Parameter Menu

Right-clicking on a control will display a menu.

<b>Clear flag</b>	clears the flags of this parameter in each of the active fixtures.
<b>Display type</b>	changes through the Alternative display types.
<b>Zero level</b>	zeros the level of this parameter in each of the active fixtures but does not clear the flag

## Control mode

Most parameters have optional control modes that are switched between by clicking on the text label of the control. These optional control modes are usually a slider representation or an incremental control.

The incremental mode allows you to adjust the values of the active fixture parameters proportional instead of ganged.

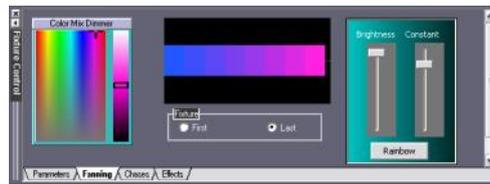
## Keyboard Control

The keyboard provides may useful shortcuts for parameter control. These key are valid when a control has the focus indicated by a red outline around the control. You can select controls by clicking in them or by successively pushing the 'Tab' key on your keyboard.

<b>Joy Pad</b>	<b>Arrow keys</b>	these control the X and Y values of the joy pad. For 16 bit parameters the adjustment is coarse by default. Hold down the left shift key then use the arrow key for fine adjustment.
	<b>M</b>	This will save the current vales of X and Y.
	<b>R</b>	This will recall the previously saved values of X and Y.
	<b>C</b>	This will position the joy pad in the centre.
<b>Level Control</b>	<b>F</b>	This is the flip function for yoke type fixtures.
	<b>Space bar</b>	Toggle alternate display.
	<b>up and down arrows</b>	these adjust the level.
	<b>Home and End</b>	these set the maximum and minimum levels respectively.
<b>Colour Mixer</b>	<b>Page Up and Down</b>	these select the predefined Shortcuts that the control may have.
	<b>Space bar</b>	Toggle alternate display.
	<b>Character</b>	The first character of the label of each of the range buttons will select that range.
	<b>Left and Right arrow keys</b>	These select the axis of control (i.e. Red, Green or Blue)
	<b>Up and Dow arrow keys</b>	These adjust the level of the select ed axis of control.
	<b>Space bar</b>	Toggle alternate display.



This dialog provides a method of fanning the values of a parameter of each fixture in a group. For example, you can have all the dimmers selected and set the first to zero and have each successive one a fractional part up to the last one at full brightness. You could have a fixture at a position and fan out the positions of all the others in the group relative to the first.



**Control**

The first control in the dialog is a copy of the control for the parameter you are setting. The function of the control is dependant on what mode is selected.

**Create a colour Gradient**

- If your fixture group contains colour mixing devices, activate all the fixtures you wish to be in the gradient.
- Select the 'First' radio button. This will set the control to the first active fixture in the group.
- Set the colour of this fixture.
- Select the 'Last' radio button. This will set the control to the Last active fixture in the group.
- Set the colour of this fixture.

You will now have a colour gradient similar to the one shown above.

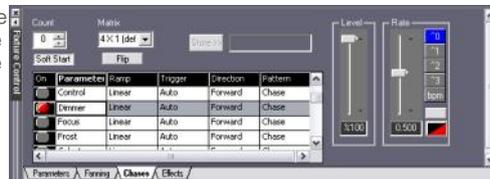
**Create a position fan**

- If your fixture are moving (yoke or mirror) devices, activate all the fixture you want to fan.
- Select the 'First' radio button to set control to the first active fixture.
- Set the position of this fixture.
- Select the 'Last' radio button to set the control to the last active fixture.
- Set the position for this fixture.

You now have a fan of position between the two points you have set.



The parameters of the fixtures contained within a group can be made to chase. If you have for example, a group of 8 scans, you can make the dimmers chase in various patterns. You can have more than one chase running in each fixture group, so you could also have a chase on the tilt, the pan and the dimmer.



**The Parameter List**

The list displays the parameters in the currently active fixture group.

- On** Click once on this column to select a chase to the Slider controls and to activate it. This column displays a Red light if the user has activated a chase or a blue light if a chase is accessed by a cue or scene.
- Parameter** this is the parameter name as defined in the fixture.
- Ramp** select the shape of the fade in and out slopes. Click twice to open the options list box.
- Trigger** select the trigger source for the chase stepping. Click twice to open the options list box. See [Triggers](#).
- Direction** select the direction of chase. Click twice to open the options list box.
- Pattern** select the fixture chase pattern. Click twice to open the chase pattern dialog.

**Chase Pattern Dialog**

Chase Pattern	Chase	Standard chase pattern. The number of chasing channels are set by the 'Injector'.
	Cascade	A build up and knock down pattern.
	Unison	All channels pulse on and off in unison.
	Alternate	A flip flop pattern.
	Dark chase	Inverse of 'Chase'. The injector sets the number of dark channels.
	Block	A block chase sets an entire row of a matrix in turn. If the 'Matrix' is set to 1 X n then the channels will simply remain on.
	In and Out	Two chase opposing chase running towards one another. The number of chasing channels in each direction are set by the 'Injector'.

**Injector** specify the injection number. A injector of 1 would produce a normal chase, 2 would make a two channel chase etc.

**Matrix**

The matrix combo box allows you define the array that the selected chase pattern is applied to. For example, a 2 x 4 matrix with a chase running will consist of two 4 channel chases.

The **Flip** function rotates the matrix through 90°.

### Slider Controls

**Fader** this adjust the level sent to the fixture parameters.  
**Rate** See [Rate and BPM Control](#).  
**Count** the number of times the last fixture in the group is output before the scene automatically deactivates. Zero means continuous.

### Soft Start

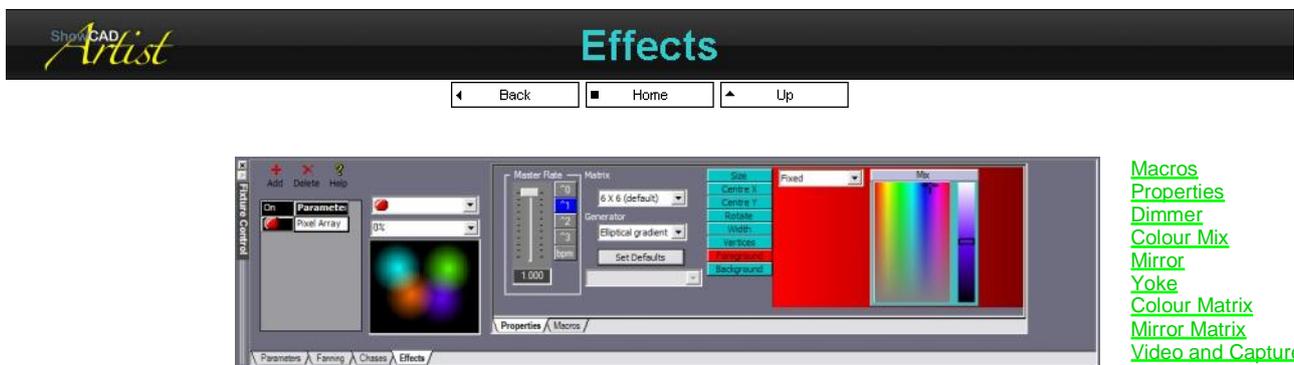
If this button is checked then the chase starts with the first step at a zero level and fades in. If it is not, the first step snaps in.

### Masking Fixtures

You can exclude a fixture from an active chase by right-clicking on it in the [Fixtures](#) view and selecting **Chase Mask** or by holding the **Control** key while clicking on it.

### Editing chase parameters within a Scene/Cue

When a scene or cue is accessing a chase, open the chase dialog and click the find button until the chase whose parameters are to be altered is displayed. It will appear in the 'On' column as 'Sub'. Select the row and then adjust the parameters as required. To store the changes click 'Store >>' which will save the changes to the cue or scene whose name appears in the adjacent text box.



[Macros](#)  
[Properties](#)  
[Dimmer](#)  
[Colour Mix](#)  
[Mirror](#)  
[Yoke](#)  
[Colour Matrix](#)  
[Mirror Matrix](#)  
[Video and Capture](#)  
[Pixel Arrays](#)

This window provides effects that are specific to each parameter of a fixture. These effects can be for a linear group, a matrix group or a Pixel Array of fixtures and produce sequences not achievable in any conventional way.

Colour Mixing parameter can have multiple effects active concurrently.

### Tool bar

Add	Activate a new effect. The new effect is duplicate of the previously activated effect and is placed in the same position. You change these properties as required.
Delete	Deactivate the effect currently with the focus. The next effect is then given the focus.
Help	Open this help page.

### Active Effects Combo box

This combo box contains a list of all the effects active on the currently selected parameters. This only applies to colour mixing parameters. These parameters can have any number of effects blended on them.

### Parameter List

The list displays the parameters contained in the fixture. Click on the 'On' button to activate the effect for that parameter. Click it again to deactivate.

Click on the parameter name to set the **Properties** and **Macros** dialogs to this parameters functions.

### The Monitor

The square monitor window displays a view of the currently running effect on the selected parameter. It is intended as a programming aid.

### Tabs

<a href="#">Properties</a>	Use the controls on this tab to set the master rate for the effect (all other rates are proportional to this), the matrix shape, the effect generator and its properties.
<a href="#">Macros</a>	This tab lists quick effect settings. Once having set one of these you can, of course, adjust the settings to fine tune the effect to your requirements.

To become familiar with effects see,

[Dimmer](#), [Colour Matrix](#) or [Mirror Matrix](#)

**Masking Fixtures**

You can exclude a fixture from the effect by right-clicking on it in the [Fixtures](#) view and selecting **Effect Mask** or by holding the **Shift** key while left-clicking the fixture. This allows you to create effects that are output on selected fixtures only within the group.

**Invert Position Parameters**

If you have two sets of fixture opposing one another you may wish to invert one or other of the axis of the opposing fixture in order to create a more coherent effect. You can do this by right-clicking on the fixture in the [Fixtures](#) view and selecting **Flip X** or **Flip Y**.



This tab displays a list of preset settings for effects on the selected parameter. These can be used as they are or to provide a useful starting point for your own effects. Having selected a suitable macro you can then adjust the 'Properties' to taste.



[Effect.eff](#)

Linear	These macros are specific but not exclusive to fixtures arranged in a single row. These effects work equally well with matrix arrangements.
Matrix	These macros are specific but not exclusive to fixtures arranged in more than one row. In general these effects do not work well with linear fixture arrangements.

**Effect Macro File**

Artist is supplied with an effect macro file that defines the effect listed [here](#). This file is updated with every subsequent release of Artist adding to the macros list.

You can create your own macros and should do so in a file with a different name to the default one supplied. The default file name is EFFECT.EFF.

**Adding a Macro**

Activate an effect on a selected parameter and set up your effect by adjusting the effect properties.

Right-click in the Macro window and select 'Add Macro'. Enter the name for your new macro.

You must select whether it will appear in the 'Linear' or 'Matrix' columns. The main difference is that the 'Matrix' macros will also set the matrix size to it's default value. The 'Linear' macros do not alter the matrix size when selected.

**Saving a new Macro file**

Right-click in the Macro window and select 'Save Effect file'. When the file dialog opens enter the new name for you file.

This will now become the new default effect file loaded each time Artist starts.

To return to the supplied default file, right-click in the Macro window and select 'Load Default file'.

**Delete a Macro**

Right-click on the Macros you wish to remove and select 'Delete Macro'. You will be prompted to confirm it's removal.



The supplied default effect macro file (effect.eff) will be updated on subsequent versions and will therefore be overwritten. You should create your own macros in a file with a different name. Feel free to send us your effect file for possible inclusion of future versions.

There follows a description of the files effects.

**Dimmer, colour, gobo etc**

Chase	stepping one channel at a time. A simple stepping chase.
Cross-fade	cross-fading chase
Strike	Simple chase with a blank between each step.
Pulse	chase with step snap in and decay out
Comet	Each parameter snaps on in turn and fades out creating a trailing edge.
Reverse pulse	chase with fade in and snap out.
Dyke	a block chase with a short fade in and out.
gentle wave	all parameters fade in and out equidistant across the fade time.

double-dutch	this is the same as the 'gentle wave' with the addition of 'Auto up/down' procession on the background level.
<b>Matrix stuff</b>	<b>only for matrix physical layouts</b>
concentric	a filled circle grows from the centre point of the matrix. Each concentric circle alternates in colour.
sweeping circles	the same as 'concentric' except that the Centre X and Centre Y properties have an 'Auto up/down' procession on them causing the centre of the circles to move around the matrix.
diagonal	a diagonal line with soft edges sweep diagonally across the matrix.
sweeps	a line sweeps across the matrix. The angle of the line has an 'Auto up/down' procession on it.
radial	a continuously rotating line.
twister	a continuously rotating line with 'Auto up/down' procession on both length and width of the line.
boomerang	a continuously rotating line. The rotational centre is moving around the matrix.

## Mirror

marbles	the beam trace out a curve and follow one another back and forth along it.
mosh	rapid up and down motion with 'Auto up/down' horizontal procession.
circle	circular motion with all fixture spread evenly along the circumference.
spiral	circular motion with 'Auto up/down' procession on the size property.
atomium	a rotating ellipse with the fixtures moving around its perimeter.
sissors	rapid left/right motion with vertical procession.
can-can	rapid up/down motion with horizontal procession.
one-world	straight line track with rotational and horizontal procession.
figure 8	figure-eight track
<b>Matrix stuff</b>	<b>only for matrix physical layouts</b>
concentric	this effect is the same as that described above in 'Dimmer, colour, gobo etc'. The difference is that the foreground and background are positional data.
sweeps	same as above.
waves	
rotating waves	
spokes	
3d waves	

## Yoke

swinger	curved track with fixture following one another along it.
north pole	same as above with procession on the rotation.
sweep	same as 'swinger' with procession on the size property.
circle	fixture follow one another along a circular track.
UFO	save as 'circle' with procession on rotation.
figure 8	fixture follow one another along a figure-eight track.
fruit loop	same a 'figure-eight' with procession on the rotate property.
nodding donkey	fixture staggered along a straight line track.
<b>Matrix</b>	<b>only for matrix physical layouts</b>
Concentric	
Sweeps	
Waves	
Rotating Waves	
Spokes	
3D Waves	

## Colour mix

colour sequence	a fixture sequence through the spectrum in unison.
staggered	fixture sequence through the spectrum in waves.
rainbow	full spectrum sequence across all fixtures.
chase	red chase on top of a yellow background.
strike	a blue strike chase on top of a white background.
Pulse	blue pulse chase
Comet	white background with a changing colour comet foreground.
Reverse Pulse	a blue reverse pulse on a white background.
Barrier	Blue barrier chase on a mauve background.
Gentle wave	Red gentle wave.
Spectrum wave	gentle wave with a white background and procession on the foreground colour.
Colour Cascade	A cascade on a white background. The foreground processes through the spectrum.
Surf	a fading cascade with procession on both foreground and background colours.
<b>Matrix</b>	<b>only for matrix physical layouts</b>
concentric	mauve and green concentric circles.
sweeping circles	amber and blue concentric circles with procession on Centre X and Y properties.
diagonal	diagonal sweeping line.
sweeps	rotating and horizontally sweeping line.
radial	rotating mauve line on a white background.
twister	rotating line with procession on it's with and length.
boomerang	rotating white line on a blue background. Procession on Centre X and Y properties.
graduate	diagonally sweeping spectrum gradient.
Dream	Graduated colour sequence with procession on rotate.
rainbow	diagonally seeping spectrum.
Flying rainbow	same as 'Rainbow' with procession on rotate.
Rotating squares	white square rotating on a white background.
Squares	black background with concentric squares. Procession on foreground colour.

Triangles	White rotating triangle. Background colour with procession.
Bubbles	Expanding circles with procession on Centre X and Y properties.
Pong	A sweeping rectangle with procession on X and Y size and Centre X and Y properties.
Flutter	Mauve shape changing size, position and aspect.
Diamonds	Black background with concentric colour changing diamond shapes.
Flower Power	lots of procession



This tab displays the properties for the parameter effect.



Rate	This is the master rate for the effects. <a href="#">Procession</a> on properties are proportional to this master rate.
Matrix	This defines the physical arrangement of the fixtures. If the are simply a group arranged in a straight or curved line then you would selected the first option (i.e. 1 x 8) signifying there is only one row of fixtures or a Linear arrangement. If the fixtures are arrange in more that one row they can be treated as a matrix (i.e. 4 x 4 is 16 fixtures in four rows).
Generator	This is the algorithm generator that is used to create the effect.
Set Defaults	Clicking this button sets a default set of properties for the selected generator.

### Generators and Properties

This draws a polygon outline to the fixture parameter matrix.

Polygon (matrix)	Foreground	this sets the polygon colour
	Background	sets the background colour
	Size	the overall size of the polygon
	Centre X	the central horizontal position.
	Centre Y	the central vertical position.
	Rotate	rotation around the central point.
	Width	the width of the polygon outline.
Vertices	the number of vertices; 3 = triangle, 4 = square etc.	

This draws a single line across the matrix.

Linear (matrix)	Foreground	this sets the foreground colour
	Background	sets the background colour
	Pos	horizontal position of the line.
	Rotate	the rotation of the line around the centre point.
	Width	The width of the line.

This draws a filled circular shape.

Concentric (matrix)	Foreground	this sets the foreground colour
	Background	sets the background colour
	Size	The size of the filled circle.
	Centre X	the central horizontal position.
	Centre Y	the central vertical position.
Edge	the sharpness of the edge of the circle.	

This draws a single line that passes through the centre of the matrix.

Radial (matrix)	Foreground	this sets the foreground colour
	Background	sets the background colour
	Width	the width of the line.
	Height	the height of the line.
	Centre X	the central horizontal position of the line.
	Centre Y	the central vertical position of the line.
	Rotate	rotation of the line around the centre point.

This draws an image file to the matrix.

Image (matrix)	Background	sets the background colour
	Diffuse	this sets the diffuse colour of the image.
	Size	the size of the image
	Aspect	this adjusts the aspect ratio of the image.
	Centre X	the central horizontal position.
	Centre Y	the central vertical position.
	Rotate	the rotation of the image around the centre point.

This selects a video clip from the [Video Manager](#) to output to the fixture matrix.

The rate control adjusts the playback rate of the video. A rate of 1 seconds is normal speed; less than 1 seconds is faster and greater than 1 seconds is a slower rate.

Video (matrix)	Background	sets the background colour
	Diffuse	this adjusts the diffuse colour of the clip.
	Size	the size of the clip.
	Aspect	adjusts the aspect ratio of the clip.
	Centre X	the central horizontal position.
	Centre Y	the central vertical position.
	Rotate	the rotation of the clip around it's centre point.

This selects a video capture device such as a camera as the video source for the fixture effect. See [Video](#)

[Manager.](#)

Capture (matrix)	Background	sets the background colour
	Diffuse	this adjusts the diffuse colour of the video.
	Size	the size of the video image.
	Aspect	adjusts the aspect ratio of the video image.
	Centre X	the central horizontal position.
	Centre Y	the central vertical position.
	Rotate	the rotation of the video image around it's centre point.
VU meter	Produces a VU meter effect on a matrix of fixtures.	
	Decay	
	Start Frequency	
	Direction	
	Spread	
	Foreground	
	Background	
Linear blend	Produces a static linear blend on an Effect Canvas.	
	Rotate	
	Foreground	
Elliptical blend	Produces a static Elliptical blend or two colours on an Effect Canvas.	
	Foreground	
	Background	
Marquee	Produce a scrolling text message on a matrix or Effect Canvas. The messages are in the Text Manager.	
	Pos	
	Margin	
	Rotate	
	Foreground	
	Background	
	Text Index	
Rainbow	This draws a colour spectrum on the matrix.	
	Pos	the position on the colour spectrum of the start colour.
	Rotate	the rotation around the centre point.
	Brightness	the brightness of the display.
	Contrast	the contrast of the spectrum.
	Spread	the spread of the spectrum across the matrix.
	Fixture levels are determined by the shape of a envelope.	
Envelope	Foreground	this sets the foreground colour
	Background	sets the background colour
	Top	the width of the top of the envelope peak.
	Slope	angle of the lead and lagging slope of the peak.
	Width	the width of the raised part of the envelope.
	Pos	sets the position of the envelope.
	Spread	the spread of the fixture across the envelope.
Wave	Fixture levels are spread across a wave shaped envelope	
	Foreground	this sets the foreground colour
	Background	sets the background colour
	Size	the size of the wave
	Offset	the offset of the wave from the zero line.
	Shape	the shape, from sine to triangle, of the wave.
	Pos	sets the position of the wave
Arc	Spread	the spread of the fixtures across the wave.
	Mirror and Yoke shape. A joy pad is also displayed to allow positioning off the activated fixtures in the same way as in the <a href="#">Parameters</a> window.	
	Size	Size of the arc.
	Curve	Curvature of the arc.
	Offset X	the central horizontal offset of the arc.
	Offset Y	the central vertical offset of the arc.
	Rotate	the rotation of the arc around the centre point.
Circle	Pos	sets the position of the beams on the arc
	Spread	the spread of the fixtures across the arc.
	Mirror and Yoke shape. A joy pad is also displayed to allow positioning off the activated fixtures in the same way as in the <a href="#">Parameters</a> window.	
	Size	the size of the circle.
	Eccentric	the eccentricity of the circle (ellipse)
	Offset X	the central horizontal offset of the circle.
	Offset Y	the central vertical offset of the circle.
Tip	Rotate	the rotation of the ellipse around the centre point (not much point in rotating if it's a circle).
	Pos	sets the position of the beams on the circle.
	Spread	spread of the fixtures across the circle.
	Mirror and Yoke shape. A joy pad is also displayed to allow positioning off the activated fixtures in the same way as in the <a href="#">Parameters</a> window.	
	Size	the size of the tipping motion.
	Offset X	the central horizontal offset of the motion.
	Offset Y	the central vertical offset of the motion.
Expert Mirror and Yoke movement.	Rotate	the rotation of the motion around the centre point.
	Pos	sets the position of the beams on the tipping line.
	Spread	the spread of the fixtures through the motion.
	Expert Mirror and Yoke movement. A joy pad is also displayed to allow positioning off the activated fixtures in the same way as in the <a href="#">Parameters</a> window.	
	Size	the size of the motion.

Lissajous	Eccentric	the proportion of horizontal scale to vertical.
	Offset X	the central horizontal offset of the motion.
	Offset Y	the central vertical offset of the motion.
	Rotate	the rotation of the motion around the centre point.
	Pos	sets the position of the beams on the lissajous.
	X to Y	the proportion of the horizontal rate to vertical.
	Spread	the spread of the fixtures across the motion.
Mirror and Yoke motion. A joy pad is also displayed to allow positioning off the activated fixtures in the same way as in the <a href="#">Parameters</a> window.		
Figure 8	Size	size of the figure 8 movement.
	Eccentric	the proportion of horizontal size to vertical.
	Offset X	the central horizontal offset of the motion.
	Offset Y	the central vertical offset of the motion.
	Rotate	the rotation of the motion around the centre point.
	Pos	sets the position of the beams on the figure 8.
	Spread	the spread of the fixtures across the motion.

**Procession and Properties**

Effect properties are usually fixed values but they can also automatically proceed through a range of values at a rate proportional to the master rate, via an audio process or with a linear event value. This way complex effects that would, ordinarily, be very difficult to achieve are made simple.

Combo box	this determines how the foreground or background behaves,	
	Fixed	the value is set by the Parameter Control.
	Auto	the value automatically proceeds from the 'min' value to the 'max' value continuously.
	Auto up/down	the same as 'auto' except that the value proceed smoothly up and down.
	VU	the bass filter level output is used as the value for the property. The rate control affects the response.
	Bass Gate	the bass filter trigger is used to gate the property. The rate sets the gated speed.
	Sonic	the rate of the effect property is affected by the sound input.
	Linear Event	the effect property value comes from the Linear Event flag (currently number one only). This allows a property value to be assigned to an external device.
Rate	if auto is selected this sets the <a href="#">processional</a> rate proportional to the effect's master rate.	
Min	if 'fixed' is not selected this sets the minimum value.	
Max	if 'fixed' is not selected this sets the maximum value.	
Fixed	Sets the fixed value of the property.	

If 'Image' is the selected generator, the file edit box becomes enabled and allows you to browse for the image file you want to use.

**Defaults**

The set defaults function applies values to the select effect that are a useful starting point. For mirror and yoke parameters it also sets the preset parameter levels. This usually ensures that the mirror or yoke are centred with the default effect values.



First, load the 'EXAMPLE.WSP' workspace supplied with Artist. The first fixture group (Just 8 Par cans) is 8 x par cans. Display this group in the Fixture view. If you have Wysiywg you can also use the 'EXAMPLE.WYG' plot to view the effects.

**Try the example Cues**

Open the Operator window and select 'Parcan cues' (Cue list 1) which contains cues pertaining to the par cans. The first three cues (Cue 1, Cue 2 and Cue 3) are simple static levels. Try each in turn and watch the active Fixture View to see their effect.

The fourth cue (Strobe) uses an 'Envelope' effect to create a chase with a blank between each step given it a strobing appearance.

Cues 5 and 6 are 'Chase' effects and are not defined in the Effects window.

Cue 7 (Wash) also uses an 'Envelope' effect to give a continuous waving effect.

**Try the Macros**

Deactivate any running cues and open the Effect tab in the Fixture Control window. Now you can try the effects yourself.

- Activate the 'Dimmer' parameter from the Parameter List.
- Select the Macros tab
- Now try each of the Linear Macros in turn while watching the results in the Fixture View.

Each of these macros is specifically designed for fixtures arranged in one dimension.

**Making Changes**

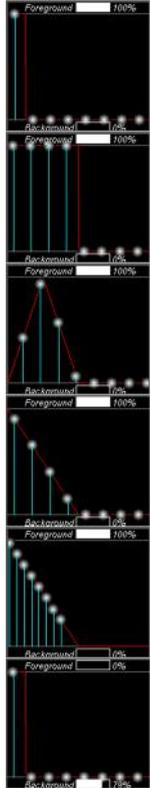
These macro you have just tried simply set the Effect properties in the **Properties** tab to some predefined values. You can, of course,

alter these to your requirements.

Select the 'Chase' macro in the Linear column and click on the **Properties** tab.



The monitor window show the 8 par cans levels move across the shape set by the macro. Notice the high part of the shape is wide enough to allow only one channel at a time to be 100% (the Foreground level).



Click on the 'Width' property button to select the Width property. Set the fixed value to about 50%. Now a block of 4 channels is chasing across the fixtures.

Then select the 'Top' property and set it to zero. The Monitor now shows a triangular peak and a flat region after it. You will now see the par cans fading in and out.

Set the 'Slope' property to zero. Now the channels snap on at 100% then fade to zero.

Now set the 'Spread' to about 40% and notice that the channel are not now spread across the whole wave but are bunched up.

Click on the 'Chase' macro again to reset the properties and the set the 'Foreground' to 0% and the 'Background' to 79%. Notice that you now have a dark chase with the on level at 79%

Slow the 'Master Rate' down to see exactly what the effect now is.

Play with the properties a while to reveal the power of the 'Envelope' generator effect.



First, load the 'EXAMPLE.WSP' workspace supplied with Artist. The second fixture group (Colour Mix LEDs) contains 32 x colour mixing fixtures. Display this group in the Fixture view. If you have Wysiwyg you can also use the 'EXAMPLE.WYG' plot to view the effects.

**Try the example Cues**

Open the Operator window and select 'Colour Mixing LEDs' (Cue list 2) which contains cues pertaining to the colour mixing devices.

Each of these cues has fade in and out times.

**Try the Macros**

Deactivate any running cues and open the Effect tab in the Fixture Control window. Now you can try the effects yourself.

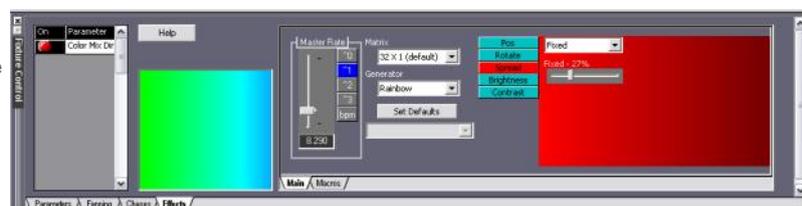
- Activate the 'Colour Mix Dimmer' parameter from the Parameter List.
- Select the Macros tab
- Now try each of the Linear Macros in turn while watching the results in the Fixture View.

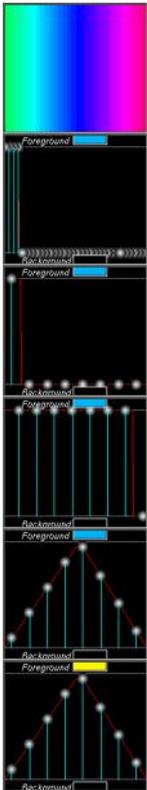
Each of these macros is specifically designed for fixtures arranged in one dimension.

**Making Changes**

These macro you have just tried simply set the Effect properties in the **Properties** tab to some predefined values. You can, of coarse, alter these to your requirements.

Select the 'Colour Sequence' macro in the Linear column, then click on the **Properties** tab.





Select 'Spread' and set the fixed value to 75%. You now have a rainbow moving across the fixtures. Try setting the 'Brightness' and 'Contrast' properties. The 'Rotate' property is only of use in matrix layouts.

Select the 'Envelope' generator, 'Set Defaults', set the 'Foreground' fixed colour (say blue), set the 'Spread' to 100% and adjust the effect 'Master Rate'. You now have 4 of the 32 channels chasing in blue (the foreground colour).

Select '4 x 8' in the 'Matrix' combo box. Adjust the 'Width' to 12.5%. You now have four eight channels chases.

Set the 'Width' to 87.5%. Notice you now have a dark chase.

Set the 'Width' to 100%, the 'Top' to zero and the 'Slope' to 50%. You now a wave of all channels fading.

Set the 'Foreground' mode to 'Auto' and the property 'Rate' to 50%. You have the effect sequencing through colours.



First, load the 'EXAMPLE.WSP' workspace supplied with Artist. The fifth fixture group (Moving Mirror Fixtures) contains 4 x mirror scans. Display this group in the Fixture view. If you have Wysiwyg you can also use the 'EXAMPLE.WYG' plot to view the effects.

### Try the example Cues

To view the cues set the Fixture View to display the **Moving Mirror Fixtures**. Open the Group Properties and check the **Display All Parameters**. You can now see all of the fixture's parameters.

Open the Operator window and select **Moving Mirror Fixture** (Cue list 3) which contains cues pertaining to the moving mirror devices.

Now try each of the cues in turn.

The first, second and sixth cues are simple static positions with a fade time between each.

The third cue contains a position with a chase added on top to provide the movement.

The fourth, fifth and seventh cues contain effects that provide the movement.

### Try the Macros

Deactivate any running cues and open the Effect tab in the Fixture Control window. Now you can try the effects yourself.

If you are using Wysiwyg to visualise the effects you will need to activate all the fixtures and click **Fixture Presets** on the Fixture tool bar to set all the fixture to open white. This will also set the mirrors to centre position. Set **Mirror** as the active parameter and click on **Zero active parameter** on the Fixture tool bar to set the mirrors to a zero position. You are now ready to try the macro effects.

- Activate the **Mirror** parameter from the Parameter List.
- Select the Macros tab
- Now try each of the Linear Macros in turn while watching the results in the Fixture View.

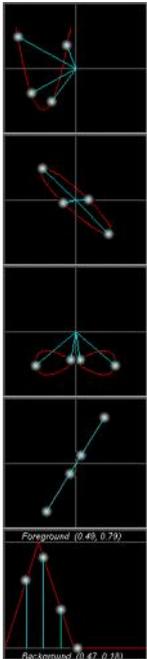
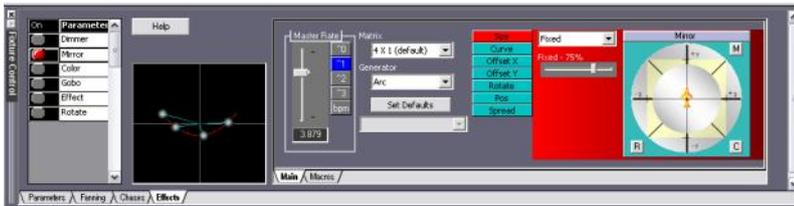
Each of these macros is specifically designed for fixtures arranged in one dimension.

### Making Changes

The effect generated is added to the position set in the [parameter](#) window. You can use the joy pad in the effect window to adjust the relative positions of the fixtures in the group.

These macro you have just tried simply set the Effect properties in the **Properties** tab to some predefined values. You can, of course, alter these to your requirements.

Select the **Marbles** macro in the Linear column, then click on the **Properties** tab.



Adjust the **Size** to 100%, the **Curve** to about 60% and the **Offset X** to 25%. Notice how each of these adjustments alter the effect.

Select the **Circle** generator, set the **Size** to 40%, select **Eccentric** and set **Auto up/down** and a **Rate** of 40%, select **Rotate** and set **Auto** and a rate of 30%. Set **Spread** to 100%. Select **Pos** and set **Fixed** to 60%.

Select the **Figure 8** generator. Select **Offset Y** and select **Auto up/down**. Set the **Rate** to 100%, **Min** to 20% and **Max** to 80%.

Select the **Tip** generator. Select **Rotate**, set **Auto up/down** and set the **Rate** to 100%. Select **Pos** and set the **Rate** to 50%. Activate the first fixture only and use the joy pad to adjust the effect position. In this way you can adjust the relative position of each fixture.

Select the **Envelope** generator. Select **Foreground** and set to (0, 30) degrees as shown on the joy pad. Select **Background** and set to (0, -30) degrees. Select **Top** and set **Fixed** to 0%. Select **Slope** and set **Fixed** to 50%. Select **Width** and set **Fixed** to 50%. Set **Spread** to 50%. Slow down the **Master Rate** to see the effect better.



First, load the 'EXAMPLE.WSP' workspace supplied with Artist. The third fixture group (Moving Yoke Fixtures) contains 4 x yoke profile scans. Display this group in the Fixture view. If you have Wysiwyg you can also use the 'EXAMPLE.WYG' plot to view the effects.

### Try the example Cues

To view the cues set the Fixture View to display the **Moving Yoke Fixtures**, open the Group Properties and check the **Display All Parameters**. You can now see all of the fixture's parameters.

Open the Operator window and select **Moving Yoke Fixture** (Cue list 4) which contains cues pertaining to the moving yoke devices.

Now try each of the cues in turn.

### Try the Macros

Deactivate any running cues and open the Effect tab in the Fixture Control window. Now you can try the effects yourself.

If you are using Wysiwyg to visualise the effects you will need to activate all the fixtures and click **Fixture Presets** on the Fixture tool bar to set all the fixture to open white. This will also set the yokes to a centre position. Set **Yoke** as the active parameter and click on **Zero active parameter** on the Fixture tool bar to set the yokes to a zero position. You are now ready to try the macro effects.

You are now ready to try the macro effects.

- Activate the **Yoke** parameter from the Parameter List.
- Select the Macros tab
- Now try each of the Linear Macros in turn while watching the results in the Fixture View.

Each of these macros is specifically designed for fixtures arranged in one dimension.

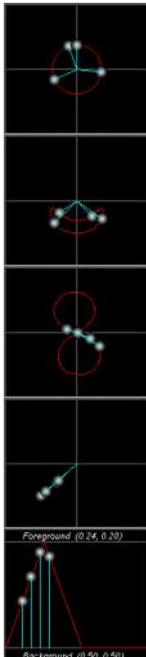
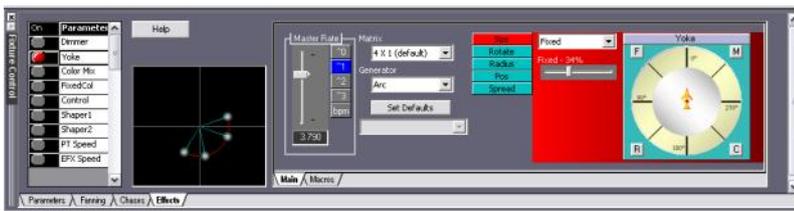
### Making Changes

The effect generated is added to the position set in the [parameter](#) window. You can use the joy pad in the effect window to adjust the relative positions of the fixtures in the group. Remember that the nature of the yoke movement means the adjusting the position may change the shape of the effect.

These macro you have just tried simply set the Effect properties in the **Properties** tab to some predefined values. You can, of course, alter

these to your requirements.

Select the **Swinger** macro in the Linear column, then click on the **Properties** tab.



Set **Size** to 100%, **Rotate** to 50% and **Spread** to 100%.

Select the **Circle** generator, set **Eccentric** to 75%, set **Size** to 100%, set **Offset X** to 50% and **Offset Y** to 100%.

Select **Figure 8** generator, set **Size** to 100% and set **Eccentric** to 30%. Select **Offset** and set **Auto up/down**, **Rate** to 60%, **Min** to 20% and **Max** to 20%. Set the **Spread** to 20%.

Select the **Tip** generator, set the **Offset** to 25% and the **Spread** to 80%. Select **Offset** and set to **Auto up/down**, set the **Rate** to 30%, the **Min** to 30% and the **Max** to 70%.

Select the **Envelope** generator. Select **Background** and click on the **C** on the joy pad to centre the yoke. Select **Foreground** and set (90, -75) degrees using the joy pad. Set **Top** to 0%, **Slope** to 50%, **Width** to 50% and **Spread** to 25%.



The best way to understand the effects is to load the 'MATRIX.WSP' workspace supplied with Artist. The first fixture group is a 13 x 13 matrix of colour mixing devices which will enable you to see the effects as intended.

### Try the example Cues

- Open Artist to full screen and display the first fixture group.
- Open the Operator GUI and position and size it so you can see the fixture at the same time.
- Select 'Cue List 1' and try each of the cues in turn to see the kind of effects are achievable.

### Try the Matrix Macros

Next, stop all cues, close the Operator GUI and open the Effect tab in the fixture control. Now you can try the effects yourself.

- Activate the 'Color Mix Dimmer' parameter from the Parameter List.
- Select the Macros tab
- Now try each of the Macros in the Matrix column in turn.

Each of these macros is specifically designed for fixtures arranged in a matrix of any dimensions.

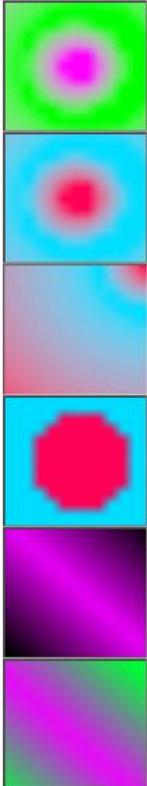
### Try the Linear Macros

Next, try the each of the macros in the Linear column. To understand the effect in a one dimensional linear group of fixture look only at the top row of the matrix.

### Making Changes

These macro you have just tried simply set the Effect properties in the **Properties** tab to some predefined values. You can, of course, alter these to your requirements.

Select the 'Concentric' macro in the matrix column and click on the **Properties** tab.



Select the 'Size' property and select 'Fixed' in the combo box. The effect will stop and by adjusting the 'Fixed' slider you will can see what this property does. Set it to about 60%.

Select the 'Foreground' and use the colour pad to set a new colour. Select the 'Background' to set a new colour.

Select the 'Centre X' and set it 100%. Select 'Centre Y' and set it to zero. Try selecting 'Auto up/down' from the combo box.

Now select 'Edge' and adjust it to 100%. Notice that the edge of the circle is now very distinct.

Select the 'Linear' generator and click 'Set Defaults'. Select 'Foreground' and set the foreground colour (e.g. mauve).

Select 'Background', select 'Auto' mode and adjust the property rate. Notice that the background is now constantly changing colour.

Colour mix matrices have infinite possibilities and these effect generators are designed to give the power to realise them.



These effects are not intended for common use. They have come about as an extension to the development of colour mixing matrix effects and have yet to prove their usefulness in the real world. It easiest to understand these effects if you have Wysiwyg.

Load the 'MATRIX.WSP' workspace supplied with Artist. The second fixture group is a 7 x 7 matrix of moving mirror fixtures which will enable you to see the effects as intended.

If you have Wysiwyg, use the matrixscan.wyg file to see better the actual effect intended.

### Try the example Cues

- Open Artist to full screen and display the second fixture group.
- Open the Operator GUI and position and size it so you can see the fixture at the same time.
- From the Fixture Control tool bar select the 'Mirror' parameter in order to display the mirror parameter in the Fixture view.
- Select 'Cue List 2' and try each of the cues in turn to see the kind of effects achievable.

### Try the Matrix Macros

Next, close the Operator GUI and open the Effect tab in the fixture control. Now you can try the effects yourself.

- Activate all the Fixture by selecting 'All' from the Fixture Control tool bar
- Click on the Preset Level button to set all the fixtures.
- The mirror parameter is now set to the centre. Set 'Mirror' as the active parameter and click 'Zero active parameter'. This sets the mirror parameters to a zero level.
- Select the Macros tab
- Activate the 'Mirror' parameter from the list.
- Now try each of the Macros in the Matrix column in turn.

Each of these macros is specifically designed for fixtures arranged in a matrix of any dimensions.

### Try the Linear Macros

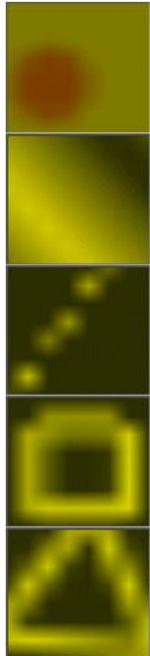
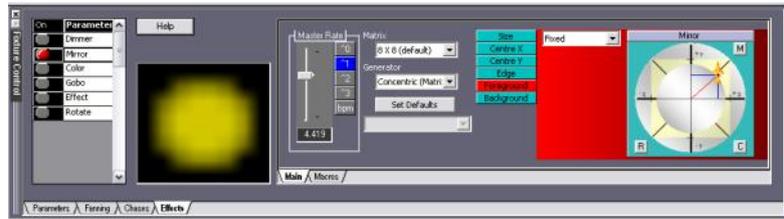
Next, try the each of the macros in the Linear column. To understand the effect in one dimension look only at the top row of the matrix.

Note that at this point you can try the effects on any off the other parameters of the fixture also, but remember to zero the level of the

required parameter in the Parameter tab first.

**Making Changes**

These macro you have just tried can, of course, be altered to your requirements. Select the 'Concentric' macro in the matrix column and click on the Properties tab.



Select 'Size' and set 'Fixed' to 20%. Select 'Centre X' and set 'Auto up/down', set 'Rate' to 100%, 'Min' to 20% and 'Max' to 80%. Select 'Centre Y' and set 'Auto up/down', set 'Rate' to 70%, 'Min' to 20% and 'Max' to 80%.

Select the 'Linear (matrix)' generator. Select 'Foreground' and set (50, 35) degrees. Select 'Background' and set (-50, -35) degrees. Select 'Rotate' and set 'Auto up/down', set 'Rate' to 50%, 'Min' to 0% and 'Max' to 25%.

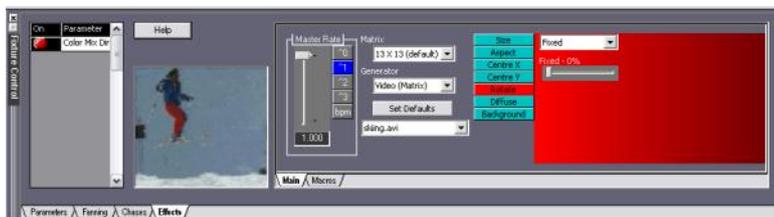
Select the 'Radial (matrix)' generator. Set the 'Width' to 100% and 'Height' to 10%. Select 'Centre X' and set 'Auto up/down', 'Rate' to 60%, 'Min' to 25% and 'Max' to 75%.

Select the 'Polygon' generator. Select 'Size' and set 'Auto up/down', 'Rate' to 100%, 'Min' to 0% and 'Max' to 60%. Set 'Centre x' to 50%, 'Centre Y' to 50% and 'Width' to 0%. Select 'Rotate' and set 'Fixed' to 20%.

Set 'Vertices' to 20%. Select 'Rotate' and set 'Auto' and set 'Rate' to 75%.



The [Video Manager](#) provides access to video clips and video capture devices installed on your computer. These can be output to arrays of fixture parameters to provide an exciting new kind of effect. These effects are particularly pertinent to arrays (matrixes) of colour mixing LED fixture but can have serendipitous results or dimmers, shutter and even mirrors.



**Try the example Cues**

- Open Artist to full screen and display the first fixture group.
- Open the Operator GUI and position and size it so you can see the fixture at the same time.
- Select 'Cue List 1' and try each of these cues: Skiing, Moth and Fire.

The video clips for these are effects are installed in the Video Manager by default. You can add you own video clips by referring to the [Video Manager](#) help.

The Matrix column of the Macros tab contains two basic video macros. These macros do not provide the video clip source; you must select that yourself.

**The Capture Source**

This works in exactly the same way as the video clip except that the source is the Windows installed video capture device.





Pixel Arrays are a type of fixture parameter that contains an array of colour mixing cells. Artist places these cells on graphics surface with in the Fixture View. You can add any number of graphics effects on to this surface to produce very intricate results.



This frame contains tabbed windows for,

<a href="#">Global Control</a>	Global cue control such as master fade, rate and blackout.
<a href="#">Cue Control</a>	Control for cue lists such as master fader and sequencing.
<a href="#">Time Control</a>	Control for real time and time code events.
<a href="#">Program Control</a>	For programming cues and scenes.

[Global Control](#)  
[Cue Control](#)  
[Time Control](#)  
[Program Control](#)



This window provides Cross fade, List fade and Cue list sequence control for the currently displayed list in the client area.



<b>Level</b>	this controls the level of intensity parameters in the current list in the client area.
<b>X-Fade</b>	cross fades between cues in the currently displayed Cue list. When the fader reaches the end of its travel the next Cue is ready for fade in.
<b>Step</b>	clicking Step causes the currently active cue in the present list to fade out using its fade out time and the next cue displayed in the Combo box to fade in with its fade in time. The fade is dipless
<b>Seq</b>	When a cue group is in Seq, the cues will sequence using the fade in, hold and out times defined in each cue.
<b>Chase</b>	the display cue group will sequence through the cues using predefined fade in, hold and out times set in <a href="#">cue control properties</a> .
<b>Clear</b>	this clear all active objects except those marked as non-blackout
<b>Settings</b>	opens the properties dialog to allows timing adjusts.



The behaviour of the Cue List can be modified by selecting **Group Properties** either from the tool bar, the main menu, the right-click context menu or **Settings** in the **Master Cue Control**.

### List name

The edit box at the top of this dialog displays the name of the Cue list which can be altered to any meaningful description of the list of cues.

### List Action

This combo box selects the activation behaviour of the Cues in the list.

<b>Latch</b>	the activate button act as independent on/off buttons.
<b>Interlock</b>	activating any Cue, deactivates any previously activated Cues in this list.
<b>Momentary</b>	activated only while the mouse button or external key is depressed.
<b>Radio</b>	the same as Interlock except that a Cue is always on in the List unless the 'Clear function is used.

### Cue Control

<b>Normal</b>	the default start up mode.
<b>Auto Seq</b>	When Artist boots this Cue list will automatically start sequencing.
<b>Auto chase</b>	When Artist boots this Cue list will automatically start chasing.
<b>Randomise</b>	this causes the order or the chase to be random.
<b>Loop at end</b>	If this box is checked sequencing down the Cue list either automatically or manually will loop back to the start.
<b>Cancellable</b>	if this is checked, manually activating a cue will stop any cue list chase or sequence.
<b>Ensure Visible</b>	this scrolls the cue list view to ensure that the active cue in <b>Chase</b> or <b>Seq</b> mode is visible.

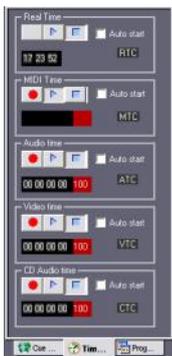
### Chase rate

The slider controls the rate of the Cue List chase function activated from the Master / Cue Control window.

The rate control allows you to adjust both rate and proportion of hold time.



This displays the status of the various timing sources.



#### Real Time

this is the computer's real time clock and calendar. Check the box to have the Real time events automatically start when Artist is launched.

#### MIDI Time

MIDI input can provide time-code (MTC) to the Artist from an external media source such as tape or CD/DVD. If you are using an interface card that has a SMPTE input, the card's driver will send MTC messages to Artist otherwise you will need an external MTC/SMPTE sync unit.

#### Audio Time

Windows resident audio waves such as AVI, MP3 etc., can be used as a time-code source.

#### Video Time

Video clips can be used as time code sources.

#### CD Audio Time

this is time-code from the audio or video on loaded media such as DVD or CD

For each of the above sections there is a row of mode control buttons.

**Record**  
**Play**  
**Stop**

this places the appropriate section in to record mode. It captures 'Space bar' presses and enters stamped events without system commands which can be added later. It will also capture cue activations.

this puts the event file into playback mode. Events are triggered as the time code stream is input.

this is stopped. No events will trigger.

### Creating Time Code Event files

See [Timed Events](#).

### Auto Start

The Auto start check box, if checked, will cause the transport to be in play mode when the event file is loaded or when artist is booted up. This means as time code is input, events will be triggered.

### Marking time code events

Placing the required media transport in to Record mode will start capturing user input events.

You can use the 'QWERTY' keyboard 'SPACE BAR' to mark events at the appropriate times. This will add time stamped events in the time code file. You can stop at any time and edit the events to set the requires System commands. It is possible to restart the recording at any time to append new events. Regardless of the time they will be added to the end of the list. The 'Sort' command can be used to put the events in a readable order.

### Recording Cue Activations

With the appropriate transport in Record mode any Cue activations are added as events to the time code file. These are stamped with the time they occurred and with a system command that accesses the cue in question.

This means you can place your time code file in record mode and just activate cue when you require and they will be added complete with the correct system command to the list.



This window provides programming functionality for storing Cues, Scenes and Steps within Scenes.



## Cue Programming

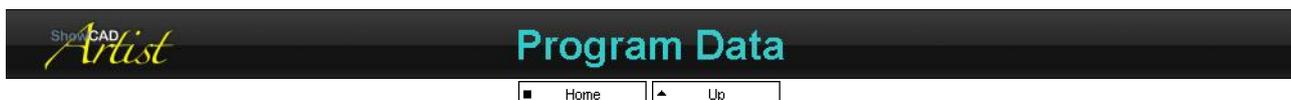
This section contains functions pertaining to cue programming.

- List** the combo box is used to select the list in to which cues are stored. Clicking the button will display the selected list in the client area.
- Cue** the combo box can be used to select a cue to edit. Click on the button to the right will
- clear all previous flags, chases, effects and scenes
  - sets the parameters contained in the cue
  - and output the data contained within is displayed in Navigator window.
- New Cue** You can subsequently alter the data and use the 'Store to' button to store the altered cue data.
- Store to** Click to store the currently flagged objects to a new cue. This will open the [Program Data](#) dialog. Click to store the currently flagged objects in to the selected cue. This will open the [Program Data](#) dialog. This function will store new or altered data but will not remove any other data in the cue.

## Scene Programming

This section contains functions pertaining to scene programming.

- Group** this combo box is used to select the scene group in to which scenes are stored. Clicking the button will display the group in the client area.
- Scene** this combo box can be used to select a scene to edit. Clicking the button to the right will,
- Clear any previous chases, effects or scenes. It will not clear previously set parameters or flags.
  - Set step 1 (if the scene has steps) in the Step combo box.
  - Set the Parameters contained within the step.
  - and display the content in the navigator window.
- Step** You can subsequently alter the data and use the 'Store to' button to store the altered scene or step data. this combo box can be used to select a step to edit if the scene contains any. Click the button to the right will,
- Clear any previous chases, effects or scenes. It will not clear previously set parameters or flags.
  - Set the Parameters contained within the step.
  - and display the content in the navigator window.
- New Scene** You can subsequently alter the data and use the 'Store to' button to store the altered scene or step data.
- New Step** Click to store the currently flagged objects to a new scene. This will open the [Program Data](#) dialog.
- Store to** adds flagged object data to a new step in the currently selected scene. This will open the [Program Data](#) dialog. Click to store the currently flagged objects in to the selected scene or step. This will open the [Program Data](#) dialog.



## Tree View

This shows all the parameters that are flagged. You can uncheck any item to remove it from the store operation. Some parameters may not be check because of the selected filter (see below).

## Cue Name

This shows the name of a new cue, which can be edited.

## Expand

This will expand all branches of the tree view.

## Collapse

This will collapse all the branches of the tree view to show only groups.

## Cancel

Click to cancel store operation. Nothing changes.

**Save + Clear**

Click to do store all the checked items in the tree to the Scene or Cue. The operation is completed by clearing all parameter flags and deactivating effects and chases.

**Save + No Clear**

The is the same as 'Save' except that it does not clear the parameter flags or deactivate chases, effects or scenes. This may be useful when building a scene sequence where some data between steps does not change.

**Parameter Filter**

This filters the checked parameter according to the following rules.

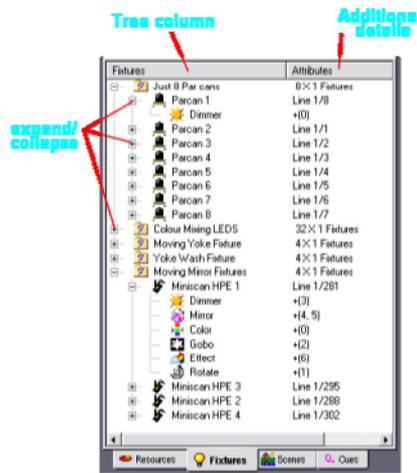
<p><b>All parameters</b></p> <p><b>All flagged</b></p> <p><b>Position only</b></p> <p><b>Colour only</b></p> <p><b>Gobo only</b></p> <p><b>Beam only</b></p> <p><b>No zero level</b></p>	<p>all parameters in flagged fixtures are checked. In general this is what-you-see-is-what-you-get except that any chase, effect or scene levels are removed.</p> <p>all flagged parameters are checked.</p> <p>only mirror and yoke parameters are checked.</p> <p>only colour parameters are checked.</p> <p>only gobo parameters are checked.</p> <p>only parameters defined as 'Beam' type are checked.</p> <p>only parameters with set flags and whose level is not zero.</p>
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The navigator is made up of tabbed tree views showing Resource, Templates, Fixture, Scenes and Cues. These tree views display data in an hierarchical structure. Clicking on the expand branch icon causes the branch to expand or collapse. An item is selected when it is highlighted. You can select multiple items by holding down the **Ctrl** key when clicking on item labels. You can block selected items by selecting the first item and then holding down the **Shift** key when clicking the last item of the block to be selected.

Some tree views also have a second column which contains additional information about an item in the tree.

You can **Drag & Drop** and **Copy, Cut & Paste** items. Some items can be dragged on to the list views.



- [Resource Tree](#)
- [Templates Tree](#)
- [Fixture Tree](#)
- [Scene Tree](#)
- [Cue Tree](#)



This shows all the usable devices connected to the system.



- [DMX Manager](#)
- [Direct3D](#)
- [Audio Manager](#)
- [Video Manager](#)
- [MIDI Manager](#)
- [Communication Manager](#)
- [Bitmap Manager](#)
- [CD/DVD Media Manager](#)
- [System Control](#)
- [Resource Settings](#)

[DMX Manager](#)

- [Audio Manager](#)
- [Video Manager](#)
- [CD/DVD Media Manager](#)
- [MIDI Manager](#)
- [Communications Manager](#)
- [Bitmap Manager](#)
- [System Control](#)

this branch contains all the details about connect DMX and virtual output devices.  
 controls access to sound resources including sound file playback.  
 controls video clip playback.  
 loaded CD/DVD media and control.  
 details on MIDI interface devices.  
 settings for serials ports  
 loaded bitmaps.  
 access to system commands and event flags.

[Advantech JA](#)

details on industrial automation interfaces if installed.



The DMX ports of the system are maintained by the DMX manager which is located in the Resource tab of the Navigator view.

[Properties](#)  
[Snagging Tools](#)  
[Wysiwyg](#)  
[Virtual DMX](#)  
[Pathport](#)

<b>DMX2</b>	this is ShowCAD's old ISA interface and is only supported under Windows 98 and ME.
<b>ShowCAD E-DMX</b>	this is ShowCAD's Ethernet to DMX interface.
<b>Pathport xDMX</b>	DMX connections via the Pathport network protocol. There can be up to 64 universes defined on this interface.
<b>Sunlite USB</b>	this is the Sunlite USB to DMX interface. There can be up to 10 universes defined on the interface, however, it is recommended to limit this to 2 universes.
<b>Virtual DMX</b>	this contains virtual DMX lines for test and learning purposes.
<b>Wysiwyg</b>	this is Cast's visualisation software interface. You can select any of the installed DMX lines to be monitored by Wysiwyg and its location by right-clicking and selecting 'Properties'

**To install an interface**

All interfaces depend on the supplied drivers for that interface. Artist comes with appropriate drivers for the currently supported interface. You should follow the install procedures documented else where.

If a driver and its associated interface are installed correctly it will appear in the list of interfaces here in the DMX Manager.

**Virtualising Universes**

Often you may want to program a system without the DMX hardware installed. You can add DMX lines by right-clicking on **DMX Manager** in the **Resources Tree** and selecting **Properties**. This [dialog](#) allows you to add and remove DMX lines.

When the hardware for these universes if added to you system the universe become real and are no longer virtualised.

**Renaming DMX Lines**

By default new DMX lines and simply names 'Line 1', 'Line 2', etc. By clicking once on the DMX line and then pressing 'F2' an in-place edit box is opened to allow changing the name to an more meaningful name.



This displays a tree of all the supported interfaces. Within these are the installed and virtual universes in the currently loaded workspace. Virtualised universes are indicated by a red asterisk.

Clicking on an interface type will highlight the **Add** button indicating that you can add a universe to this interface. If the hardware for this universe is unavailable it will be virtualised.

Clicking on a DMX universe will highlight the **Delete** button allowing you delete the selected universe.

You can also open the [Snagging Tools](#) dialog by click **Snagging**.

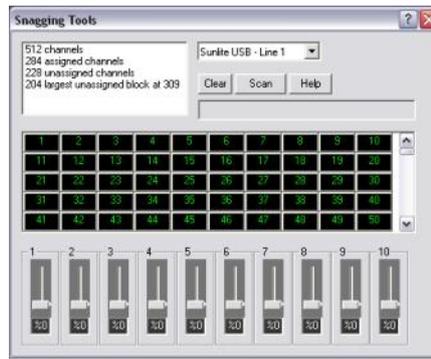


**Status List**

The list box displays the number of assigned and unassigned channels on the selected DMX line.

**DMX Line**

The combo box allows you to select the DMX line to test.



**Assignment List**

This is a list of cells each representing a DMX channel. Positioning the mouse on any of these cells will display the channel usage in the text box above the cell list.

**123**green text means that the channel is assigned to a fixture.  
**112**red text means that there is a conflict and that more than one fixture owns the channels.  
 23 light grey text means that the channel is unassigned.

**Sliders**

This row of sixteen sliders is assigned to the top row of DMX cell allow you to manual set test levels on these channels. Scroll the list down to set the next row of cells.

**Clear**

Use the clear button to zero all the test slider levels.

**Scan**

This function can be used to find a specific DMX channel number.

If you can see the lamp that is connected to a DMX line and you don't know the channel number click scan and follow the prompts.



Lighting Design and Visualisation at

<http://www.castlighting.com/>

Artist can interface directly to CAST's Wysiwyg visualisation software to provide the complete virtual design and programming environment.

**ArtistWyg driver installation**

Wysiwyg can reside on the same computer as Artist or remotely on a network. In order for Artist and Wysiwyg to communicate the ArtistWyg driver must be installed on the computer on which Wysiwyg resides.

The ArtistWyg.msi installer package is found the the 'Program Files/Artist' directory on the Artist computer. Copy this to the Wysiwyg computer (only if Wysiwyg is on a separate computer) and run it to install the driver.

**Artist Setup**

By default new DMX lines do not send data to Wysiwyg. You must enable the lines you wish to send and the address where Wysiwyg is located.

<b>Local</b>	Check this box if Wysiwyg is to be located on the same computer.
<b>Address</b>	If Local is not checked enter the IP address on the network where Wysiwyg is located.
<b>DMX Lines</b>	Check the DMX lines which are to be sent to Wysiwyg.



The Virtual DMX provides imaginary DMX lines for pre-programming and evaluation purposes . To add Virtual DMX lines right-click on the DMX Manager.



◀ Back   ■ Home   ▲ Up



DMX Ethernet Gateway at <http://www.pathwayconnect.com>

[Pathport Properties](#)  
[Node Properties](#)  
[Port Properties](#)

Artist can send and receive DMX data on the Pathport protocol. This provides Artist with up to 32,000 DMX channels in addition to those provided by the other supported interfaces.

See [Pathway Connectivity](#) web site for a detail description of setting up a Pathport network.

In general you will setup your Pathport network using the Pathport Manager (supplied by Pathway).

Pathport is not enabled by default. Open DMX Manager/Pathport/Properties to enable and activate DMX lines.

**Important : currently Pathport Manager and Artist cannot be run simultaneously on the same computer.**

**Nodes**

The DMX Manager displays the connected Pathport nodes it has found on the network. Right-click and select 'Properties' to make limited changes.

**Ports**

Under each node are the Ports (i.e. actual physical DMX outputs) provides by the port. Right-click and select 'Properties' to make limited changed.

**xDMX Sources**

Artist treats the xDMX as 64 lines, each of 512 channels, of DMX512 and these are all provided on the xDMX data transport within the protocol. Not all of these lines (or, in Pathport parlance, 'Sources') need be used.

To set up your DMX output lines right-click on 'Pathport' in the DMX Manager and select 'Properties'



This dialog shows all of the available 64 DMX lines with default names of 'Source n'. Where n is the line (or source) number.

**To Start Pathport**

By default the Pathport network is disabled. Check the 'Enable Pathport' box and select the IP of the network interface connected to the Pathport devices.

**To add a DMX Line**

- Check the 'Enable' box on the line/source required
- Enter an appropriately descriptive name
- Check the 'Wysiwyg' box If you want to visualise this line.
- Add any other line in the same way.
- Click OK.

Now if you open up DMX Manager/Pathport you should see the lines you have added. These line are made available to the Fixture Wizard in the usual way.

**Select xDMX input**

You can monitor a 512 channel slot in the xDMX data stream and use these channels to trigger [System Commands](#). You can view the selected channels in the [Output Monitor](#) window.



A Pathport node is a physical device connected to the network. These are usually the Pathport interfaces. Artist can alter some of the properties of these node but most are set by the Pathport Manager (supplied by Pathway).

**Possible changes**

<b>Node name</b>	a descriptive name for identification purposes. This name is displayed on the nodes own display. If no name is specified the IP address is shown.
<b>Backlight</b>	a node may have a display that can be illuminated.
<b>Identity</b>	this causes the node to flash (usually the backlight of the display) for easy identification during setup.



A Pathport node usually contains one or more ports. These are in general the physical DMX512 connections. A port can be an input or an output.

Possible changes



This is the interface to your computers graphics. DirectX is used to interface to its rendering functions.

It is important to have current drivers for your graphics card that are compatible with the version of DirectX loaded on you computer.

If you have any issues relating to graphics you should check your computers driver using DXDIAG. From the Window Start/Run enter DXDIAG and click OK. Check that the Display tab reports no incompatibilities and that all three Features are enabled.

### Properties

Each of the views listed with in the Direct3D item has a properties dialog which is accessed by right-clicking on the view branch and selecting 'Properties'.

This dialog provides some settings that may help resolve some graphics issues.

Fixture View	this item is for the main Fixture view
Monitor View	this item is for the Output monitor window
Effect Monitor	this item is for the monitor window in the Effects dialog.
Group Surface	this item is for each fixture group. It is not required to be high performance.

The default settings usually do not require changing. However, for compatibility purposes it may required.

If in any doubt about these settings consult ShowCAD.

Render Device	this should always be set to D3DDEVTYPE_HAL except for test purposes.
Back Buffer Format	this settings should normally be set to D3DFMT_X8R8G8B8. In some cases it maybe set to D3DFMT_R5G6B5
Vertex Processing	Artist attempts to select the best setting for your hardware. If you suspect a problem set this to SOFTWARE_VP.
Present Interval	not used currently.



The Audio manager controls the sound wave input and output from the PC.

[DirectSound](#)  
[Mixers](#)  
[Waves](#)

The **Waves** branch contains a list of all the playable audio wave files contained in the **Sounds** sub-directory of the default **My Workspaces** directory defined in [File Saving](#) preferences. These waves can be played by System Commands and time code can be used to control cues.

The [Audio Dialog](#) can be used to tune the audio filtering for scene, chase and effect [Triggers](#).



When Artist is booted for the first time you may need to set the DirectSound properties found in the Resource Tree by right clicking on the DirectSound icon.

- Select the desired capture source device. By default the 'Primary Sound Capture Driver' is selected. This should be fine for most systems.
- Set the sound sample rate and resolution. By default Artist will use 22KHz 16-bit Mono.
- Click OK.

To tune you audio see [Audio Dialog](#).



The mixers are not currently deployed in Artist.



This contains all the playable waves files (.wav, .mp3 etc) that are contained in the **Sounds** sub-directory of **My Workpaces**.

Currently, you must add audio files to this directory with Artist closed for them to appear in the **Audio Manager** when Artist is next booted.

The navigator tree view shows each files name. The icon has a red dot next to it to indicate if the file is playing. If the file has an associated **Time code event file** the icon is shown with an overlaid 'atc'.

Right-click on a file name to select the following from the popup menu.

#### Play only

Select this to play the file. When the file is complete the status is updated.

#### Stop

This stops the file if it is playing.

#### Load Events

If the wave files icon has an overlaid 'atc' indicating that a [Time Code](#) event file exists, this will load it. You can the edit and play the events from the [Time Control](#) window.

#### Create Events

If the wave file has no associated [Time Code](#) event file, this will create one ready for editing. See [Time Control](#) window.

#### Automated Wave playing

You can use system commands to trigger audio playback only or audio with time code events. This allows waves to be trigger from any source including from within other cues. See [System Commands](#).



The video manager controls the display and control of video clips stored in the Videos directory and interfaces to any video capture devices attached to the system.

Currently, you must add video clip file to this directory with Artist closed for them to appear in the Video Manager when Artist is next booted. Valid video clips are .mpg, .avi and .wmv.

The navigator tree view shows each clip's file name. The icon has a red dot next to it to indicate if the file is playing. If the clip has an associated 'Time code event file' the icon is shown with an overlaid 'vtc' in blue.

Right-click on a clip name to select the following from the popup menu.

#### Play only

Select this to play the clip. When the clip is complete the status is updated.

#### Stop

This stops the clip if it is playing.

#### Load Events

If the clip file's icon has an overlaid 'vtc' indicating that a [Time Code](#) event file exists, this will load it. You can then edit and play the events from the [Time Control](#) window.

#### Create Events

If the clip file has no associated [Time Code](#) event file, this will create one ready for editing. See [Time Control](#) window.

#### Automated Clip playing

You can use [System Commands](#) to trigger clip playback only or clip with time code events. This allows clip to be trigger from any source

including from within other cues.

### Video to DMX

The video clips loaded in the Video Manager can be used as Fixture Effect generator to provide exciting lighting effects. You can also use any video capture device connected to the system as a video source for effects. See [Effects](#) for how to use clips and capture sources.

### Preview

You can preview any clip by either double-clicking on the clip or by right-clicking and selecting **Play**. This will open the video clip in a resizable window.

You can also preview the video capture device by double-clicking on **Video Manager** or right-clicking and selecting **Capture Preview**. Again, this will open a resizable window to view the source.



This section contains everything pertaining to the computers MIDI interfaces.

MIDI is a very versatile and ubiquitous protocol primarily used in the music industry but increasingly found in show control systems.

Windows installed MIDI interfaces can also provide time code in the form of MTC (MIDI Time Code) and SMPTE/EBU.

### Properties

Right-click on the MIDI Manager and select 'Properties'.

This dialog provides MIDI system exclusive bulk dump and load function. These are used to store or load MIDI equipment configuration. Most MIDI equipment are programmable and their configurations can be store on the computer for backup purposes.

### Bulk Receive

To store MIDI device program data on you computer,

- Select the MIDI interface the device is connected to.
- Click 'Start Receive'.
- On you MIDI device refer to the manufactures manual/help for the program data bulk dump process.

The dialog displays the amount of bytes as they are received. When the count stops,

- Click 'Stop Receiving' - a file dialog opens.
- Enter the name and location of the file the data should be stored to.
- Click 'Save'

### Bulk Send

To send stored data from a file,

- Select the MIDI interface the device is connected to.
- On your MIDI device refer to the manual/help to set the device to receive bulk data.
- Click 'Select and Send' - a file dialog opens
- select the file with data for the selected device.
- Click 'Open'.

The dialog displays the amount of bytes as they are sent. When the end of file reached transmissions stops.



All the MIDI input devices that Windows has installed on your system are viewed from the Resource tree view.

### Properties

You can use the properties dialog to monitor the incoming MIDI messages. The is useful for testing your MIDI setup. Incoming time code will not be displayed here.

You can also test any devices connected to the MIDI out by checking the 'Thru connect' on the selected output interface.

### Connecting devices

Any MIDI devices connected to the PC's MIDI input interfaces sends messages that are decode by the [MIDI Patch Inputs](#) and connected to Artist function via [System Commands](#).

## MIDI Time Code

You input MIDI Time Code from a connected device or you can install a SMPTE/EBU interface to convert tape recorded time code to MIDI messages.

To Run timed Events see [Time Control](#)

To create timed events see [Timed Events](#).



All the MIDI output interfaces that Windows has installed on your system are viewed from the Resource tree view. Messages are sent on these ports via [System Commands](#).



This branch displays any MIDI event files there may be in the default workspace directory.

## Load a MIDI Event file

Right-click on any of the Event files and select 'Load Event file'.



The communication manager controls serial input and output from Artist and is viewed from the Resources Tree view.

[Serial Inputs](#)  
[COM Port Properties](#)

Opening the tree branch will display the available serial ports on your system - that is any that are not used by any other process. If none are displayed it is because they are currently used by some other application.

## Com port settings

Right click on the com port and select 'Properties'. This will display a dialog where you can set the BAUD rate, parity, data bits and stop bits. The settings apply to both input and output.

This dialog also monitor incoming serial data.

## Serial Output

You send serial strings from Artist to any device connected to a serial port via the serial output [System Commands](#) which can be embedded in Scenes and Cues or any input system command.

## Serial Input

Artist defines a set of serial input messages which are connected directly to [Text Commands](#).

The serial input data can be monitored for test purposes in the 'Com port setting' dialog.



The Communications Manager determines which COM ports are available and with what settings.

Serial input data are decoded as [Text Commands](#) which provide access to Artist functions.

The interface can be tested by any ASCII terminal (e.g. HyperTerminal) on another computer.



Use this dialog to set the data speed and protocol. The first four settings in the table must be the same as those on the device you are connecting to.

<b>Baud Rate</b>	set the data speed.
<b>Parity</b>	Low level error check.
<b>Data bits</b>	Number of bits in the data field.
<b>Stop bits</b>	Stops bit define the end of a data field.

**Input Enabled** Check this box to enable receive serial data on this port to be decoded.  
**Incoming** If the input is enabled the incoming data are displayed here.  
**Input Mode** this combo box selects the input mode

Input Mode	Description
System Commands	In this mode received serial data is decoded as <a href="#">Text Commands</a> .
Mini CP1	In this mode received serial data is decoded as <a href="#">Mini Control Panel</a> version 1
Mini CP2	In this mode received serial data is decoded as <a href="#">Mini Control Panel</a> version 2

As you change any of the dialog fields the 'Apply' button will be enabled. If you click 'Apply' your changes will take effect.



This is responsible for loading and initializing all loadable bitmaps. The loadable bitmaps are all in the 'Program Files\Artist\Bitmaps' directory. These bitmaps are used to display the icons for fixtures and the gobo patterns. You can view the loaded bitmaps from the Media tree under Bitmap Manager.

### Brushes

These are the bitmaps for Gobo patterns. They are in a 20 X 20 pixel format. You can use Microsoft Paint or any similar program that produces device independent bitmaps, to create new ones.

### Fixture

These bitmaps are used to display the icon in the tree and list views. They are in a 32 X 32 format and can be created by a suitable device independent bitmap editor.

### Colours

This branch shows bitmaps for Artist's predefined colours.

### User Images

These bitmaps are used in the fixture effects dialog. See [Effects](#).

### Making new Bitmaps

If you wish to add a Gobo pattern or a fixture image, open an existing bitmap in the directory you are adding to. Make the changes required, and save it as a new unique name. If you choose to scan an image or use any other format, you must scale it down to 20 X 20 for Gobos and 32 X 32 for fixture images.

Be careful not to delete any of the bitmaps in these directory since they may be used by a fixture or template.



**Please note: the DVD features are not yet complete.**

Any CD/DVD media that are in the drives of your computer will be displayed here. The drive letter of each device is displayed followed by a unique number found on the CD/DVD media. Artist uses this number to name a CTC event file should you create it.

The icon for the media has an overlaid blue 'CTC' to indicate that an event file exists for this media.

### Playing a track

You can play/stop any track by double clicking on it or right-clicking and select options from the menu.

### CD Audio Event files

This branch shows any CTC files in your Workspaces directory. You can load the file by right-clicking on it and selecting 'Load Event file'.



The branch contains some setting for system control.

[Keyboard patch](#)  
[Artist Telnet Server](#)  
[Network Hosts](#)



This section is incomplete.



Artist can be remotely controlled through any network using a Telnet client application such as TELNET.EXE supplied with Windows. Thus any other program can send command strings via the network to Artist.

### Setting up Server

Located the server under 'System Control' in the Resources tab of the Navigator view. Right-click and select 'Properties'.

Port	Select the network port to listen on for clients.
Enable Listening	Check this box to make Artist start listening for clients. This will persist in subsequent sessions.

### Using Windows Telnet

- Select 'Start/Run' from the Windows task bar.
- Enter 'Telnet' and press return or click 'Run'. The Telnet client will start.
- Enter 'open *ip port*'. Where *ip* is the IP address of the serving computer and *port* is the network port the server is listening on.

The server will respond with an opening message, 'Connected to ShowCAD Artist Telnet'.

Multiple clients can connect and as they do their IP addresses appear under the server branch in the Navigator view.

### Commands

The Telnet server connects via the [Text Commands](#).



You can create a list of hosts that Artist can connect to via the computer's network interface. Once connected System Commands can be used to send messages to the host.

You can, for example, connect to another Artist computer and access its functions remotely.

ShowCAD now has a product called **vJam** which will play video and image files full screen. It can be controlled remotely using this method.

### Adding Hosts

Right-click on **Network Hosts** and select **Properties**. This will open a dialog that shows a list of hosts defined. To add a host click **Add** and enter the following data,

Friendly Name	Allows you to enter a name that describes the host.
Address	IP address of the host computer.
Port	Application port assignment.

On closing the Network Hosts dialog a connection attempt is made. If this fails the icon in the Navigator representing the host will display a **red asterisk**.

### Removing Hosts

Right-click on **Network Hosts** in the resources navigator and select **Properties**. In the displayed dialog click on the host in the list in order to highlight it then click **Remove**.

### Sending Commands

Messages are sent to hosts via the **Network output** System Command. See [System Commands](#).

If a connection has not been established prior to the sending of the system command an attempt will be made. However the System commands will not be able to send the message. It will have to be resent.

The connection with the host will remain unless the host or Artist is shut down.



Contains a tree view of the currently loaded templates file. The group folders represent manufacturers and the child items are the fixture templates for that manufacturer. Opening a template branch displays the parameters defined for that fixture. These parameters can be edited by right clicking on them to display the property pages.

See also [Templates](#).



A tree view of all the configured fixtures. The main folders represent groups of similar fixture containing the installed fixtures. Opening the branch of a particular fixture displays its parameters.

### Display in Fixture view

Clicking on a Fixture group will cause it to be the displayed group in the Fixture client view and the its Fixture Control panel to be displayed.

### Activate Fixtures

When you are using palette indexes it often easier to use the navigator to activate the fixtures. Double-clicking on the fixture's icon to toggle it's active state.

### Changed Flags

Changed parameters within fixtures and indicated by a red asterisk overlaid on the parameter or fixture icon.

### Reordering Fixtures

Often after patching and installing your fixtures you may need to reorder the fixtures as they appear in the fixture group. You would need to do this to make chase and effects run correctly.

Click on one fixture in the group and drag it to the new location. Repeat until the order runs as required.

See also [Fixtures](#)



A tree view of all the programmed scenes. The main folders represent groups. Opening the branch of a particular scene displays its contents. See [Link Objects](#).

### Active Scene

An active scene is indicated by a red ball to the left of the scene icon. You can double-click on the scene icon to toggle the active state of the scene.

### Control Panel

Right-click on a Scene and select 'Control Panel' to display the scene control panel.

### Changed Flags

Changed scene status is indicated by a red asterisk overlaid on the icon.

### Scene Edit

The contents of a scene or a step can be output by right-clicking on it and selecting 'Set Parameters'. This outputs the data of the scene/step and sets it as active in [Program Control](#) window.

The tree view is useful for moving, copying and deleting individual elements within scenes.

### Step Timing

You can set individual fade in and hold times on steps by right-clicking on the desired step. This opens a Rate control which can used to set the timing. It displayed in the tree view next to the step.

See also [Scenes](#).



A tree view of all the programmed Cues. The main folders represent Cue Lists. Opening the branch of a particular cue displays its contents. See [Link Objects](#).

### Active Cue

An active cue is indicated by a red ball to the left on the cue icon. You can double-click on the cue icon to toggle the active state.

### Control Panel

Right-click on a Cue and select 'Control Panel' to display the cue control panel.

### Cue Edit

The contents of a cue can be output by right-clicking on it and selecting 'Set Parameters'. This outputs the data of the cue and sets it as active in [Program Control](#) window.

The tree view is useful for moving, copying and deleting individual elements within cue.

See also [Cues](#).



This contains system status, audio input, dmx output monitor and object notes.

[System Status](#)  
[Audio](#)  
[Notes](#)  
[Output Monitor](#)



The window displays information regarding your computer resources, the version of Artist and details on the currently loaded Workspace.

**Version** the version number of Artist installed on this machine. Will indicate if Beta version and registered status.  
**OS** the operating system version information.  
**Workspace** the full path of the loaded Workspace and the Artist version number it was last edited with.  
**Programmer** the Workspace programmer's name. Click on this to edit the displayed programmer's name.  
**Venue** the venue the Workspace was created for. Click on this to edit the Venue name.  
**History** details on when the loaded workspace was created and last edited.  
**Hardware** PC motherboard processor type.  
**Resources** Available memory and hard disk space.

### Changing Background

The background image for this window is Program Files/Artist/logo.gif. You can replace this with you own image of the same name.

Note that at present the foreground text colour cannot be altered therefore a dark image will make the text illegible.



Low low pass filter (bass) in the range 20 - 500 Hz  
 Band1 band pass filter (middle) in the range 0.5 - 2.0 KHz  
 Band2 band pass filter (middle) in the range 2.0 - 5.0 KHz  
 High high pass filter (treble) in the range 5.0 - 15.0 KHz

This displays the audio filter controls. There are four filters,

Each filter has a slider control to adjust the centre frequency for the filter, a bar graph to display the filter level and an text box.

The other sliders have the following function,

**Level** this adjusts the input level boost. !00% is maximum.  
**Trigger** this adjusts the level that the filters trigger is set at. 100% is maximum sensitivity.

The bar graph displays the relative level of the filter output. The bar graph is normally green and flashes red when the filter triggers.

### Presets

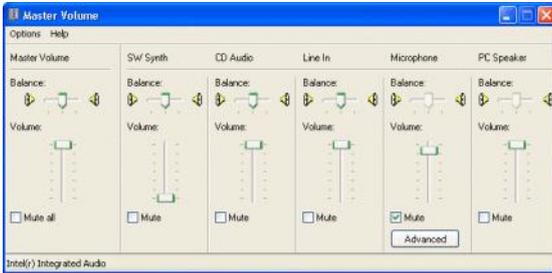
There are three place holders to memorize favourite settings. These settings are saved each time Artist is closed. The default settings are set for the following environments.

Bar  
Club  
Rock

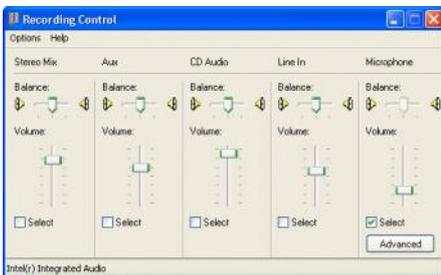
background music response  
dance music response  
setting for Rock music

### Selecting Input

To use the audio input you must select the correct audio source in the Windows Mixer. Select 'Start/All Programs/Accessories/Entertainment/Volume Control'



Select 'Options/Properties'. This opens a dialog, - select 'Recording' and click 'OK'. The Recording Control mixer is now displayed showing all the input sources on your sound card.



If you are connecting a line to your sound card it will usually be connected to the 'Line In'.

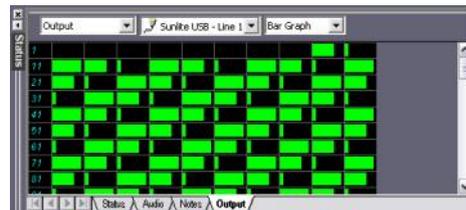
When you close the window normally this input state will be saved.

ShowCAD Artist Notes

Each Group of objects (Template, Fixtures, Scenes, Cues and Patch) has a note page associated with it. A user may use this to make notes regarding the objects within.

ShowCAD Artist Output Monitor

Monitors output data.



### Output Path

- Output** show actual channel output
- Parameter** show levels only from Fixture parameters and manually activated scenes, chases and effects.
- Preset** show levels from Cues, sub-scenes, chases and effects only
- PathPort xDMX** this shows the DMX data of the selected DMX input.

To understand this better see [Data Flow](#)

### Representation

- Decimal** display channels as decimal values between 0 and 255
- Hexadecimal** display channels as hexadecimal (base 16) values between 0 and FF
- Bar Graph** display channels as a left to right bar meter
- Percentage** display channels as a percentage of maximum level

## Line

Select the DMX512 output line to monitor.



This contains four tabs which provide quick select Indexes for fixture output.

Clicking on any of the palette index place holders will cause the output of any active fixtures in any group to be set to the values contained in the palette index. For example, selecting the Colour palette and clicking on Red will cause all the active fixtures to go to red if Red is a defined colour within the fixtures.

[Colour Indexes](#)  
[Brush Indexes](#)  
[Focus Indexes](#)  
[Beam Indexes](#)  
[Palette Data](#)

## Activating fixtures

You can activate fixture in the usual way in the [Fixtures](#) view, however, it is more useful to activate the required fixtures in the [Fixture Navigator](#) window.



This provides a fast way of selecting colours in multiple fixtures. It displays all the pre-defined Artist colours that can be assigned to a fixture with a colour selector channel (not colour mixing). Any fixtures that have colour mixing will be supplied the necessary data to form the selected colour.

Clicking on a colour will cause any fixture selected in either the Fixture List view or the Fixture Tree view to change to that colour. If a fixture does not have the colour selected, the fixture is unchanged.

Some fixtures have two colour selector wheels. Use the radio button to determine which of the two parameters to send palette data to.



This provides a fast way of selecting gobos in a fixture. It displays all the bitmaps defined by the [Bitmap Manager](#) that can be assigned to a fixture with a gobo selector channel.

Clicking on a gobo bitmap will cause any fixture(s) selected in either the Fixture List view or the Fixture Tree view to change to that gobo. If a fixture does not have the gobo selected, the fixture is unchanged.

Some fixtures have two gobo selector wheels. Use the radio button to determine which of the two parameters to send palette data to.



This displays the Focus index place holders. These place holders are a link to stored data to set mirror of yoke parameters in all active Fixtures that have data defined for this index.

Clicking on a Focus place holder will set position parameters on the active Fixtures. If the Beam place holder selected does not contain data for an active Fixture, the Fixture will not change.

This displays the Focus Indexes which containing positional data for mirrors and yokes.

These Indexes differ from the colour and brush indexes in that they are stored as index references when saved in a cue, scene or step. This means that any cues, scenes or steps with these references are changed if the Focus Index data is changed.

## To Create a Focus Index

Say you wish to create an index that has data to send all of the fixtures that can point to the centre of the stage to the centre of the stage.

- Activate all the required fixture and set the 'Preset level' for all off then. This will turn the light output on in white etc.

- Position all the beam to the required centre stage position.
- Click 'New Focus'. This will open the Palette Data dialog displaying all the position parameters that will be store in the Index.
- Click OK. A new focus index is added.

### To Use a Focus Index

Clicking on a Focus Index will cause the selected Fixtures to move to the stored position. If the Focus selected does not contain data for a selected Fixture, the Fixture will not change.

In the tree view any position parameters that are set to an Index will have a yellow icon and a small blue 'i' to left of it. This indicates that when you save to a cue, scene or step it will be saved as a reference to the Focus Index. Consequently any subsequent change of the Focus Index data will be reflected in the playback of the cue or scene.

### Adding Focus data

During programming you can select a Focus Index from the combo box and click 'Add To'. This will open the the [Palette Data](#) dialog from where you can alter any data that will be stored to the selected Index.



This displays the Beam index place holders. These place holders are a link to stored data to set shutter, iris and effect parameters in all active Fixtures that have data defined for this index.

Clicking on a Beam place holder will set beam parameters on the active Fixtures. If the Beam place holder selected does not contain data for an active Fixture, the Fixture will not change.

### Storing Beam data

During programming you can select Store Beam from the Fixture view toolbar, or the Beam palette window. This will open the the [Palette Data](#) dialog from where you can alter any data that will be stored and select a place holder to store the data to or create a new place holder.

These Indexes differ from the colour and brush indexes in that they are stored as index references when saved in a cue, scene or step. This means that any cues, scenes or steps with these references are changed if the Beam Index data is changed.

### To Create a Beam Index

Say you wish to create an index that has data to set all the fixtures to a beam setting that is specific to a location.

- Activate all the required fixture and set the 'Preset level' for all off them. This will turn the light output on in white etc.
- Set all the beam parameters to that required (shutter, gobo, iris, prism etc).
- Click 'Store Beam'. This will open the Palette Data dialog displaying all the beam parameters that will be store in the Index.
- Click OK. A new beam index is added.

### To Use a Beam Index

Clicking on a Beam Index will cause the active Fixtures to set their beam parameters to the stored values. If the Beam Index selected does not contain data for an active Fixture, the Fixture will not change.

In the tree view any beam parameters that are set to an Index will have a yellow icon and a small blue 'i' to left of it. This indicates that when you save to a cue, scene or step it will be saved as a reference to the Beam Index. Consequently any subsequent change of the Beam Index data will be reflected in the playback of the cue or scene.



### Tree View

This shows all the focus or beam type parameters that are flagged as changed and that will be store to the Index displayed in the combo box. You can uncheck any items to remove them from the store operation.

### Index

This combo box displays the name of the Index that the data is to be store to. By default this is a new index which has been given a arbitrary name which you can edit or select an existing index from the combo box in which to store the data without affecting data for other fixtures which might be store in that index.

### Expand

This will expand all branches of the tree view.

### Collapse

This will collapse all the branches of the tree view to show only groups.

## Cancel

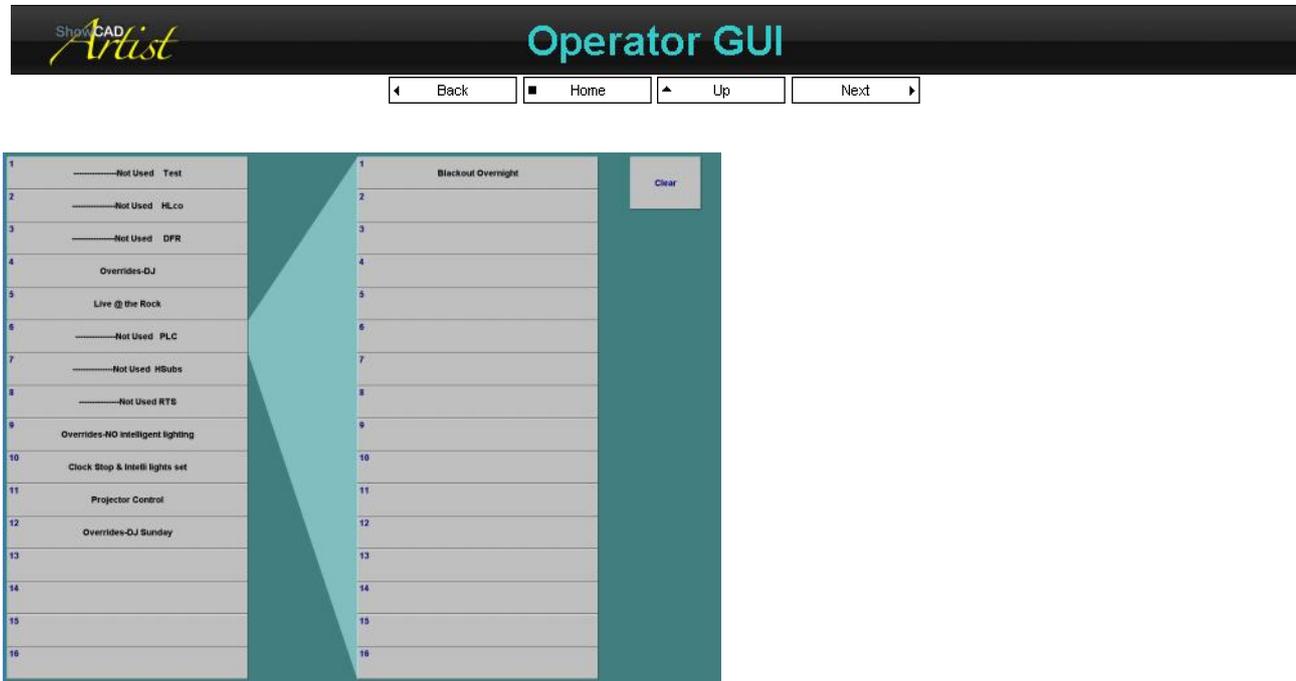
Click to cancel store operation. Nothing changes.

## OK

Click to store all the checked items in the tree to the Palette Index.

## Clear Flags

Check this box to clear all flags on clicking OK.



The operator can display a window that is designed to be operated from a touch screen. While viewing the cues in the client area, select View/User GUI from the main menu. The operator GUI will be displayed and the normal view will be minimised.

To close the GUI you can press **CTRL + X** or use **ALT + TAB** to select another process.

To close the Operator GUI and display the main GUI press **CTRL + N**. You can use this command again to put the main GUI in the System tray and open the Operator GUI again. This is useful when you have hidden the Windows task bar.

To boot Artist directly into the Operator GUI go to Tools/Preferences from the main menu and select the 'Screen' tab. Use the combo box to select the view you wish Artist to display when it is next booted.

## Properties

There are many properties that can be changed including colours, font and whether or not the mouse is visible when the operator GUI is displayed.

To set these properties double right-click on the GUI background. These properties are saved with the Workspace cue list document.



This interface provides a conventional desk like interface. It provides the programmer with a parameter control for each fixture in the group displayed in a horizontally scrollable list.

## Fixture Group

The top left combo box selects the fixture group to display.

## Fixture Parameter

The top right combo box is used to select the parameter to display.

## Parameter Control

There is no need to active any fixtures in the group since the controls are always connected. Adjusting a control will set the parameters flags and disconnect it from any running cues.

## Program Control

This is a copy of the functions found in the Master/[Program Control](#) window.

## Clear Flags

For convenience the 'Clear All Flags' function is provided.



These topics apply to the five main frame windows, the toolbars and the menu.

## Docking and Undocking

Each of the main windows in the docked GUI view can be undocked by right-clicking and selecting 'Allow Docking'. When this is done the window is now an overlapped window which can be dragged to any where on the screen(s).

You can also undock a window by double clicking on the gripper bar. The window will become an overlapped window. However, when it is dragged near to a frame that it can dock to, the drag frame changes shape to show where it will dock when you release the mouse button.

## Float in Client

Right click in the window and select 'Float in Client'. The window will now appear in the client area and an extra tab will appear.

To return it to its previous position right-click and select 'Float in Client ' again.

## Full Screen Mode

From the Main Menu select 'View\Full Screen Mode'. Artist will now occupy all of the screen and will remove the Windows task bar. The main menu now becomes a drop down that can be accessed by moving the pointer to the top of the screen.



Cues, scenes, chases and effect all use triggers, rate and ramps to produce fades and timing.

[Rate and BPM](#)  
[Triggers](#)  
[Ramps](#)  
[Event Flags](#)



The rate control is used in many dialogs for controlling timing of fade and hold times.

## Time adjustment

The slider is used to adjust the time between steps of a scene, chase or effect. The time is displayed in the text ox below the slider with a format of *m:s.t*, where *m* is minutes, *s* is seconds and *t* is thousandths of a second.

The top four buttons select the range of the slider according to the following table.

button label	slider range	meaning
^0	0.200 to 1.000	10 <sup>0</sup>
^1	1.000 to 10.000	10 <sup>1</sup>
^2	10.000 to 1:40.00	10 <sup>2</sup>
^3	1:40.00 to 16:40.00	10 <sup>3</sup>

## BPM timing

Selecting the bpm button changes the slider from a time control to a factor of the system BPM timer. The system BPM timer is displayed on the [Status Tool bar](#).

Adjust the slider to select a factor by which to multiply the system BPM.

## Hold proportion

Check the check box to change the slider to Hold proportion. This is the proportion of the set time that is hold time. For example, if you have set a time of 1.000 seconds and the proportion is set to 25% then the fade in will be 0.750 seconds and the hold time will be 0.250 seconds. Note that the overall time is unaffected.

The bottom left button displays this graphically and clicking this button will toggle the proportion between 100% (i.e. step) and 0% (i.e. all fade).

This also applies to the BPM mode.



Triggers are used to step sequential scenes, chases and effects and are produced from a variety of sources.

## Triggers

<b>Auto</b>	independent timer or BPM timer. See <a href="#">Rate and BPM Control</a> .
<b>Manual</b>	trigger by manual flag set by System command or QWERTY keyboard 'SHIFT' key.
<b>Manual gate</b>	manual gated by a System command. Uses independent timer for fade and hold times.
<b>Bass</b>	Triggered by the output of the audio Bass filter.
<b>Band 1</b>	Triggered by the output of the audio Band 1 filter.
<b>Band 2</b>	Triggered by the output of the audio Band 2 filter.
<b>Treble</b>	Triggered by the output of the audio High filter.
<b>Snare</b>	A combination of Filters to affect a trigger on a snare drum beat.
<b>Bass Decay</b>	The trigger snaps in on a bass filter trigger and fades out with the set rate.
<b>Band 1 Decay</b>	The trigger snaps in on a band 1 filter trigger and fades out with the set rate.
<b>Band 2 Decay</b>	The trigger snaps in on a band 2 filter trigger and fades out with the set rate.
<b>Treble Decay</b>	The trigger snaps in on a high filter trigger and fades out with the set rate.
<b>Snare Decay</b>	The trigger snaps in on a snare filter trigger and fades out with the set rate.
<b>Flag 1-32 pulse</b>	when the flag state changes from off to on the trigger fires once.
<b>Flag 1-32 gated</b>	when the flag state is on the trigger fire repeatedly with the set rate. When the flag state is off the trigger stops.

## Manual Triggers

Manual trigger as set by System Command or the QWERTY keyboard 'Shift' key.

## Auto Triggers

The auto trigger comes from the [Rate and BPM](#) control.

## Audio Triggers

These triggers are produced by the sound input to the PC and are processed by the filters. See [Audio Dialog](#).

## Flag Triggers

These triggers come from the [Event Flags](#) and provide a very powerful method of sequencing. These flags can be set by [System Commands](#).



Scenes and chase use these to determine the shape of the fade ramp.

<b>Linear</b>	the fade occurs linearly with time
<b>Sine 1</b>	fade is a half sine wave shape.
<b>Sine 2</b>	the fade is a sine wave shape.
<b>Parabola</b>	the fade has a parabolic shape
<b>Inverse Parabola</b>	the fade has an inverse parabolic shape.



There are thirty-two of these system event flags. There are set by [System Commands](#) and can be tested by a sequential scene to perform conditional actions.

The system command can be set from industrial automation interface, MIDI input or even from another cue or scene.

## Triggering a Scene

A flag can be used to advance the steps of a scene. In the triggers combo box select the flag you wish to use. Now when the flag is set by some external event the next step of the scene will be displayed and then the flag is automatically cleared.

### Scene Direction

A flag can be used to change the direction of scene. In the direction combo box select the flag you wish to respond to. Now when the flag is set the direction is forward and when the flag is cleared the direction is backwards.



Automation is the name given to connecting external devices to controller Artist or for Artist control other applications, local or networked.

The following is a list of connection methods.

<a href="#">MIDI Outputs</a>	to output MIDI message to external equipment. For example, Synthesiser, MIDI controllable Laser Controller, etc.
<a href="#">MIDI Inputs</a>	input messages from an externally connect MIDI device. For example, a musical keyboard, electronics drum pads, MIDI Control panel, etc.
<a href="#">Serial Output and Input</a>	input or output messages from the computers communication ports. For example, Video Switchers, Laser Controllers, another computer, environmental Lighting Controller, etc.
<a href="#">Network commands</a>	access from another computer connected on a network. For example, remote control from a PDA or a remote site, etc.
<a href="#">Real time control</a>	the computer time system is used to trigger system commands at a specific time of day.
<a href="#">Embedded in Scene or Cue Time-Code</a>	system commands can be embedded in a scene or a cue.
<a href="#">DMX Inputs</a>	MIDI or Multimedia time code can trigger system commands.
<b>Industrial Automation</b>	with a DMX512 input interface installed analogue and digital data from an externally connected DMX512 source such as another lighting desk.
<b>Keyboard (provisional)</b>	analogue and digital input cards can be installed to input contact closures or external analogue signals.
	key presses from an additional keyboard connected to the computer.

[System Commands](#)  
[Event Flags](#)  
[Text Commands](#)  
[Flash MX](#)  
[PowerPoint](#)  
[HTML Menu](#)  
[COM and .NET](#)  
[Mini Control Panel](#)  
[Keypad](#)

There are many ways to add control surfaces to Artist. The most common and readily available are MIDI devices such as keyboard controller and MIDI control panels.

These provide switching and linear control data to control the operation of Artist.

### Keyboard Activation

A MIDI keyboard control (music keyboard without the synthesiser part) can be configured such that, for example, 16 keys are configured to display cues lists 1 through 16. A further 16 keys configured to activate cues 1 through 16 in the currently displayed list. Thus 256 (16 X 16) cues can be accessed quickly.

Some of the other keys can be assigned to blackout, fade out etc. You can also define a key to always access a specific cue, i.e. a smoke machine cue.

This configuration is similar to the Operator GUI.

### Using MIDI controller

Often you may want to have linear control of Artist for adjusting dimmers, rates etc.

You can assign a control change MIDI message to adjust the global BPM rate or the rate or level of the last activated cue. This is a very dynamic and simple way of providing level control.

You can assign control change MIDI messages to the level or rate of the currently displayed cue list. In combination with the previous Keyboard Activation a very powerful console type of control can be provided.

The MIDI controller can also be configured to provide direct access to fixture parameters.



The system commands are listed here by category as they are in the System Command dialogs in Artist.

<a href="#">Display Client</a>	this causes the desired <a href="#">List View</a> and group to be displayed in the client area.
<a href="#">Display Window</a>	this causes the desired Section and Window to be displayed
<a href="#">Activate</a>	this activates a workspace object, i.e. a Fixture, Scene or Cue.
<a href="#">Events and flags</a>	this sets or clears an Object flag.
<a href="#">Global</a>	this is functions such as Reset, Lamp On, Blackout etc.
<a href="#">Serial Output</a>	this command send a string of data to a device attached to the system COM ports.
<a href="#">Network Output</a>	sends text messages to a network connected computer.
<a href="#">MIDI Output</a>	this sends a MIDI message to any devices connected the MIDI output.
<a href="#">Wave audio Output</a>	this output an audio wave to the sound output device of the system.
<a href="#">Shell</a>	these are Windows API commands.
<a href="#">Linear Control</a>	to connect linear input sources to object level adjustment

- [Video clip](#) control the playing of Video files.
- [CD Audio](#) controls the playing of CD Audio or DVD video.
- [File loading](#) load alternative Artist files.
- [Select Fixture Parameter](#)
- [Dynamic Fader](#) Dynamically allocate external faders according to the active client view.
- [Palette](#) select and set palette indexes
- [Cue List Commands](#) cue list action, chasing, sequencing, deactivating etc.
- [PowerPoint](#) these commands can control a Microsoft PowerPoint presentation.



[System Commands](#) can be accessed from within a Cue, a Scene or a Step. This can be useful for automating the activation of cue from within other cues.

**To add and Embedded command to a Cue**

Right-click on the Cue name in the Cue tree navigator view and select 'Add Embedded Command'. This will display a wizard style dialog. Follow the instruction as you would for any [System Command](#).

**To add and Embedded command to a Scene**

Right-click on the Scene name in the Scene tree navigator view and select 'Add Embedded Command'. This will display a wizard style dialog. Follow the instruction as you would for any [System Command](#).

**To add and Embedded command to a Step**

Right-click on the Step name in the Scene tree navigator view and select 'Add Embedded Command'. This will display a wizard style dialog. Follow the instruction as you would for any [System Command](#).

**Fade Attributes**

The first page of the wizard asks for a fade attribute that determines where on the fade the system command will be triggered. See [Fade Attributes](#).

You can add a system command that will be triggered when the parent is activated and another system command that is triggered when the parent is deactivated.



This command function causes the desired Section and Window to be displayed. The following are its parameters.

<b>Frame Section</b>	<b>Master</b>	Cue Control	display the Cue Control window.
		Time Control	display the Time Control window.
		Program Control	display the Program Control window.
		Templates	display the Template List View.
	<b>Client</b>	Fixtures	display the Fixture List View.
		Scenes	display the Scene List View.
		Cues	display the Cue List View.
		Patch	display the Patch List View.
	<b>Navigator</b>	Resources	display the Resources Tree View.
		Templates	display the Template Tree View.
		Fixtures	display the Fixture Tree View.
		Scenes	display the Scene Tree View.
	<b>Monitor</b>	Cues	display the Cue Tree View.
		Status	display the Status window.
		Notes	display the Notes window.
		Audio	display the Audio window.
	<b>Palette</b>	Output	display the Output window.
		Color	display the Color Palette.
		Brush	display the Brush Palette.
		Focus	display the Focus Palette.
<b>Other</b>	Beam	display the Beam Palette.	
	Touch	toggle the touch screen display	
	Theatre	toggle the theatre gui	



This command function causes Artist to display the desired [List View](#) and group in the client area. The following are its parameters.

<b>Type</b>	<b>Parameter</b>	the List View to be displayed is defined by a parameter from the input message.
	<b>Current</b>	the List View is unchanged.
	<b>Fixture</b>	the <a href="#">Fixture List View</a> will be displayed
	<b>Scene</b>	the <a href="#">Scene List View</a> will be displayed
<b>Group</b>	<b>Cue</b>	the <a href="#">Cue List View</a> will be displayed
	<b>Parameter</b>	the Group to be displayed is defined by a parameter from the input message.
	<b>Current</b>	the Group is unchanged.
	<b>Group <i>n</i></b>	Group <i>n</i> is displayed.

This command can be triggered by variable data from, for example, a MIDI device and used to display fixture groups or cue lists.

### Display Cue Lists with keyboard

This example will display Cue lists 1 through 5 using the first white notes on a MIDI keyboard.

- Select MIDI port
- Select 'Note on/off'
- Set a count of 5 for the white notes.
- Set the MIDI channel to that the message will be received on.
- Select 'White notes'
- Select 'C2 (dec - 36)(hex - 24)
- Select 'Display client/Cue'
- Select group 'Defined by Parameter'

### Display Fixture groups with a fader

The fixture group displayed will depend on the input level.

- Select the MIDI port
- Select Control Change
- Set a count of 1
- Set the MIDI channel the MIDI is input from.
- Set the control number (i.e. 74 - Undefined)
- Select the 'Display client/Fixture' system command.
- Select group 'Defined by Parameter'



This command function activates a workspace object, i.e. a Fixture, Scene or Cue. Its parameter are as follows.

<b>Type</b>	<b>Parameter</b>	the object to activate is in List View defined by a parameter from the input message.	
	<b>Current</b>	the object to be activated is in the currently displayed List View.	
	<b>Fixture</b>	the object to be activated is in the <a href="#">Fixture List View</a> .	
	<b>Scene</b>	the object to be activated is in the <a href="#">Scene List View</a> .	
<b>Group</b>	<b>Cue</b>	the object to be activated is in the <a href="#">Cue List View</a> .	
	<b>Parameter</b>	the object is in the Group defined by a parameter from the input message.	
	<b>Current</b>	the object is in the currently displayed Group.	
<b>Object</b>	<b>Group <i>n</i></b>	the object is in Group <i>n</i> .	
	<b>Parameter</b>	the Object to be activated is defined by a parameter from the input message.	
	<b>Current</b>	the Object(s) to be activated are those currently selected.	
<b>Action</b>	<b>Group <i>n</i></b>	Object <i>n</i> is to be activated.	
	<b>Cue or Scene</b>	<b>Toggle</b>	the status of the object is inverted. If active it will be deactivated; if inactive it will be activated.
		<b>Activate</b>	activate object
		<b>Deactivate</b>	deactivate object
		<b>Toggle</b>	the active state of the fixture is inverted. If active it will be deactivated; if inactive it will be activated.
	<b>Fixture</b>	<b>Interlock</b>	activate only one fixture in the group
		<b>Pattern</b>	activate fixtures using the built-in patterns
<b>Dimmer</b>		sets the level of the dimmer parameters of the defined fixture.	

This command can be triggered by variable data from, for example, a MIDI device and used to activate and adjust the level of a cue or activate fixture patterns.

### Fader activated cue

This example is triggered by a MIDI input device sending control change messages on channels 1 through 5 to trigger and fade cues 1 through 5 on List 1.

- Select the MIDI input to use.
- Select Control Change
- Set count to 5 (that is channels 1 through 5)

- Select the start MIDI channel (i.e. channel 1)
- Select the controller message (i.e. 7 - Volume)
- Select the Activate system command
- Select the Cue type
- Select Group 1
- Select Parameter. This will decode as cues 1 through 5.
- Finish.

### Activating Fixture Patterns

This example uses a MIDI control change message to active the built-in Fixture patterns.

- Select the MIDI input port.
- Select **Control Change**.
- Set a **Count** of 1.
- Set the MIDI channel
- Select the controller message (i.e. 71- Undefined)
- Select the **Activate** system command
- Select the **Fixture** type
- Select **Pattern** action.
- Select **Current** group
- Select **Defined by Parameter** object.

### Fader Selected and Activated Cue

This example demonstrates using a DMX lighting desk output channel to select and activate an Artist cue. The DMX is received via a PathPort input node. Note that a value of zero on the input means no change

- Select the **PathPort** node.
- Select the DMX channel to receive data on.
- Select **Linear Input**
- Set a **Count** of 1
- Click **Next**
- Select **Activate/Cue**
- Set the **Action** to **Activate**
- Set the **Group** to the Cue List number you require.
- Set the **Object** to **Defined by Parameter**
- Click **Next** then **Finish**.



These commands are used to set or clear parameter flags, event flags or time stamped events.

<b>Clear all parameter flags</b>	clears all parameter flags that have been marked as changed.
<b>Clear selected parameter flags</b>	clears on those selected fixtures' flags.
<b>Set event flag</b>	set one of the internal event flags.
<b>Clear event flag</b>	clear one of the internal event flags.
<b>Mark time stamped event</b>	creates a time stamped event in the time code script.
<b>Set Linear flag</b>	sets the select Linear flag to the input value.

also see [Event Flags](#).



### Wizard page - Set Global information

Category	Global Command	
Master	<b>Black/Restore</b>	The Black function in the Cue Control section. Toggles between Black and Restore.
	<b>Black Only</b>	Same as above without restore function.
	<b>Restore Only</b>	Same as above without Black function.
	<b>Fade In/Out</b>	The Fade function in the Cue Control section. Toggles between Fade in and Out.
	<b>Fade Out</b>	Same as above without the Fade in function.
	<b>Fade In</b>	Same as above without the Fade out function.
	<b>Panic</b>	System Panic button.
	<b>Go</b>	Triggers the 'Go' function in the Cue Control window. Set the options parameter to the Cue List number required.
	<b>Clear</b>	Triggers the 'Clear' function in the <a href="#">Cue Control</a> window. Deactivates all Cues in all lists.
	<b>Sequence</b>	Triggers the 'Seq' function in the <a href="#">Cue Control</a> window. Starts sequencing through the cues in the List specified in the option combo box..
	<b>Chase</b>	Triggers the 'Chase' function in the <a href="#">Cue Control</a> window. Starts chasing through the Cues in the List specified in the options combo box.

	<b>Stop</b>	Stops chasing or sequencing in the selected cue list.
	<b>Start RTS</b>	Start the Real time script
	<b>Stop RTS</b>	Stop the Real time script
	<b>Preset</b>	set preset mode
<b>Fixture</b>	<b>Reset all</b>	Reset all system installed fixtures.
	<b>Reset group</b>	Reset fixtures in the currently active fixture group.
	<b>Lamp ON all</b>	Lamp ON all system installed fixtures.
	<b>Lamp ON group</b>	Lamp ON fixtures in the currently active fixture group.
	<b>Lamp Off all</b>	Lamp OFF all system installed fixtures.
	<b>Lamp Off group</b>	Lamp OFF fixtures in the currently active fixture group.
<b>Activate</b>	<b>Deactivate All</b>	Deactivate All objects in the currently displayed client area.
	<b>Deactivate in group</b>	Deactivate objects in the currently active group in the currently display client area.
<b>Group/List</b>	<b>Previous Group</b>	Display the previous group in the currently displayed client area.
	<b>Next Group</b>	Display the next group in the currently displayed client area.
<b>Trigger</b>	<b>Group advance</b>	
	<b>BPM tap</b>	tap trigger for BPM timer
	<b>BPM rate</b>	linear adjustment for BPM rate
	<b>BPM auto</b>	set auto BPM
	<b>Manual trigger</b>	manual trigger
	<b>Manual gate</b>	manual gate
<b>Programming</b>	<b>Fixture preset</b>	Set Fixture preset on displayed and active fixtures.
	<b>Clear flags</b>	Clear all parameter flags.
	<b>Zero Active Parameter</b>	Zeros the active parameter levels.



This command sends data to one of the available system COM ports.

**Select COM port** select from the available system COM ports in the combo box.  
**Enter serial message string** enter the text string message to send to the COM port. You also set characters that are not displayable (i.e. in the range 00 - 1F or 7F-FF HEX) by preceding the 2 hexadecimal characters with 'x'.

e.g. testxOD would be the ASCII caharacters t, e, s and t followed by OD HEX or 12 decimal.

See [Communications Manager](#).



This command sends data to one of the available [Network Hosts](#) connected to the computers network interface.

**Select Host** select from the available hosts defined in **Network Hosts**.  
**Enter serial message string** enter the text string message to send to the host. Only text messages are currently supported.

This command can be used to send commands to other Artist computers on a network.

ShowCAD make other software products that can be connected in this manner to provide video and sound.



This system commands send a MIDI message via any of the installed MIDI ports. A knowledge of MIDI messages is required.

<b>Device</b>	selects the MIDI output port to send the message on
<b>Message</b>	Select the MIDI message
<b>Channels</b>	Set the MIDI channel in the range 1 through 16
<b>Data1</b>	Set the first MIDI message data byte in the range 0 through 127
<b>Data2</b>	Set the second MIDI message data byte in the range 0 through 127

The data1 and data2 entries are dependant on the MIDI message selected. The edit boxes for these will be disabled if they are not required.



This command controls the audio waves in the [Audio Manager](#).

**Select wave**

The combo box is used to select the Audio wave file by name as it appears in the Audio Manager.

**Preview**

Use these buttons to preview the selected wave file.

**Include time code**

Check this box to also play time code events when audio is played.

**Loop**

Check this box if you want the wave file to repeat until a stop command is issued.

**Volume**

You can set the playback volume of the audio file. Use the preview function to adjust the required setting.

**Action**

Play	Play the selected wave file.
Stop	Stop the selected wave file from playing.
Pause	Pause the select wave file if playing.



These commands provide access to the Windows shell. The following are defined.

**Enable Screen Saver**

this does not turn the screen saver on but enables it so that it will come on after the idle time specified in the Windows Control Panel.

**Disable Screen Saver**

this prevents the screen saver from coming on at all.

**Turn off monitor**

this turns the system monitor off one second after this command is issued.

**Turn on monitor**

this turns the system monitor on.

**Set Power Scheme 1**

sets Power Scheme 1 as specified in the Power Manager in the Windows Control Panel

**Set Power Scheme 2**

sets Power Scheme 1 as specified in the Power Manager in the Windows Control Panel

**Set Power Scheme 3**

sets Power Scheme 1 as specified in the Power Manager in the Windows Control Panel

**Set Power Scheme 4**

sets Power Scheme 1 as specified in the Power Manager in the Windows Control Panel

**Set Power Scheme 5**

sets Power Scheme 1 as specified in the Power Manager in the Windows Control Panel

**Set Power Scheme 6**

sets Power Scheme 1 as specified in the Power Manager in the Windows Control Panel

**Shutdown Windows**

this command forces all running applications to close (without saving), windows to shutdown and the computer to power off.

***Be aware that you could loose programming if you activate this command before saving your programming.***

***These commands should be used with great care since they may render the computer in operable.***



This command is used to provide linear level input from various sources and direct then to system objects.

<b>Active Parameter</b>	the level is sent to the currently active parameter in the currently active fixture group. The parameter from the source is used to determine which channel of the parameter and which fixture receives the level.
<b>Active Fixtures</b>	the level is sent to the currently active fixtures in the currently active fixture group. The parameter from the source is used to determine which parameter is adjusted.
<b>Cue Level</b>	Adjusts the level of the cue defined as follows.  The cue list is defined by param1 and the cue is defined by param2.
<b>Master</b>	the level is sent to the Cue Control master fader.
<b>XFade</b>	the level is sent to the Cue Control cross-fade control for the currently active cue list.  group select
<b>BPM timer</b>	sets the BPM timer to manual and sets the rate.
<b>Cue thru rate</b>	Sets the thru rate of the of the cue defined as follows.  The cue list is defined by param1 and the cue is defined by param2.
<b>Last Cue level</b>	sets the level of the last activated cue.
<b>Last Cue thru rate</b>	sets the thru rate of the last activated cue.
<b>Dynamic</b>	sets the level of the dynamic fader. If Fixtures are displayed these control the active parameter axis.

If Cues are displayed they control cue levels.

## MIDI Example

The issue of controlling more than one fixture or parameter.

- Run the Patch Wizard
- Select the MIDI input interface
- Select Control Change and specify a sequential number sufficient to cover the number of fixtures or parameters required. This cannot exceed the number of MIDI channels available to the interface. Usually 16.
- Select MIDI channel 1 as the first input
- Select the required MIDI Controller type (e.g. Volume)
- Select Linear Control and Active Parameter or Active Fixture
- End

This will result in the following behaviour.

## Active Parameter Command

This message will adjust the active parameter of the following fixture in the active fixture group,

Volume on MIDI channel 1	first fixture
Volume on MIDI channel 2	second fixture
Volume on MIDI channel 3	third fixture
Volume on MIDI channel 4	fourth fixture

## Active Fixture Command

The message will adjust the following parameter of the active fixture in the active fixture group,

Volume on MIDI channel 1	first parameter
Volume on MIDI channel 2	second parameter
Volume on MIDI channel 3	third parameter
Volume on MIDI channel 4	fourth parameter



This command controls the video clips in the [Video Manager](#).

### Select clip

The combo box is used to select the video clip file by name as it appears in the Video Manager.

### Preview

Use these buttons to preview the selected clip file.

### Include time code

Check this box to also play time code events when the clip is played.



This command is used to play a CD audio track. The mounted CD track list is displayed in the CD Audio branch on the Resources Tree view.



These commands allow the loading of Artist file dynamically.

<b>MTC</b>	load a different MIDI time code event file
<b>Input Patch</b>	load a different Input Patch file.
<b>RTC</b>	load a different Real time event file.
<b>Workspace</b>	load a different Workspace

In each case the file name should be entered.



This system command sets the Active Fixture Parameter to allow external adjustment.

- Defined by Parameter** a bit confusing! This means the selected parameter is defined by the input parameter (part of the MIDI message)
- Parameter *n*** selects the specified fixture parameter *n*

You can use switched or level control with this commands.

### White key selection of Parameter

This example shows how to connect the first 5 white keys of a MIDI keyboard to the first 5 parameters of the current fixture group.

- Select MIDI port.
- Select 'Note on/off'
- Set a count of 5
- Set the MIDI channel
- Select 'White notes'
- Select C2
- Select 'Select Parameters' system command
- Select 'Parameter 1'

### Fader selection of Parameters

This example shows how to use a MIDI fader to select fixture parameters.

- Select MIDI port.
- Select 'Control change'
- Set a count of 1
- Set MIDI channel
- Select controller (e.g. 77 - Chorus depth)
- Select 'Select Parameter' system command
- Select 'Defined by Parameter'



This command connects linear data with the displayed client view. The functionality depends on the view.

### Fixture Group

When a Fixture Group is displayed in the client area this command will control the active parameter as displayed in the Fixture Control toolbar. The active parameter can be selected by the [Select Fixture Parameter](#) system command.

The offset is a value added to the parameter value to give the index of the fixture to be adjusted. This will depend on how many axis of control the selected parameter has.

The up-shot is that in the case of a dimmer parameter the fader will set the level of the active fixtures.

In case of a colour mix parameter the first three faders will control red (cyan), green (magenta) and blue (yellow).

In the case of a 16 bit yoke parameter the first fader is pan MSB, the second pan LSB, the third is tilt MSB and the fourth is tilt LSB.

### Cue List

When a Cue List is displayed in the client area this command controls the levels of the cues in the list with fader 1 controlling cue 1, fader 2 - cue 2, etc.



This command performs palette functions.

Display Palette type	Parameter	the palette tab to display is provided by the parameter value.
	Colour	display the Colour palette tab

	Brush	display the Brush palette tab.
	Focus	display the Focus palette tab.
	Beam	display the Beam palette tab.
Select Palette index	Parameter	highlight the index defined by the parameter value.
	Palette index <i>n</i>	highlight index <i>n</i> .
Execute selected index	execute the currently highlight palette index in the currently displayed palette type.	

These commands are specific to Cue Lists.

List Action	By Parameter	action is defined by input parameter.
	Latch	Set cue list to 'Latch'
	Interlocked	Set cue list to 'Interlocked'
	Momentary	Set cue list to 'Momentary'
Deactivate in list	deactivate all cues in the list	
Step	step advance to the next cue in the list	
XFade	manual fade advance to next cue in list.	
Seq	start list sequence	
Chase	start list chase	
Stop	stop chase or sequence on cue list	
Page up	this command can be used to page through a long cue list. See <a href="#">Group Properties</a> for details	
Page down	this command can be used to page through a long cue list. See <a href="#">Group Properties</a> for details	

This system command can launch Microsoft's PowerPoint, load a presentation and play a slide show automatically or slide at a time synchronised with events in Artist, for example, a time code event or an external trigger.

**Commands**

Load Presentation	this will launch PowerPoint if it is not already started and load the specified presentation file.
Run Slide Show	this will start the full screen slide show. It proceed with the timings specified in the presentation.
Show Slide	displays the specified slide.
Next Slide	this will advance the presentation to the next slide in sequence.
Previous Slide	this will display the previous slide in sequence.
Stop Slide Show	this will stop the current slide show.

These wizard pages will appear as part of other wizards. They will step you through setting [System Commands](#). [Select Command](#)

**Wizard Page - Select System Command**

From the combo box select the system command. See [System Commands](#).

Artist has 32 internal event flags that can be set or cleared and tested or used to trigger other events.

**Setting or Clearing Event Flags**

The flags are set or cleared by [System Commands](#) which in turn may be accessed by any input device (MIDI, digital, keyboard etc.) or embedded in a Scene or Cue.

**Using Flags**

Sequential scenes and chase can be triggered or gated by event flags.

**Properties**

Right-click on the Event Flags branch and select 'Properties'. This dialog provides a method of manually setting or clear flags individually.



These are text versions of the System Command which are used with serial input and Telnet input

All the following commands are ASCII strings. Fields enclosed by, but excluding, the <> characters are required and have the meaning described in the text. Fields enclosed by, but excluding, the [] characters are options dependant on the message. All of these messages are terminated by a return character (HEX 0D, DEC 13).

**Display Client**

DC<type>,<group>

**Example : DC3,2**

This command will display cue list 2.

type	description
0	current - don't changed
1	fixtures
2	scenes
3	cues

group	
0	current - don't change
>0	any value greater than zero will select that list or group

**Display Window**

DW<section>,<window>

**Example DW3,5**

This command will display the Cues in the navigator.

section	window	description
1	<b>Master window</b>	
	1	Cue Control
	2	Time Control
	3	Program Control
2	<b>Client window</b>	
	1	Templates
	2	Fixtures
	3	Scenes
	4	Cues
3	<b>Navigator window</b>	
	1	Resources
	2	Templates
	3	Fixtures
	4	Scenes
4	<b>Monitor window</b>	
	1	Status
	2	Notes
	3	Capture
5	<b>Palette window</b>	
	1	Colour
	2	Brush
	3	Focus
6	<b>Other window</b>	
	1	touch screen
	2	theatre gui

**Activate**

AC<type>,<group>,<object>[,action]

**Example: AC3,0,5**

This command will activate cue 5 on the currently active list

type	description
0	current - no change
1	fixture
2	scene
3	cue

group	
0	current - don't change
>0	any value greater than zero will select that list or group

object is the decimal number of the object in the group to activate.

action	
1	Toggle status. This command will invert the state of the object specified.
2	Activate object.
3	Deactivate object.

If an action is not specified, toggle is assumed.

**Events and Flags**

EF<type>[,argument]

**Example: EF1**

This command will clear all parameter flags.

type	description
1	Clear all parameter flags
2	Clear selected parameter flags
3	Set event flag - requires argument
4	Clear event flag - requires argument
5	Mark time stamped event
6	Set Linear flag - the arguments is the level is the range 0 - 255

**Global**

GL<section>,<function>[,option]

**Example: GL1,4**

This command toggles the Fade In/Out function in the cue control window.

section	function	description
1	<b>cue control function</b>	
	1	Black/Restore
	2	Blackout only
	3	Restore only
	4	Fade in/out
	5	Fade out
	6	Fade in
	7	Panic
	8	Go
	9	Clear
	10	Sequence
	11	Chase
	12	Stop
	13	Start RTS
	14	Stop RTS
15	Preset	
2	<b>fixture function</b>	
	1	Reset ALL
	2	Reset group
	3	Lamp ON ALL
	4	Lamp ON group
	5	Lamp OFF ALL
3	<b>activate functions</b>	
	1	Deactivate ALL
4	<b>group/list functions</b>	
	1	Previous group
	2	Next group

	3	group advance
5	triggers	<b>description</b>
	1	BPM tap
	2	BPM rate
	3	BPM Auto
	4	Manual trigger
6	5	Manual gate
	Programming	<b>description</b>
	1	Fixture Preset
	2	Clear All Flags
	3	Zero Active Parameter

## Serial Output

SO<port>,<message\_string>

Example: SO1,xollob\_fo\_daol

<b>port</b>	the serial port number the message is to be output on. In the range 1-8
<b>message_string</b>	this is an ASCII string with no white spaces as it will appear on the serial output port.

## MIDI Output

MO<message><device><channel>[data1][data2]

<b>message</b>	<b>NF</b>	note off
	<b>NO</b>	note on
	<b>KP</b>	key pressure
	<b>CC</b>	control change
	<b>PC</b>	program change
	<b>CP</b>	channel pressure
	<b>PB</b>	Pitch bend
	<b>SR</b>	system real time
<b>device</b>	the index of the MIDI output port to send the message out on	
<b>channel</b>	the midi channel number in the range 1 - 16	
<b>data1</b>	optional data field in the range 0 - 127	
<b>data2</b>	optional data field in the range 0 - 127	

Example:

MONO1,1,64,127

## CD Audio

CD<device>[,track][,action]

**device** is 1. This will be selectable in future implementations.

**track** is the 1 based track index of the required CD audio track. If **track** is zero then all tracks are played from the start. The **action** is play by default.

Example: CD1,2

This command wil play CD audio track 2.

0	stop CD audio playing
1	play specified track (default)

## Wave Audio output

WA<name>[,action][,volume]

**name** is the name of the file as it is displayed in the resources tree view including the extension.

Example: WAboning.wav,1

Action value,

0	stop audio wave
1	play audio wave
2	toggle audio wave state
3	play audio wave and associated time code events

If the volume argument is specified it sets the playback volume of the audio clip. The value is in the range of 0 to 100 where 100 is the

maximum volume.

### Video Clip

VC<name>[,action]

**name** is the file name as it is displayed in the resource tree view including file extension.

**Example:** VCskiing.avi

Action value,

0	stop video clip
1	play video clip
2	toggle video clip state
3	play video clip and associated time code events

### Linear Control

LC<type>[,param1][,param2],<level>

**Example:** LC3,0,5,33

This command will set the level of Cue 5 in the active list to 33%.

The level is in the range 0 - 100.

type	name	description
1	Active parameter	the param1 value is in the range 1 - the number of fixture in the active fixture group.
2	Active fixture	the param1 value is in the range 1 to the number of parameters in the active fixture
3	Cue level	Adjusts the level of the specified cue. If param1 is 0 then the current cue list is used or param1 is the cue list. Param2 is the cue.
4	Master	adjusts the master fader
5	XFader	adjusts the xfader
6	BPM time	adjusts the global BPM timer
7	Cue thru rate	adjusts the thru rate of the specified cue If param1 is 0 then the current cue list is used or param1 is the cue list. Param2 is the cue.
8	Last cue level	adjusts the level of the last activated cue
9	Last cue rate	adjusts the thru rate of the last activated cues
10	Dynamic	adjusts the level of the dynamic fader allocation.

### Shell

SH<command>

**Example:** SH3

This command turns the computer monitor off.

1	Enable screen saver
2	Disable screen saver
3	Turn off monitor
4	Turn on monitor
5	Power scheme 1
6	Power scheme 2
7	Power scheme 3
8	Power scheme 4
9	Power scheme 5
10	Power scheme 6
11	Shutdown Windows

### Select Fixture Parameter

SP<parameter>

**Example:** SP3

This will select the third parameter of the fixtures in the current fixture group.

### Dynamic Fader

### Palette Command

## Cue List Command

This command applies to Cue Lists.

CL<command>,<list>

### Example : CL6,3

This command start a cue list chase on cue list 3.

1	Cue List action	
	0	Latch
	1	Interlocked
	2	Momentary
2	Deactivate all cues in the list	
3	Advance active cue in list	
4	not supported	
5	Start cue list sequence	
6	Start cue list chasing	
7	Stop chase or sequence in cue list	



This article shows how to connect [Artist System Commands](#) to a Flash MX script in an HTML page.

### Example Files

Artist is supplied with an ActiveX control (WinsckW.ocx) which is used to send commands via Telnet to Artist residing either remotely or on the same computer. Also supplied are an example HTML page (FlashExample.htm) and an example Flash MX object (demo.swf)

### Commands

Your communication with Artist is via the demo\_FSCommand VBScript sub-routine. The first argument is a command string and the second is the commands argument.

"Connect"	Makes the connection with Artist. The argument is the IP of the Artist computer e.g. "192.168.0.12" or for the local host "127.0.0.1"
"Send"	Sends Artist System Commands e.g. "ac3,1,1,2". This will activate cue list 1, cue 1.
"Close"	Closes the connection with Artist

See [Text Commands](#) for commands specifics.

### To Try the Example

- Run Artist
- Display Cue List 1
- In the Resources Tree view right-click on 'System Control/Artist Telnet Server' and select 'Properties'
- Check the 'Enable Listening' box.
- double-click on FlashExample.htm

As you click on cues in the HTML window you will see that the cues are activated in Artist. This example is set up to use the local host as an IP address.



Artist provides System Commands for controlling PowerPoint slide shows (see [PowerPoint](#)).

If you have a little programming knowledge It is also possible to control Artist from PowerPoint by using a network port and an ActiveX control embedded into the first slide of your show and writing an embedded VBA for PowerPoint object.

If you do not have any programming expertise contact ShowCAD Control Systems with your design goals and we will be happy to realise them for you.

### The Example

You can view the example with Artist running or not

You can find the example presentation (PPEExample.ppt) in your 'My Workspaces ' directory. Double-click it to open it in PowerPoint then press 'F5' to run the presentation.

The presentation displays the first slide full screen. Enter the IP address of Artist (127.0.0.1 if it is on the same computer) and click connect.

Click **Auto** to view an automatic slide show. These slides will change on a 30 second time base.

Click **Menus** to display the first of four fixture cue menus. Clicking on any of the buttons will activate a cue in Artist. Click on a fixture image to display other cue lists.

### Under the bonnet

In design mode look at the first slide. The red arrow indicates the location of the ActiveX control. Right-click on it and select 'View Code'. This will open the VBAProject. Display

This method, by virtue of the ActiveX control, can control Artist on the same computer or on a network connected computer.



The 'WinsckW.ocx' ActiveX Control is provided for embedding in a variety of media types.

For example, you can embed the control in an HTML page on a remote computer or wireless enabled PDA. The control sends Artist System Commands to a computer with Artist running.

The example (HTMLMenu.htm) shows a very simple menu list to activate cues.

### To Try the Example

- Load the HTMLMenu.wsp workspace
- Display the cues list.
- In the Resources Tree view right-click on 'System Control/Artist Telnet Server' and select 'Properties'
- Check the 'Enable Listening' box.
- double-click on HTMLMenu.htm

When the page is displayed it shows a default address of '127.0.0.1'. This is the local computer. Click 'Connect' and the connection will appear under 'System Control/Artist Telnet Server'.

Now clicking on any of the buttons on the HTML page will activate Artist cues.



These features are for advanced code programmers that wish to integrate Artist functionality in to their own code projects.

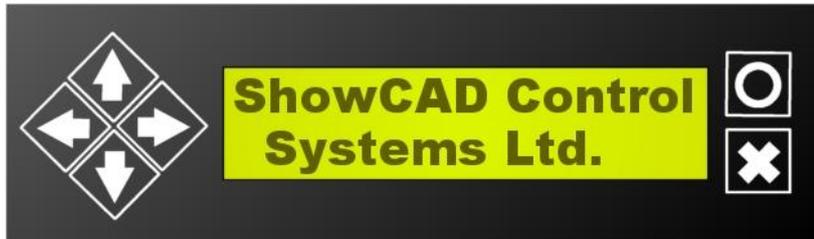
Artist exposes a COM automation interface with a set of methods for controlling it. You should consult your development software for details of how to wrap this interface. The interface is registered with Windows the first time you run Artist.

For .NET applications you can add a reference to the COM object to connect to Artist via the interoperability mechanism.

Method	Arguments	Description
ActivateCue	int list, int cue, int action	
AdvanceCue	int list	
BlackOut	int mode	
DeactivateList	int list	
Echo	int shout	
SetListAction	int list, int action	
StartChase	int list	
StartSequence	int list	
Stop	int list	
GetListCount	int* count	
GetListText	int list, BSTR text	
GetCueCount	int list, int* count	
GetCueText	int list, int cue, BSTR text	
GetCueState	int list, int cue, int* state	
LoadFile	BSTR filename	
LoadWorkspace	BSTR filename	
CueListLock	int list, VARIANT BOOL lock	



This is a Control Panel that fits a spare drive bay in the computer. It provides a backlit LCD menu display and various simple function buttons.



When Artist is first booted the display is in Cue List mode. Press the X button to display the menu as follows,

Mode	Mnemonic	Description
Cue List	CLT	<ul style="list-style-type: none"> <li>● The left and right arrows select a Cue List</li> <li>● The up and down arrows select a cue within the selected list</li> <li>● The O button activates/deactivates the selected cue.</li> <li>● The X button returns to the Mode menu</li> </ul>
Workspace	WSP	<ul style="list-style-type: none"> <li>● The left, right, up and down arrows select a workspace</li> <li>● The O button loads the selected workspace</li> <li>● The X button returns to the Mode menu</li> </ul>
Real time events	RTC	<ul style="list-style-type: none"> <li>● The left, right, up and down arrows select a Real Time event file.</li> <li>● The O button loads the select Real Time event file.</li> <li>● The X Button returns to the Mode menu.</li> </ul>
MIDI time events	MTC	<ul style="list-style-type: none"> <li>● The left, right, up and down arrows select a MIDI Time event file.</li> <li>● The O button loads the select MIDI Time event file.</li> <li>● The X Button returns to the Mode menu.</li> </ul>

See [COM Port Properties](#) for settings related to this control panel.



The Keypad on your QWERTY keyboard can be used to activate cues and display cue lists.

#### Activate Cue on current List

- Enter the number of the Cue
- press **Enter**.

#### Activate Cue on a specific List

- Enter the number of the Cue List
- press the / key
- Enter the number of the Cue
- press **Enter**

#### Display a specific Cue List

- Enter the number of the Cue List
- press the / key
- press **Enter**

When you press the first number on the Keypad a dialog is display to help you keep track of what you are entering.

This can be a simple wired remote control if you use a discrete USB Keypad which can also be extended to any required length.



You should have read through the [Getting Started](#) section before reading these articles.

Artist can be set up to create a random access show as in a nightclub or a rock venue, or a sequentially defined show such as a presentation or a theatre production.

In any case no matter how you require to configure Artist it retains both types of access.

[Product demo](#)  
[Sequential Show](#)  
[Random Access](#)  
[Small Disco](#)  
[Wysiwyg Example](#)



A manufacturer has requested a demonstration workspace to present and test the many features of their new fixture. The fixture makes extensive use of 16 bit parameters. The workspace file is '*Fantome demo.wsp*'

[Parameter sequences](#)  
[Auto demo](#)  
[Manual demo](#)

## The Remit

- Four predefined positions which can be altered when installed in a new location.
- Four predefined framing settings which can be altered when installed in a new location.
- Sequences for each parameter to step through key functions.
- The framing blades sequence with a 2 second blackout between each step.
- Static feature cues
- Touch screen operator control to select parameter to test and to start automatic run through demo.

[Positions](#)  
[Blades](#)  
[Colours](#)  
[Gobos](#)  
[Control](#)

## Approach

It is logical to use the Focus and Beam Indexes in the palette section as this will provide global positions and framing settings which can be simply edited at new installation locations without requiring any further editing.

## Focus Indexes

To create the four positions,

- First activate the fixture and set the 'Preset Level' to get a beam to work with.
- Positioned the Mirror parameter.
- Click 'New Focus' in the Focus Index window. The Focus Index dialog box will open showing which data are to be store in the Index.
- Uncheck the 'Clear Flags' box.
- Click 'OK'
- Adjust the mirror to the next position.
- etc.

## Beam Indexes

To create the four framing settings,

- Activate the fixture and set the 'Preset Level' to get a beam to work with.
- Adjust the four Ring and Blade parameters as required.
- Click 'New Beam' in the Beam Index window. The Beam Index dialog box will open showing beam parameters that have been flagged.
- Uncheck the 'Clear Flags' box.
- Click 'OK'
- Adjust the four Ring and Blade parameters for the next setting.
- etc.

## The Scene Groups

Create the following group,

### [Parameter sequences](#)

this group contains sequences for position, blades, colour and gobos.

## The Cue Lists

### [Auto demo](#)

use these to run through product features automatically

### [Manual demo](#)

Activating one of these cues will open the dimmer, iris, zoom and frost parameters. You can then select position etc.

### [Positions](#)

Mirror positions and sequences

### [Blades](#)

Blade cues and sequences

### [Colours](#)

Colour cues and sequences

### [Gobos](#)

Gobo cues and sequences

### [Control](#)

control parameters

After creating and naming these lists the 'Control' list needs to be disabled from appearing in the Operator GUI. Display the control list in the client area and click on the 'Properties' button on its tool bar. Uncheck the 'Display in Operator mode' box.

## Moving Location

On moving location all that needs to be done is to edit

- Activate the fixture and set the 'Preset Level'.
- Move the mirror to the new position.
- In the Focus Index window select 'Focus 1' in the combo box.
- Click 'Add To'. This opens the Focus Index dialog.
- Uncheck the 'Clear flags'.
- Click OK.
- Repeat for each focus index.

To edit each of the Beam settings for the Blade and Ring parameters,

- Activate the fixture and set the 'Preset Level'.
- Adjust the ring and blade parameters to suit.
- In the Beam Index window select the 'Beam 1' index in the combo box.
- Click 'Add To'. This opens the Beam Index dialog.

- Uncheck the 'Clear flags'.
- Click OK.
- Repeat for each beam index.



## Parameter sequences

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**Position sequence**  
**Blade sequence with dimmer**

this is a four step scene each of which contains a reference to each of the Focus indexes.  
this is an eight step scene each pair of steps contains references to the Beam indexes.  
Every alternate step has the dimmer at 100%.  
a 15 step scene to produce a colour sequence.

**Colour sequence**  
**Gobo sequence**  
**Blade sequence**  
**Big show 1**

this is the Blade sequence above but without the 2 second blackout between steps.  
the is a sequence which access the sequences above and other parameters to provide  
and automatic run through of all the features.



## Auto demo

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**Auto demo**  
**Manual demo**

this cue uses the 'Big show 1' scene to provide the main automatic run through  
this is the same as the above cue except that the steps of the run through are advance by clicking on the  
'demo trigger' in the Operator GUI.



## Manual demo

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**Dimmers only**  
**Irisseid down**  
**Zoomed**  
**Dimmer slow fade**  
**Iris in and out**  
**Zoom in and out**

Set the dimmer to 100% and sets the focus parameters.  
Same as above except the Iris is reduced.  
Same as Cue 1 except zoomed in.  
the dimmer is faded up and down.  
the iris is linearly moved in and out.  
the zoom is linearly moved in and out.



## Positions

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**Position 1**  
**Position 2**  
**Position 3**  
**Position 4**  
**Position sequence**

Reference to 'Focus 1'  
Reference to 'Focus 2'  
Reference to 'Focus 3'  
Reference to 'Focus 4'  
Sequence through 'Focus 1' to 'Focus 4'



## Blades

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**Blade sequence with black out**  
**Blade sequence**  
**Blade 1**  
**Blade 2**  
**Blade 3**  
**Blade 4**

accesses 'Blade sequence with dimmer'  
accesses 'Blade sequence'  
reference to 'Beam 1'  
reference to 'Beam 2'  
reference to 'Beam 3'  
reference to 'Beam 4'



## Colours

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**Red**  
**Blue**  
**Green**  
**Amber**  
**UV**  
**Colour sequence**

set parameters for red colour  
set parameters for blue colour  
set parameters for green colour  
set parameters for amber colour  
set parameters for ultra-violet colour  
accesses 'Colour sequence' scene.



## Gobos

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**No Gobo**

no gobo or rotation.

Gobo 2	gobo 2 selected
Gobo 3	gobo 3 selected
Gobo 4	gobo 4 selected
Gobo 5	gobo 5 selected
Gobo 2 + rotate	gobo 2 and rotation
Gobo 3 + rotate	gobo 3 and rotation
Gobo 4 + rotate	gobo 4 and rotation
Gobo 5 + rotate	gobo 5 and rotation



**demo trigger** accesses a system command. Global/Trigger/Manual trigger.



Many situations require that you have a list of sequential looks that are triggered in some way either manual, remotely or automatically.

[Cue Control](#)  
[Sequential Scene](#)  
[Time coding](#)

More often than not a good starting point is to create a list of cues that represent the looks you need.

Next you will want to move from one cue to the next either by fading or stepping.

<b>Cue Control</b>	Use cue control to sequence or chase through your cues.
<b>Sequential Scene</b>	Create a scene out of the cues you have created.
<b>Time code</b>	Use time code events to activate cues in your list.
<b>System code</b>	ah ha.



You can use the [Cue Control](#) window to enable chasing or sequencing of the cues in each cue list.

### Chase

This function simply chases through the list of cues on predefined fade and hold times. Right-click on the Cue control window and select 'Properties' to adjust the fade and hold times. Each cue list has independent times.

Any fade and hold times assigned to cues in the list will be ignored.

### Sequence

This function sequences through the cues in a list using the individual fade and hold times of each cue.

### Automatic Start

You can automatically start a cue list chase or sequence on Artist start up. See [Cue List Properties](#). The chase and sequence functions can also be started and stopped via system command by an external device.

### Step

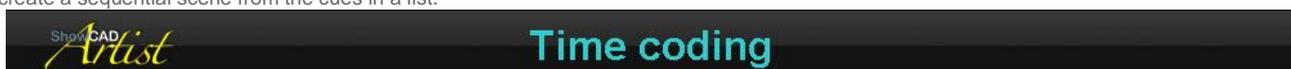
You can use the 'Step' function to manually step from one cue to the next. The step function can be triggered via a system command by an external device.



A common method of producing a sequential show is to create a scene with steps containing each of the required looks. You can do this by saving each look as the step of a scene.

Once the scene has been created it should be embedded in a cue for operator access.

Sometimes it is something you consider doing after you have been programming for a time. You can use the [Create Scene Sequence](#) to create a sequential scene from the cues in a list.





The construction of a time coded show is very complex process and will not be covered here. Presented here are two ways to trigger the cues in your lists.

### Absolute

In your time code list you create events for each change. Each of these events has a system command that activates a specified cue. These do not necessarily run sequentially.

### Stepping

You create events in the same you would for the previous method. The system command that you use for each event is 'Cue List Commands/Step' command which will step sequentially through your cue list.



Random access is the preferred method for nightclubs and rock shows. This because of the improvised nature of the show. Artist provides quick and easy access to programmed cues, methods for interlocking undesirable combinations and manual overriding of parameters in cues to dynamically alter colours, position etc.

[The Light Bulb](#)  
[Purple Floyd](#)  
[The Rink](#)  
[Santa's Grotto](#)  
[Dogs](#)



### Example Nightclub

[Miniscans](#)

Group	# of Fixtures	Description
1	8	mirror scanning projectors
2	6	colour mixing yoke floods
3	6	yoke movement profiles
4	4	linear element strobes
5	12	channels of cold cathode tubes for effect
6	3	channels or RGB colour mixing cold cathode tube for bar lighting

For a nightclub installation it is usual to have a least one cue list for each fixture group. In this example there are 6 fixture groups, 6 scene groups and 6 cue lists. These provide random access to the programs with all lists being usable simultaneously.

A further cue list provides automatic system wide sequences for unattended operation.



The Miniscans are an intelligent fixture with a pan and tilt mirror. A mirror is a faster positioning device than a yoke movement. Therefore these fixture are used over the dance floor and provide quite high energy movement.

The first cue was created simply by selecting all Miniscans, setting the 'Preset Levels', then colour and gobo and positioning each fixture in turn.

The second cue was created by [cloning](#) the first, setting colour on odd fixtures, then colour on even fixtures, setting the prism and setting the gobo rotate rate.

The third was a clone of cue 2. All the mirrors were centred and an effect circle was started with a full spread set.



## UNDER CONSTRUCTION

### Equipment list

16 yoke movement profiles	around a circular rig back of stage
25 par cans	overhead rig various colors
2 yoke movement profiles	on the floor either side of the drum riser
1 special effect projector	behind the drummer
8 mirror scans	front stage rig
10 foot light floods	front of stage up-lighting
2 rig motors	

8 smoke machines

The system is organised as a cue list per song. In addition there are 2 lists that provide flash cues and overrides.



The sample workspace (Shopping Mall) is of a fictitious shopping mall in which a Santa's Grotto display is to be installed for Christmas.

## Equipment List

- 8 igloos each with a diffused 3 channel colour mixing neon ring at its base.
- a foot bridge straddles the display. The walk way consists of 10 diffuse glass slats each with embedded 3 channel colour mixing neon.
- 8 Martin Mac600 colour mixing yoke floods.
- 10 channels of strobes channelled through fibre optic cables randomly placed in the fake snow all around the display to simulate the glinting snow.
- 6 SGM Galileo IV mirror profile projectors.
- 2 linear actuators control the movement of the 4 reindeers on Santa's sleigh.
- 2 linear actuators control the rocking motion of the sleigh.
- 2 linear actuators control the movement of Rudolph's head
- 1 linear actuator for Rudolph's eyes and 1 for his mouth.
- 8 actuators control the in and out movement of the elves at the entrances of the igloos.
- 2 actuators for Santa's head
- 2 actuators for Santa's body
- 1 actuator for Santa's eyes and 1 for his mouth.

## Remit

The display is to be dimly lit all day in a colour wash that fades very slowly through the colours of a rainbow. During this time very occasionally little things happen such as, an elf popping out from an igloo, or Rudolph's eyes rolling from side to side. Small movements very occasionally to cause people to double-take.

On every hour to the Rudolph song all the characters move and the lights go into action. The song is introduced by Santa and the character is to lip-sink. Artist is to start a digital player and track its time-code in order to synchronise.

## Programming

### Scene Rainbow Bridge/Graduations

I created a colour graduation using the Fanning on the Rainbow bridge and save it as a scene. I then created three more graduations and added them as steps to the scene. This created a scene with four colour mixed graduation steps.

### Cue List 1/Inter-show lighting

I positioned the MAC 600s at various locations around the display and activated an effect on the colour mixing parameter. I set a long time period, maximum brightness and contrast and set a small spread value to cascade the colour change slightly.

I activated the Graduations scene and set a rate of 60 seconds and a hold of 80%. This gave a fade of 12 seconds.

Then I clicked 'New Cue'.

### Animatronics

For the elves I create a Chase with a random direction, a rate of 30 seconds and a hold of 94% giving a fade time of about 2 seconds. This results in a random elf poking its head out of an igloo every 30 seconds.

This is the set of scenes that will be used to create periodic, subtle and random character movement. I created a scene with a 2 or 3 step movement for each character axis that I wanted to move; Santa's eyes, Santa's mouth, Rudolph's eyes and Rudolph's mouth.



## UNDER CONSTRUCTION



In Artist open the 'Wysiwyg test.wsp'. Wysiwyg can be run on the same computer or on another computer connected on your

[Description](#)

network. From the Resources tree view right-click on 'DMX Manager/Wysiwyg' and select 'Properties'. See [Wysiwyg](#).

### On the same computer

If you have Wysiwyg by Cast installed on your computer you can launch it by selecting 'Tools/Launch Wysiwyg' from the main menu. When it launches open the 'Wysiwyg test.wyg' example Artist has installed in the 'My Workspaces' directory.

### On another network computer

You need to copy the 'Wysiwyg test.wyg' from the Artist computer's 'My Workspaces' directory to an appropriate directory on the Wysiwyg computer.

You need to enter the IP address of the Wysiwyg computer into the [Wysiwyg](#) control dialog.

You can find the IP address of the Wysiwyg computer by going to a 'Start/All Programs/Accessories/Command Prompt' and entering 'ipconfig'.



The rig consist of two moving yoke devices and assorted conventional devices.

This example workspace is made up of the following lists.

<b>Show list</b>	an example of a sequential cue list. This list will override all other and each cue contains a total look.
<b>Macs</b>	Mac 500 programs. These are intended as part of a random access show and can be combined with any other cue lists except 'Show list' which is overridden.
<b>Three cells</b>	The three cell programs. These are intended as part of a random access show and can be combined with any other cue lists. 'Show list' which is overridden.
<b>Front of House</b>	FOH lighting bar programs. These are intended as part of a random access show and can be combined with any other cue lists. 'Show list' which is overridden.
<b>Balcony</b>	Balcony programs. These are intended as part of a random access show and can be combined with any other cue lists. 'Show list' which is overridden.
<b>Gobo LX4</b>	LX4 programs. These are intended as part of a random access show and can be combined with any other cue lists. 'Show list' which is overridden.
<b>Scrollers LX4</b>	LX4 scrollers programs. These are intended as part of a random access show and can be combined with any other cue lists. 'Show list' which is overridden.
<b>Scrollers LX3</b>	LX3 scrollers programs. These are intended as part of a random access show and can be combined with any other cue lists. 'Show list' which is overridden.



This section contains some useful procedures for programming and setting up Artist.

The following topics may also be of use.

[Create a simple static Cue with a one second fade in](#)

[Create a cue with a dimmer chase](#)

[Create a cue with a mirror movement chase](#)

[Create a cue with a mirror/yoke movement effect](#)

[Creating a scene sequence with a point to point movement](#)

[Accessing RGB](#)  
[Override Cue](#)  
[Scene steps](#)  
[Backup/Restore](#)  
[Transfer Workspace](#)  
[Automatically strike lamps](#)  
[Copy Contents](#)  
[Live Editing](#)  
[Multiple Users](#)  
[Momentary Cue](#)  
[Cues without Fixtures](#)  
[Sound to Light](#)  
[Adding a one shot scene](#)  
[Importing Fixtures](#)  
[Importing Cues and Scenes](#)  
[Import Workspace](#)  
[Converting from Text](#)



Sometimes you might want to connect a fader to each of the axis of a colour mix device. Ordinarily you would access all three axis in a cue thus setting the complete colour parameter in one hit.

This article shows how to create three cues each controlling red, green and blue of a group of colour mixing devices.

Accessing a colour mix parameter from a cue means that all axis are set, therefore creating three cues - one for each colour - will not work correctly because each cue will try to set all axis. You can work around this by virtue of the Chases which do access individual axis however you must prevent the chase from stepping.

### Creating a single axis Cue

- Select the fixture group, then the Chase tab in the Fixture Control window
- Activate the Red axis chase
- Select the Unison pattern
- Select an unused event flag in Triggers
- Click New Cue in the Program Control window

Repeat this for the green and blue axis.

You now have three cue - red (cyan), green (magenta) and blue (yellow) - the levels of which can be independently adjusted to achieve colour mixing with three faders.



This document describes an scenario where you have a list of cues controlling 8 yoke fixtures. These cues are in constant use but occasionally you want to position only 2 of these fixtures on a podium while leaving the other fixtures doing what they were.

The principle is that a cue will activate a scene using a System command. The scene contains the positions and/or colours of the 2 fixture we want to focus on the podium. Because the scene has been activated via a system command it will set the flags of the fixture parameters it has changed thus blocking the running cue from the fixtures in question.

### Create the Scene

- Position the fixtures you want on the podium and set any colour, dimmers or gobos that you require.
- In the Program Window click **New Scene** and name it 'Podium override scene'

### Create the Cue

- Create a blank cue by simply clicking **New Cue** in the Program Control window.
- Name it 'Podium override cue'
- In the **Cue Navigator**, right-click on the cue you just created and select **Add Scene/Cue**
- Select the **Scene** tab and click on the 'Podium override scene'
- Click **Add Command**
- Select **On at Start of fade in**
- Check **Add deactivate**
- Select **Off at end of fade out**
- Click **OK**

That's it. Now when you activate the 'Podium override cue' the fixtures will move to the podium positions and when you deactivate they will return to the active cue.



This example which is found in '**SceneSteps.wsp**' is compiled from a customers request for help. This scheme consists of forty Metamorphosis Mix LED fixtures from Space Cannon. The client gave the following remit.

- All fixtures off
- All fixtures start turning BLUE (chasing) from fixture 1 to 40... At the end all would have to be in blue
- This cue stays 15 seconds (fixtures all in blue)
- Then from fixture 1 to 40 (chasing) the fixtures start turning Yellow. Wait 1 minute
- Then from Fixture 40 to 1 (chasing) the fixtures start turning BLUE again
- This scene with have to repeat itself every hour.

### Strategy

#### **Scene Group 1 - black - blue - yellow - blue - black**

The bulk of this is done in a 160 step scene. The 39th step has a hold time of 15 seconds, the 79th step has a hold time of 1 minute and the 119th step has a 15 second hold time. All other step intervals are controlled by the Scene Control panel. The scene is defined with a count of one which means that it will go through its steps once then deactivate itself.

#### **Cue List 1 - Cue 1**

This cue simply accesses the above scene. It has an enabled hold time of 3 minutes which is just enough for the the scene to run through its steps.

#### **RTS - Real time event**

The hourly trigger is provided by a real time event. It has a start time of 1.00am and a cycle time of 1 hour. This means that it retriggers Cue 1 every hour until 11.00pm.

### How the Scene was created

- Activate the first fixture and set its colour.
- Click 'New Scene' in Program Control
- Select 'All Flagged' and input a name for the scene
- Click 'Save + No Clear'

This procedure will set the colour of the first fixture, set its colour parameter flag and create a new scene. After the scene is created the parameter flag is still set meaning that subsequent 'Save' operations will store this parameter also.

- Activate the next fixture and set the colour.
- Click 'New Step'.
- Click 'Save + No Clear'

This will add a second step to the scene which will contain the first and second fixture set to the required colour.

Continue this process until all the fixtures are set to the desired colour. In this case there will be 40 steps at this point.

- Deactivate all fixtures
- Activate fixture 1 and set it to the second colour.
- Click 'New Step'
- Click 'Save + No Clear'

Do this for the next 40 steps until all the fixtures are set to the second colour.

- Deactivate all fixtures
- Activate fixture 40 and set it to the first colour again
- Click 'New Step'
- Click 'Save + No Clear'

Repeat going backwards through the fixtures this time until all are blue again.

- Deactivate all fixture
- 'Clear all flags'
- Set the step combo box to the last step of the scene (i.e. 120) and click on 'Step'. This will set the parameters from the scene step.
- Click 'New Step'
- Uncheck the last fixture from the tree.
- Click 'Save + Clear'

This will save a new step without the last fixture. When the sequence runs it will appear black.

- Click 'Step' in the Scene programming section.
- Click 'New Step'
- Uncheck the last fixture from the tree.
- Click 'Save + Clear'

Continue this until the last step which will be blank.

### Summary

There are many ways to create scene steps. You could, for example, have copied steps and edited them. This document simply outlines how this example was created.



### Backup

Each time the Workspace files are saved copies of the files are saved to a compressed archive file. The location of this file is relative to your workspace folder. By default this is,

**'My Documents\My Workspaces\Backup'**

You can add a backup copy of your workspace to the archive file manually, if you wish, by selecting,

**'File/Backup Workspace files/to Archive'.**

You can create a copy archive of your workspace to a removable storage media or a network location by selecting,

'File/Backup Workspace files/to location'.

### Restoring Workspace

Because Artist adds copies of your workspace files to the archive each time you save changes, you return to any previous version of your workspace files.

To restore any of the dated backup files in the Backup archive you need to run the Restore Workspace utility. You do this either in two ways.

#### To Restore within Artist

- From the main menu select 'Restore Workspace'. This will open the Restore dialog. The list box displays all the workspace contained in the archive file.
- Select from the list the workspace version you wish to restore. The most recent backup is the bottom of the list.
- Click 'Restore'. If the workspace file you are going to restore already exists in the original location you will be asked if you wish to overwrite it. You will lose all data in the workspace files you overwrite. If you respond with a 'No', the files will be restore in the same directory as the archive file and will be in the decorated form with a date stamp before each file name. Before using these files you must remove the date stamp on each file manually.
- If you have elected to overwrite the workspace. Then the newly restored workspace will be loaded into artist upon completion.

#### To Restore from outside Artist

- From the Windows Start select, '/Programs/ShowCAD Artist/Restore Workspace'
- select the archive file to open. This file has a .zip extension and if it is the default Artist backup archive is 'My Documents/My Workspaces/Backup/Artist.zip'
- select from the list the workspace to restore and click 'Restore'

You can now run Artist and load this restored workspace.

### Extra Precautions

A worst case scenario would be the loss of all data on your computers hard-drive. To protect against this you should store a copy, or a different archive file to some removable media or network device.

In order to restore from a location other than the Artist archive directory you must run the Restore utility and specify the path where the archive is to be found.



Because Artist will run unregistered on any computer it is possible to do setting up and basic programming on a laptop, for example, and later transfer the workspace files to the target computer.

### Installing Fixtures

When you create a new workspace and you have no DMX interfaces connected, Artist creates a Virtual DMX line with 512 dummy channels. If you require more DMX lines see [DMX Manager](#) to add more Virtual DMX lines.

You can install your fixtures in the usual way using the virtual DMX lines and view them in the Fixture view.

### Creating Cue Lists

You can add your cue lists in the way you want them and start adding the cues you require. You simply save blank cues to which you can add data when you get to the venue.

### Creating a Patch

Another time saving procedure is to create your patch file for MIDI keyboard or any other connected device. Make sure you note the file name you use to save it.

### Saving the Workspace.

- Select '**File/Save All**' function to save all files.
- Select '**File/Backup Workspace files**', enter a new archive file name and folder and clicking on '**Open**'. This will then create the archive file (zip) and save all your workspace file to it.
- Transfer this file to any removable storage medium you have (floppy, CD, memory stick etc.).

### Loading the Workspace

- Load the removable media on the target computer.
- From Windows Start select '**Programs/ShowCAD Artist/Restore Workspace**'. This requests an archive file to open. Point it to the archive file on your removable media and click '**Open**'. This will run the Restore Workspace utility.
- Select the workspace from the list and click '**Restore**'. Note the workspace name and it's location when the utility completes.

- Run Artist and select '**File/Load/Workspace**'
- Select the transferred workspace.

At this point the transferred workspace is loaded, however, the DMX line assignments need to be resolved since this target computer has real DMX interfaces installed.

- Right-click on '**DMX Manager**' in the Resource navigator and select '**Properties**'. The list of DMX lines will include the virtual lines you created during setting up of the workspace.
- At each of the lines select from the '**Interface type**' combo box the require real DMX interface.
- Check each of the DMX lines by trying the your installed fixtures.
- Save all files.



Often you may want to strike the lamps of you fixtures automatically when Artist boots up.

- From the main menu select Tools/Preferences
- Select the Start Up tab
- check the Lamp ON box.
- click OK to close.

The next time Artist boots up it will issue a lamp strike to all fixtures.

The lamp strike command can also be accessed via a [System Command](#). The system command can be accessed from an external source (e.g. MIDI message) or from a [Real time event](#). This would allow you to strike the fixture lamps at a specific time of day.



Often you wish to make changes to your cues while they are running in live situation. Dimmer levels are easily alter as follows,

- Right-click on the cue in question and select 'Set Parameters'. This will override the cue by setting the contained parameters levels and their flags. This will not affect the DMX outputs.
- View the fixture parameters in the Fixture view and activate those you wish to adjust.
- Use the Fixture control panel to adjust the active fixture levels.
- Open the Program Control window and click 'Store To'.
- Finish by clicking on 'Save + Clear'. This will store the changes to the cue and return DMX output control to the running cue.

As far as the DMX outputs are concerned this is a seamless operation.

It is often desirable to proportional alter dimmer levels within a cue. You can do this by changing the parameter control mode to incremental by clicking the title bar on the control.



#### [Window 2000 and later only]

Windows 2000 and later offers well defined separation of users on a single computer and Artist can be installed for all users and offer separate settings and preferences for each user.

During installation select the **For Everyone** option.

This can provide system security from ordinary users that are not allowed to alter certain feature or settings.

The system can only be registered by the Administrator or any user with administration rights and ordinary users cannot use Artist until this is done.

#### Workspace Files

'**My Documents\My Workspaces**' is the default location for each user's workspace files. This folder name is in fact an alias for '**Documents and Settings\<user\_name>My Documents\My Workspaces**' and so each users has different workspace files.

You can, of coarse, elect to set a common folder for all users workspace files. Typically this would be '**Documents and Settings\All Users\Documents\My Workspaces**' which would be readable my all users, however, if a workspace was created by an administrator, an ordinary user would be unable to edit it. This could be a desirable security measure. An ordinary user can still create and edit their own workspace files - just not any created by another user.

#### Template Files

It desirable for these to be in a common location for all users. Artist installs this file in '**Documents and Settings\All Users\Documents\Templates**'. This file can then only be edited by users with administration rights.

## Log Files

An Artist log file is create with a different name for each user. The name is '**<user\_name>\_Artist.log**' and is located in '**Documents and Settings\All Users\Documents**'.

## Security File

The security file can only be altered by administrators and is therefore found in '**Documents and Settings\All Users\Application Data>ShowCAD\Artist**'.



You make an individual cue deactivate after a period of time. This you might want to do for smoke machines or strobe lighting.

In the case of strobes you can add a chase with a count of one to a cue. This will mean that when the cue is activated the chase will run through once only. The cue, in this case, will continue to be active.

In the case of a smoke machine you can open the cue's Control Panel and set the hold time to four seconds, for example, and check the 'Hold Times' box. This will mean that when the cue is activated it will remain in that state for four seconds - after the fade in if any - and then either fade out and deactivate or just deactivate if not fade out time is set.



A client wished to create a number of cues and scenes which had only Serial messages in them. No fixture parameters were to be accessed.

You can only add Serial output [System Commands](#) to existing Cues or Scenes. Therefore you must create blank cues first. This you do from the [Program Control](#) window.

### To create a blank cue

- Select the cue list you wish to add the new cue to.
- Click on 'New Cue'. The New Cue dialog will show no data being added.
- Edit the name of this cue.
- Click OK.

This client also wanted Serial codes in a random chases. For this you must create a Scene with the required number of blank steps.

### To create a blank scene

- Select the scene group you wish to add the new scene to.
- Click on 'New Scene'. The New Scene dialog will show no data being added.
- Edit the name of this scene.
- Click OK.

### To Add blank steps

- The scene combo box should be displaying the name of the blank scene you just created. If not you must select it.
- Click on 'New Step'. The New Step dialog will show no data being added.
- Click OK.
- Repeat this for the required number of steps.

Now that the blank cue and scenes have been created the Serial output system commands (or any other system commands) can be added. This is achieved from the Navigator Tree views.

### To add a System Command

- Right-click on the Cue to which to add the system command.
- Select 'Add Embedded Command' to open the Command Wizard.
- The first page will give no options. Click next>>.
- Select the command. In this case 'Serial Output' and click Next>>.
- Select the serial COM port to send the message out on. If none are shown you must see the help on the Communications Manager
- Enter the message string to send. This will require knowledge of the serial device messages. Click Next>>.
- Check the summary and click End.

You can follow the same procedure for each of the steps in your scene. Be aware that if you set the chase speed too high when playing this chase it may cause a system blockage when sending out too many long serial messages.

In the client area now you can display the Cue list with your new cues in it and click on the Activate buttons to see the results. Likewise with the scenes.

If you then want to incorporate the scenes in to a new cue,

### Adding a Scene to a New Cue

- Activate the scene and click 'New Cue'. The New Cue dialog will show that the scene is active.

- Edit the Cue name.
- Click OK.

### Adding a Scene to an Existing Cue

- Activate the scene.
- From the client area right-click on the cue you wish to add the scene to.
- Select 'Store Parameters'. The Add to Cue dialog will show the active scene.
- Click OK.



A very effective pseudo sound to light can be achieved as follows.

- Set maximum level on the parameters required for the bass trigger of the effect.
- Click **New Scene** in the **Program Control** window and click **Save + NoClear**.
- Click **New Step** in the **Program Control** window to create a second step the same as the first.
- Open the scene control panel for this new scene and set the trigger to '**Bass decay**' and the rate to about 0.3s

Now create a scene in the same way for fixtures that will be triggered by a band pass filter (**Band 1 decay**) and another for a high frequency (**Treble decay**).

You now have 3 scenes each containing 2 steps.

Now you can activate all 3 of these scenes. Use the control panel for each to set their parameter to the best effect. You can then store as a Cue or another Scene.



You can make a scene sequence run through it's step once buy opening it's control panel and setting a count of 1. If you try to save a **New Cue** at this point the chances are that the scene will have deactivated itself before you have a chance to complete the operation.

- Test your scene manually to set the rate and other setting you require
- Right-click on the parent cue you want to add it to.
- Select **Add Scene/Cue**
- Browse through the scene tree to find the one-shot scene and click on it.
- Click **Add Link**
- Click **OK**

Now when you activate the parent cue the scene will also activate and run through it's step one then deactivate. The cue will remain active.



## Importing Fixtures

You can import the fixtures defined in another workspace. You may want to do this if you currently have two computers each running a separate part of the show and you want to merge them into one. This will not import the scenes or cue from the other workspace. The imported fixture will be assigned new DMX lines which you can alter after importing.

Before the import process is carried out, Artist will backup your existing Workspace to the backup directory. If there are unexpected results from the import process, you can retrieve your previous workspace.

### To Import a Fixtures,

1. select Fixture in the client area
2. from the main menu select, File/Import Fixtures
3. select the fixtures file from the windows file dialog. The fixtures file will have the same name as the Workspace that uses it.

Upon completion, you should see that new fixture groups have been defined. Spend some time ensuring that the results are what you expected before continuing programming.



## Importing Cues and Scenes

Currently the software allows Cues and Scene files to be imported into a Workspace from another. It is important that the source and destination Workspaces have the same Fixtures defined. At present no error checking is made and if any error occurs during this process the system will throw an exception. Prior to either of these operations, Artist will create a backup of your Workspace to the backup directory.

If you are planning to import both Cues and Scene from another Workspace, you should import the Scenes first and then the Cues.

### To Import a Scene file

1. Select the Scenes tab in the Client area
2. from the main menu select File/Import Scenes. The standard Windows file dialog will open.
3. select the Scene file to import.
4. click Open.

### To Import a Cue file

1. Select the Cues tab in the Client area
2. from the main menu select File/Import Cues. The standard Windows file dialog will open.
3. select the Cue file to import.
4. click Open.

Should unexpected results occur, restore your backup files and try again.

*This is not a recommended process. Importing a whole other workspace a much safer process. See [Import Workspace](#)*



## Import Workspace

You can import another workspace into the currently loaded. You may want to do this if you currently have two computers each running a separate part of the show and you want to merge them into one. All the fixtures, scenes and cues will be imported. The fixtures will be assigned to new DMX lines which, of course, you can change.

Before the import process is carried out, Artist will backup your existing Workspace to the backup directory. If there are unexpected results from the import process, you can retrieve your previous workspace.

### To Import a Workspace,

1. from the main menu select, File/Import Workspace
2. select the workspace from the windows file dialog

Upon completion, you should see that new fixture, scene and cue groups have been defined. Spend some time ensuring that the results are what you expected before continuing programming.



## Converting from Text

ShowCAD (the DOS version) used text format templates. Artist will load these text templates and convert them to an Artist format.

### To Load Text Templates

1. Select Templates in the Client area
2. from the main menu, select File/Import Text Template
3. select the text template file from the standard file dialog. Note that the text template files have the same file extension as the Artist

template file. Be sure not to load an Artist template using this method.

You will now see new folders have appeared on the Template tree view representing the FABRICANT names defined in the converted template file.

ShowCAD has a less sophisticated use of templates than Artist. It is therefore necessary, therefore, to make manual alterations to the converted templates in order to achieve maximum performance.

### Check list

1. Open the template properties.
2. Check that the correct image is specified.
3. Correct the name. The name should have any modes or versions in parenthesis. This prevents those details from being duplicated when instances of the fixture are created, i.e. Mac250 (mode 4).
4. Check the warnings List box. You will find that Lamp on and reset are not defined. This is not done in the conversion and will have to be done manually. If there is a warning regarding channel offsets this will need to be resolved later. The most important warning at this stage is 'No dimmer defined!'. A template must have a dimmer. The conversion routine may have defined it as a shutter. You should select that parameters properties and change it to a dimmer.
5. Open the tree branch and scan the parameters to ensure that they are all as expected. This means making sure that a channel that is a rotation of a gobo is defined as a rotate, a speed as a speed etc.
6. Set Level type control Shortcuts and Ranges. Some of the ShowCAD templates were badly defined in that all the Shortcut information was not provided. This must be added in particular, to color channels.
7. Open the template properties again and select Channel Offsets. Correct the channel offsets as necessary and recheck any warnings.

From the Template tree view you can right click on any of the fixtures or its parameters to change properties and types.

### Dimmer

Check that the dimmer is defined correctly. A fixture must have a dimmer if it is to respond to the system Master faders. If the conversion has not defined a dimmer, you must redefine a parameter to be a dimmer.

In the case of the Clay Paky products the dimmer and strobe share a channel. The default Open state can be at 100% or 50%. If you fade from 100% the unit will strobe as it passes through the strobe range. Therefore the default maximum for the dimmer must be 50%.

### Movement

Check that the movement parameter is defined correctly. The conversion routine makes all 8 bit resolution movement a mirror and all 16 bit movements as a yoke. This of course is a generalization that does not hold. If the device has a yoke check that the resolution and type (i.e. yoke) are correct. You must also set the yoke or mirror angular details.

### Control Shortcuts

Most controls in a template are of the level type. It can be defined as a full height slider and Shortcut button or as just a button. The simple button type can be displayed in full height by clicking on the control name.

It is important to set the short cut values. It is usually desirable to have a zero position (in the case of a color channel this might be White = 0). It is not necessary to have a maximum value, since clicking above the slider knob will cause it to jump to maximum and clicking below the knob will jump to minimum.

### Control Ranges

Most controls in a template are of the level type. It can be defined as a full height slider and Shortcut button or as just a button. The simple button type can be displayed in full height by clicking on the control name.

Many of the ranges produced by the conversion will have invalid names. You should change these names. It is not necessary to create a default 0 - 255 range.

### Template Functions

The functions that need to be considered are Reset, Lamp On and Lamp Off. If a fixture has any of these functions they must be defined.

### Preset Level

The conversion routine will not have produce very sensible preset levels. You should check all of these to make sure they appropriate.

### Final

You can view the completed template by using the 'Try' button on the Template Properties page. While viewing the control panel you can right click on any parameter and set its properties.

You must also include a text description of the new Template in the Notes tab of the Monitor frame.



Every effort is made to quickly seek and destroy system bugs. However, the software development doesn't stop and thus are created new bugs. If we are supplied good information we can fix these problems or devise a work-around.

### Automatic e-mailing support request.

Run Artist and select 'Help/Support' from the main menu bar. This dialog will allow you to look up any up-to-date on-line support or, if that fails to help, to automatically create an e-mail requesting specific assistance. This e-mail will have the required files attached to help us understand your problem.

### DirectX Diagnostics

This utility provide many details of use to us in determining any incompatibilities you computer may have. You can save the details it provides to a file and send it to us in order that we might determine a solution.

- Windows **Start/Run**
- Enter **dxdiag** and click **OK**
- On the first tab of the dialog click on **Save All Information**
- Choose a file and location.

### If you want to do it manually

To aid us in finding any problem you might have, send an e-mail to [support@showcad.com](mailto:support@showcad.com) with the following,

- a description of the problem including any action you were performing at the time.

### Application Crash

If Artist closes down with an error message,

- attach the Artist log file.
- attach the 'Info.txt' file found in, **'c:\Documents and Settings\All Users\Application Data>ShowCAD\Artist'**. This file contains system details.
- if you are running under Windows 2000/XP, include the file, **'c:\Documents and Settings\All Users\Application Data\Microsoft\Dr Watson\user.dmp'**

### Artist.log file

Each time you launch Artist a session log is appended to the end of this file. Each session starts with the Artist version number and the date and time of the log on.

When Artist is closed the session is ended by a date and time of log off.

This file can be crucial in determining the cause of any problem you may have with Artist.

The Artist log filename is '**<user\_name>\_Artist.log**', where the user\_name is the name you logged on to windows with. The file's location is:

Windows 98, Me	?
later than Windows 2000	'c:\Documents and Settings\All Users\Documents'.

### Send your Workspace

This will make a compressed archive file containing all of you loaded workspace files. It will attempt to send it via email. If that fails it will allow you to copy the file to another location.



Compact is a version of Artist that has reduce functionality and is only supplied with hardware or as an OEM product. This help file applies to the full Artist and therefore some of the features will not be available in the Compact version. ShowCAD Automaton is powered by Artist Compact.

### Exporting Compact file format

The full version of Artist can be used to program a venue and then export Compact files to be loaded in to the Compact powered hardware.

Select **Main Menu/File/Import/Export/Export Compact format**. This will display a dialog requesting the name and location of the exported files.

Note that is you have programmed effects such as video to DMX these will not be exported as they are not supported by Compact.



This article is intended to help existing ShowCAD for DOS users adjust to the new concepts in Artist.

[Old details](#)

An good place to start is to point out some differences.

Difference	ShowCAD (DOS users)	Artist
<b>DMX outputs</b> <b>Channel access</b> <b>Programming</b>	Direct access and possibility of conflict Only from scene edit mode Must go into scene edit mode and add program elements to create look.	Addresses are managed no conflict possible. Always available through fixture control panel Use fixture control panel to set fixture and press store in Program control window. No need for Scene edit mode.
<b>Static sub-scene</b>	store as a sub-scene as all channels required.	Store as a Focus or Beam palette holder. Can use all channels defined or selected ones.
<b>Fixture control</b>	access to one fixture at a time and only in Scene edit mode.	dynamic access to multiple fixture from Fixture control panel. Live control drops fixture from any running cues.
<b>Preparation</b>	must make a library of sub-scene for shutters, dimmers colours, chases etc.	None.
<b>Templates</b> <b>Input Patch</b>	Created in DOS editor. Created in DOS editor to access simple system functions.	Create in Artist with Wizard. Created in Artist with Wizard. Access to all system functions.

### DMX outputs

In ShowCAD you could access a defined DMX address directly. In artist it must be defined as part of a Fixture. A fixture can be a single dimmer channel or an intelligent light with many channels of control.

All used channels must be installed via the Fixture Wizard. This is because the templates contain much more information about the fixture than in ShowCAD.

### Programming

This is obviously a big topic but essentially in ShowCAD you enter a Programming editor mode.

In Artist you always have control of the fixture through the four tabs in the fixture control panel. This means you can set looks on your fixtures and as you do so the parameter flags are set. Click on the 'New Cue' or 'New Scene' button in the program control window will store those parameters. This is a WYSIWYG approach in contrast with the DOS version.

### Static Sub-Scenes

In ShowCAD static sub-scene were used extensively. The advantages were,

1. less memory usage
2. a memory for preset value that could be used again
3. changing the sub-scene changed it in all parent scenes.

In Artist you can still do this however it is not recommended. Instead you should simply store Fixture parameter levels directly to the Cue. Now the above points,

1. (memory) Since we are programming in a 32-bit environment, memory is no longer a concern.
2. (preset) It even easier to right-click on a Cue, Scene or Step and select 'Set Parameters' to output the data and click 'Store' in Program Control than it is to access a sub-scene.
3. This point can be as much a problem as it can be useful. Artist will include other new functions to achieve this in future.

### Controlling a fixture manually

In ShowCAD you would have to go into edit mode and add a Fixture to be able to open the template to control the fixture. In artist the Fixture Control Panel (template) is always accessible.

Artist allows you to access a fixtures parameters (channels) directly even if the Fixture is part of a Cue/Scene that is currently running. If change a value on the Fixture it drops it out from the running cue and passes control of that parameter to the Control panel. Thus providing a level of manual access that ShowCAD does not have.



<b>Cue List</b>	display the Cue List defined in <b>param1</b>
<b>Cue Relative</b>	activate/deactivate the Cue defined by <b>param1</b> in the currently displayed List
<b>Cue Absolute</b>	activate/deactivate the Cue defined by <b>param2</b> in the List defined by <b>param1</b>
<b>Clear Relative</b>	deactivates all Cues in the currently displayed List
<b>Clear Absolute</b>	deactivates all Cues in the List defined by <b>param1</b>
<b>Blackout</b>	Master control black out-

<b>Restore</b>	restore from black out if possible
<b>Next List</b>	next cue list
<b>Previous List</b>	previous cue list
<b>Page Down</b>	page down currently displayed List
<b>Page Up</b>	page up currently displayed List
<b>Flag Absolute</b>	sets the trigger flag defines by <b>param1</b>
<b>Flag Relative</b>	sets a trigger flag
<b>Fader Relative</b>	set the level of the Cue defined by <b>param1</b> in the currently displayed List
<b>Fader Absolute</b>	set the level of the Cue defined by <b>param2</b> in the List defined by <b>param1</b>
<b>Rate Relative</b>	set the rate of the Cue defined by the <b>param1</b> in the currently displayed List
<b>Rate Absolute</b>	set the rate of the Cue defined by <b>param2</b> in the List defined by <b>param1</b>
<b>Master Fader</b>	set the Master Control fader level
<b>List Xfade</b>	set the Cue List cross-fader
<b>Go Relative</b>	Go on the currently displayed Cue List
<b>Go Absolute</b>	Go on the Cue List defined by <b>param1</b>
<b>Fader Dynamic</b>	
<b>Palette Relative</b>	send the index defined by <b>param1</b> in the currently displayed palette tab (Color, Brush, Focus, Beam)
<b>Palette Absolute</b>	send the index defined by <b>param2</b> in the tab defined by <b>param1</b> (Color = 0, Brush = 1, Focus = 2, Beam = 3)
<b>Palette Group</b>	set the palette tab define by <b>param1</b> (Color = 0, Brush = 1, Focus = 2, Beam = 3)
<b>Hold Relative</b>	set the hold of the Cue defined by the <b>param1</b> in the currently displayed List
<b>Hold Absolute</b>	set the hold of the Cue defined by <b>param2</b> in the List defined by <b>param1</b>
<b>Fade Black out</b>	Master control fade out
<b>Preset</b>	set preset mode or go preset



***This information is for advanced user only. If you have never edited the registry it is recommended you leave well alone.***

These values are found under,

HKEY\_CURRENT\_USER\Software>ShowCAD\Artist\Settings

<b>Acceleration</b>	Mouse acceleration value.
<b>AGCControl</b>	Audio automatic gain control enable
<b>ATCAutoStart</b>	automatically start audio events file
<b>AudioSourceLine</b>	the mixer audio source line
<b>AutoBPM</b>	BPM is detected automatically from audio source
<b>AutoSave</b>	workspace auto save time. Zero means disabled.
<b>BPF1</b>	band pass filter centre frequency
<b>BPF1Gain</b>	band pass filter gain
<b>BPF1Trigger</b>	band pass filter trigger level
<b>BPF2</b>	band pass filter centre frequency
<b>BPF2Gain</b>	band pass filter gain
<b>BPF2Trigger</b>	band pass filter trigger level
<b>BPM</b>	BPM value
<b>ClearOnNew</b>	
<b>ClearOnNewCue</b>	clear flags on new cue
<b>ClearOnNewScene</b>	clear flags on new scene
<b>ClearOnStep</b>	clear flags on new step
<b>ClearOnStoreCue</b>	clear flags on store cue
<b>ClearOnStoreScene</b>	clear flags on store scene
<b>COMCount</b>	set enumeration limit for COM ports.
<b>COMX</b>	baud and format settings for COM port
<b>COMXDisabled</b>	where <b>X</b> is the 1 based index of the COM port that is disabled if the value is set to 1.
<b>COMXInput</b>	COM port input enable
<b>CombinedView</b>	display combined view
<b>CTCAutoStart</b>	CD audio events start on launch
<b>CueView</b>	cue view type
<b>DirectSoundEnabled</b>	
<b>EnableListening</b>	enable the Artist Telnet server
<b>FixtureView</b>	fixture view type
<b>HPF</b>	high pass settings
<b>HPFGain</b>	high pass settings
<b>HPFTrigger</b>	high pass settings
<b>IAPeriod</b>	test period for Industrial automation input
<b>InhibitSplash</b>	if define artist will not display the splash screen.
<b>InputDevice</b>	sound input device
<b>InputFormat</b>	sound input format
<b>LoadGUIProps</b>	loads the operator GUI data saved in the Cue lists file if set to 1 (default)
<b>LampON</b>	perform a Lamp ON at launch
<b>ListenPort</b>	the sockets port that the Telnet server listens on.
<b>LPF</b>	load pass settings
<b>LPFGain</b>	load pass settings
<b>LPFTrigger</b>	load pass settings
<b>MasterFadeTime</b>	master fade out time
<b>MasterOnCue</b>	if true the master fader is set to maximum when a cue is activated.
<b>Maximized</b>	start Artist maximised
<b>MIDIInputEnabled</b>	disabled if set to 0
<b>Mixer</b>	mixer
<b>MouseAccelerate</b>	accelerated mouse if set to 1, coarse/fine if set to 0

<b>MVMode</b>	monitor view mode
<b>MVType</b>	monitor view type
<b>NoClose</b>	if set don't close artist if cues are running.
<b>OutputDevice</b>	audio output device
<b>OutputFormat</b>	audio output format
<b>OutputPeriod</b>	DMX output period
<b>PromptSave</b>	if set prompts for save on exit if files are modified.
<b>RestoreOnCue</b>	
<b>RTAutoStart</b>	real time script auto start
<b>SaveTime</b>	auto save time
<b>SceneView</b>	scene view type
<b>SecurityEnable</b>	??
<b>SecurityScheme</b>	selected security scheme
<b>SetParameters</b>	
<b>SplashImage</b>	the name of the splash screen image file
<b>StickyPad</b>	
<b>TCAutoStart</b>	
<b>TemplateView</b>	template view type
<b>VTCAutoStart</b>	
<b>WygIP</b>	
<b>WygLocal</b>	
<b>ZeroOnClear</b>	
<b>ZeroOnClearCue</b>	
<b>ZeroOnClearScene</b>	



This table lists the locations of certain useful files.

Workspace files	these are .wsp, .clt, .scn and .fix and are found in <b>&lt;workspace_directory&gt;</b>
time event files	these .atc, .ctc, .vtc and .mtc and are found in <b>&lt;workspace_directory&gt;</b>
Audio file	<b>&lt;workspace_directory&gt;\sounds</b>
Video clips	<b>&lt;workspace_directory&gt;\videos</b>
Artist Help file	<b>&lt;artist_directory&gt;\Artist.chm</b>
Wysiwyg driver installer	<b>&lt;artist_directory&gt;\ArtistWyg.msi</b>
Bit switch addresser	<b>'&lt;artist_directory&gt;\Bits.exe'</b>
Pathport driver	<b>'&lt;artist_directory&gt;\libpathport.dll'</b>
Artist Notes	<b>'&lt;artist_directory&gt;\readme.htm'</b>
Screen saver	<b>&lt;artist_directory&gt;\ShowCAD Screensaver.exe'</b>
Restore Utility	<b>'&lt;artist_directory&gt;\wsrestore.exe'</b>
Artist log	The name of this file is dependent on the user's name , i.e. if you user name is John Smith, the log file name is 'John Smith_Artist.log' and is found in <b>&lt;all_users&gt;</b>
Security setup	<b>&lt;common_app&gt;\sec.dat'</b>
Registration file	<b>'&lt;artist_directory&gt;\Reg.arg'</b>
Crash dump file	<b>'&lt;common_app&gt;\Microsoft\Dr Watson\user.dmp'</b>

Where,

<b>&lt;artist_directory&gt;</b>	Windows 98	Program Files\Artist'
	XP/2000	Program Files\Artist'
<b>&lt;all_users&gt;</b>	Windows 98	'<windows_dir>\All Users\Application Data>ShowCAD\Artist'
	XP/2000	Documents and Settings\All User\Documents'
<b>&lt;common_app&gt;</b>	Windows 98	<windows_dir>\All Users\Application Data>ShowCAD\Artist'
	XP/2000	Documents and Settings\All Users\Application Data>ShowCAD\Artist'
<b>&lt;windows_dir&gt;</b>	Windows 98	c:\Windows
	XP/2000	c:\Windows



<b>Automation</b>	methods for provide remote or automatic control of system functions.
<b>Backup</b>	keeping a copy of the files that make up your Workspace.
<b>BPM</b>	beats per minute
<b>Chase</b>	A sequence of parameter state.
<b>Client window</b>	The client frame window contains the tabbed list views,
<b>Cue</b>	A is a collection of program elements that the system operator accesses in playback.
<b>DMX</b>	The lighting industry standard protocol for transmitting data to lighting devices.
<b>Effect</b>	These are specific to the type of parameter they pertain to and provide complex patterns.
<b>Fanning</b>	the graduating of parameter data from one fixture through to another.

<b>Fixture</b>	All DMX devices are defined as fixtures. They can contain one or more parameters and reflect the physical nature of the device connected.
<b>Frame window</b>	The main application window contains five docked frame windows.
<b>Gripper bar</b>	the double gray line on one edge of a frame window. Double clicking undocks the window. Holding the left mouse button down moves the window.
<b>GUI</b>	graphical user interface
<b>Link</b>	these are the icons found in the content of scenes and cues that describe the program element linked.
<b>List view</b>	A list view displays item in a vertical list allow each item to be selected individually or collectively.
<b>Menu</b>	generally refers to the words on the top bar of Artist that when pointed to display a drop down list of options.
<b>MIDI</b>	Musical Instrument Digital Interface
<b>Navigator</b>	the tabbed window contain tree control by default of the right-hand side of Artist.
<b>Network</b>	The industry standard for connecting computers together. Ethernet (LAN) or Internet.
<b>Palette</b>	these are a list of indexes contain quick parameter data globally.
<b>Parameter</b>	refers to an aspect a fixture. There are various types of parameter including; colour, gobo, position etc.
<b>Patch Input</b>	to connect externally sourced signals to Artist System commands.
<b>Ramp</b>	refers to the shape of the cross-fade from one step to another
<b>Real Time</b>	In our context we mean the time of day.
<b>Scene</b>	This is a collection of program elements that can be accessed by cues as sub-scenes. They can be static or sequential in nature.
<b>Security</b>	this is a method of restricting access to some users to certain system functions.
<b>Serial</b>	Your computer has one or more serial ports that Artist can utilise to communicate with similarly equipped external devices.
<b>Splitter bar</b>	this is the thick gray line separating the docked window frames. Positioning the cursor over one changes the cursor image. Then holding the left mouse button down, the bar can be moved.
<b>System Commands</b>	these provide access to Artist functions such as displaying a window and activating a cue etc.
<b>Template</b>	A template defines a physical device and is used to install fixtures on your system.
<b>Time code</b>	This is a stream of time data describing Hours/Minute/Seconds/Frame which can come from an external MIDI device or internally from an audio or video file.
<b>Tool bar</b>	these are the iconic buttons displayed on the top bar of Artist.
<b>Tree view</b>	The name of a control with a branch structure. The branches can expanded and collapsed.
<b>Trigger</b>	used to execute the transition from one step of a chase, scene or effect.
<b>USB</b>	Universal Serial Bus. Standard on most computers.
<b>Wizard</b>	A type of dialog that sequential steps you through a process.
<b>Workspace</b>	this defines all the elements you have programmed including the position of open windows. The file has the '.wsp' extension.