

Release Notes

ArKaos VJ 3.6.1 DMX

Attention:

This Release Notes is specific to ArKaos VJ DMX, it contains extensive information, configuration instructions and in-depth description for features related to DMX compatibility in ArKaos VJ.

For general ArKaos VJ features such as effects description, software configuration and settings or registration process please have a look at the general ArKaos VJ Release Notes document or at the ArKaos VJ User Guide.



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ArKaos VJ 3.6.1 DMX

1. Description



ArKaos VJ DMX allows you to assign visuals, camera inputs, effect parameters, etc.. To the sliders and buttons of a DMX console and have full control over your visuals and effects from the console.

Different DMX control modes will allow ArKaos to get the best out of your DMX controller. These modes are: Simple Control, Tiny Fixture and Full Fixture.

This implementation offers much more flexibility than most hardware media servers while lowering your costs since most recent low cost computers are capable of playing high quality video.

1.1. New features in version 3.6.1

- Support for the ArKaos LED Mapper extension
- Per layer keystone through a new DMX fixture “ArKaos Maxi”
- Code optimization and various bug fixes.

1.2. New features in version 3.6

- A new open protocol called MSEX (Media Server EXtension) has been implemented in collaboration with Capture, ETC and Chamsys; it allows a better integration on most lighting desks making it possible to see the file names and thumbnails of your visuals and monitor the output directly from the lighting desk, all this through a simple network connection.
- The compatibility with LightJockey 2.7.1 has been greatly improved: Martin has added built-in ArKaos VJ DMX fixtures tiny and full into their software.
- ArKaos VJ DMX can now be used with the ETCNet2 protocol: this protocol is used to interface ArKaos VJ DMX with the ETC Congo and ETC Congo Jr. consoles.

The ETCNet2 protocol compatibility is enabled through a specific “ETC Edition” license; when running ArKaos VJ with the “ETC Edition” license, the DMX preference dialog box will allow you to select ETCNet2 instead of ArtNet or DMX-USB.

If you don't know ArKaos VJ at all, you should first read the description page on our web site for information about the generic features of the product at <http://www.arkaos.net/vj/>

1.3. How does it works?

To connect a DMX control machine to a PC running ArKaos, you can use either the ArtNet Ethernet protocol or a DMX-USB interface. ArKaos VJ DMX ETC Edition allows to use the ETCNet2 protocol to communicate with Congo consoles.

a. ArtNet protocol (Mac or PC)

ArtNet is a public domain DMX protocol developed by Artistic Licence. This is the first public domain DMX through network protocol and it is compatible with several DMX consoles and lighting devices (manufacturers have formed the “ArtNet Alliance”, more can be found on Artistic Licence’s web site at <http://www.artisticlicence.com/>). If your DMX controllers does not have native ArtNet support you can purchase converters such as the Up-Lynx UK. Using a computer to send or receive ArtNet DMX data requires nothing more than a basic Ethernet network adapter.

b. DMX-USB Interface

If your DMX controller does not support the ArtNet protocol, you can use a DMX-USB interface; it is a DMX USB widget that can be used to send and receive DMX from a computer, two different versions are available:

- **Enttec Open DMX USB (PC Only)**

It’s the simplest and cheapest way to communicate between your PC and your DMX controller.

- **Enttec DMX USB Pro (Mac or PC - recommended)**

The DMX USB Pro widget developed by Enttec is PC & Mac compatible and benefits from a hardware buffer to guarantee the stability of the DMX signal received, it also provides a convenient DMX THRU connection to easily include ArKaos on your DMX line. Compared to the Open DMX USB widget above, it also significantly reduces the delay.

Check out the “Configuration” chapter further in this document to see how to configure DMX communication in ArKaos VJ DMX through a DMX USB interface or through the ArtNet protocol.

c. ETCNet2 protocol

ETCNet2 is the protocol used by the ETC Congo and Congo Jr. consoles. It will be available in the ArKaos VJ DMX Preferences if you have purchased an ArKaos VHJ DMX “ETC Edition” license.

2. Interest of DMX

Video projection has now become an integrated feature in most venues such as night clubs, bars and event halls; many tours and concerts also includes a visual show. But everyone can not afford an extensive media server and a full-time Video Jockey!

Controlling a computer with ArKaos from a lighting console is now possible with ArKaos VJ DMX; it offers the ease of a simple and inexpensive setup to control both your projection screens and your light show from the same machine just by triggering ArKaos media’s and effects from buttons and sliders from your lighting console.

Thanks to the Fixture control mode, ArKaos acts as a traditional Media Server for professional lighting consoles such as ETC, GrandMA, Martin, Compulite etc. This mode allows a total control over ArKaos from the DMX controller: every parameter -that previously has to be configured with the mouse- becomes now available directly through the DMX protocol.

The DMX support in ArKaos also greatly broadens your possibilities; for example, imagine you can now run three different visual shows on three projectors through a single DMX control machine driving three different computers running ArKaos VJ DMX!

2.1. Software vs. Hardware Media Server

ArKaos VJ is a really accessible software and it does not require advanced skills to achieve results. On the other hand, the software is so powerful that once you get to know it better, you'll discover that the possibilities are virtually endless!

All common movie formats are accepted and the graphic engine is optimized to give great results on Mac or PC. With a recent low cost computer you can playback at least two full PAL resolution movies (at least DVD quality) at the same time, with Chroma-keying on the top one and with real-time control over the movie blending. There's no latency and no rendering delay, it is optimized to react immediately when you trigger a new layer or when you change any parameters.

ArKaos VJ lets you define a custom output resolution that will allow you with most graphic cards and on both Mac and PC to output your visuals on multiple screens (i.e. different visuals on separate screens) or on a wide screen (i.e. a large visual on several screens next to the other) with a Soft-Edge option for seamless blending between the screens.

2.2. ArKaos VJ main features

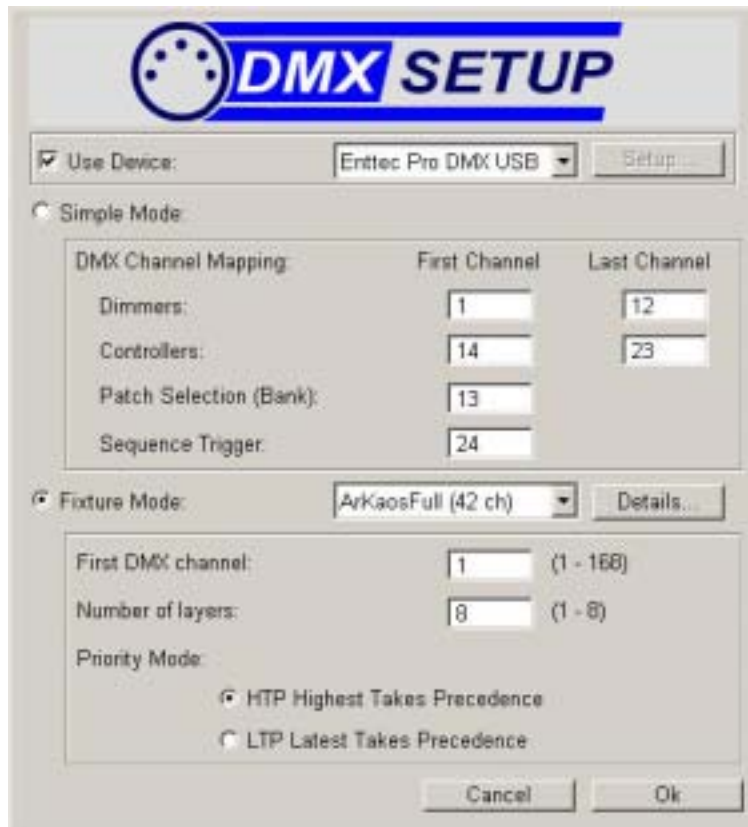
- Double monitoring management
- Horizontal or vertical multiscreen & widescreen presentation with Soft-Edge from a single computer
- Accepts pictures, movies, camera streaming, editable text animations, Flash animations with action script, ..
- Supports QuickTime (.mov), Video For Windows (.avi), DirectShow (.mpeg, .wmv etc..) and Flash (.swf) movie files
- 60+ real-time effects and support for additional FreeFrame plug-ins (at least 100 free effects currently available)
- Unlimited number of layers (depends on your CPU and disk speed), with many combinations (Chroma / Luma keying, addition, transparency, etc..) and position / scaling parameters for each layer
- Supports graphic card acceleration through a Hardware Accelerated video engine (HW Mode) producing an unprecedented visual smoothness and image quality.
- Check out the ArKaos VJ features page on our web site for more: <http://www.arkaos.net/vj/>

3. Configuration

Once your version of ArKaos VJ will be registered with a DMX-compatible serial number (or during the 21 days demo period), a DMX Setup dialog box will be available through the menu Edit / Preferences / DMX Setup.

From the dialog you will be able to choose the DMX device you want to use, as well as the desired control modes and their parameters.

Screenshot of the DMX setup dialog box



3.1. Using the ArtNet protocol with ArKaos (Mac and PC)

In an ArtNet network, all devices are called Nodes. A node can be a DMX console, a LED lighting unit, a DMX control software, a computer running ArKaos VJ, an ArtNet to DMX converter etc.. Each of these Nodes can communicate with each other. There are lots of DMX to ArtNet bridges and lots of specific hardware or software which can be used to merge, stream or record DMX data.

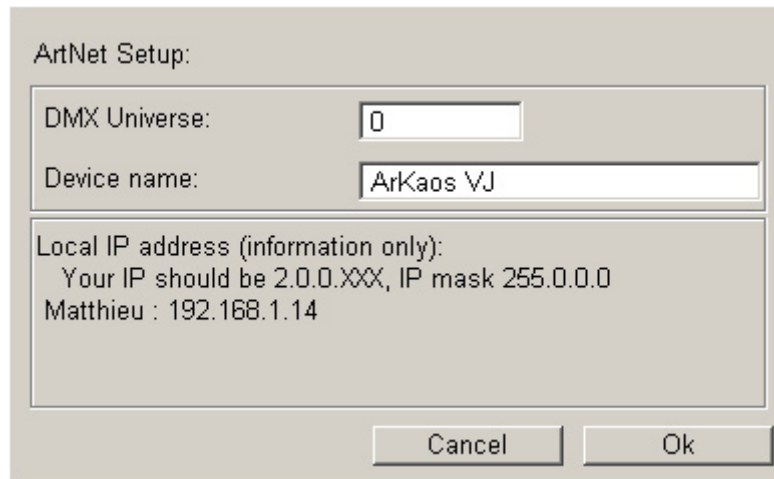
ArKaos VJ is an ArtNet Node that receives all incoming DMX data on a selected DMX universe. For your computer to appear on your ArtNet network, you have to set the IP address to something like 2.X.X.X with an IP mask 255.0.0.0. You can set it to 2.0.0.1 for example. All other ArtNet DMX units have a fixed IP address depending on the manufacturer.

For more information about ArtNet network configuration, check out the Artistic License web site at <http://www.artisticlicence.com/>.

3.2. ArtNet setup dialog box

In the ArKaos DMX Setup dialog box, select "ArtNet" in the devices popup and click on the "Setup" button to open the specific ArtNet Setup dialog box. There you can set the DMX universe you want ArKaos to use, as well as the name of ArKaos node (useful if you are running ArKaos on more than one computer). The dialog also displays your current IP numbers.

Screenshot of the ArtNet setup dialog box



Important:

Ensure that no Firewall is preventing your computer to receive data from the network.

3.3. Setting up your Enttec Open DMX USB device (PC Only)

The drivers for the Enttec Open DMX USB interface can be found on the ArKaos VJ installation CD, more recent drivers may be released in the future on the Enttec web site at <http://www.enttec.com/>

For more information about this interface you can also check out the Enttec support web site at <http://www.enttec.com/support-center/>

Once you have set up the drivers, connected the Open DMX USB interface and rebooted your computer, you can start ArKaos VJ and select the Enttec device in the DMX Setup Dialog box.

If the Enttec device installation was not successful or if the device is not correctly connected to the computer, you will see a message "Warning: the selected device is not available on your computer.."

3.4. Setting up your Enttec DMX USB Pro device on a PC

The Enttec DMX USB Pro device is compatible with the Virtual Com Port (VCP) supported on most Windows XP versions without additional driver. If ArKaos cannot find your device, you will have to install the Enttec DMX USB Pro drivers. The drivers can be found on the ArKaos VJ installation CD, more recent drivers may be released in the future on the Enttec web site at <http://www.enttec.com/>

Once you have set up the drivers, connect the Enttec DMX USB Pro interface and reboot your computer. Start ArKaos VJ and select the Enttec device in the DMX Setup Dialog box.

If the Enttec device installation was not successful or if the device is not correctly connected to the computer, you will see a message "Warning: the selected device is not available on your computer.."

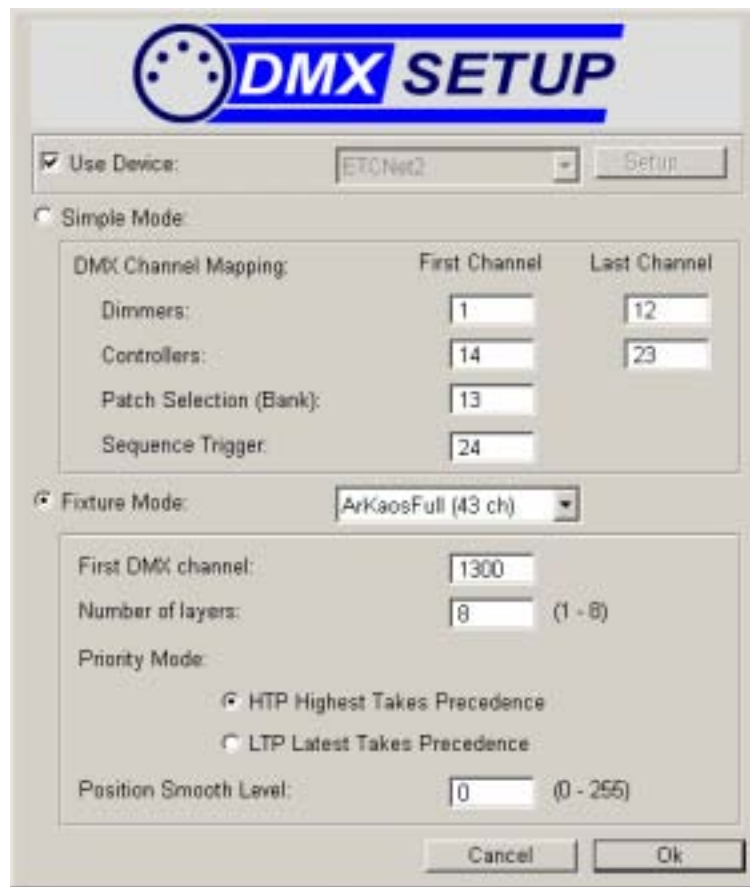
3.5. Setting up your Enttec DMX USB Pro device on a Mac (OS X Only)

On Mac OSX, you will have to install the FTDI VCP (Virtual Com Port) drivers. The drivers can be found on the ArKaos VJ installation CD, more recent drivers may be released in the future on the Enttec web site at <http://www.enttec.com/>

If the Enttec device is not correctly connected to the computer, you will see a message "Warning: the selected device is not available on your computer.."

3.6. Using the ETCNet2 protocol with ArKaos (Mac and PC)

If you have a license for ArKaos VJ DMX ETC Edition, the DMX Preferences dialog box in ArKaos will have “ETCNet2” preselected in the “Use device” menu:



The main difference between ETCNet2 and other implementations of DMX over ethernet is that you can have 65536 DMX channels.

In the console, set the same channel as the one where ArKaos VJ is listening, as you defined in the ArKaos VJ DMX preference dialog.

To benefit from the MSEX on the Congo console you must associate the ArKaos layers to the right heads numbers. Please refer to the Congo software documentation for this simple manipulation.

The ETCNet2 protocol is using ethernet to send informations between the ETC console and ArKaos VJ, therefore you need to have an ethernet network connection between the console and the computer running ArKaos VJ, however you don't need the change the tcp/ip settings on your computer to allow it to speak with the ETC console.

4. DMX Control modes

4.1. Control modes overview

There are two very different ways to control ArKaos from a DMX controller: We call them the Simple mode and the Fixture mode. Anyone that is used to lighting design and yokes knows what a fixture is. But the Simple mode may be unfamiliar to light designers. Both control modes have advantages and drawbacks, and some low cost DMX consoles will not be compatible with fixtures.

The Simple control mode has been developed to be compatible with any DMX controller. It provides a very simple way to include video in a DMX light show and it doesn't require precision faders. Working this way, you configure the visuals and effects parameters within the software, the same way you would configure them for MIDI, and fade them in and out using dimmers. You can also assign DMX channels to Patch selection. If you set the value of a DMX channel assigned to a Patch selection over 50%, the corresponding Patch will be selected.

The Fixture control mode works like other media servers and therefore requires quality controllers with precise DMX values for visual or effect selection.

To allow a user friendly experience ArKaos VJ provides a DMX view which is different whether you select "Simple mode" or "Fixture" in the DMX setup dialog box.

4.2. Simple control mode

Within the simple mode, you can assign DMX channels to control different functions in ArKaos. All devices need to provide 512 DMX channels to ArKaos.

4.2.1. Controls description

- **Dimmers:**

Activates the layer (visual/effect) and sets its transparency.

- Moving the dimmer associated to a layer will trigger it when above the value of 32 and increase gradually its opacity when reaching towards 255.

- **Controllers:**

These channels are used to control real-time effect parameters such as movie transparency / movie speed / contrast / etc..

- You can assign a maximum range of 128 DMX channels for the 128 controller values.

- **Patch Selection (Banks):**

This channel is used to access different Patches. A Patch in ArKaos is a virtual keyboard.

- You can access 10 Patches. If the DMX channel selected is between 0 and 9%, the first Patch will be active, between 10 and 19%, the Patch 2 will be activated etc.

- **Sequence:**

Starts / stops a mix sequence previously recorded with the Event Recorder in ArKaos VJ.

- Set the DMX channel between 0 and 9% if you don't want to play a sequence. From 10 to 19%, the first sequence will start, from 20 to 29%, the second sequence will start etc. You can access 9 sequences from your DMX controller.

4.2.2. Sample configuration setup

- **DMX channels 0-10 for triggering layer:**

The DMX channel 0 will trigger the first layer; channel 1 will trigger the second etc.

- **DMX channels 11-15 for Controllers:**

The level of the channel 11 will correspond to the controller 1 in ArKaos.

- **DMX channels 16 for Patch Selection:**

The channel 16 will be used to activate one of the 10 first Patches of the current file.

- **DMX channels 17 for Sequences:**

The channel 17 will start one of the 9 first sequences recorded in the current file.

4.2.3. Simple control mode keyboard view

The DMX keyboard view in Simple control mode displays DMX controllers and layers. As with the MIDI keyboard or the computer keyboard view, you can drag and drop your visuals (movies, pictures, cameras and flash texts) or effects directly on a key and double click on any item with your mouse to set its parameters. The layers displayed in red are currently running (the DMX level controlling them is over 127).

Screenshot of the DMX view in Simple control mode



4.3. Fixture control mode

4.3.1. Presentation

The DMX Fixture control mode has been developed to allow the control of ArKaos VJ from high end DMX consoles. Using this mode, ArKaos behaves like a traditional media server. The Simple mode can also be used with these consoles if it better suit your needs.

A fixture corresponds to one layer. If you want to use n video layers in ArKaos, you have to create n fixtures on your DMX console. You can control up to 8 ArKaos layers, depending on your requirements and the number of DMX channels available on your console.

Screenshot of the DMX view in Fixture mode



To accommodate to various situations, the ArKaos fixture control mode provides three fixtures:

- “ArKaos Maxi”: the complete fixture. New in VJ 3.6.1, this fixture includes all the parameters, including keystone (the difference with “ArKaos Full”). All existing parameters for video layers are accessible through this fixture: movie & effect selection, dimmer, position, scaling, movie loop, keystone etc. This fixture uses 51 DMX channels.
- “ArKaos Full”: The only difference with “ArKaos Maxi” is that it doesn’t include keystone. This fixture uses 43 DMX channels.
- “ArKaos Tiny”: a smaller fixture using only 25 DMX channels. The extensions available for the hardware accelerated engine are not present (red, green and blue levels, and rotations), movie loop cannot be selected and scaling is done using 8 bit values instead of 16 bit values

4.3.2. Setting up the parameters

The fixture control mode offers different options.

First, you have to select in ArKaos the same DMX fixture as you have selected in your DMX console (“ArKaos Tiny” or “ArKaos Full”). These fixtures will be available on our web site for various DMX consoles; check out the ArKaos VJ DMX pages at http://www.arkaos.net/vj_dmx/

Then, there are three other options that you have to decide: the number of layers that you want to access from your DMX console, the number of the first DMX channel to be used and the priority mode.

- Number of layers
 - The number of layers must correspond to the number of fixtures created in your controller. For example, if you defined 4 layers in ArKaos, you have to create 4 ArKaos fixtures in your console.
- First Channel.
 - The number to define for the first channel depends on how your ArKaos fixtures are patched in your DMX controller. For example if you are using the same DMX output on your console for your lights & ArKaos, and the lights are patched on the first 30 DMX channels, then you can set ArKaos to use channels from 31. To do so, enter “31” in the “First Channel” field of the DMX setup dialog.
 - If you are working with ArtNet, most of the time, you will have an ArtNet output dedicated to ArKaos and you will Patch ArKaos fixtures from DMX channel 1.
- Priority mode: HTP or LTP.
 - The default value is HTP, which mean Highest Takes Precedence. That means that layer 1 will always be behind layer 2, which will be behind layer 3 etc. The order in which you start ArKaos layers has no effect on the result.
 - LTP (Latest Takes Precedence) means that when you start an ArKaos Layer, it starts over the layers already running. The advantage is that, even if you have a visual running on your highest layer, you can start another video layer over that one. The drawback is that if you take a snapshot of parameters and recall them, the visual result may not be what you had when storing because it depends on the order in which you started the layers.
- Position Smooth Level.
 - This parameter will help you get smooth changes on the position / size and rotation of the video layers, even when the lighting desk doesn’t send many DMX frames per second. For instance, imagine you recorded a cue stack in the desk to move a sponsor logo around the screen. The position parameter is always changing and the value for position parameter is always changing. If the desk sends 30 DMX frames per second and ArKaos displays 60 frames per second, without this option, the position of the video layer will be the same for two frames, then it will move, the it will be the same position for two frames etc.

Remark:



All DMX channels assigned for ArKaos must be contiguous. It means that the second layer must be patched to the DMX channel that follows the last DMX channel used by the first layer. For example, if you use the “ArKaos Full” (43 channels) and you want to control 4 layers: if you patch the first ArKaos layer on channel 65, the second layer have to be patched on channel $65 + 43 = 108$, the third on channel 151 and the fourth on channel 194. As the fourth layer ends on channel 237, DMX channels 237 to 512 will not used by ArKaos.

4.3.3. Checking your setup

Once you made your setup, you can start working. This part will describe simple steps to check that your DMX setup is working.

You must have a file opened in ArKaos. Have a look at the User Manual to understand how to manage files, import media etc. With the fixture, everything is controlled from the DMX console, except monitor settings and resolution (cf User Manual).

Create a new file and drag & drop some visuals from your file browser to the Visuals Database.

When a file with visuals is opened, follow these steps on your DMX console to get a media to appear on the screen:

- Set the visual category channel to movie (DMX value between 32 & 64)
- Set the visual index: the default value is 0 which means that no visual is selected on the layer. Setting the “Visual Index” channel to 1 will select the first visual in the selected category. Since we just selected the movie category, the first movie that you have imported in ArKaos should now be selected on the layer 1.
- Set the Dimmer channel to 100% and the first movie will appear !

5. Parameters description

This part will explain each parameter of the fixture as well as their default values.

- Dimmer: intensity (transparency) of the layer. If the Copy mode is different from “Transparent”, the transparency is not available, in which case the intensity of the layer will be full when the channel value is non zero.
- Visual Category: picture / movie / live camera / Flash text
- Visual Index: Index of the visual in the selected category. Set it to zero to have no visual (if you want to apply an effect on the global output, on the last layer for example)
- Effect Category: There are 5 categories: 3D effects, Video, Transitions, Artistic and FreeFrame.
- Effect Index: Index of the effect in the selected category. Effects are listed in the Fixture Effect Presets document.
- Copy Mode: Transparent, Addition, Subtraction, Multiplication, Minimum or Maximum. This defines how the layer is blended with the background.

- Mask Mode: None, Luminance - Band Reject, Luminance - Band Pass, Chrominance - Band Reject, Chrominance - Band Pass & Alpha from source. If you select “Alpha From Source”, ArKaos will use the alpha channel that you can store in a 32 bits BMP or a movie file.
- Luminance/Chrominance center: sets the center of the luminance/chrominance filter
- Luminance/Chrominance width: sets the width of the luminance/chrominance filter
- Luminance/Chrominance smoothing: defines the fading at the extremities of the luma/ chroma filter. This makes the borders of the filtered regions smoother.
- Movie Speed: Set the speed of the movie (depending on the Speed control channel)
- Speed Control: Normal, Speed F/B or Ping-Pong.
 - If “Normal” is selected, the Movie Speed channel defines the movie speed. A zero value stops the movie. The movie always plays forward.
 - If “Speed F/B” is selected, the Movie Speed channel defines the speed but this speed is zero when value is 50%, the movie will play backward with a lower value and forward with a higher value.
 - With “Ping-Pong”, the Movie Speed channel defines the speed of the movie like in “Normal” mode, but when the movie reaches the end, it is played backward until the beginning etc.
- Pan(Position X): 50% is center, 0% place the visual output of the screen, on the left etc.
- Tilt (Position Y): 50% is center, 0% place the visual output of the screen, on the left etc.
- Horizontal Size: 100% sets the visual at the size of the screen
- Vertical Size: 100% sets the visual at the size of the screen
- Rotation X, Y and Z: only in HW version
- Red, Green and Blue levels: only in HW version. 255 means full level.
- Text Index: index of the text string to be used by a Flash Texts (the string are entered in the Text Entries Dialog, in the Synth menu)
- Effect Parameters E1, E2... E6: Controls parameters of the effect presets, most effects only are using one or two controllers. The effect parameters are described in the Fixture Effect Presets document.
- Keystone parameters X1, Y1, X2, Y2, X3, Y3, X4, Y4: controls the position of the 4 corners of the layer. These 8 channels let you correct the transformation that you want when a video projector is not perfectly in front of the surface it displays on.

5.1. “ArKaos Tiny” Fixture mode

5.1.1. Properties

- n layers are available, from 1 to 8
- A single layer is using 25 DMX channels
- When mapping a single layer, the channels are called C01 to C25

5.1.2. Channel functions

Channel C01

Function:	Dimmer Transparency of the layer when C08 is 0-31 If the copy mode is not Transparent, C01 is just triggering the layer.		
Range:	Steps:	Description:	Def. Value:
0-255	0-127	Layer start when the value is different from 0	0

Channel C02

Function:	Type of Visual		
Range:	Steps:	Description:	Def. Value:
	0-31	Visual is a picture	0
	32-63	Visual is a movie	
	64-95	Visual is a live camera	
	96-127	Visual is a Flash Text	

Channel C03

Function:	Index of visual		
Range:	Steps:	Description:	Def. Value:
0-255	0	No visual	0
	1	First visual	
	2	Second visual	
	

Channel C04

Function:	Effect category index		
Range:	Steps:	Description:	Def. Value:
0-255	0-31	3D Effects	0
	32-63	Video	
	64-95	Transitions	
	96-127	Artistic	
	128-159	FreeFrame	
	...	Reserved to future developments	

Channel C05

Function:	Associated effect.		
Range:	Steps:	Description:	Def. Value:
0-255	0	No effect associated	1
	1	First effect	
	2	Second effect	
	

Channel C06

Function:	Copy mode.		
Range:	Steps:	Description:	Def. Value:
0-191	0-31	Transparent	0
	32-63	Addition	
	64-95	Substraction	
	96-127	Multiplication	
	128-159	Minimum	
	160-191	Maximum	

Channel C07

Function:	Mask mode		
Range:	Steps:	Description:	Def. Value:
0-191	0-31	None	0
	32-63	Luminance - Band Reject	
	64-95	Luminance - Band Pass	
	96-127	Chrominance - Band Reject	
	128-159	Chrominance - Band Pass	
	160-191	Alpha from source	

Channel C08

Function:	Luminance/Chrominance center		
Range:	Steps:	Description:	Def. Value:
0-255	0-255	Center of the luminance/chrominance filter	128

Channel C09

Function:	Luminance/Chrominance width		
Range:	Steps:	Description:	Def. Value:
0-255	0-255	Width of the luminance/chrominance filter	50

Channel C10

Function:	Luminance/Chrominance smooth		
Range:	Steps:	Description:	Def. Value:
0-255	0-255	Smooth parameter of the luminance/chrominance filter	50

Channel C11

Function:	Movie speed control		
Range:	Steps:	Description:	Def. Value:
0-255	0	Movie is stopped	64
	64	Movie is playing at normal speed	
	128	Movie is playing at 2X speed	
	255	Movie is playing at 4X speed	

Channel C12

Function:	Movie speed control		
Range:	Steps:	Description:	Def. Value:
0-255	0-31	C11 is speed control	0
	32-63	C11 is speed in forward backward mode	
	64-95	C11 is speed in Ping Pong motion	

Channel C13-C14

Function:	Position X as a 16 bits value		
Range:	Steps:	Description:	Def. Value:
0-65536	0	Left position of the screen	32768
	65535	Right position of the screen	

Channel C15-C16

Function:	Position Y as a 16 bits value		
Range:	Steps:	Description:	Def. Value:
0-65536	0	Top position of the screen	32768
	65535	Bottom position of the screen	

Channel C17

Function:	Horizontal Size		
Range:	Steps:	Description:	Def. Value:
0-255	0	Size is 0 % of the output screen	255
	255	Size is 100 % of the output screen	

Channel C18

Function:	Vertical Size		
Range:	Steps:	Description:	Def. Value:
0-255	0	Size is 0 % of the output screen	255
	255	Size is 100 % of the output screen	

Channel C19

Function:	Text Index		
Range:	Steps:	Description:	Def. Value:
0-255		Text to associate to the flash effect	0

Channel C20 to C25

Function:	E1, E2, ..., E6		
Range:	Steps:	Description:	Def. Value:
		E1 = First parameter of effect	0
		E2 = second parameter of effect	
		...	
		E6 = sixth parameter of effect	

5.2. “ArKaos Full” Fixture mode

5.2.1. Properties

- n layers are available, from 1 to 8
- A single layer is using 43 DMX channels
- When mapping a single layer, the channels are called C01 to C43

5.2.2. Channel functions

Channel C01

Function:	Dimmer Transparency of the layer when C08 is 0-31 If the copy mode is not Transparent, C01 is just triggering the layer.		
Range:	Steps:	Description:	Def. Value:
0-255	0-127	Layer start when the value is different from 0	0

Channel C02

Function:	Type of Visual		
Range:	Steps:	Description:	Def. Value:
	0-31	Visual is a picture	0
	32-63	Visual is a movie	
	64-95	Visual is a live camera	
	96-127	Visual is a Flash Text	

Channel C03

Function:	Index of visual		
Range:	Steps:	Description:	Def. Value:
0-255	0	No visual	0
	1	First visual	
	2	Second visual	
	

Channel C04

Function:	Effect category index		
Range:	Steps:	Description:	Def. Value:
0-255	0-31	3D Effects	0
	32-63	Video	
	64-95	Transitions	
	96-127	Artistic	
	128-159	FreeFrame	
	...	Reserved to future developments	

Channel C05

Function:	Associated effect.		
Range:	Steps:	Description:	Def. Value:
0-255	0	No effect	1
	1	First effect	
	2	Second effect	
	

Channel C06

Function:	Copy mode.		
Range:	Steps:	Description:	Def. Value:
0-191	0-31	Transparent	0
	32-63	Addition	
	64-95	Substraction	
	96-127	Multiplication	
	128-159	Minimum	
	160-191	Maximum	

Channel C07

Function:	Mask mode		
Range:	Steps:	Description:	Def. Value:
0-191	0-31	None	0
	32-63	Luminance - Band Reject	
	64-95	Luminance - Band Pass	
	96-127	Chrominance - Band Reject	
	128-159	Chrominance - Band Pass	
	160-191	Alpha from source	

Channel C08

Function:	Luminance/Chrominance center		
Range:	Steps:	Description:	Def. Value:
0-255	0-255	Center of the luminance/chrominance filter	128

Channel C09

Function:	Luminance/Chrominance width		
Range:	Steps:	Description:	Def. Value:
0-255	0-255	Width of the luminance/chrominance filter	50

Channel C10

Function:	Luminance/Chrominance smooth		
Range:	Steps:	Description:	Def. Value:
0-255	0-255	Smooth parameter of the luminance/chrominance filter	50

Channel C11

Function:	Movie speed control		
Range:	Steps:	Description:	Def. Value:
0-255	0	Movie is stopped	64
	64	Movie is playing at normal speed	
	128	Movie is playing at 2X speed	
	255	Movie is playing at 4X speed	

Channel C12

Function:	Movie speed control mode		
Range:	Steps:	Description:	Def. Value:
0-255	0-31	C11 is speed control	0
	32-63	C11 is speed in forward backward mode	
	64-95	C11 is speed in Ping Pong motion	

Channel C13

Function:	Looping mode		
Range:	Steps:	Description:	Def. Value:
0-127	0-31	Play all frames	0
	32-63	Select Frames with C16-C17 and C18-C19	
	64-95	Random Jumps 1	
	36-127	Random Jumps 2	

Channel C14-C15

Function:	Start of loop		
Range:	Steps:	Description:	Def. Value:
0-65536	0	First image of the video loop	0
	65535	Last image of the video loop	

Channel C16-C17

Function:	End of loop		
Range:	Steps:	Description:	Def. Value:
0-65536	0	First image of the video loop	65535
	65535	Last image of the video loop	

Channel C18-C19

Function:	Pan (Position X) as a 16 bits value		
Range:	Steps:	Description:	Def. Value:
0-65536	0	Left position of the screen	32768
	65535	Right position of the screen	

Channel C20-C21

Function:	Tilt (Position Y) as a 16 bits value		
Range:	Steps:	Description:	Def. Value:
0-65536	0	Top position of the screen	32768
	65535	Bottom position of the screen	

Channel C22-C23

Function:	Position Z as a 16 bits value		
Range:	Steps:	Description:	Def. Value:
0-65536	0	Nearest position	32768
	65535	Farest position	

Channel C24-C25

Function:	Horizontal Size as a 16 bits value		
Range:	Steps:	Description:	Def. Value:
0-65536	0	Size is 0 % of the output screen	65536
	65536	Size is 100 % of the output screen	

Channel C26-C27

Function:	Vertical Size as a 16 bits value		
Range:	Steps:	Description:	Def. Value:
0-65536	0	Size is 0 % of the output screen	65536
	65536	Size is 100 % of the output screen	

Channel C28-C29

Function:	Rotation X in HW mode		
Range:	Steps:	Description:	Def. Value:
			32768

Channel C30-C31

Function:	Rotation Y in HW mode		
Range:	Steps:	Description:	Def. Value:
			32768

Channel C32-C33

Function:	Rotation Z in HW mode		
Range:	Steps:	Description:	Def. Value:
			32768

Channel C34

Function:	Red level in HW mode		
Range:	Steps:	Description:	Def. Value:
0-255		255 for original level	128

Channel C35

Function:	Green level in HW mode		
Range:	Steps:	Description:	Def. Value:
0-255		255 for original level	128

Channel C36

Function:	Blue level in HW mode		
Range:	Steps:	Description:	Def. Value:
0-255		255 for original level	128

Channel C37

Function:	Text Index		
Range:	Steps:	Description:	Def. Value:
0-255		Text to associate to the flash effect	0

Channel C38 to C43

Function:	E1, E2, ..., E6		
Range:	Steps:	Description:	Def. Value:
		E1 = First parameter of effect	0
		E2 = second parameter of effect	
		...	
		E6 = sixth parameter of effect	

5.3. “ArKaos Maxi” Fixture mode

5.3.1. Properties

- n layers are available, from 1 to 8
- A single layer is using 51 DMX channels
- When mapping a single layer, the channels are called C01 to C51

5.3.2. Channel functions

Channel C01 to Channel C43

Same channels as in “ArKaos Full” fixture

Channel C44

Function:	Keystone X1		
Range:	Steps:	Description:	Def. Value:
0-255		Horizontal position for upper left corner	0

Channel C45

Function:	Keystone X2		
Range:	Steps:	Description:	Def. Value:
0-255		Vertical position for upper left corner	0

Channel C46

Function:	Keystone X3		
Range:	Steps:	Description:	Def. Value:
0-255		Horizontal position for upper right corner	0

Channel C47

Function:	Keystone X4		
Range:	Steps:	Description:	Def. Value:
0-255		Vertical position for upper right corner	0

Channel C48

Function:	Keystone X5		
Range:	Steps:	Description:	Def. Value:
0-255		Horizontal position for lower left corner	0

Channel C49

Function:	Keystone X6		
Range:	Steps:	Description:	Def. Value:
0-255		Vertical position for lower left corner	0

Channel C50

Function:	Keystone X7		
Range:	Steps:	Description:	Def. Value:
0-255		Horizontal position for lower right corner	0

Channel C51

Function:	Keystone X8		
Range:	Steps:	Description:	Def. Value:
0-255		Vertical position for lower right corner	0

6. Effects presets & parameters

6.1. HW Mode vs Standard Mode

Since the effects set is different when ArKaos VJ runs in HW Mode, the effect presets available from your DMX console in Fixture mode will be different:

The effect category and index have not changed for all effects that are compatible with the new HW Mode. However it is possible that the programming you made in your DMX console will not give the same visual result in HW Mode if you have used incompatible effects since they have been removed from the effects set.

To keep the compatibility you should either edit your programming to remove incompatible effects, either deactivate the HW Mode and switch to Standard mode.

6.2. Standard Mode

6.2.1. 3D Effects category

Index:	Effect name:	Param.:	Description:
1	3D Surface (Rotation)	E1	Rotation X
		E2	Rotation Y
2	3D Surface (Rotation and RGB)	E1	Rotation X
		E2	Rotation Y
		E3	Red level
		E4	Green level
		E5	Blue level
3	Infinite Zoom	E1	Rotation speed
		E2	Zoom speed
4	Plane	E1	Speed
		E2	Curve
5	Plane far	E1	Speed
		E2	Curve
6	Plane double	E1	Speed
		E2	Distance
7	Plane 2	E1	Speed
		E2	Distance
8	Plane 3	E1	Speed
		E2	Distance
		E3	Angle
9	Tile scrolling	E1	Scrolling speed
		E2	Tiling
10	Symetric Tile Scrolling	E1	Scrolling speed
		E2	Tiling
11	Particles In / Out	E1	Animation speed
		E2	Particle size
12	Particles Drop In Water	E1	Animation speed
		E2	Particle size
13	Particles Aspheroids	E1	Animation speed
		E2	Particle size

Index:	Effect name:	Param.:	Description:
14	Particles Tunnel	E1	Animation speed
		E2	Particle size
15	Aspheroids Warp	E1	Orbital speed
		E2	Revolution speed
16	Aspheroids Symphony	E1	Orbital speed
		E2	Revolution speed
17	PlanetWorks	E1	Animation speed
18	Tunnel Simple (speed)	E1	Animation speed
19	Tunnel Full Control	E1	Speed
		E2	Direction
		E3	Opacity
20	3D Box	E1	Distance
		E2	Rotation 1
		E3	Rotation 2
21	Galactic Scrolling		
22	WavingFlag	E1	Speed
		E2	Distance

6.2.2. Video Effects category

Index:	Effect name:	Param.:	Description:
1	RGB Levels	E1	Red
		E2	Green
		E3	Blue
2	RGB Shift	E1	Red
		E2	Green
		E3	Blue
3	RGB Saturate	E1	Red
		E2	Green
		E3	Blue
4	Hue Shift	E1	Level
5	Invert	E1	On / Off
6	Stroboscope		
7	Irisation	E1	Level
8	Old Film	E1	Level
9	Solarization	E1	Level
10	Solarization Inv	E1	Level
11	Posterize	E1	Level
12	Color FX	E1	Level
13	Split 2X2		
14	Split 4X4		
15	Split 8X8		
16	Split 2X2 Subscreen Updates	E1	Speed
17	Split 4X4 Subscreen Updates	E1	Speed

Index:	Effect name:	Param.:	Description:
18	Motion Blur	E1	Level
19	Contrast (Luma)	E1	Low levels
		E2	High levels
20	Contrast (RGB)	E1	Low levels
		E2	High levels
21	Horizontal Blur	E1	Level
22	Vertical Blur	E1	Level
23	Ascii Art - Ascii Art Small	E1	Transparency
24	Ascii Art - Ascii Art Medium	E1	Transparency
25	Ascii Art - Ascii Art Big	E1	Transparency
26	Ascii Art - Small Pixels	E1	Transparency
27	Ascii Art - Medium Pixels	E1	Transparency
28	Ascii Art - Big Pixels	E1	Transparency
29	Ascii Art - Small Squares	E1	Transparency
30	Ascii Art - Medium Squares	E1	Transparency
31	Ascii Art - Big Squares	E1	Transparency
32	Ascii Art - Small Japanese	E1	Transparency
33	Ascii Art - Medium Japanese	E1	Transparency
34	Ascii Art - Big Japanese	E1	Transparency
35	Ascii Art - Small Color Pixels	E1	Transparency
36	Ascii Art - Medium Color Pixels	E1	Transparency
37	Ascii Art - Big Color Pixels	E1	Transparency
38	Ascii Art - Small Color Squares	E1	Transparency
39	Ascii Art - Medium Color Squares	E1	Transparency
40	Ascii Art - Big Color Squares	E1	Transparency
41	Mirror Stretch	E1	X-Axis
		E2	Y-Axis
42	Mirror Cut	E1	X-Axis
		E2	Y-Axis
43	Delirium Circular	E1	H Displacement
		E2	V Displacement
44	Delirium Plasma	E1	H Displacement
		E2	V Displacement
45	Delirium Ripple	E1	H Displacement
		E2	V Displacement
46	Wave		
47	Target Square (Position)	E1	X Position
		E2	Y Position
48	Target Square (Position & Size)	E1	X Position
		E2	Y Position
		E3	Width
		E4	Height

Index:	Effect name:	Param.:	Description:
49	Target Square Lines (Position)	E1	X Position
		E2	Y Position
50	Target Square Lines (Position & Size)	E1	X Position
		E2	Y Position
		E3	Width
		E4	Height
51	Target Circle (Position)	E1	X Position
		E2	Y Position
52	Target Circle (Position & Size)	E1	X Position
		E2	Y Position
		E3	Width
		E4	Height

6.2.3. Transition Effects category

Transition effects does not have definable parameters

Index:	Effect name:
1	Transition Left
3	Transition Circle Smoother
5	Transition Circle 2 Smoother
7	Transition Cross
9	Scroller Up Fast
11	Scroller Left Fast
13	Shutter 1X1 Fast
15	Shutter 16X1 Fast
17	Shutter 1X16 Fast
19	Shutter Random 8X8 Fast
21	Shutter II
23	V Slide Slow
25	H Slide Slow
27	Turnix Long

Index:	Effect name:
2	Transition Circle
4	Transition Circle 2
6	Transition Star
8	Directional Cross 2X2
10	Scroller Up Slow
12	Scroller Left Slow
14	Shutter 1X1 Slow
16	Shutter 16X1 Slow
18	Shutter 1X16 Slow
20	Shutter Random 8X8 Slow
22	V Slide Fast
24	H Slide Fast
26	Turnix Short

6.2.4. Artistic Effects category

Index:	Effect name:	Param.:	Description:
1	Kaleidoscope 1		
2	Kaleidoscope 2		
3	Kaleidoscope 3	E1	Rotation
4	Kaleidoscope 4	E1	Speed
5	Earthquake	E1	Level
6	Spectrum Shape White	E1	Translation
7	Spectrum Shape Black	E1	Translation
8	Spectrum Shape Red	E1	Translation
9	Spectrum Shape Green	E1	Translation

Index:	Effect name:	Param.:	Description:
10	Spectrum Shape Blue	E1	Translation
11	Spectrum Polar White		
12	Spectrum Polar Black		
13	Spectrum Polar Red		
14	Spectrum Polar Green		
15	Spectrum Polar Blue		
16	Spectrum Scaled White	E1	Translation
		E2	Scaling
17	Spectrum Scaled Black	E1	Translation
		E2	Scaling
18	Spectrum Scaled Red	E1	Translation
		E2	Scaling
19	Spectrum Scaled Green	E1	Translation
		E2	Scaling
20	Spectrum Scaled Blue	E1	Translation
		E2	Scaling
21	Spectrum Mask		
22	Spiral Tunnel		
23	Spiral 60'		
24	Filter Box		
25	Filter Edges		
26	Larsen Smooth		
27	Larsen Edges		
28	Larsen Expansion		
29	Larsen Compression		
30	Larsen Rotate		
31	Larsen Control	E1	X Distortion
		E2	Y Distortion
32	Diffuse - Dilute		
33	Diffuse - Blow		

6.2.5. FreeFrame Effects

Index:	Effect name:	Param.:	Description:
1	Spiral Blur	E1	Angle
		E2	Scale
2	Bloom	E1	Param 1
		E2	Param 2
3	Backlight	E1	Param 1
		E2	Param 2
		E3	Param 3
4	Gaussian Blur	E1	Level
5	Radial Blur	E1	Level

Index:	Effect name:	Param.:	Description:
6	Vectorize Color	E1	Size
7	Vectorize B&W	E1	Size
8	Colour Warp	E1	Saturation
		E2	Hue
9	Posterize	E1	Level
10	Burn		
11	Chromium	E1	Edge
		E2	Red
		E3	Green
		E4	Blue
13	Fisheye	E1	Distortion
		E2	Radius
14	Glow		
15	Halftone	E1	Size
		E2	Style
16	Tile	E1	Angle 1
		E2	Angle 2
		E3	Width
		E4	Height
17	Rec Distort		
18	Time Slice		

6.3. HW Mode

6.3.1. 3D Effects category

Index:	Effect name:	Param.:	Description:
1	Infinite Zoom	E1	Rotation Speed
		E2	Zoom Speed
2	Tiling	E1	Level
3	3D Sphere-NoLight	E1	Rotation X
		E2	Rotation Y
		E3	Tiling
4	3D Cube-NoLight	E1	Rotation X
		E2	Rotation Y
		E3	Tiling
5	3D Cylinder-NoLight	E1	Rotation X
		E2	Rotation Y
		E3	Tiling
6	3D Donut-NoLight	E1	Rotation X
		E2	Rotation Y
		E3	Tiling
7	3D Plane-NoLight	E1	Rotation X
		E2	Rotation Y
		E3	Tiling

Index:	Effect name:	Param.:	Description:
8	3D Sphere-Light	E1	Rotation X
		E2	Rotation Y
		E3	Tiling
		E4	Light Position
9	3D Cube-Light	E1	Rotation X
		E2	Rotation Y
		E3	Tiling
		E4	Light Position
10	3D Cylinder - Light	E1	Rotation X
		E2	Rotation Y
		E3	Tiling
		E4	Light Position
11	3D Donut - Light	E1	Rotation X
		E2	Rotation Y
		E3	Tiling
		E4	Light Position
12	3D Plane-Light	E1	Rotation X
		E2	Rotation Y
		E3	Tiling
		E4	Light Position
13	Cube Inside	E1	Rotation X
		E2	Rotation Y
14	Screens	E1	Distance
		E2	Rotation X
		E3	Rotation Y
15	Tile Scrolling 1	E1	Scroll X
		E2	Scroll Y
16	Tile Scrolling 2	E1	Scroll X
		E2	Scroll Y
		E3	Altitude
17	Plane Simple	E1	Speed
		E2	Rotation Speed
18	Plane Full	E1	Speed
		E2	Rotation Speed
		E3	Tiling
19	Planes Rotation	E1	Rotation Speed
		E2	Tiling
20	Ripple	E1	Size
		E2	Speed
21	Tunnel 1	E1	Speed
22	Tunnel 2	E1	Speed
		E2	Tiling
		E3	Curve

Index:	Effect name:	Param.:	Description:
23	Tunnel Full	E1	Speed
		E2	Tiling
		E3	Curve
		E4	Orientation
		E5	Transparency

6.3.2. Video Effects category

Index:	Effect name:	Param.:	Description:
1	Gaussian Blur	E1	Level
2	RGB Shift	E1	Red Shift
		E2	Green Shift
		E3	Blue shift
3	RGB Saturate	E1	Red Level
		E2	Green Level
		E3	Blue Level
4	Grayscale		
5	Invert		
6	Stroboscope		
7	Irisation	E1	Offset
		E2	Rotation
8	Old Film		
9	Solarization	E1	Level
10	Solarization Inv	E1	Level
11	Posterize	E1	Level
12	Color FX	E1	Mevem
13	Split 2x2		
14	Split 4x4		
15	Split 8x8		
16	Split 2x2 Subscreen Updates	E1	Speed
17	Split 4x4 Subscreen Updates	E1	Speed
18	Motion Blur	E1	Level
19	Contrast Luma	E1	Low Levels
		E2	High Levels
20	Contrast RGB	E1	Low Levels
		E2	High Levels
21	Horizontal Blur	E1	Level
22	Vertical blur	E1	Level
23	Directional Blur	E1	Level
		E2	Direction
24	Hue Effect	E1	Hue
		E2	Saturation

Index:	Effect name:	Param.:	Description:
25	Mirror	E1	Center X
		E2	Center Y
26	Sepiatone		
27	AsciiArt Ascii-BW	E1	Texture Size
		E2	Transparency
28	AsciiArt Square-BW	E1	Texture Size
		E2	Transparency
29	AsciiArt Pixels-BW	E1	Texture Size
		E2	Transparency
30	AsciiArt Bubbles-BW	E1	Texture Size
		E2	Transparency
31	AsciiArt Bubbles-Color	E1	Texture Size
		E2	Transparency
32	AsciiArt Squares-Color	E1	Texture Size
		E2	Transparency
33	AsciiArt BubblesHand-BW	E1	Texture Size
		E2	Transparency
34	AsciiArt Japanese	E1	Texture Size
		E2	Transparency
35	HalfTone Bubbles	E1	Resolution X
		E2	Resolution Y
36	HalfTone Cross	E1	Resolution X
		E2	Resolution Y
37	HalfTone Squares	E1	Resolution X
		E2	Resolution Y
38	PopArt 1	E1	Offset
		E2	Texture Size
39	PopArt 2	E1	Offset
		E2	Texture Size
40	Cartoon	E1	Level

6.3.3. Transition Effects category

Index:	Effect name:	Param.:	Description:
1	Iris	E1	Radius
		E2	Fade
2	D-Transition Right	E1	Radius
3	D-Transition Left	E1	Radius
4	D-Transition Tri	E1	Radius
		E2	Rotation
5	D-Transition Star	E1	Radius
		E2	Rotation
6	Shutter Slow		
7	Shutter Fast		

Index:	Effect name:	Param.:	Description:
8	Scroller Left Fast		
9	Scroller Left Slow		
10	Scroller Right Slow		
11	Scroller Right Fast		
12	Scroller Top Slow		
13	Scroller Top Fast		
14	H Slide Slow		
15	H Slide Fast		
16	V Slide Slow		
17	V Slide Fast		
18	Turnix 1s		
19	Turnix 2s		
20	Turnix 5s		

6.3.4. Artistic Effects category

Index:	Effect name:	Param.:	Description:
1	Kaleido 1		
2	Kaleido 2		
3	Kaleido 3	E1	Rotation
4	Kaleido 4	E1	Speed
5	Larsen	E1	Size
		E2	Rotation
6	Larsen Presets	E1	Preset
		E2	Size
7	Larsen Full	E1	Size X
		E2	Size Y
		E3	Rotation
		E4	Transparence
8	Edge Detect	E1	Edge Size
		E2	Threshold
9	Filter Smooth		
10	Filter Edge		
11	Strobo Black-Sin	E1	Speed
12	Strobo Black-Sq	E1	Speed
13	Strobo White-Sin	E1	Speed
14	Strobo White-Sq	E1	Speed
15	Strobo Invert-Sin	E1	Speed
16	Strobo Invert-Sq	E1	Speed
17	Strobo Background-Sin	E1	Speed
18	Strobo Background-Sq	E1	Speed
19	Waveform Draw	E1	Width
20	Waveform Fill	E1	Width

Index:	Effect name:	Param.:	Description:
21	Bumpy Surface	E1	Position X
		E2	Position Y
22	Neon	E1	Blur Level
		E2	Edge Highlight
23	Neon Invert	E1	Blur Level
		E2	Edge Highlight
24	Noiz Color	E1	Preset
25	Noiz BW	E1	Preset

6.3.5. FreeFrame Effects

Index:	Effect name:	Param.:	Description:
1	FF Spiral Blur	E1	Angle
		E2	Scale
2	FF Bloom	E1	Param 1
		E2	Param 2
3	FF BackLight	E1	Param 1
		E2	Param 2
		E3	Param 3
4	FF Gaussian Blur	E1	Blur Level
5	FF Radial Blur	E1	Level
6	FF Vectorize Color	E1	Filter Size
7	FF Vectorize BW	E1	Filter Size
8	FF Colour Warp	E1	Saturation
		E2	Hue
9	FF Posterize	E1	Level
10	FF Burn		
11	FF Chromium	E1	Edge
		E2	Red
		E3	Green
		E4	Blue
12	FF Directionnal Blur		
13	FF FishEye	E1	Radius
		E2	Distortion
14	FF Glow		
15	FF HalfTone	E1	Size
		E2	Style
16	FF Tile	E1	Angle 1
		E2	Angle 2
		E3	Width
		E4	Height
17	FF Rect Distort		
18	FF Time Slice		

ArKaos VJ 3.6.1 Medialon

1. Description

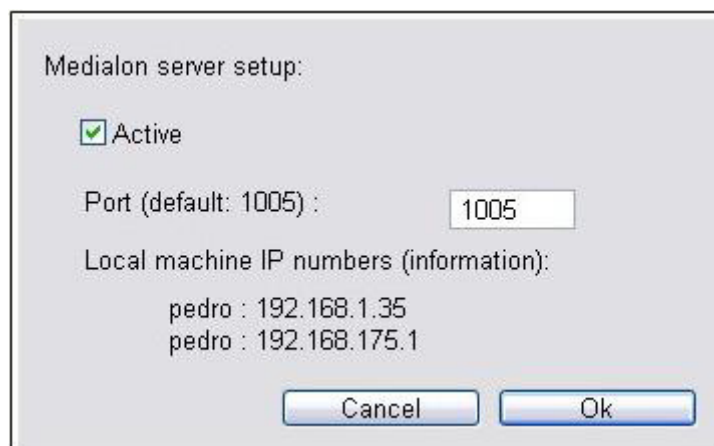
ArKaos VJ is compatible with Medialon Manager show control software through a special ArKaos VJ Medialon license. You can now automate a visual performance for a whole event with Medialon Manager show control software sending orders directly to ArKaos through the network.

When enabling Medialon compatibility in ArKaos VJ, you activate a server that listens to network input. Medialon Manager can then send “Low Level TCP“ commands in order to drive our software, all effects and features of ArKaos VJ are then available to Medialon.

To use the Medialon features in ArKaos VJ, you will need to have a workstation with the Medialon Manager show control software, more information about this software can be found on the Medialon web site at <http://www.medialon.com/>

2. Setup in ArKaos

2.1. Medialon Server setup dialog



The ArKaos VJ Medialon provides a dialog box to specify which TCP/IP port the server will listen to and activate/deactivate the application. It can be accessed through the Edit > Preferences > Medialon menus.

Once activated, you can launch Medialon with the TCP/IP Client plugin to connect to the ArKaos server and send orders.

3. Setup in Medialon

3.1. A simple interface to control ArKaos VJ

As an example, the next page presents the interface we have made for you to help you start controlling ArKaos from Medialon. It must be loaded in Medialon Manager and it is designed to control only one computer since only one IP address can be entered, but it would be very easy to create a list of addresses, allowing you to create complex installations with more computers. You could also add multiple virtual MIDI keyboard on the interface, one for each computer...



This interface implements all the orders you can send to ArKaos and provide a Custom Order text area, which allow you to type manually your orders. You can enter several orders separated by “;” and send them in one time.

3.2. Connection settings

First enter the IP address and the TCP port of the computer running ArKaos (as set in the ArKaos Medialon Server Setup Dialog Box), then click “Open Connection”. If the connection is successful, “Connected ArKaos” is displayed in the “Received Frames” message board and the Connection light turns to green (if the connection failed, the light will stay red).

Once you’re connected, each action on the interface will be sent to ArKaos: MIDI notes On/Off, MIDI controllers, All Notes Off, Synth and Patch Selection, Sequencer Start/Stop, File Loading, FlashText definition, Fullscreen activation & Automation Start/Stop.

3.3. Communication with ArKaos

ArKaos receives orders through the Medialon Low Level TCP/IP Client. Using strings, you describe actions to be done by ArKaos.

3.4. Strings example :

- To activate ArKaos full screen, send the string: Fullscreen 1
- To open an ArKaos file: LoadFile “C:\ArKaos Files\LastEvent.kos”
Note that the double-quotes (or simple quotes) are required since the path contains spaces.
- To set the MIDI controller 12 value to 127: ControllerState 12 127

In the interface that we provide for Medialon, each button and slider is linked to a Step based task that will send the string to ArKaos VJ through the Low Level TCP/IP Client ‘SendFrame’ function.

Let’s use for example the MIDI controller 0 slider task steps:

- Step 0: sets the “arkaos_event_string” variable value to the desired order with a Manager expression: Arkaos_event_string = “ControllerState 0 “ + slider_controller_0.Status + “;”
- Step 1: uses the Low Level TCP/IP Client Send Frame function with arkaos_event_string as parameter.

Remark :

Events must be separated by “;” to avoid collisions if two very close events are sent to ArKaos.

3.5. ArKaos commands

Here is the list of commands that can be sent to the ArKaos server:

Command:	LoadFile <i>file_name</i>
Description:	Loads (or select if already loaded) a .kos file (Synth) in the application. The file loaded will be activated and all note / controller events will occur on this Synth.
Example:	LoadFile d:\arkaos\demo.kos

Command:	SelectPatch <i>index_num</i>
Description:	Selects the active patch (of the current Synth). The active patch is the one that will receive key messages. The patch index is a number between 0 and 127 and corresponds to the patch number in ArKaos
Example:	SelectPatch 0
Notes:	You can also use “SelectNextPatch” or “SelectPreviousPatch” events to activate the previous or the next patch in the index of the active Synth.

Command:	StartSequence <i>index_num</i>
Description:	The sequence index is a number between 0 and 127 and corresponds to the number of a recording in the list of recordings available in the recorder window of the selected Synth.
Example:	StartSequence 0

Command:	StopSequence
Description:	Stops the active sequence.
Example:	StopSequence

Command:	KeyState <i>key_num value</i>
Description:	Act as depressing the MIDI key “key_num” with a velocity “value”.
Example:	KeyState 48 20 This tells ArKaos VJ to start the visual effect corresponding to the MIDI key of index 48 with a velocity of 20
Example:	KeyState 48 0 This will stop the visual corresponding to the MIDI key of index 48

Command:	ControllerState <i>controller_num value</i>
Description:	Sets the MIDI controller “controller_num” to the specified “value”. The “controller_num” is a number between 0 and 127 The “value” is a number between 0 and 127
Example:	ControllerState 7 12

Command:	HighResolutionControllerState <i>controller_num value</i>
Description:	Sets the high resolution MIDI controller number “controller_num” to the specified “value”. The controller_num is a number between 0 and 31 The “value” is between 0 and 16384
Example:	HighResolutionControllerState 7 10230

Command:	Fullscreen value
Description:	Tells ArKaos VJ to activate / deactivate full screen display.
Example:	Fullscreen 1 Activates full screen display
Example:	Fullscreen 0 Deactivates full screen display

Command:	AllNotesOff
Description:	Stops all running events
Example:	AllNotesOff

Command:	Automation value
Description:	Activates or deactivates Automation mode
Example:	Automation 1 Activates Automation mode
Example:	Automation 0 Deactivates Automation mode

Command:	SetFlashText "MyText"
Description:	Set all FlashText layers of current patch to the text passed as parameter with "MyText". Must be used with quotes if the specified text contains spaces.
Example:	SetFlashText "Hello World!"

Command:	SelectNextPatch / SelectPreviousPatch
Description:	Select and activate the next / previous patch of the same Synth.
Example:	SelectNextPatch

Command:	SelectNextSynth / SelectPreviousSynth
Description:	Select and activate the next / previously opened Synth.
Example:	SelectNextSynth

Command:	TapTempo
Description:	Send this event two times to set the tempo. Depending on your computer speed and your network use, the tempo will be more or less precisely defined.
Example:	TapTempo

3.6. Return messages

If the order was not lexically correct, ArKaos will return *"Error. Required: event identifier. Found: string (abcd)"* which will be displayed in the answer text area at the bottom of the example interface.

If another error occurred, ArKaos will display a contextual error message.

If the command is correct, ArKaos will echo back the command processed followed by "succeeded".

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