

# **ArKaos LED Mapper extension for ArKaos VJ DMX**

## **Quickstart**

**This is a Quickstart document, for detailed technical information please check the Documentation PDF file that installs with the software.**



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## **Introduction**

This Quickstart Guide explains how to quickly setup and use the LED mapper extension to ArKaos VJ DMX. It will walk you through the various steps required to define a 'mapping', which is a definition file read by ArKaos VJ DMX in order to push pixel information to a specific configuration of LED Panels using ArtNet or e:cue butlers. The mapping file describes both the spatial arrangement and DMX characteristics of the various fixtures used in a show.

The mapping file is generated through a separate interactive application called the 'LED Mapper application'. The mapper application allows you to fully test your configuration while designing it so that once you have everything right in the editor; you can simply import it in ArKaos VJ DMX without having to configure anything. Once the mapping file is loaded into ArKaos VJ, you can use all the video processing capabilities of the software and send the result to your fixtures.

It is very simple to use so you should be able to easily create complex setups after reading this document.

For more technical details, please read the Documentation PDF file.

## **Registration**

If you have not already registered ArKaos with an "ArKaos VJ DMX with LED Mapper extension" serial number, the LED Mapper application will start in demo mode (save will be disabled).

Your ArKaos LED Mapper packaging contains a registration code, which will allow you to generate one serial number for a specific computer.

There are two ways to obtain the "ArKaos VJ DMX with LED Mapper extension" serial number for your computer, with an Upgrade Key or with a Purchase Key (the sticker with the code inside your LED Mapper packaging clearly states if your code is an Upgrade Key or a Purchase Key):

- **Upgrade Key:**  
You have already registered an ArKaos VJ DMX software in the past, so you just have to upgrade your license to obtain the "ArKaos VJ DMX with LED Mapper extension" serial number.

Use your Upgrade Key at: <http://www.arkaos.net/shop/upgrade.php>

- **Purchase Key:**  
You have not yet registered an ArKaos VJ DMX software license you can use the purchase key to directly generate a serial number for ArKaos VJ DMX with the LED Mapper extension.

Use your Purchase Key at: <http://www.arkaos.net/myarkaos/register.php>

Once you have obtained your final serial number, proceed as follows to register ArKaos VJ DMX with LED Mapper extension on your computer:

- Launch the application by double-clicking its icon.
- In the “Registration” dialog box that appears, select the third option (“If you have received a serial number for this computer”). If no dialog box appears, get to the application’s “Serial Activation” window from the menu EDIT > PREFERENCES > REGISTRATION
- Fill in the required information in the “Serial activation” window and type in or copy/paste your serial number in the corresponding field then click the “Ok” button.

Note that the LED Mapper extension is only available to DMX users. It is currently not possible to use it from the standard MIDI version.

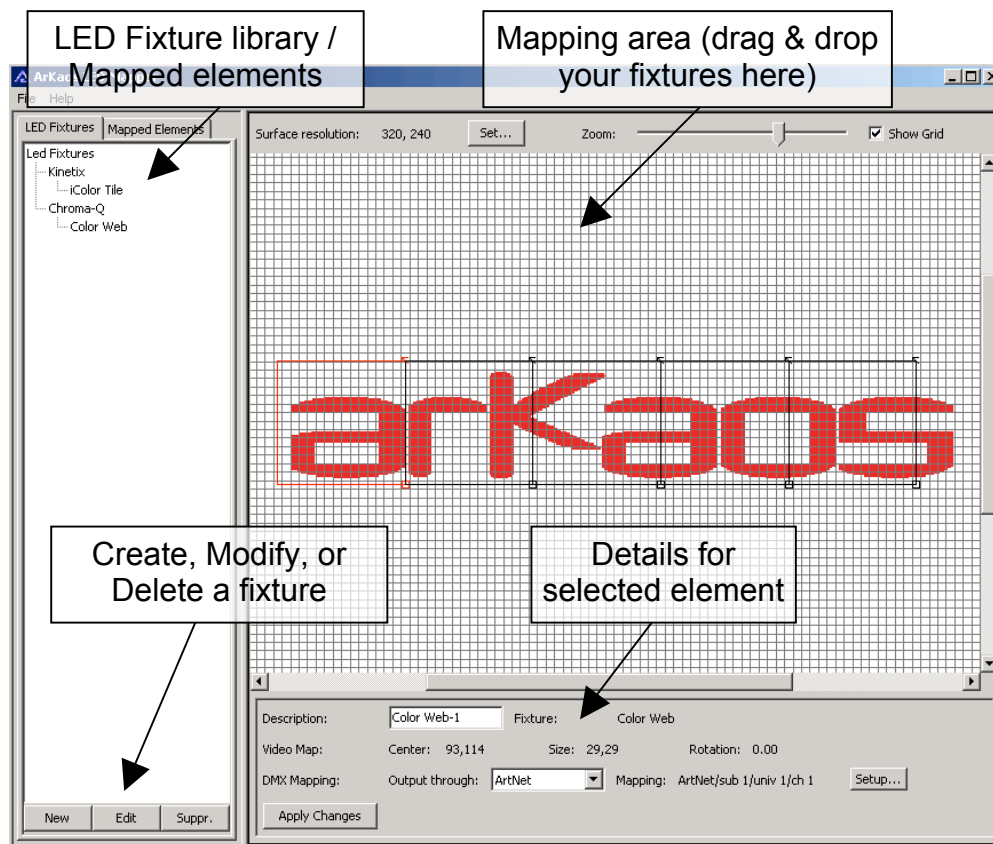
## ***Support***

If you need help with your registration or technical support, don’t hesitate to contact our support team by e-mail ([support@arkaos.net](mailto:support@arkaos.net)), if it’s about your registration just be sure to mention relevant information such as your Upgrade Key or Purchase Key.

Please check your ArKaos LED Mapper Documentation at page 18 for more support options.

## Interface Overview

Below is a screenshot of the LED mapper application:



On the left side, you find a tabbed tree that lets you browse either “LED fixtures” or “Mapped elements”.

The tree of LED fixtures shows all the LED devices whose definition is already available to setup a mapping. You can add, edit and remove fixtures using the three buttons underneath the tree. The fixtures defined in the library are available for each project, so once you library contains your main elements, you don't need to worry about it anymore.

The “Mapped Elements” tree displays the list of fixtures already used for the current mapping definition.

The Mapping area, to the right, is where you place your fixtures. It can show a grid to allow easy alignment. Every time you drag an element from the Fixture Library to the mapping area, it will be added to the Mapping Element list.

## ***Choosing a resolution***

The surface resolution that you choose from the “Set...” button in the “Mapping Area” window is very important because it will be used by ArKaos to set the size of its main rendering buffer (the engine resolution). The setting of the surface resolution will overwrite the resolution chosen in the “Synth Info” dialog of ArKaos (menu Synth / Get Synth Info).

If you need to be sure that each pixel of your visual map exactly a LED on the output you need to match the size of your visuals with the surface resolution.

To allow you to fully test your setup, the application constantly sends values corresponding to your setup over ArtNet. It uses a background picture as source of information. To change the picture, go to the menu “File / Choose visual”.

Again, if you need a precise positioning of your pixels, it is recommended to use a background visual that matches the chosen resolution.

## ***Creating your first mapping***

In this section, we'll go quickly through the steps required to create a mapping file and use it in ArKaos VJ DMX.

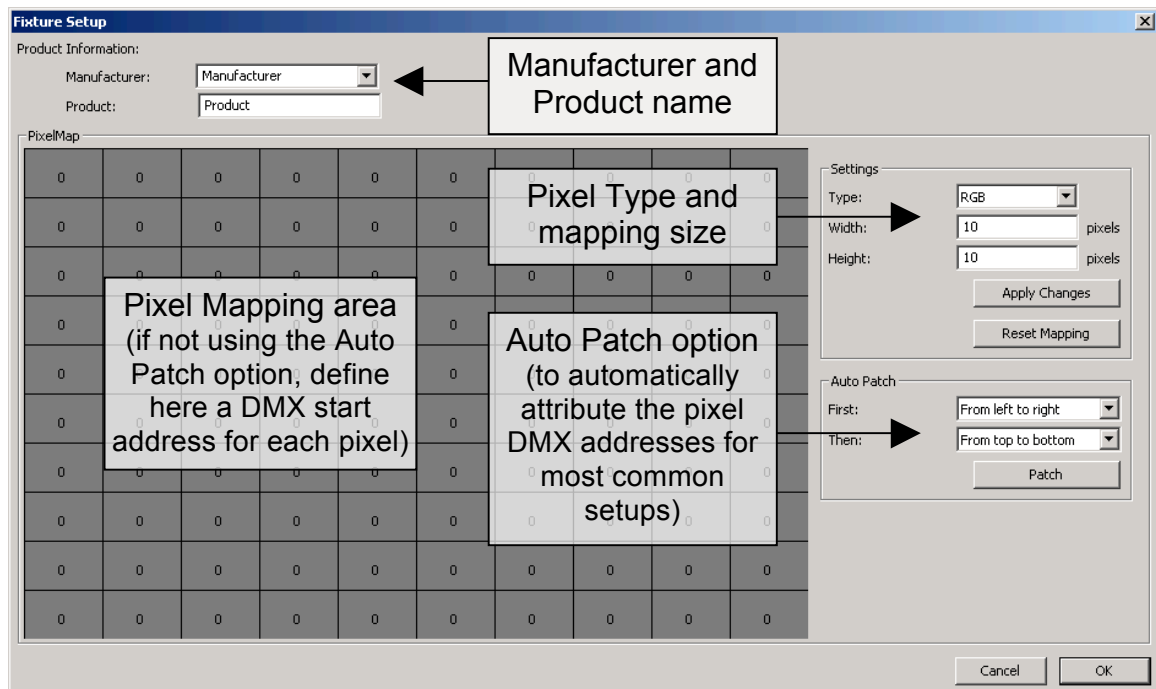
### **Start the application**

On Windows: from menu Start / Programs / ArKaos LED Mapper 1.0  
On Mac OSX: from the folder Applications / ArKaos LED Mapper 1.0

### **Create your LED fixture (if necessary)**

The first thing to do is to add the fixtures you will need in the LED Fixtures Library, if they're not yet available. To add a fixture to the library, press the button “New” below the LED Fixtures tree.

The following dialog will appear:



**To completely define the fixture, go through the following steps:**

- Enter the manufacturer and product name
- Choose a pixel type: RGB, RGBL or L (L means Luminance / Intensity)
- Set the width and height of the fixture's pixel matrix (if your fixture is 10 by 4 pixels, set 10 & 4)
- Click the Apply button. This will change the grid size
- Map the DMX addressing of the pixels.
  - If your fixture has a simple row/line addressing configuration, you can use the Auto-Patch option: select the right option for the "First:" and "Then:" mode and click on the patch button, this will automatically fill the pixel map on the grid.
  - If your fixture can't be mapped automatically because the address assignment is too exotic, you need do it manually: click on each pixels of the grid one at the time, in the right order.
- When all of this is done you can confirm the values by clicking the "OK" button.

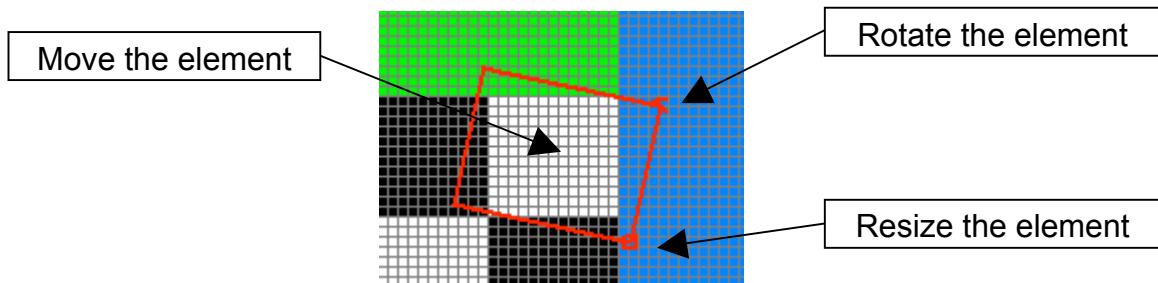


## Map the element on the screen area

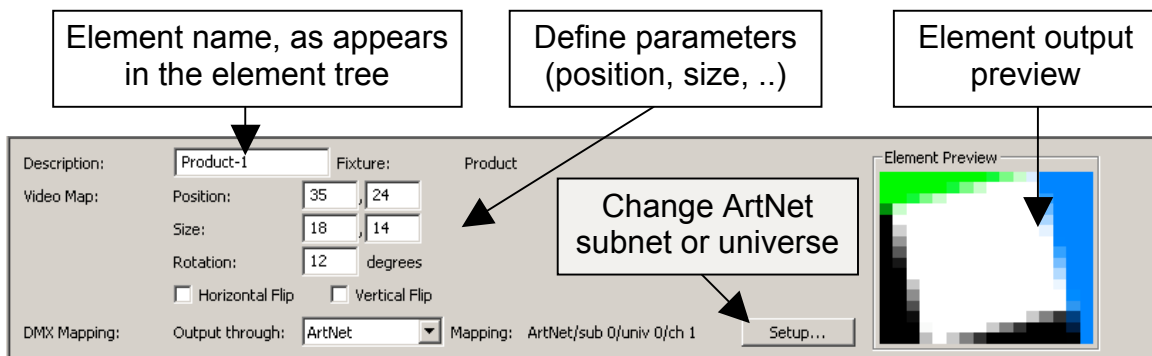
Your fixture is now available in the “LED Fixtures” tree on the left. You can use this fixture to define LED panels in the mapping area. You can use as many instances of the panel as your setup needs.

To map an instance, simply drag & drop an item from the fixture library to the picture area on the right side of the interface: this will create a new mapping element and open a dialog box allowing you to set the DMX address this particular fixture instance will listen to.

Once in the mapping area, you can manipulate the element in several way: You can select the element by clicking inside its area (the selected element is colored in red), move it by dragging it on the background image, or rotate/resize it using the handles on the top right and bottom right of the square:



The selected element’s position, rotation and size can also be modified directly from the ‘element details’ located in the panel right under the image area. This is where you can also set other parameters such as the element’s name, video flip (vertical / horizontal) and DMX mapping.



At this point, the software is already sending ArtNet on the subnet / universe selected and you should see a result equivalent to the output preview on your device.

The LED Mapper also support e:cue butler. If you want to use e:cue butler for the testing, please consult the documentation PDF. This tutorial is dedicated to an ArtNet installation.

If your device is not responding, please check the following issues:

- You have not set the IP address of your computer to cope with ArtNet network. Your IP address must be something like 2.XXX.XXX.XXX and the subnet mask 255.0.0.0. The IP could be for instance 2.0.0.12.
- A firewall is preventing the application from sending network packets.
- Another application connected to ArtNet is running on the same machine and has requested exclusive access to it. For instance a lighting desk offline software.
- Your LED device is not correctly connected to the computer, or the ArtNet->DMX node is not correctly configured regarding the subnet / universe you have chosen.
- The element doesn't have the proper DMX addressing setup.

### **Import the mapping file in ArKaos VJ**

After creating the mapping of your various elements and checked that your LED panels were receiving the correct information, it is time to save the mapping file on your hard drive. The mapping files have a .LMP extension for Led Mapper Project.

The next step consists into loading the mapping file into ArKaos VJ DMX. To do so, go to the "Edit / Preferences / Led Mapper Setup..." menu. This will open the LED Mapper setup dialog where you simply have to select the LMP file created in the LED Mapper and just check the "Activate" option.

From then on, ArKaos will broadcast ArtNet packets to drive the LED devices, sending the pixel values according to the mapping file.

Note that you can still use the ArtNet input to drive ArKaos from a lighting desk. But be careful not to patch LED fixtures on the ArtNet universe used to drive ArKaos !

The Documentation PDF installed with the application will give you more details about the product. If you have any request regarding ArKaos LED Mapper, don't hesitate to contact our support team: [support@arkaos.net](mailto:support@arkaos.net).

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