JDC2 IP

PRELIMINARY

DigiFX Guide

Rev. 20240528-2
Firmware V0.6.1

-GLP-

Document History

Revision Version	Note
20240528-2	PRELIMINARY - DRAFT VERSION

GLP® JDC2 IP DigiFX Guide – Revision 20240528-2 – Version V0.6.1

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IMPORTANT INFORMATION

**Note that the DigiFX selection in V0.5.0 and V0.5.2 is for development purposes only.
This selection will be significantly adjusted in terms of selection, order, effects, and functionality.
DigiFX could remove or change completely.**

**With Version V0.6.1 the first official DigiFX selection are fixed on position.
All non-released DigiFXs are hide out as they are not show-proof and could be changed in future updates. To un-hide these DigiFX enable Experimental DigiFX at Fixture Settings
(→ FIXTURE SETTINGS / EXPERIMENTAL DiGiFX)**

**Do not use experimental DigiFX if you expect a firmware update during your shows.
Read Firmware Update Logfiles for more information before upgrade the fixture!**

General DigiFX Information

With the internal DigiFXs, the GLP JDC2 offers a completely new way to generate breathtaking effects in a short time. These DigiFX are elaborately developed by our development team. To offer you the best possible performance and easy handling, the DigiFX are sorted into different quality categories.

1.) Simple 2-Color DigiFX

A 2-Color DigiFX is a 2-Layer effect with the option to adjustable each of the layer colors separately (RGB-A and RGB-B). These simple 2-Layer effect gives easy color control to the user. As the color control is limited to two colors only, these effects can look less realistic or multi-dimensional compared to the multicolor DigiFXs.

Example:

The DigiFX runs two effects in two Layer combined.
RGB-A-Color-Mix allows to adjust the color of the first effect running in layer 1.
RGB-B-Color-Mix allows to adjust the color of the second effect running in layer 2.
The default color mix settings are RGB1: 100%,100%,100% and RGB2: 0%,0%,0%.

2.) Multicolor DigiFX

Most of the multicolor DigiFX are multi-Layer effects with the option to adjustable the layer colors separately (RGB-A and RGB-B).

Additionally, to the normal Colors RGB1 and RGB2 the effect also shows additional automatically created colors. As the color control is not limited to two colors only and additional colors are automatically generated to the effect. These effects look much more realistic with multi-dimensional compared to the 2-Color DigiFXs.

At some multicolor DigiFXs the adjustable colors (RGB-A and RGB-B) will shift colors instead of a standard mix-colors.

3.) Experimental DigiFX

Since the development of DigiFX is very complex and we want to offer an optimal mix of 2-color and multicolor effects, we select DigiFX very carefully. In the default setting state of the JDC2, only officially released DigiFX are displayed, which offer reliable content for shows and pre-programming.

Additionally, non-confirmed DigiFX can be activated via the fixture setting "Experimental DigiFXs".
As soon an experimental DigiFX is finalized it will move to the official released DigiFX selection.

Menu Structure:

Experimental DigiFXs	**Disabled**	Will hide all experimental DigiFX and shows only showproof released DigiFX
	Enabled	Will show all showproof released DigiFX but also all non-showproof "experimental" DigiFXs. ⚠ "experimental" DigiFXs will may change with Firmware Update !

DMX Control Channel:

Experimental DigiFXs: **DISABLED**	224	225		(3s hold) - Default
Experimental DigiFXs: ENABLED	226	227		(3s hold)

DigiFX Select Channel

The 2nd main module (Main Module Plate) gives control over the RGB Plate LEDs as one group.
The DigiFX/NDI Select Channel gives access to a wide range of preprogrammed DigiFXs and the user can additionally capture content of external NDI Streams.

As long no DigiFX or NDI Stream is selected (DMX 000) all Plate LEDs are performing as one group. The color output can then easily be mixed using the RGB Color Channel Set A.
Color Channel Set B has no function.

If a DigiFX is selected, the Plate LEDs will perform one of multiple amazing DigiFXs.
The selection, control and manipulation options allow a very flexible individualization of the original DigiFX.

DigiFX Color Channel RGB-A & RGB-B

Each DigiFX is based on two colors A and B and the default color is mostly white.
To adjust the color of a DigiFX the user can change two separate colors with the RGB Color Channel Set A and B.
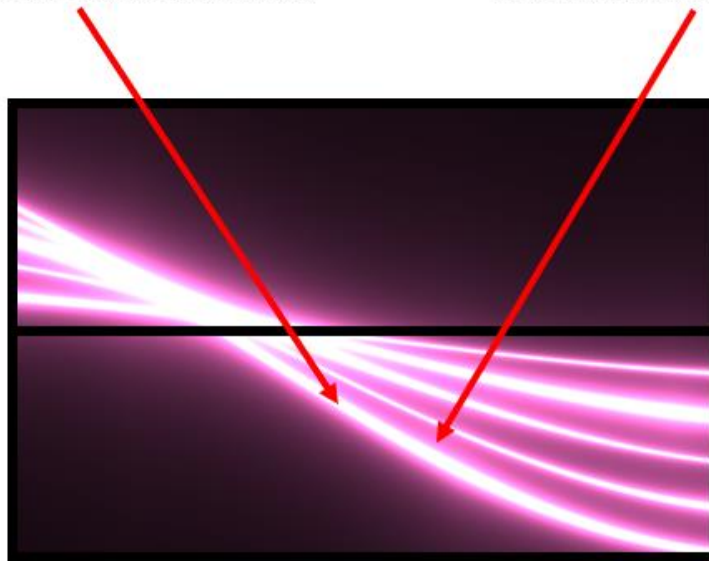

DigiFX Presets Channel
(UNDER DEVELOPMENT)

The DigiFX Preset channel give a quick access to a wide selection of pre-programmed effects, incl. color manipulation, etc..

NOTE: All preset slots are currently empty. → Will be implemented later.

DigiFX Speed Channel
The DigiFX Speed channel let you manipulate the original speed of the DigiFX.

NOTE: DigiFX speeds may change for an optimal performance.

DigiFX Positioning Channels (x,y)

A DigiFX is a coded digital effect within a 20x20 fixture matrix.

The pixel resolution of the JDC2 fixture is much smaller than the generated DigiFX itself so it is necessary to define the position of the fixture capture area in the DigiFX content.

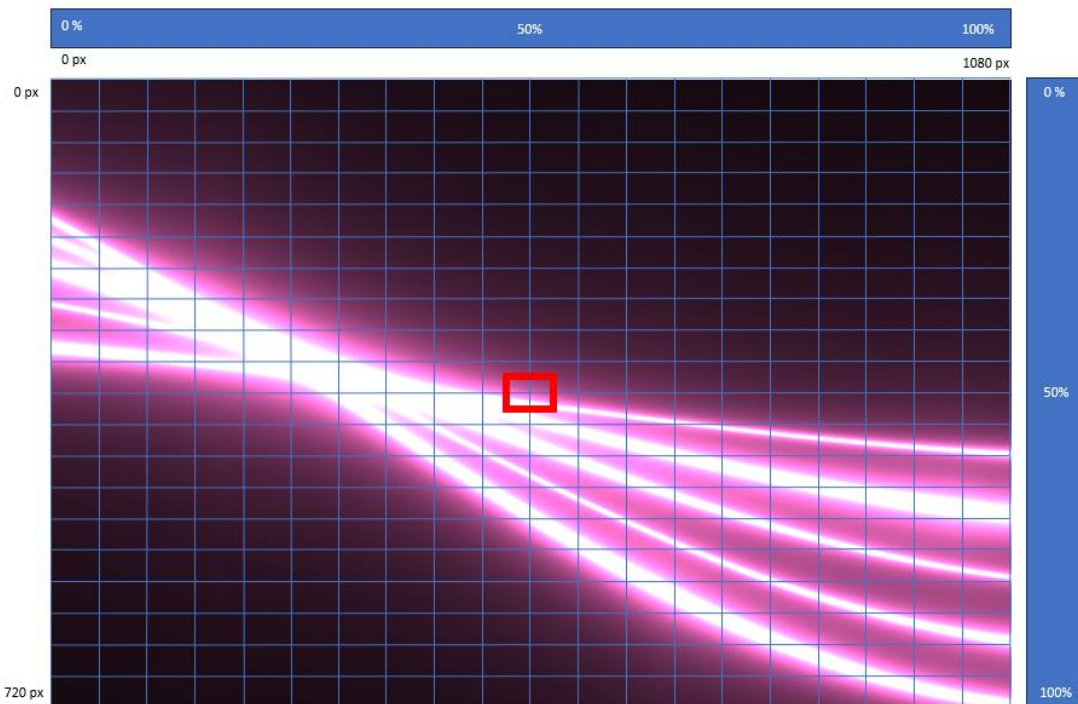The virtual pixel resolution of the JDC2 capture frame is 54 x 36px (→ physically 54 x 2*16).
You can move the JDC2 capture area through the effect by using the X and Y positioning channels.

➔ **If you want to show the identical effect at all fixtures,**
  set all fixtures to the same x-y-position.

➔ **If you want that each fixture looks different,**
  set the fixture capture area to individual x-y-positions.

The DigiFX positioning is possible from:

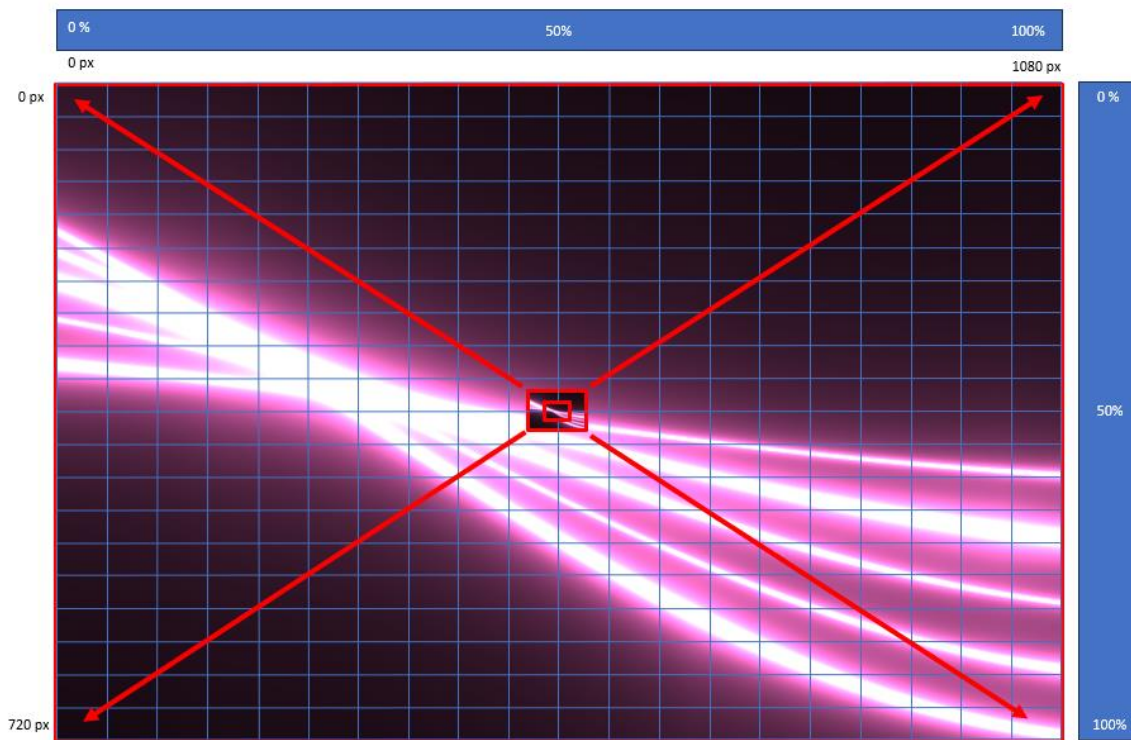|	DMX 000 0%	DMX 32768 50%	DMX 65536 100%
X	Left fixture of the 20x20 fixture matrix	Center of the 20x20 Fixture Matrix	Right Fixture of the 20x20 fixture matrix
Y	Top fixture of the 20x20 fixture matrix	Center of the 20x20 Fixture Matrix	Bottom fixture of the 20x20 fixture matrix

DigiFX Scale Channel

Using the DigiFX Scale channel let you scale the capture frame to zoom in or out the DigiFX content.
You can scale the content smaller by factor 10 and bigger by factor 20 (→ to match the 20x20 fixture matrix).
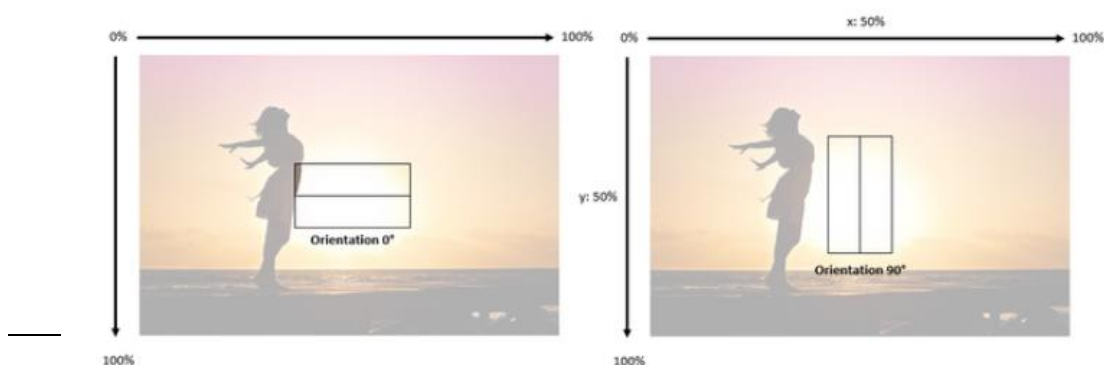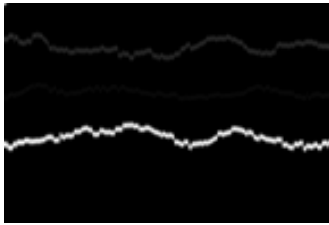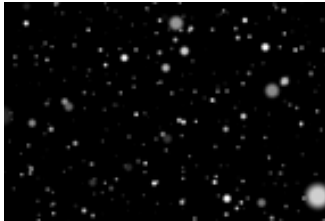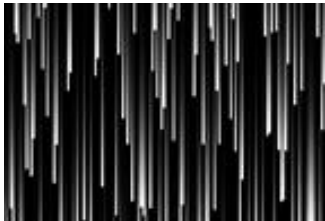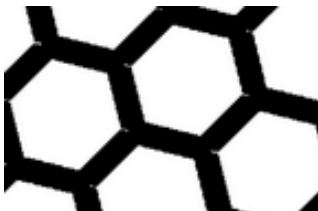

NOTE: The scaling factor in V0.5.x will change in future Firmware Updates !
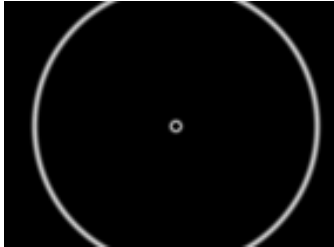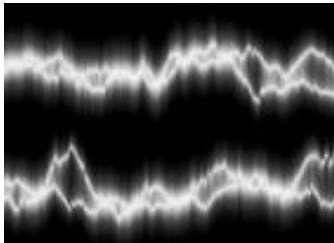**The target is a scaling factor from -0,1x to +20x idle size.**

DigiFX Rotation Channel

Using the DigiFX Rotation allows to rotate the capture frame.

DigiFX Seceltion Channel (V0.6.1)

Status	DMX Value	DigiFX Name	Adjust options
Released	010 .. 011	**DigiFX 01 - Strikes 1 - 2color**	RGB 1 → Adjust the color of the strikes RGB 2 → Adjust the color of the strike-aura FX1 → no function FX2 → no function FX3 → no function FX4 → no function
Released	012 .. 013	**DigiFX 02 - Spiral - 2color**	RGB 1 → Adjust the color of the spiral 1 RGB 2 → Adjust the color of the spiral 2 FX1 → no function FX2 → no function FX3 → no function FX4 → no function
Released	014 .. 015	**DigiFX 03 - Starfield 1 - 2color**	RGB 1 → Adjust the color of the Stars Level 1 RGB 2 → Adjust the color of the Stars of an additional Lyer 2 FX1 → Star manipulation FX2 → no function FX3 → no function FX4 → no function
Released	016 .. 017	**DigiFX 04 - Matrix - 2color**	RGB 1 → Adjust the color of the Matrix Lines RGB 2 → Adjust the color of the first Dot of the Matrix Lines FX1 → Matrix manipulation FX2 → no function FX3 → no function FX4 → no function
Released	018 .. 019	**DigiFX 05 - Hexagon Mesh - 2color**	RGB 1 → Adjust the color of the hexagons RGB 2 → Adjust the color of the space in between the hexagons FX1 → Transforms the Hexagons FX2 → no function

			FX3 → no function FX4 → no function
Released	020 .. 021	**DigiFX 06 - Pulsing Circles - 2color** 	RGB 1 → Adjust the color of the main rings RGB 2 → Adjust the colors of the 2nd level rings FX1 → Transforms the ring movement FX2 → no function FX3 → Transforms the rings FX4 → no function
Released	022 .. 023	**DigiFX 07 - Plasma Lines - 2color** 	RGB 1 → Adjust the color of the plasma center line RGB 2 → Adjust the color of the plasma aura FX1 → no function FX2 → no function FX3 → no function FX4 → no function
Released	024 .. 025	**DigiFX 08 - Truchet Pattern - 2color** 	RGB 1 → Adjust the Color of the pattern RGB 2 → Adjust the color of the space in between the pattern FX1 → Adjust the contrast between pattern lines FX2 → no function FX3 → no function FX4 → no function
Disabled	026 … 169	experimental DigiFX	Experimental DigiFX can be enabled in the Fixture Settings Menu (Fixture Settings / Experimental DigiFX) or DMX Control channel (224..225 = disabled (3s) / 226..227 = enabled (3s))