JDC2 IP

Quick User Guide

PRELIMINARY

Rev. 20240417-1
Firmware BEAT V0.5.2

Document History

Revision Version	Note
20240417-1	PRELIMINARY - DRAFT VERSION

GLP® JDC2 IP Quick User Guide – Revision 20240417-1 – SW Version V0.5.2

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IMPORTANT INFORMATION

The hardware of the GLP JDC2 IP is fully developed, and all components are fully implemented in series production. **The current JDC2 firmware is on BETA status.**

- ➔ The DMX Channel Index with its functionalities has been finalized.
- ➔ For optimal functionality, the timings, functions, temperature management, fan modes, etc. will be revised in the next few weeks. Please expect optimizations with the next Firmware Updates. **Read Firmware Update Logfiles for more information before upgrade the fixture!**
- ➔ **The DigiFX (V0.5.0 and V0.5.2) will be significantly adjusted in terms of selection, order, effects, and functionality. Please expect big changes with the next Firmware Update. Read Firmware Update Logfiles for more information before upgrade the fixture!**
- ➔ **ArtNet and sACN functionality are not currently implemented** in the software but will be implemented in the next few weeks - **control is currently only possible via DMX cable! Read Firmware Update Logfiles for more information before upgrade the fixture!**
- ➔ The NDI ports 1 and 2 can of course be used via the internal gigabit ports - NDI ports 3 and 4 are initially reserve.
- ➔ As long we are on BETA Firmware we suggest to only use NDI Stream 1 and 2 with absolute fix positioning. Enter absolute position values in the display menu of the fixture.
- ➔ The fixture has a physically pixel matrix of 54x34 pixel. The Firmware Version V0.5.0 does only captured these physically 54x34 pixel. From firmware > V0.5.2 the fixture will capture a virtual resolution of 54x36 pixel to offset the pixel gap of the LED Beam Line.

The following quick guide gives you an overview of the most relevant features. This quick manual is just a draft version of the upcoming full user manual documents.

The red marked features are not implemented so far.
Do not use these features it for pre-programming shows !
If used, stay on the firmware version, and do not update the fixture for the show.

Read Firmware Update Logfiles for more information before upgrade the fixture!

Regarding pre-programming and to find out exactly what functions are affected, please contact our PM directly.

Module Channel Structure

Mode M1 - Dual Strobe

1. General Fixture
    - .1 Main Module Beam (White Strobe)
      (Geometry: all 12 Beam Segments)
    - .2 Main Module Plate (RGB Strobe)
      (Geometry: all 24 Plate Segments)
    - .3 Sub Module Beam + Plate
      (Geometry: all 24 Plate Segments + all 12 Beam Segments)

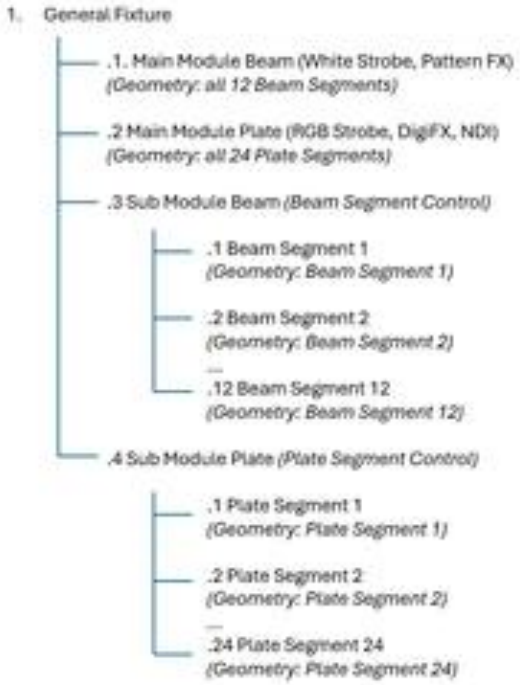
Mode M2 - Segment 1-1

1. General Fixture
    - .1. Main Module Beam (White Strobe, Pattern FX)
      (Geometry: all 12 Beam Segments)
    - .2 Main Module Plate (RGB Strobe, DigiFX, NDI)
      (Geometry: all 24 Plate Segments)
    - .3 Sub Module Beam *(Beam Segment Control)*
      (Geometry: all 12 Beam Segments)
    - .4 Sub Module Plate *(Plate Segment Control)*
      (Geometry: all 24 Plate Segments)

Mode M3 - Segment 12-12

1. General Fixture
    - .1. Main Module Beam (White Strobe, Pattern FX)
      (Geometry: all 12 Beam Segments)
    - .2 Main Module Plate (RGB Strobe, DigiFX, NDI)
      (Geometry: all 24 Plate Segments)
    - .3 Sub Module Beam *(Beam Segment Control)*
        - .1 Beam Segment 1
          (Geometry: Beam Segment 1)
        - .2 Beam Segment 2
          (Geometry: Beam Segment 2)
        - ...
        - .12 Beam Segment 12
          (Geometry: Beam Segment 12)
    - .4 Sub Module Plate *(Plate Segment Control)*
        - .1 Plate Segment 1
          (Geometry: Plate Segment 1+7)
        - .2 Plate Segment 2
          (Geometry: Plate Segment 2+8)
        - ...
        - .12 Plate Segment 12
          (Geometry: Plate Segment 18+24)

Mode M4 - Segment 12-24



DMX Channel Index

	M1 **Dual Strobe** **CH24 / 21 Fixture**	**M2** **Segment 1-1** **CH46 / 11 Fixture**	**M3** **Segment 12-12** **CH91 / 5 Fixture**	**M4** **Segment 12-24** **CH127 / 4 Fixture** **(DEFAULT)**	**M5** **JDC1 Spix Patch** **CH68 / 7 Fixture**
1	Tilt coarse	Tilt coarse	Tilt coarse	Tilt coarse	Tilt coarse
2	Tilt Fine	Tilt Fine	Tilt Fine	Tilt Fine	Tilt Fine
3	Control	Control	Control	Control	Intensity
4	Mix Prio	Mix Prio	Mix Prio	Mix Prio	Duration
5	Intensity coarse [Main Module Beam]	Intensity coarse [Main Module Beam]	Intensity coarse [Main Module Beam]	Intensity coarse [Main Module Beam]	Rate [Main Module Beam]
6	Intensity fine [Main Module Beam]	Intensity fine [Main Module Beam]	Intensity fine [Main Module Beam]	Intensity fine [Main Module Beam]	IntensityFX [Main Module Beam]
7	Duration [Main Module Beam]	Duration [Main Module Beam]	Duration [Main Module Beam]	Duration [Main Module Beam]	Control
8	Rate [Main Module Beam]	Rate [Main Module Beam]	Rate [Main Module Beam]	Rate [Main Module Beam]	Intensity [Main Module Beam]
9	IntensityFX [Main Module Beam]	IntensityFX [Main Module Beam]	IntensityFX [Main Module Beam]	IntensityFX [Main Module Beam]	Duration [Main Module Plate]
10	Intensity coarse [Main Module Plate]	FX Pattern Select [Main Module Beam]	FX Pattern Select [Main Module Beam]	FX Pattern Select [Main Module Beam]	Rate [Main Module Plate]
11	Intensity fine [Main Module Plate]	FX Pattern Speed [Main Module Beam]	FX Pattern Speed [Main Module Beam]	FX Pattern Speed [Main Module Beam]	IntensityFX [Main Module Plate]
12	Duration [Main Module Plate]	FX Pattern Crossfade [Main Module Beam]	FX Pattern Crossfade [Main Module Beam]	FX Pattern Crossfade [Main Module Beam]	Red [Main Module Plate]
13	Rate [Main Module Plate]	FX Pattern Transition [Main Module Beam]	FX Pattern Transition [Main Module Beam]	FX Pattern Transition [Main Module Beam]	Green [Main Module Plate]
14	IntensityFX [Main Module Plate]	Intensity coarse [Main Module Plate]	Intensity coarse [Main Module Plate]	Intensity coarse [Main Module Plate]	Blue [Main Module Plate]
15	CTC [Main Module Plate]	Intensity fine [Main Module Plate]	Intensity fine [Main Module Plate]	Intensity fine [Main Module Plate]	Transition DigiFX/NDI [Main Module Plate]
16	Red [Main Module Plate]	Duration [Main Module Plate]	Duration [Main Module Plate]	Duration [Main Module Plate]	Speed DigiFX [Main Module Plate]
17	Green [Main Module Plate]	Rate [Main Module Plate]	Rate [Main Module Plate]	Rate [Main Module Plate]	Select DigiFX/NDI [Main Module Plate]
18	Blue [Main Module Plate]	IntensityFX [Main Module Plate]	IntensityFX [Main Module Plate]	IntensityFX [Main Module Plate]	FX Pattern Speed [Main Module Beam]
19	Intensity Master coarse [Sub Module Plate+Beam]	CTC [Main Module Plate]	CTC [Main Module Plate]	CTC [Main Module Plate]	FX Pattern Select [Main Module Beam]
20	Intensity Master fine [Sub Module Plate+Beam]	Red 1 [Main Module Plate]	Red 1 [Main Module Plate]	Red 1 [Main Module Plate]	Intensity Plate Master [Sub Module Plate]
21	White [Sub Module Plate+Beam]	Green 1 [Main Module Plate]	Green 1 [Main Module Plate]	Green 1 [Main Module Plate]	Red Segment 01 [Sub Module Plate]

22	Red [Sub Module Plate+Beam]	Blue 1 [Main Module Plate]	Blue 1 [Main Module Plate]	Blue 1 [Main Module Plate]	Green Segment 01 [Sub Module Plate]
23	Green [Sub Module Plate+Beam]	Red 2 [Main Module Plate]	Red 2 [Main Module Plate]	Red 2 [Main Module Plate]	Blue Segment 01 [Sub Module Plate]
24	Blue [Sub Module Plate+Beam]	Green 2 [Main Module Plate]	Green 2 [Main Module Plate]	Green 2 [Main Module Plate]	Red Segment 02 [Sub Module Plate]
25		Blue 3 [Main Module Plate]	Blue 3 [Main Module Plate]	Blue 3 [Main Module Plate]	Green Segment 02 [Sub Module Plate]
26		DigiFX Presets [Main Module Plate]	DigiFX Presets [Main Module Plate]	DigiFX Presets [Main Module Plate]	Blue Segment 02 [Sub Module Plate]
27		DigiFX/NDI Select [Main Module Plate]	DigiFX/NDI Select [Main Module Plate]	DigiFX/NDI Select [Main Module Plate]	Red Segment 03 [Sub Module Plate]
28		DigiFX Speed [Main Module Plate]	DigiFX Speed [Main Module Plate]	DigiFX Speed [Main Module Plate]	Green Segment 03 [Sub Module Plate]
29		Position X coarse [Main Module Plate]	Position X coarse [Main Module Plate]	Position X coarse [Main Module Plate]	Blue Segment 03 [Sub Module Plate]
30		Position X fine [Main Module Plate]	Position X fine [Main Module Plate]	Position X fine [Main Module Plate]	Red Segment 04 [Sub Module Plate]
31		Position Y coarse [Main Module Plate]	Position Y coarse [Main Module Plate]	Position Y coarse [Main Module Plate]	Green Segment 04 [Sub Module Plate]
32		Position Y fine [Main Module Plate]	Position Y fine [Main Module Plate]	Position Y fine [Main Module Plate]	Blue Segment 04 [Sub Module Plate]
33		DigiFX/NDI Scale [Main Module Plate]	DigiFX/NDI Scale [Main Module Plate]	DigiFX/NDI Scale [Main Module Plate]	Red Segment 05 [Sub Module Plate]
34		DigiFX Rotation [Main Module Plate]	DigiFX Rotation [Main Module Plate]	DigiFX Rotation [Main Module Plate]	Green Segment 05 [Sub Module Plate]
35		DigiFX Shape FX1 [Main Module Plate]	DigiFX Shape FX1 [Main Module Plate]	DigiFX Shape FX1 [Main Module Plate]	Blue Segment 05 [Sub Module Plate]
36		DigiFX Shape FX2 [Main Module Plate]	DigiFX Shape FX2 [Main Module Plate]	DigiFX Shape FX2 [Main Module Plate]	Red Segment 06 [Sub Module Plate]
37		DigiFX Shape FX3 [Main Module Plate]	DigiFX Shape FX3 [Main Module Plate]	DigiFX Shape FX3 [Main Module Plate]	Green Segment 06 [Sub Module Plate]
38		DigiFX Shape FX4 [Main Module Plate]	DigiFX Shape FX4 [Main Module Plate]	DigiFX Shape FX4 [Main Module Plate]	Blue Segment 06 [Sub Module Plate]
39		DigiFX/NDI Transition [Main Module Plate]	DigiFX/NDI Transition [Main Module Plate]	DigiFX/NDI Transition [Main Module Plate]	Red Segment 07 [Sub Module Plate]
40		Intensity Beam Master coarse [Sub Module Beam]	Intensity Beam Master coarse [Sub Module Beam]	Intensity Beam Master coarse [Sub Module Beam]	Green Segment 07 [Sub Module Plate]
41		Intensity Beam Master fine [Sub Module Beam]	Intensity Beam Master fine [Sub Module Beam]	Intensity Beam Master fine [Sub Module Beam]	Blue Segment 07 [Sub Module Plate]
42		Intensity Plate Master coarse [Sub Module Beam]	Intensity Plate Master coarse [Sub Module Plate]	Intensity Plate Master coarse [Sub Module Plate]	Red Segment 08 [Sub Module Plate]
43		Intensity Plate Master fine [Sub Module Beam]	Intensity Plate Master fine [Sub Module Plate]	Intensity Plate Master fine [Sub Module Plate]	Green Segment 08 [Sub Module Plate]

44		Red (Segment 1..24) [Sub Module Beam]	White (Segment 1) [Sub Module Beam]	White (Segment 1) [Sub Module Beam]	Blue Segment 08 [Sub Module Plate]
45		Green (Segment 1..24) [Sub Module Beam]	White (Segment 2) [Sub Module Beam]	White (Segment 2) [Sub Module Beam]	Red Segment 09 [Sub Module Plate]
46		Blue (Segment 1..24) [Sub Module Beam]	White (Segment 3) [Sub Module Beam]	White (Segment 3) [Sub Module Beam]	Green Segment 09 [Sub Module Plate]
47			White (Segment 4) [Sub Module Beam]	White (Segment 4) [Sub Module Beam]	Blue Segment 09 [Sub Module Plate]
48			White (Segment 5) [Sub Module Beam]	White (Segment 5) [Sub Module Beam]	Red Segment 10 [Sub Module Plate]
49			White (Segment 6) [Sub Module Beam]	White (Segment 6) [Sub Module Beam]	Green Segment 10 [Sub Module Plate]
50			White (Segment 7) [Sub Module Beam]	White (Segment 7) [Sub Module Beam]	Blue Segment 10 [Sub Module Plate]
51			White (Segment 8) [Sub Module Beam]	White (Segment 8) [Sub Module Beam]	Red Segment 11 [Sub Module Plate]
52			White (Segment 8) [Sub Module Beam]	White (Segment 8) [Sub Module Beam]	Green Segment 11 [Sub Module Plate]
53			White (Segment 10) [Sub Module Beam]	White (Segment 10) [Sub Module Beam]	Blue Segment 11 [Sub Module Plate]
54			White (Segment 11) [Sub Module Beam]	White (Segment 11) [Sub Module Beam]	Red Segment 12 [Sub Module Plate]
55			White (Segment 12) [Sub Module Beam]	White (Segment 12) [Sub Module Beam]	Green Segment 12 [Sub Module Plate]
56			Red Segment 1 [Sub Module Plate]	Red Segment 1 [Sub Module Plate]	Blue Segment 12 [Sub Module Plate]
57			Green Segment 1 [Sub Module Plate]	Green Segment 1 [Sub Module Plate]	Intensity Beam Segment 1 [Sub Module Beam]
58			Blue Segment 1 [Sub Module Plate]	Blue Segment 1 [Sub Module Plate]	Intensity Beam Segment 2 [Sub Module Beam]
59			Red Segment 2 [Sub Module Plate]	Red Segment 2 [Sub Module Plate]	Intensity Beam Segment 3 [Sub Module Beam]
60			Green Segment 2 [Sub Module Plate]	Green Segment 2 [Sub Module Plate]	Intensity Beam Segment 4 [Sub Module Beam]
61			Blue Segment 2 [Sub Module Plate]	Blue Segment 2 [Sub Module Plate]	Intensity Beam Segment 5 [Sub Module Beam]
62			Red Segment 3 (Segment 3+9) [Sub Module Plate]	Red Segment 3 [Sub Module Plate]	Intensity Beam Segment 6 [Sub Module Beam]

63			Green Segment 3 [Sub Module Plate]	Green Segment 3 [Sub Module Plate]	Intensity Beam Segment 7 [Sub Module Beam]
64			Blue Segment 3 [Sub Module Plate]	Blue Segment 3 [Sub Module Plate]	Intensity Beam Segment 8 [Sub Module Beam]
65			Red Segment 4 [Sub Module Plate]	Red Segment 4 [Sub Module Plate]	Intensity Beam Segment 9 [Sub Module Beam]
66			Green Segment 4 [Sub Module Plate]	Green Segment 4 [Sub Module Plate]	Intensity Beam Segment 10 [Sub Module Beam]
67			Blue Segment 4 [Sub Module Plate]	Blue Segment 4 [Sub Module Plate]	Intensity Beam Segment 11 [Sub Module Beam]
68			Red Segment 5 [Sub Module Plate]	Red Segment 5 [Sub Module Plate]	Intensity Beam Segment 12 [Sub Module Beam]
69			Green Segment 5 [Sub Module Plate]	Green Segment 5 [Sub Module Plate]	
70			Blue Segment 5 [Sub Module Plate]	Blue Segment 5 [Sub Module Plate]	
71			Red Segment 6 [Sub Module Plate]	Red Segment 6 [Sub Module Plate]	
72			Green Segment 6 [Sub Module Plate]	Green Segment 6 [Sub Module Plate]	
73			Blue Segment 6 [Sub Module Plate]	Blue Segment 6 [Sub Module Plate]	
74			Red Segment 7 [Sub Module Plate]	Red Segment 7 [Sub Module Plate]	
75			Green Segment 7 [Sub Module Plate]	Green Segment 7 [Sub Module Plate]	
76			Blue Segment 7 [Sub Module Plate]	Blue Segment 7 (Segment 13+19) [Sub Module Plate]	
77			Red Segment 8 [Sub Module Plate]	Red Segment 8 [Sub Module Plate]	
78			Green Segment 8 [Sub Module Plate]	Green Segment 8 [Sub Module Plate]	
79			Blue Segment 8 [Sub Module Plate]	Blue Segment 8 [Sub Module Plate]	
80			Red Segment 9 [Sub Module Plate]	Red Segment 9 [Sub Module Plate]	
81			Green Segment 9 [Sub Module Plate]	Green Segment 9 [Sub Module Plate]	
82			Blue Segment 9 [Sub Module Plate]	Blue Segment 9 [Sub Module Plate]	
83			Red Segment 10 [Sub Module Plate]	Red Segment 10 [Sub Module Plate]	
84			Green Segment 10 [Sub Module Plate]	Green Segment 10 [Sub Module Plate]	

85			Blue Segment 10 [Sub Module Plate]	Blue Segment 10 [Sub Module Plate]	
86			Red Segment 11 [Sub Module Plate]	Red Segment 11 [Sub Module Plate]	
87			Green Segment 11 (Segment 17+23) [Sub Module Plate]	Green Segment 11 [Sub Module Plate]	
88			Blue Segment 11 [Sub Module Plate]	Blue Segment 11 [Sub Module Plate]	
89			Red Segment 12 [Sub Module Plate]	Red Segment 12 [Sub Module Plate]	
90			Green Segment 12 [Sub Module Plate]	Green Segment 12 [Sub Module Plate]	
91			Blue Segment 12 [Sub Module Plate]	Blue Segment 12 [Sub Module Plate]	
92				Red Segment 13 [Sub Module Plate]	
93				Green Segment 13 [Sub Module Plate]	
94				Blue Segment 13 [Sub Module Plate]	
95				Red Segment 14 [Sub Module Plate]	
96				Green Segment 14 [Sub Module Plate]	
97				Blue Segment 14 [Sub Module Plate]	
98				Red Segment 15 [Sub Module Plate]	
99				Green Segment 15 [Sub Module Plate]	
100				Blue Segment 15 [Sub Module Plate]	
101				Red Segment 16 [Sub Module Plate]	
102				Green Segment 16 [Sub Module Plate]	
103				Blue Segment 16 [Sub Module Plate]	
104				Red Segment 17 [Sub Module Plate]	
105				Green Segment 17 [Sub Module Plate]	
106				Blue Segment 17 [Sub Module Plate]	
107				Red Segment 18 [Sub Module Plate]	
108				Green Segment 18 [Sub Module Plate]	

109				Blue Segment 18 [Sub Module Plate]	
110				Red Segment 19 [Sub Module Plate]	
111				Green Segment 19 [Sub Module Plate]	
112				Blue Segment 20 [Sub Module Plate]	
113				Red Segment 20 [Sub Module Plate]	
114				Green Segment 20 [Sub Module Plate]	
115				Blue Segment 20 [Sub Module Plate]	
116				Red Segment 21 [Sub Module Plate]	
117				Green Segment 21 [Sub Module Plate]	
118				Blue Segment 21 [Sub Module Plate]	
119				Red Segment 22 [Sub Module Plate]	
120				Green Segment 22 [Sub Module Plate]	
121				Blue Segment 22 [Sub Module Plate]	
122				Red Segment 23 [Sub Module Plate]	
123				Green Segment 23 [Sub Module Plate]	
124				Blue Segment 23 [Sub Module Plate]	
125				Red Segment 24 [Sub Module Plate]	
126				Green Segment 24 [Sub Module Plate]	
127				Blue Segment 24 [Sub Module Plate]	

Channel Details

Mix Prio (Beam+Plate)

Feature	DMX			Description
Main Module & Sub Module (HTP)	0	9	snap	the highest color value of main- or sub fixture defines the resulting color value of the color.
Main Module Only	10	19	snap	The value of the sub fixture will be ignored. The resulting value is the values of the main value.
Sub Module Only	20	29	snap	The value of the main fixture will be ignored. The resulting value is the values of the sub value.
Main Module + Sub Module additive	30	39	snap	The value of the sub fixture will be added to the value of the main value. The resulting value is the sum of both values.
Main Module - Sub Module subtractive	40	49	snap	The value of the sub fixture will be subtracted from the value of the main value.
Sub Module - Main Module subtractive	50	59	snap	The value of the main fixture will be subtracted from the value of the sub value.
TrueColor 1 Beam Module over Sub Module Snap	60	69	snap	Output from the Sub fixture Module stays in the background. Output from the Main fixture Module has higher priority and will not mix with the Sub color. As soon the output value of the main module is >0 the Sub will black out and the Main value will appear.
TrueColor 2 Beam Module over Strobe Module Snap	70	79	snap	Output from the Main fixture Modul stays in the background. Output from the Sub fixture Modules has higher priority and will not mix with the main value. As soon the output value of the sub modules is >0 the main value will black out and the sub color will appear.
TrueColor 3 : Beam over Sub Crossfade	80	89	snap	Output value from the Sub fixture Modules stays in the background and the Output value from the Main fixture Modul has higher priority. If you fade in a Main value, the Sub value will crossfade to the Main value.
TrueColor 4 Sub Module over Beam Module Crossfade	90	99	snap	Output value from the Main fixture Modul stays in the background and the Output value from the Sub fixture Modules has higher priority. If you fade in a Main value, the Sub value will crossfade to the Main value.
Not Used	100	127		Not used = Main & Sub (HTP)
Main Module only	128	130	snap	
Crossfade …	…	…	fade	smooth fading
Main Module & Sub Module (HTP)	191	192	snap	
Crossfade …	…	…	fade	smooth fading
Sub Module only	253	255	snap	

Intensity Effects [Shutter Mode]

Feature	DMX			Notes
Off - Normal sync Flashes	0	04	snap	
Single Flash (at Rate Change)	05	09	snap	One Single Flash with each Flash Rate Value Change
Spread (Offset) FX	10	14	snap	Timming Offset to create amazing flash chaser
Random (All)	15	19		Random Flashes between multiple fixtures with all Pixel Syncron / Set flash intensity, duration, and rate as normal.
Random (Segments)	20	24		Random Flashes of random Pixel/Segment within a fixture and between multiple fixtures. Low Rate = low quantity of pixel / High rate = higher quantity of pixel. Duration will set the flash duration.
Pulse (All) (Ramp Up / Ramp Down)	25	29		Light gradually increases and decreases / all Fixture synchrony / Duration will set the ON time / Set intensity and rate as normal
Pulse Random (All) (Ramp Up / Ramp Down)	30	34		Light gradually increases and decreases / randomly between multiple Fixture / Duration will set the ON time / Set intensity and rate as normal
Pulse Random (Segments) (Ramp Up / Ramp Down)	35	39		
Pulse Open (All) (Ramp Up / Snap Down)	40	44		Light gradually increases in intensity, then blacks out / all Fixture synchrony / Duration will set the ON time / Set intensity and rate as normal
Pulse Open Random (All) (Ramp Up / Snap Down)	45	49		Light gradually increases in intensity, then blacks out / randomly between multiple Fixture / Duration will set the ON time / Set intensity and rate as normal
Pulse Open Random (Segments) (Ramp Up / Snap Down)	50	54		
Pulse Close (All) (Snap open / Ramp Down)	55	59		Light flashes to full intensity, then gradually fades / all Fixture synchrony / Duration will set the ON time / Set intensity and rate as normal
Pulse Close Random (All) (Snap open / Ramp Down)	60	64		Light flashes to full intensity, then gradually fades / randomly between multiple Fixture / Duration will set the ON time / Set intensity and rate as normal
Pulse Close Random (Segments) (Snap open / Ramp Down)	65	69		
Double-Flash (All)	70	74		Quick Double-Flash / all Fixture synchrony / Duration will set the length of the flashes but there will always be a blackout in-between the flashes / Set intensity and rate as normal
Double-Flash Random (All)	75	79		Quick Double-Flash / randomly between multiple Fixture / Duration will set the length of the flashes but there will always be a blackout in-between the flashes / Set intensity and rate as normal
Triple-Flash (All)	80	84		Quick Triple-Flash / all Fixture synchrony / Duration will set the length of the flashes but there will always be a blackout in-between the flashes / Set intensity and rate as normal
Triple-Flash Random (All)	85	89		Quick Triple-Flash / randomly between multiple Fixture / Duration will set the length of the flashes but there will always be a blackout in-between the flashes / Set intensity and rate as normal
Lightning	90	94		The flashes simulate lightning. Duration is not adjustable / Set intensity and rate as normal

Paparazzi	95	99		Flashes like Paparazzi photographs
Spikes (All) (Light over Lowlight)	100	104		The LEDs remains dimly illuminated between flashes. Rate will set the flash period and duration the flash length. All LED-Segments will act as one group.
Spikes (Segments) (Light Segments over Lowlight)	105	109		The lamp remains dimly illuminated between flashes. Rate will set the flash period and duration the flash length. All LED-Segments will act individually.
Chaser Flash LR*	110	114		Sync Chaser Flash Left to Right
Chaser Flash LR Random*	115	119		random Chaser Flash Left to Right
Chaser Flash RL*	120	124		Sync Chaser Flash Right to Left
Chaser Flash RL Random*	125	129		Random Chaser Flash Right to Left
Bounce Flash LR*	130	134		Sync Bounce, starting left
Bounce Flash LR Random*	135	139		Random Bounce, starting left
Bounce Flash RL*	140	144		Sync Bounce, starting right
Bounce Flash RL Random*	145	149		Random Bounce, starting right
Bounce centre to out *	150	154		
Bounce center to out random*	155	159		
Centre to Out Flash*	160	164		Sync Flash from Center to outside
Center to Out Flash Random*	165	169		Random Flash from Center to outside
Out to Centre Flash*	170	174		Sync Flash from Outside to center
Out to Center Flash Random*	175	179		Random Flash from Outside to center
Bounce Out to Center Flash*	180	184		
Bounce Out to Center Flash Random*	185	189		
not used	190	255		

Pattern Select (Beam Module)

Pattern Select	DMX			Notes
Idle	0	9	snap	All Pixel
Static Pattern 01	10	11	snap	
Static Pattern 02	12	13	snap	
Static Pattern 03	14	15	snap	
Static Pattern 04	16	17	snap	
Static Pattern 57	122	123	snap	
Static Pattern …	…	…	…	
Static Pattern 59	126	127	snap	
Dynamic Pattern 01	128	129	snap	
Dynamic Pattern 02	130	131	snap	
Dynamic Pattern 03	132	133	snap	

Dynamic Pattern 04	134	135	snap	
Dynamic Pattern 05	136	137	snap	
Dynamic Pattern 06	138	139	snap	
Dynamic Pattern 48	222	223	snap	
Dynamic Pattern …	…	…	…	
Dynamic Pattern 50	226	227	snap	
not used	…	…	…	
Random Pixel	250	255	snap	Random Pixel Pattern

Pattern Step/Speed (Beam Module)

Pattern Step/Speed	DMX Value		Slot Style
Stop (First Pattern Step)	0	2	snap
CW fast - slow (run Pattern Step 1..n)	3	63	fade
Stop at current position	64	66	snap
CCW slow - fast (run Pattern Step n..1)	67	127	fade
Pattern Step 01	128	129	snap
Pattern Step 02	130	131	snap
Pattern Step 03	132	133	snap
Pattern Step 04	134	135	snap
Pattern Step …	…	…	snap
Pattern Step 64	254	255	snap

Pattern Step Crossfade (Beam Module)

Pattern Step Crossfade (Fade time between Pattern Steps)	DMX Value		Slot Style
Off (no Crossfade = Snap)	0	9	snap
XFade fast to slow (Fade in and fade out time is identically)	10	127	fade
Off (no Crossfade = Snap)	128	137	snap
XFade with Tail – (fast to slow) (Fade-In time is shorter than Fade out time - this creates a shadow effect)	138	255	fade

Pattern Transition (Beam Module)

Pattern Transition (Fade performance between Pattern)	DMX Value		Slot Style	
Off (Snap between different Patterns)	0	9	snap	Pattern A to Pattern B will snap
Normal Transition (snap .. fade 5s)	10	63	fade	Pattern A to Pattern B will crossfade 0-5s
Off (Snap between different Patterns)	64	73	snap	Pattern A to Pattern B will snap
FOB Transition / Fade over Blackout (snap .. fade 5s)	74	127	fade	Pattern A to Pattern B will crossfade over Blackout 0-5s
Off (Snap between different Patterns)	128	137	snap	Pattern A to Pattern B will snap
FOF Transition / Fade over Full (snap .. fade 5s)	138	191	fade	Pattern A to Pattern B will crossfade over Full 0-5s
Off - reserved for additional feature	192	201		
No Transition Time - reserved for additional feature	202	255		

RGB Color A → Plate/DigiFX / NDI (Plate Module)

RGB Color Control A	DMX Value		Slot Style	
If no DigiFX/NDI is selected:				
Red	0	255	fade	Intensity of Red of the Plate (all segments)
Green	0	255	fade	Intensity of Green of the Plate (all segments)
Blue	0	255	fade	Intensity of Blue of the Plate (all segments)
If DigiFX is selected:				
Red	0	255	fade	Intensity of Red of the DigiFX Color A
Green	0	255	fade	Intensity of Green of the DigiFX Color A
Blue	0	255	fade	Intensity of Blue of the DigiFX Color A
If NDI Stream is Selected:				
Red	0	255	fade	Intensity of Red of the Stream
Green	0	255	fade	Intensity of Green of the Stream
Blue	0	255	fade	Intensity of Blue of the Stream

RGB Color B → DigiFX / NDI (Plate Module)

Color Control A	DMX Value		Slot Style	
If no DigiFX/NDI is selected:				
Red Channel - no function	0	255	fade	no function
Green Channel - no function	0	255	fade	no function
Blue Channel - no function	0	255	fade	no function
If DigiFX is Selected:				
Red	0	255	fade	Intensity of Red of the Second Color (DigiFX)
Green	0	255	fade	Intensity of Green of the Second Color (DigiFX)
Blue	0	255	fade	Intensity of Blue of the Second Color (DigiFX)
If NDI Stream is Selected:				
Red Channel - no function	0	255	fade	No function
Green Channel - no function	0	255	fade	No function
Blue Channel - no function	0	255	fade	No function

DigiFX Presets

NOTE: All DigiFX Preset Slots are empty and will be filled up step by step in future firmware updates.

DigiFX Select / NDI Select (Plate Module)

NOTE: DigiFXs will change in the upcoming firmware versions. Be careful using the existing experimental DigiFX. Read Firmware Update Logfiles carefully before updating the fixture !

As long we are on BETA Firmware we suggest to only use NDI Stream 1 and 2 with absolute fix positioning. Enter absolute position values in the display menu of the fixture.

DigiFX	DMX			Notes
Idle	0	9	snap	All Pixel
DigiFX 01 (DigiFX may change !)	10	11	snap	
DigiFX 02 (DigiFX may change !)	12	13	snap	
DigiFX 03 (DigiFX may change !)	14	15	snap	
DigiFX … (DigiFX may change !)	…	…	snap	
not used	169	171		
Capture Frame Orientation Patterns:				
Open	172	174	snap	
not used (Reserved for Orientation Pattern 01)	175	177	snap	
not used (Reserved for Orientation Pattern 02)	178	180	snap	
not used (Reserved for Orientation Pattern 03)	181	183	snap	
NDI Streams with fix absolute position:				

NDI (FVP) Stream 4 (Fix Absolut Position)	184	186	snap	[GLP-JDC2-4]
NDI (FVP) Stream 3 (Fix Absolut Position)	187	189	snap	[GLP-JDC2-3]
NDI (FVP) Stream 2 (Fix Absolut Position)	190	192	snap	[GLP-JDC2-2]
NDI (FVP) Stream 1 (Fix Absolut Position)	193	195	snap	[GLP-JDC2-1]
NDI Streams with fix segmented position:				
NDI (FVP) Stream 4 (Fix Segmented Position)	196	198	snap	[GLP-JDC2-4]
NDI (FVP) Stream 3 (Fix Segmented Position)	199	201	snap	[GLP-JDC2-3]
NDI (FVP) Stream 2 (Fix Segmented Position)	202	204	snap	[GLP-JDC2-2]
NDI (FVP) Stream 1 (Fix Segmented Position)	205	207	snap	[GLP-JDC2-1]
NDI Streams with fix relative position:				
NDI (FVP) Stream 4 (Fix Relative Position)	208	210	snap	[GLP-JDC2-4]
NDI (FVP) Stream 3 (Fix Relative Position)	211	213	snap	[GLP-JDC2-3]
NDI (FVP) Stream 2 (Fix Relative Position)	214	216	snap	[GLP-JDC2-2]
NDI (FVP) Stream 1 (Fix Relative Position)	217	219	snap	[GLP-JDC2-1]
NDI Streams with flex absolute position:				
NDI (FV) Stream 4 (Flex Absolut Position)	220	222	snap	[GLP-JDC2-4]
NDI (FV) Stream 3 (Flex Absolut Position)	223	225	snap	[GLP-JDC2-3]
NDI (FV) Stream 2 (Flex Absolut Position)	226	228	snap	[GLP-JDC2-2]
NDI (FV) Stream 1 (Flex Absolut Position)	229	231	snap	[GLP-JDC2-1]
NDI Streams with flex segmented position:				
NDI (FVP) Stream 4 (Flex Segmented Position)	232	234	snap	[GLP-JDC2-4]
NDI (FVP) Stream 3 (Flex Segmented Position)	235	237	snap	[GLP-JDC2-3]
NDI (FVP) Stream 2 (Flex Segmented Position)	238	240	snap	[GLP-JDC2-2]
NDI (FVP) Stream 1 (Flex Segmented Position)	241	243	snap	[GLP-JDC2-1]
NDI Streams with flex relative position:				
NDI (FVP) Stream 4 (Flex Relative Position)	244	246	snap	[GLP-JDC2-4]
NDI (FVP) Stream 3 (Flex Relative Position)	247	249	snap	[GLP-JDC2-3]
NDI (FVP) Stream 2 (Flex Relative Position)	250	252	snap	[GLP-JDC2-2]
NDI (FVP) Stream 1 (Flex Relative Position)	253	255	snap	[GLP-JDC2-1]

DigiFX Speed (Plate Module)

Feature	DMX Value		Slot Style	
Idle Original Speed (Speeds may change)	0	5	Snap	
Stop at current position (Speeds may change)	6	9	snap	
min speed (Speeds may change)	10	10	fade	
min → Original (Speeds may change)	11	125		
Idle Original Speed (Speeds may change)	126	129	snap	
original → max speed (Speeds may change)	130	145	fade	
Max speed (Speeds may change)	246	246		
Stop at current position (Speeds may change)	252	255	snap	

DigiFX Position X / Y

Feature	DMX Value		Slot Style	
If DigiFX is selected:				
-100% (movement area will change)	0%	0%	fade	
-99% to -1% (movement area will change)	1%	49%		
Centre Position (Default) (movement area will change)	50%	50%	snap	
+1%. to. +100% (movement area will change)	51%	99%	fade	
100% (movement area will change)	100%	100%		
If NDI Stream with <u>flex relative position</u> is selected:				
X: left position Y: top position	0%	0%		
…	1%	49%		
X: Centre position (Default) Y: Centre position (Default)	50%	50%		
…	51%	99%		
X: right position Y: Bottom position	100%	100%		
If NDI Stream with <u>flex segmental position</u> is selected:				
Idle	00000	00999		→ See Flex Segmental Position Chart
for X: Collum 01 for Y: Line 01	01000	01999		
for X: Collum 02 for Y: Line 02	02000	02999		
…	…	…		
for X: Collum 65 for Y: Line 65	65000	65535		
If NDI Stream with <u>flex absolute position</u> is selected:				
Idle	DMX 00000 DMX 00000			same as x and y 1st pixel

x: 0001 y: 0001	DMX 00001 DMX 00001			
x: 0055 y: 0001	DMX 00001 DMX 00002			
…		…		
undefined area	10%			
	…			
	100%			
If NDI Stream with fix position is selected:				
no function				

DigiFX Scale

Feature	DMX Value		Slot Style	
If DigiFX is selected:				
Idle Origin Size (Default) (Size will change)	0	9		Idle size of the effect. Best fit to the LED Panel
Scale down (DigiFX becomes smaller) (Size will change)	10	10		
…	11	127		
Idle origin Size (Size will change)	128	128		
…	129	245		
Scale up (DigiFX becomes bigger) (Size will change)	246	255		
If NDI Stream with relative position is selected:				
Idle Origin Size 1:1 (Default)	0	9		
Scale down (Size will change) (NDI Picture becomes smaller)	10	10		
…	11	127		
Idle origin Size (origin captures size)	128	128		
…	129	245		
Scale Up (Size will change) (NDI Picture becomes bigger)	246	255		

DigiFX Rotation

Feature	DMX Value		Slot Style	
0%	0	0		
1° .. 44°	1	31		
45°	32	32		
46°.. 89°	33	63		
90°	64	64		
91° .. 134°	65	95		
135°	96	96		
136° .. 179°	97	127		
180°	128	128		
181° ..224°	129	159		
225°	160	160		
226° .. 269°	161	191		
270°	192	192		
271° .. 314°	193	223		
315°	224	224		
316° .. 359°	225	255		

DigiFX Transition

Feature	DMX Value		Slot Style	
Off (Snap between different DigiFXs)	0	9	snap	DigiFX A to DigiFX B will snap
FOB Transition Fade over Blackout (snap .. fade 5s)	10	63	fade	DigiFX A to DigiFX B will crossfade 0-5s
Off (Snap between different DigiFXs)	64	73	snap	DigiFX A to DigiFX B will snap
FOF Transition Fade over Full White (snap .. fade 5s)	74	127	fade	DigiFX A to DigiFX B will crossfade over Blackout 0-5s
Off (Snap between different DigiFXs)	128	137	snap	DigiFX A to DigiFX B will snap
No Transition Time reserved for additional feature	138	191		
Off - reserved for additional feature	192	201		
No Transition Time reserved for additional feature	202	255		

Control/Setting

RED MARKED features are may not implemented so far and will be available in future updates.
Do not use it for Preprogramming shows !

Feature	DMX Value		Slot Style	Note
Idle	0	9	snap	
	10	11		
iQ.Service Connect ON	12	13	snap	Will wake up the GLP iQ.Mesh Module for 5 Minutes and enable the connectivity to the GLP iQ.Service App. If this value is active, it will extend the 5 min period.
	14	15		
	16	17		
	18	19		
Dimmer Curve: Soft (Square)	20	21	snap	(3s hold) (DEFAULT)
Dimmer Curve: Linear	22	23	snap	(3s hold)
Dimmer Curve: S-Curve	24	25	snap	(3s hold)
	26	27		
	28	29		
Display Mode: OFF	30	31	snap	(3s hold)
Display Mode: Auto	32	33	snap	(3s hold) (DEFAULT)
Display Mode: ON	34	35	snap	(3s hold)
	36	37		
Display Orientation: Auto	38	39	snap	(3s hold) (DEFAULT)
Display Orientation: Normal	40	41	snap	(3s hold)
Display Orientation: Flip	42	43	snap	(3s hold)
	44	45		
No Signal: Blackout	46	47	snap	(3s hold) (DEFAULT)
No Signal: Hold	48	49	snap	(3s hold)
No Signal: Houselight	50	51	snap	(3s hold)
No Signal: Scene	52	53	snap	(3s hold)
Capture DMX Scene	54	55	snap	(3s hold)
Fan Mode : Minimum	56	57	snap	(3s hold)
Fan Mode: Regulated	58	59	snap	(3s hold) (DEFAULT)
Fan Mode: High	60	61	snap	(3s hold)
Fan Mode : Medium	62	63	snap	(3s hold)
Fan Mode: Low	64	65	snap	(3s hold)
	66	67		
	68	69		

Pixel Mirror: Off	70	71	snap	(3s hold) (DEFAULT)
Pixel Mirror: x-mirror	72	73	snap	(3s hold)
Pixel Mirror: y-mirror	74	75	snap	(3s hold)
Pixel Mirror: x;y-mirror	76	77	snap	(3s hold)
	78	79		
Duration Control: **Normal (Default)**	80	81	snap	(3s hold) (DEFAULT)
Duration Control: Percentage	82	83	snap	(3s hold)
	84	85		
	86	87		
	88	89		
	90	91		
Position Feedback: OFF	92	93	snap	(3s hold)
Position Feedback: ON	94	95	snap	(3s hold) (DEFAULT)
	96	97		
Tilt invert OFF	98	99	snap	(3s hold) (DEFAULT)
Tilt invert ON	100	101	snap	(3s hold)
	102	103		
Tilt Disable: Off	104	105	snap	(3s hold) (DEFAULT)
Tilt Disable: Current Disabled	106	107	snap	(3s hold)
	108	109		
	110	111		
	112	113		
	114	115		
	116	117		
	118	119		
	120	121		
	122	123		
	124	125		
	126	127		
	128	129		
	130	131		
	132	133		
	134	135		
	136	137		
White Point 8000K	138	139	snap	(3s Hold)
White Point 6500K	140	141	snap	(3s Hold) (DEFAULT)
White Point 5600K	142	143	snap	(3s Hold)
White Point OFF	144	145	snap	(3s Hold)

	146	147		
	148	149		
	150	151		
	152	153		
	154	155		
	156	157		
	158	159		
	160	161		
	162	163		
	164	165		
	166	167		
	168	169		
	170	171		
	172	173		
	174	175		
Set Absolut Fix Position	176	177		(3s hold) → will set the current X/Y DMX values as the capture frame absolute fix position ➔ **Enter absolute position values in the display menu**
Set Segmented Fix Position	178	179		(3s hold) → will set the current X/Y DMX values as the capture frame segmented fix position
Set Relative Fix Position	180	181		(3s hold) → will set the current X/Y DMX values as the capture frame relative fix position
	182	183		
NDI Stream Name: **Required**	184	185		(3s hold) Default
NDI Stream Name: Not Required	186	187		(3s hold)
	188	189		
Hibernation: OFF	190	191	snap	(3s hold) (DEFAULT)
Hibernation: ON	192	193	snap	(3s hold)
	194	195		
	196	197		
	198	199		
	200	201		
	202	203		
	204	205		
	206	207		
	208	209		
	210	211		
	212	213		

	214	215		
	216	217		
	218	219		
	220	221		
	222	223		
	224	225		
	226	227		
	228	229		
Save as User Setting Preset 1	230	231	snap	(3s hold)
Save as User Setting Preset 2	232	233	snap	(3s hold)
Save as User Setting Preset 3	234	235	snap	(3s hold)
	236	237		
Load User Setting Preset 1	238	239	snap	(3s hold)
Load User Setting Preset 2	240	241	snap	(3s hold)
Load User Setting Preset 3	242	243	snap	(3s hold)
Load Settings Default	244	245	snap	(3s hold)
	246	247		
	248	249		
	250	251		
Reset Tilt	252	253	snap	(3s Hold) - Will trigger only one time. To trigger an additional time this value slot, need to be left first for 3s.
Reset ALL	254	255	snap	(3s Hold) - Will trigger only one time. To trigger an additional time this value slot, need to be left first for 3s.

Flex Relative Position Chart

DMX (lowes value)	DMX (highest value)	X Value = Column	Y Value = Row
00000	**0999**	**1**	**1**
01000	**1999**	**2**	**2**
02000	**2999**	**3**	**3**
03000	**3999**	**4**	**4**
04000	**4999**	**5**	**5**
05000	**5999**	**6**	**6**
06000	**6999**	**7**	**7**
07000	**7999**	**8**	**8**
08000	**8999**	**9**	**9**
09000	**9999**	**10**	**10**
10000	**10999**	**11**	**11**
…	…	…	…
59000	59999	60	60
60000	60999	61	61
61000	61999	62	62
62000	62999	63	63
63000	63999	64	64
64000	64999	65	65
65000	65353	66	66

Mode 5 - JDC1 SPix Patch

IMPORTANT

This mode allows the patch of a JDC2 IP with the same DMX Footprint as a JDC1 in CH68 SPix Mode. Because of the same DMX footprint, a JDC1 → JDC2 IP Fixture swap is possible BUT do not expect same feature behavior!

The Channels are arranged similar, but the channel features and DMX values per Channel can be different, so re-programming will be necessary!
Do not expect a 100% fixture and feature compatibility!

Ch	JDC1		JDC2	Note
1	Coarse Tilt (MSB)	→	Tilt coarse [General Fixture]	
2	Fine Tilt (LSB)	→	Tilt Fine [General Fixture]	
3	Beam Intensity	→	Intensity [Main Module Beam]	
4	Beam Duration	→	Duration [Main Module Beam]	⚠ Different Duration Timings expected
5	Beam Rate	→	Rate [Main Module Beam]	⚠ Different Rate Speeds expected
6	Beam Shutter	→	IntensityFX (Shutter Mode) [Main Module Beam]	⚠ Different Intensity Effects
7	Special / Control	→	Control [General Fixture]	⚠ DMX Values and Settings
8	Plate Intensity	→	Intensity [Main Module Plate]	
9	Plate Flash Duration	→	Duration [Main Module Plate]	⚠ Different Duration Timings expected
10	Plate Flash Rate	→	Rate [Main Module Plate]	⚠ Different Rate Speeds expected
11	Plate Shutter	→	IntensityFX (Shutter Mode) [Main Module Plate]	⚠ Different Intensity Effects
12	Plates Red	→	Red - Color Set A+B (Plate / DigiFX / NDI) [Main Module Plate]	
13	Plates Green	→	Green - Color Set A+B (Plate / DigiFX / NDI) [Main Module Plate]	
14	Plates Blue	→	Blue - Color Set A+B (Plate / DigiFX / NDI) [Main Module Plate]	
15	FX Crossfade	→	Transition DigiFX/NDI [Main Module Plate]	⚠ Completely different features and speeds

16	Plate FX Movement	→	Speed DigiFX [Main Module Plate]	
17	Plate FX Select	→	Select DigiFX/NDI [Main Module Plate]	
18	Beam FX Movement	→	FX Pattern Speed (Beam Module)	⚠ Completely different Beam Pattern and Speeds
19	Beam FX Select	→	FX Pattern Select (Beam Module)	
20	Plate Master	→	Intensity Plate Master [Sub Module Plate]	
21	Plate Background Pixel 1 - Red	→	Red Segment 01	
22	Plate Background Pixel 1 - Green	→	Green Segment 01	
23	Plate Background Pixel 1 - Blue	→	Blue Segment 01	
24	Plate Background Pixel 2 - Red	→	Red Segment 02	
25	Plate Background Pixel 2 - Green	→	Green Segment 02	
26	Plate Background Pixel 2 - Blue	→	Blue Segment 02	
27	Plate Background Pixel 3 - Red	→	Red Segment 03	
28	Plate Background Pixel 3 - Green	→	Green Segment 03	
29	Plate Background Pixel 3 - Blue	→	Blue Segment 03	
30	Plate Background Pixel 4 - Red	→	Red Segment 04	
31	Plate Background Pixel 4 - Green	→	Green Segment 04	
32	Plate Background Pixel 4 - Blue	→	Blue Segment 04	
33	Plate Background Pixel 5 - Red	→	Red Segment 05	
34	Plate Background Pixel 5 - Green	→	Green Segment 05	
35	Plate Background Pixel 5 - Blue	→	Blue Segment 05	
36	Plate Background Pixel 6 - Red	→	Red Segment 06	
37	Plate Background Pixel 6 - Green	→	Green Segment 06	
38	Plate Background Pixel 6 - Blue	→	Blue Segment 06	
39	Plate Background Pixel 7 - Red	→	Red Segment 07	
40	Plate Background Pixel 7 - Green	→	Green Segment 07	
41	Plate Background Pixel 7 - Blue	→	Blue Segment 07	
42	Plate Background Pixel 8 - Red	→	Red Segment 08	
43	Plate Background Pixel 8 - Green	→	Green Segment 08	
44	Plate Background Pixel 8 - Blue	→	Blue Segment 08	
45	Plate Background Pixel 9 - Red	→	Red Segment 09	
46	Plate Background Pixel 9 - Green	→	Green Segment 09	

47	Plate Background Pixel 9 - Blue	→	Blue Segment 09	
48	Plate Background Pixel 10 - Red	→	Red Segment 10	
49	Plate Background Pixel 10 - Green	→	Green Segment 10	
50	Plate Background Pixel 10 - Blue	→	Blue Segment 10	
51	Plate Background Pixel 11 - Red	→	Red Segment 11	
52	Plate Background Pixel 11 - Green	→	Green Segment 11	
53	Plate Background Pixel 11 - Blue	→	Blue Segment 11	
54	Plate Background Pixel 12 - Red	→	Red Segment 12	
55	Plate Background Pixel 12 - Green	→	Green Segment 12	
56	Plate Background Pixel 12 - Blue	→	Blue Segment 12	
57	Beam Pixels Intensity - Pixel 1	→	Intensity Beam Segment 1	
58	Beam Pixels Intensity - Pixel 2	→	Intensity Beam Segment 2	
59	Beam Pixels Intensity - Pixel 3	→	Intensity Beam Segment 3	
60	Beam Pixels Intensity - Pixel 4	→	Intensity Beam Segment 4	
61	Beam Pixels Intensity - Pixel 5	→	Intensity Beam Segment 5	
62	Beam Pixels Intensity - Pixel 6	→	Intensity Beam Segment 6	
63	Beam Pixels Intensity - Pixel 7	→	Intensity Beam Segment 7	
64	Beam Pixels Intensity - Pixel 8	→	Intensity Beam Segment 8	
65	Beam Pixels Intensity - Pixel 9	→	Intensity Beam Segment 9	
66	Beam Pixels Intensity - Pixel 10	→	Intensity Beam Segment 10	
67	Beam Pixels Intensity - Pixel 11	→	Intensity Beam Segment 11	
68	Beam Pixels Intensity - Pixel 12	→	Intensity Beam Segment 12	

Product Documentation

General Information

The GLP JDC2 IP is an innovative LED Fixture which combines a powerful white LED Strobe line (BEAM) and a colorful RGB LED Strobe (PLATE). The RGB LED Strobe (PLATE) can be individual pixel controlled for amazing dynamic effects. The resolution of the individual controllable RGB Pixel allows a wide range of digital effects and makes it possible to integrate the fixture in more dramatic and detail lighting scene designs.

To keep the control of all the pixels simple there are plenty of dynamic digital effects (DigiFX) implemented which can easily manipulated by the Lighting Operator. For more flexibility it is also possible to select one of 4 external NDI Video Streams, which allows to quickly capture a live Video stream or external content coming from a media server.

NOTE: **Art-Net and sACN currently not implemented!**

General Fixture Structure

The GLP JDC2 IP is split into three Modules:

- **1st Module** is the **Main Module Beam** (BEAM) which give you control over the White Strobe LED Line (BEAM). Most of the Control Modes also offer a Pattern Engine for quick dynamic effects and the Strobe Line.
  The 1st Module also has the global control channels, such as Tilt, MixPrio and CONTROL in it.

- **2nd Module** is the **Main Module Plate** (PLATE) which gives you control over the RGB LED Plates, above and below the Strobe Line (BEAM). Most of the Control Modes offer a wide range of DigiFXs for RGB-Plates and allow to replay the content external NDI Streams.

- **3rd / 4th Modules** are extra Sub Modules which can be used as background or Mapping Layer. Depending on the Control Mode it is possible to control all pixels as one group, control just segments of the plates or control the pixels individually.

Control Channels

Tilt

The fixture offers a motorized tilt with auto position correction (Position Feedback) in 16 bit resolution.

When the fixture is standing on the ground, an increase of Tilt values will turn the head to front (stage). Decreasing Tilt values will turn the head to the back.

The Tilt function can be inverted *(→ Fixture Settings/P/T Invert)*.

The position feedback (Auto Position Correction) function will bring back the fixture into correct position if it was unintentionally removed from the correct position. The device tries twice in repetition to drive in the right position. Then the device waits a longer time to start a new attempt. The position feedback is also automatically disables for a short time if the operator presses one of the display buttons at the base.

After Power up (without valid DMX Signal) the Fixture goes automatically to Home Position (Centre).

Intensity (Dimmer)

The Intensity Channel controls the output or intensity of the related fixture module (Beam / Plate) in 16 bit resolution. Different dimming curve options are available. You can select the dimming curve using the control panel *(→ Fixture Settings/Dimmer Curve)*, DMX *(→ see DMX Control Channel)* or by RDM.

Duration

Using the Flash Duration Channel the operator can adjust the length of a flash from super short to long flashes. It is possible to change the behavior of the duration control from normal to percentage by control panel (→ Fixture Settings/Duration Control), by DMX (→ see DMX Control Channel) and by RDM.

If the Intensity Effects Channel is set to an intensity effect the Duration Channel will also affect the performance of the selected intensity effect. How the effect will be adjusted is depending on the selected effect.

Rate (Shutter)

The operator can adjust the interval between flashes or the speed of Intensity Effects.
If the Intensity Effects Channel is set to DMX 000..004 the Rate Channel will perform as a standard Strobe Channel and will adjust the Strobe speed as follow:

- At DMX 000..004 the fixture will not flash anyway (Shutter Blackout)
- At DMX 255 the fixture will perform a continuous on (Shutter Open)
- In-between the above values the fixture will perform flashes with long interval to super short interval.

If the Intensity Effects Channel is set to an intensity effect the Rate Channel will also affect the performance of the selected intensity effect. How the effect will be adjusted is depending on the selected effect.

Intensity Effects (Shutter Mode)

The operator can select between different Intensity effects.
At DMX 000 all intensity effects are disabled and there will be normal Flashes performing on all pixels at the same time.

CTC (Color Temperature Control)

The Plate Control offer a separate Color Temperature Correction Channel which allows a comfortable shift in color temperature between 10000K to 2500K. Remember, to get the correct CTC color temperature all color mix channels need to be set to 100%, if they are not at 100% the system will mix color relative to the selected white point of the CTC Channel. At DMX 000 the open color temperature depended on the selected white point *(→ Fixture Settings/White Point).*

Pattern Control (Beam)

Different static and dynamic Patterns are available for the white strobe segments (BEAM).

A static pattern is a fix pattern with only one pattern step. This allows you a very quick selection of a non-dynamic effect. An active Pixel shows the selected Pattern intensity while an inactive pixel is fully transparent. The Pattern Speed/Step Channel has no effect on static patterns.

A dynamic pattern is a sequence of multiple pattern steps and has active and inactive pixel. An active pixel shows the selected pattern color while an inactive pixel is fully transparent. The pattern steps can automatically change continuously *(→ Pattern Speed)* or a special step can be chosen directly *(→ Pattern Index)*.

By using the Mix Priority Channel, you can decide how the output of the main module and the sub modules should be mixed or merged.

FX Pattern Select

At Pattern Select the operator can select the pattern they want to use. There are >50 static patterns and >50 dynamic patterns available. The dynamic patterns offer multiple pattern steps for individual step selection or continuous step-chasers. Pattern 0 (DMX 000) is the idle pattern and just set all pixel active.

The Random-Pixel-FX Pattern at the end of the Pattern Select channel will randomly select pixels which creates a great sparkle effect.

FX Pattern Step Speed

As a dynamic pattern is a sequence of multiple patterns steps the operator can choose between an automatic run-through the pattern steps continuously with different speeds clockwise or counterclockwise or select one of the available specific pattern steps.

Note that different patterns have a different number of patterns steps which can cause different effect behavior.

FX pattern Crossfade.

With the cross-fade effect channel the operator can choose the behavior how one pattern-step of a pattern should change into the next pattern-step. This can be a snap, a normal cross fade, or a fade with tail (quick fade In and variable long fade out).

FX Pattern Transition

With transition effect the operator can chose the behavior how a Pattern A will change into Pattern B. This can be a snap, soft cross fade, Fade over Blackout (FOB) or Fade over Full (FOF).

DigiFX and NDI Control

The 2nd main module gives control over the RGB Plate LEDs as one group. 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.

The DigiFX/NDI Select Channel gives access to a wide range of preprogrammed DigiFXs and the user can additionally capture content of one of max. 4 external NDI Streams.

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.

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.

If an NDI Stream is selected, the Plate LEDs will show the content of a selected NDI data stream. The Color Channel Set A allows to limit the intensity of RGB individually. Color Channel Set B has no function.

NOTE: DigiFXs will change in the upcoming firmware versions. Be careful using the existing experimental DigiFX. Read Firmware Update Logfiles carefully before updating the fixture !

NOTE: As long we are on BETA Firmware we suggest to only use NDI Stream 1 and 2 with absolute fix positioning. Enter absolute position values in the display menu of the fixture.

GLP DigiFX Information

A DigiFX is a coded digital effect with an unlimited size.

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

The virtual pixel matrix of the JDC2 capture frame is 54 x 36px (physically 54 x 2*16).

NOTE: The fixture has a physically pixel matrix of 54x34 pixel. The Firmware Version V0.5.0 does only captured these physically 54x34 pixel. From firmware > V0.5.2 the fixture will capture a virtual resolution of 54x36 pixel to offset the pixel gap of the LED Beam Line.

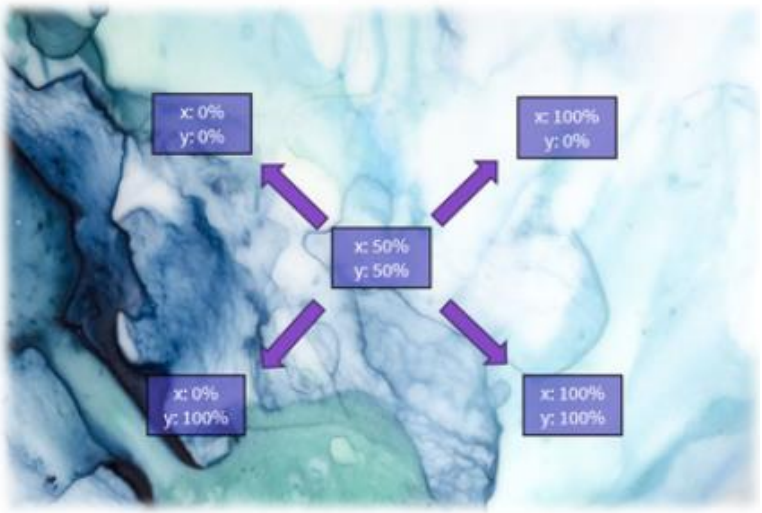
DigiFX Capture Frame positioning

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 position.
If you want that each fixture looks different, set the fixture capture area to individual positions.

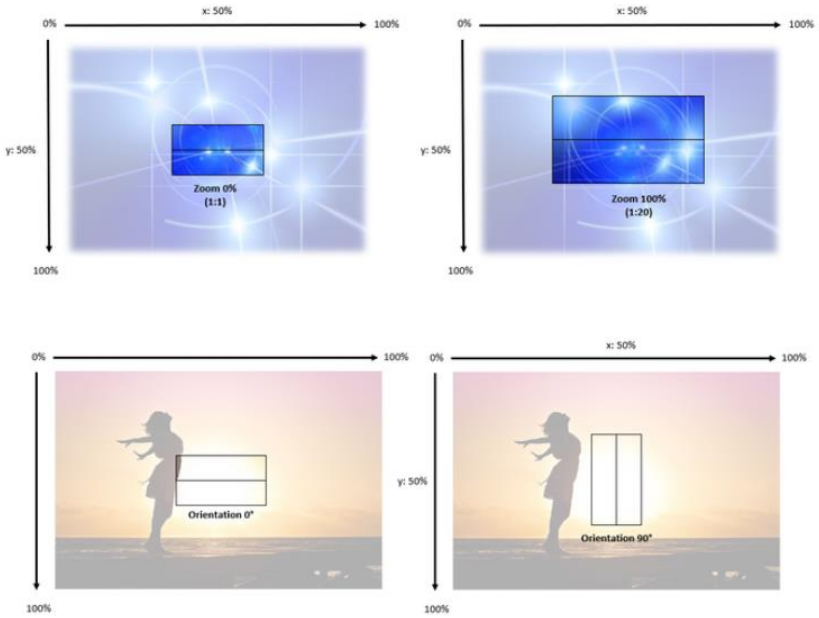
The DigiFX positioning is possible from -100% ← 0% (Default position) → +100%.

Each DigiFX is based on two colors A and B. The default color is mostly white, so that the user can manipulate the two separate colors with the RGB Color Channel Set A and B.



NOTE: The movement area of the relative positioning will change in future Firmware Updates !

Using the DigiFX Rotation and Scale channel let you additionally scale and rotate the capture frame.



General NDI Information

To work with your own external effect content, the fixture can handle up to 4 external NDI streams with up to 640x480px (VGA) resolution.

At the end of the DigiFX/NDI Select channel the operator can select 1 of 4 NDI Streams with different positioning options *(→ NDI Capture Frame positioning).*

By selecting a NDI stream the fixture will continuously capture the data from this stream, also if the user change back to a DigiFX. The toggle between DigiFX and the before selected NDI stream is performed with minimal latency. Changing between different NDI Streams can cause some latently due to re-capturing.

NOTE: As long we are on BETA Firmware we suggest to only use NDI Stream 1 and 2 with absolute fix positioning. Enter absolute position values in the display menu of the fixture.

NDI Stream Network Configuration

To receive an external NDI Stream the JDC1 IP fixture need to be in the same network as the NDI Transmitter. Configure the fixtures primary Network IP Adress in the same range as the transmitter is.

NDI Stream Name

For an internal NDI Stream routing it is by default necessary that each of the 4 NDI streams has a specific NDI Name. That allows the fixture to route the NDI Signal to the related NDI port 1 to 4. The NDI Stream Name only needs to be part of the full NDI Stream name.

Here is a list of the specific allowed NDI stream names:

NDI Stream	NDI Stream Label	Resolution
NDI Stream 1	GLP-JDC2-1	up to 640x480px (VGA)
NDI Stream 2	GLP-JDC2-2	up to 640x480px (VGA)
NDI Stream 3	GLP-JDC2-3	up to 640x480px (VGA)
NDI Stream 4	GLP-JDC2-4	up to 640x480px (VGA)

For renaming an NDI Stream Name we suggest using the free software “NDI Tool” from Newtec.

If it is not possible to rename your NDI Stream Name, you can change this behavior. Then a recognized received NDI Stream with individual NDI Name will be routed automatically to NDI 1. All other NDI Streams need to have the specific GLP-JDC2 Stream Name Tag in the full name.

If an NDI Stream is received with the specific GLP-JDC2 Stream Tag “GLP-JDC2-1” it will always have higher priority and will override the “individual” NDI Stream.

NDI Capture Frame positioning

You can move the JDC2 capture area for NDI through the NDI content 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 position.
If you want that each fixture looks different, set the fixture capture area to individual positions.

The capture frame positioning can be done by three different methods:

a.) relative
b.) segmented
c.) absolute

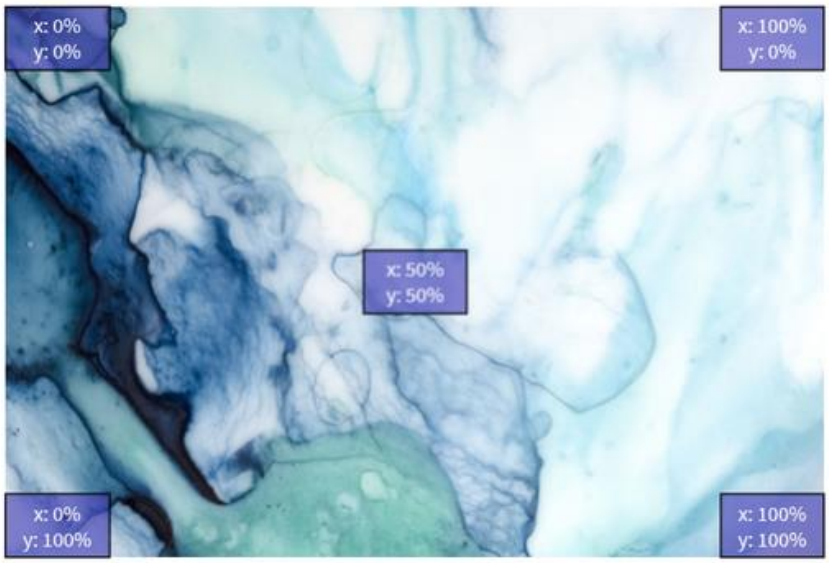
Additional each of the methods is available in two options:

1.) flexible positioning
2.) fix positioning

NOTE: As long we are on BETA Firmware we suggest to only use NDI Stream 1 and 2 with absolute fix positioning. Enter absolute position values in the display menu of the fixture.

a.) Relative capture frame position

If selecting an NDI Stream with relative capture frame position, the X-Y Position Channels allows to move the capture frame in the captured content with percentage values:



X	Y	Position
0%	0%	Capture frame is in the lop left corner of the NDI Stream
100%	0%	Capture frame is in the lop right corner of the NDI Stream
50%	**50%**	**Capture frame is in the center of the NDI Stream (DEAFULT)**
0%	100%	Capture frame is in the bottom left corner of the NDI Stream
100%	100%	Capture frame is in the bottom right corner of the NDI Stream

1.) If a NDI Stream is selected with "***flex positioning***" option, the user can move the capture frame position live by using the X-Y Position Channels. This allows a maximum flexibility and dynamic cues.

:info: If using flexible positioning the NDI Stream selection and X-Y DMX values should be saved as a combined preset.

2.) If a NDI Stream is selected with "***fix positioning***" option, the capture frame position is fixed and the x/y channels have to functionality. This is useful if the setup will not change, or no dynamic movement is needed.

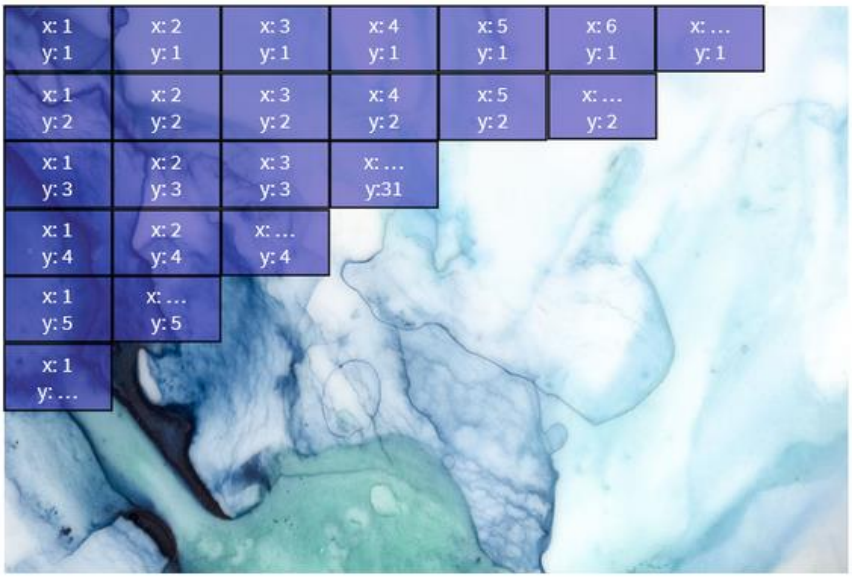
The fix position is stored in the fixture and can be set by using the x/y channels in combination with the Control Channel *"Set Relative Fix Position"*.

The fix position will be restored by "Load Fixture Setting Defaults" or "Load factory Defaults".

b.) Segmented capture frame position

Selecting a NDI Stream with segmental capture frame position, will place the capture frame next by next and line by line with a virtual capture frame of 54x36 pixel.

If selecting a NDI Stream with segmental capture frame position, the fixture will place the capture frames next by next in rows and columns with a virtual capture frame of 54x36 pixel.



By using the X-Y Position Channels the user can select the row (X) and the column (Y) as follow:

X / Y DMX Values	Horizontal Position	Vertical Position
00000 ... 00999	1st column	1st row
01000 ... 01999	1st column	1st row
02000 ... 02999	2nd column	2nd row
03000 ... 03999	3rd column	3rd row
…	… column	… row
65000 … 65535	65th column	65th row

1.) If a NDI Stream is selected with "***flex positioning***" option, the user can move the capture frame position in real time by using the X-Y Position Channels. This allows a maximum flexibility and dynamic cues.

If using flexible positioning the NDI Stream selection and X-Y values should be saved as a combined preset.

2.) If an NDI Stream is selected with "***fix positioning***" option, the capture frame position is fixed, and the X-Y Position Channels have to functionality. This is useful if the setup will not change, or no dynamic movement is needed.

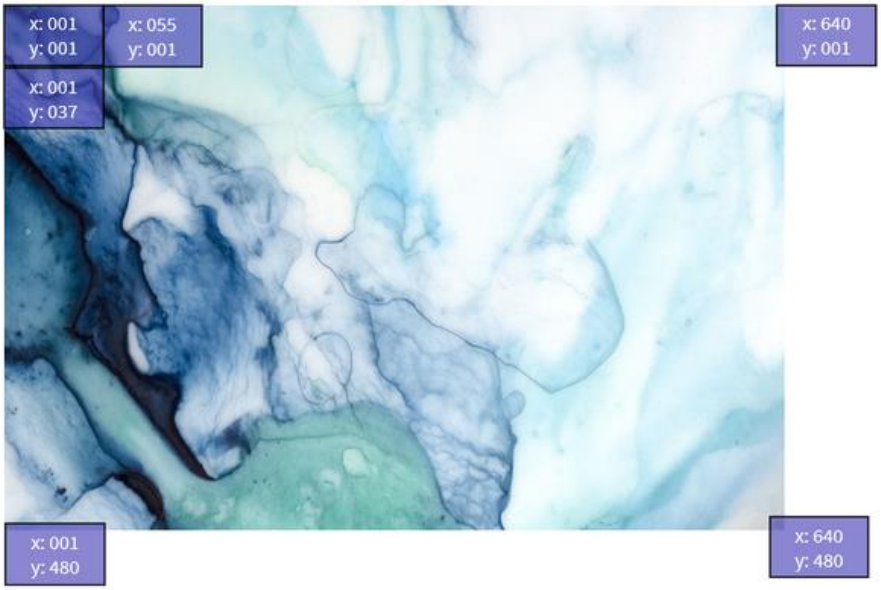
The fix position is stored in the fixture and can be set by using the X-Y Position Channels in combination with the Control Channel *"Set Segmented Fix Position"*.
The fix position will be restored by "Load Fixture Setting Defaults" or "Load factory Defaults".

c.) Absolute capture frame position

Selecting an NDI Stream with absolute capture frame position, will place the capture frame in a defined individual pixel position.

Selecting an NDI Stream with absolute capture frame position, will place the capture frame in a defined individual pixel position with a virtual capture frame of 54x36 pixel.

NOTE: The fixture has a physically pixel matrix of 54x34 pixel. The Firmware Version V0.5.0 does only captured these physically 54x34 pixel. From firmware > V0.5.2 the fixture will capture a virtual resolution of 54x36 pixel to offset the pixel gap of the LED Beam Line.



By using the X-Y Position Channels the user can select the exact pixel position of the top left pixel in x and y pixel coordinate as follow:

X DMX Values	Y DMX Values	Horizontal Position	Vertical Position
000001	000001	1st pixel from left	1st pixel from top
000002	000002	2nd pixel from left	2nd pixel from top
…	…	…	…
000055	000037	55th pixel from left	37th pixel from top
…	…	…	…

1.) If an NDI Stream is selected with "***flex positioning***" option, the user can move the capture frame position live by using the X-Y Position Channels. This allows a maximum flexibility and dynamic cues.

If using flexible positioning the NDI Stream selection and X-Y Position values should be saved as a combined preset.

2.) If an NDI Stream is selected with "***fix positioning***" option, the capture frame position is fixed, and the X-Y Position Channels have to functionality. This is useful if the setup will not change, or no dynamic movement is needed.

The fix position is stored in the fixture and can be set by using the X-Y Position Channels in combination with the Control Channel *"Set Absolut Fix Position"*.

The fix position will be restored by "Load Fixture Setting Defaults" or "Load factory Defaults".

NOTE: Currently only the absolute positioning is implemented.
Please use the Display menu to edit the absolute capture positioning.

Test / Orientation Pattern

The Test or Orientation Patterns gives you a quick orientation for capture frame positioning.

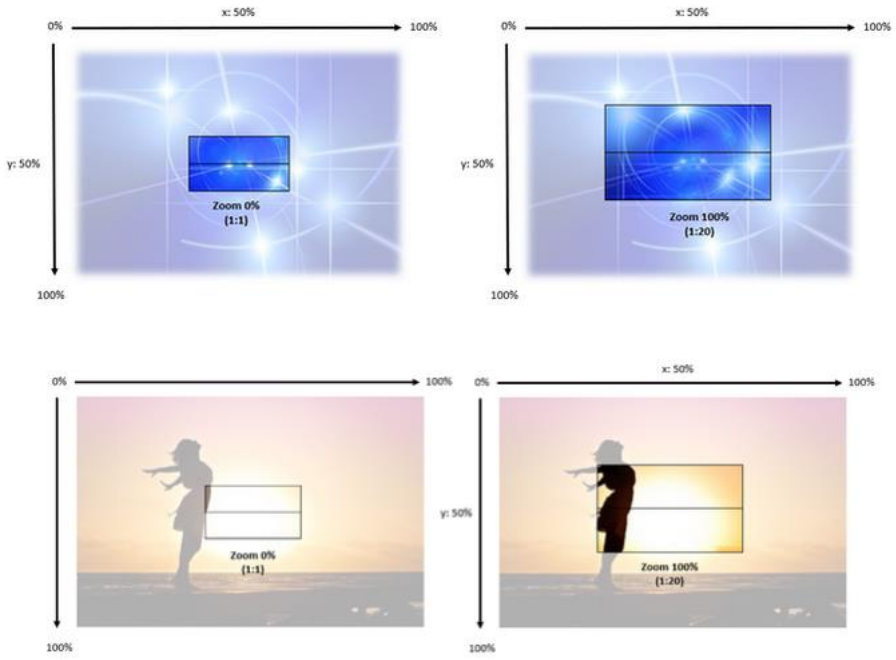
NOTE: Will be implemented later.

DigiFX Scale

As mentioned before the standard virtual capture frame relation is 1:1.
It is possible to modify these 1:1 relation and zoom the capture frame in and out of the DigiFX or NDI content.

The fix point of the fixture is the center of the pixel matrix.
At absolute and segmental positioning this channel has no function.

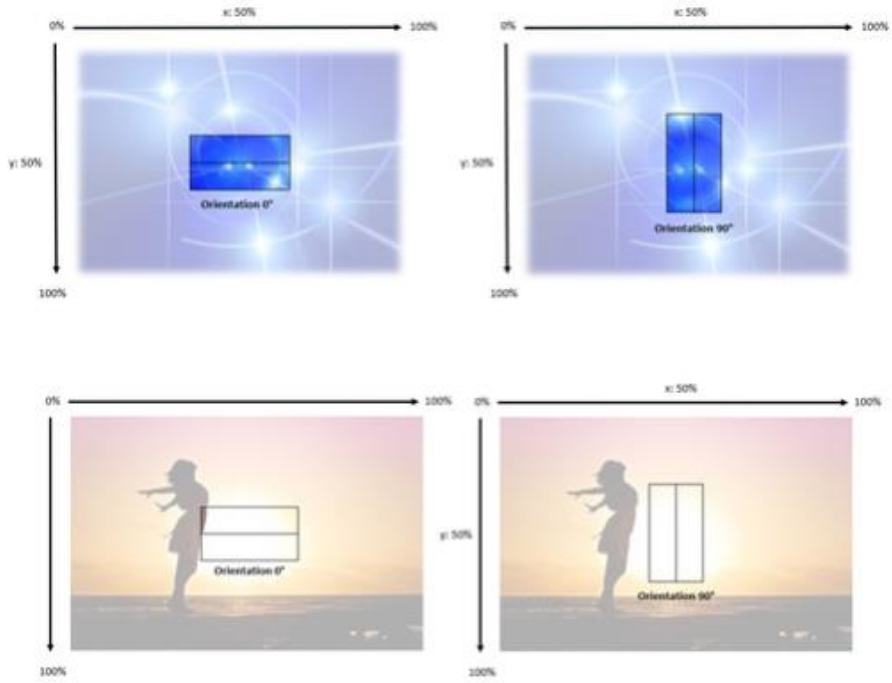
NOTE: The scaling factor will be adapted in upcoming firmware versions!



DigiFX/NDI Rotation

Using the orientation channel allows to rotate the capture frame orientation from 0..359°.

The fix point of the fixture is the center of the pixel matrix.
At absolute and segmental positioning this channel has no function.



DigiFX Presets

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

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

NOTE: DigiFX speeds may change for an optimal performance
Speed adjust of NDI Streams is not possible.

Mix Priority

The Mix Priority Channel lets the user decide how the color mix output of the main module and the color mix output of the sub modules will be merged or which value has higher priority.

The default setting (DMX 000) is “Main & Sub (HTP)” where the highest color value of main or sub modules defines the resulting value of the output color.

Using this channel the user can change to the following settings:

- **Main & Sub (HTP)** - the highest color value of main- or sub modules defines the resulting color value of the color.
- **Main Only** - The color value of the sub fixture will be ignored. The resulting color value is the values of the main color value.
- **Sub Only** - The color value of the main fixture will be ignored. The resulting color value is the values of the sub color value.
- **Main + Sub additive** - The color value of the sub modules will be added to the color value of the main color value. The resulting color value is the sum of both values.
- **Main - Sub subtractive** - The color value of the sub fixture will be subtracted from the color value of the main color value.
- **Sub - Main subtractive** - The color value of the main fixture will be subtracted from the color value of the sub color value.
- **TrueColor 1 : Main over Sub Snap -** Color Output from the sub modules stays in the background. Color Output from the main module has higher priority and will not mix with the Sub color. As soon the color output value of the main module is >0 the Sub color will black out and the Main color will appear.
- **TrueColor 2 : Sub over Main Snap** - Color Output from the main module stays in the background. Color Output from the sub modules has higher priority and will not mix with the main color. As soon the color output value of the sub module is >0 the main color will black out and the sub color will appear.
- **TrueColor 3 : Main over Sub Crossfade** - Color Output from the sub modules stays in the background and the Color Output from the main module has higher priority. If you fade in a Main color, the Sub color will cross fade to the Main color.
- **TrueColor 4 : Sub over Main Crossfade** - Color Output from the main module stays in the background and the Color Output from the sub modules has higher priority. If you fade in a Main color, the Sub color will cross fade to the Main color.
- **Crossfade between** Main Only … Main & Sub (HTP) … Sub Only

Control / Special Channel

A special Control/Setting channel allows to do selected fixture settings by DMX. This could be very helpful if fixture performance should be adjusted during the show or just for special scenes. To enable one of the settings the DMX Value need to be set and hold for some seconds to be activated.

To trigger the reset functionality of the fixture using the control channel, the DMX value for this function need to be set for 3s. If you want to trigger an additional Reset using the control channel, the Reset DMX value need to be left first and then set again. This should avoid an unwanted Reset-Looping if the fixture is patched wrong.

NOTE: Not all settings are implemented so far