



VERSION 8.0.1.XXX - DEVELOPED BY: AVOLITES MEDIA LTD. POWERED BY: SALVATION (TM)  
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GREG, ADAM, OLIE, ALL AT AVOLITES AND YOU. SPECIAL THANKS MARK CALVERT. LETS ROCK!

# ArtNET DMX Channel Definitions

## VERSION 8.X

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with Additions by Dave Green & Ciaran Abrams

# ArtNET / DMX Channel Definitions

An Ai server has three modes of operation on Artnet / DMX:

- 40 channel (compatible with Catalyst),
- 80 channel
- 100 channel.

Each layer has its own settings for Artnet. So it is possible to configure each layer independently.

## 40 channel personality

Ch	Func	Description	Range	Default	Value Details	Notes
0	Library Folder	Selects Media Sub Folder	0..255	0	Setting both Folder and File to 0 will clear all content on layers	System Settings/Triggering Method – sets whether this parameter selects Numeric Folder, Alpha Numeric Folder or Roller Cue (selects Media Bank)
1	Library File	Selects Media File	0..255	0	Setting both Folder and File to 0 will clear all content on layers	System Settings/Triggering Method – sets whether this parameter selects Numeric File, Alpha Numeric File or Roller Cue (selects Media from roller cue)
2	Hi In Point	In Point of Media in Frames	0..65535	0	Frame no of in point in media file	IN MTC PLAY MODE becomes backward offset in frames
3	Lo In Point					
4	Hi Out Point	Out Point of Media in Frames	0..65535	65535	Frame no of in point in media file	IN MTC PLAY MODE becomes forward offset in frames
5	Lo Out Point					
6	Play Mode		0..45	2	0 = PLAY_MODE_IN_FRAME 1 = PLAY_MODE_OUT_FRAME 2 = PLAY_MODE_LOOP_FORWARD 3 = PLAY_MODE_LOOP_REVERSE 4 = PLAY_MODE_ONCE_FORWARD 5 = PLAY_MODE_ONCE_REVERSE 6 = PLAY_MODE_STOP 7 = PLAY_MODE_PAUSE 8 = PLAY_MODE_BOUNCE 9 = PLAY_MODE_SWITCH_ON_FRAME 10 = PLAY_MODE_LOOP_FORWARD_IG0 11 = PLAY_MODE_LOOP_REVERSE_IG0 12 = PLAY_MODE_ONCE_FORWARD_IG0 13 = PLAY_MODE_ONCE_REVERSE_IG0 14 = PLAY_MODE_BOUNCE_IG0 15 = PLAY_MODE_MTC 20 = PLAY_MODE_LOOP_FORWARD_RTIG0 21 = PLAY_MODE_LOOP_REVERSE_RTIG0 22 = PLAY_MODE_ONCE_FORWARD_RTIG0 23 = PLAY_MODE_ONCE_REVERSE_RTIG0 24 = PLAY_MODE_BOUNCE_RTIG0	

7	Play Speed	Media Play Speed	0..255	127	0 = 100% play speed 1..127 = 1%..100% play speed 128..255 = 100%..1000% play speed	
8	Hi X Rotation	X Axis Rotation of Media	0..65535	32767	0..16383 = auto rotate ACW 0 = fast..16383 = stop 16384..32767 = manual rotate ACW 32768..49150 = manual rotate CW 49151..65535 = auto rotate CW 49150 = stop..65535 = fast	
9	Lo X Rotation					
10	Hi Y Rotation	Y Axis Rotation of Media	0..65535	32767	0..16383 = auto rotate ACW 0 = fast..16383 = stop 16384..32767 = manual rotate ACW 32768..49150 = manual rotate CW 49151..65535 = auto rotate CW 49150 = stop..65535 = fast	
11	Lo Y Rotation					
12	Hi Z Rotation	Z Axis Rotation of Media	0..65535	32767	0..16383 = auto rotate ACW 0 = fast..16383 = stop 16384..32767 = manual rotate ACW 32768..49150 = manual rotate CW 49151..65535 = auto rotate CW 49150 = stop..65535 = fast	
13	Lo Z Rotation					
14	Hi Image Size	Image Size of Media	0..65535	32767	0..32767 = 0 = very small, 32767 = normal size 32768..65535 = 32678 = normal size, 65535 = very large	
15	Lo Image Size					
16	Hi X Position	X Axis Position of Media	0..65535	32767	0..32767 = 0 = far left, 32767 = centre 32768..65535 = 32678 = centre, 65535 = far right	
17	Lo X Position					
18	Hi Y Position	Y Axis Position of Media	0..65535	32767	0..32767 = 0 = far bottom, 32767 = centre 32768..65535 = 32678 = centre, 65535 = far top	
19	Lo Y Position					
20	Aspect Ratio	Aspect Ratio of Media	0..255	0	0..127 = 0 = normal, 127 = squash vertical 127..255 = 128 = squash horizontal, 255 = normal	
21	Movement Speed		0..255	0	1/10ths of a second for smoothing of movement parameters, such as position X & Y, Image Size & Aspect Ratio	
22	Intensity	Layer intensity	0..255	255	Adjusts layer Intensity	
23	Red Param	Red Colour Adjust	0..255	255	0..255 Multiply media Red channel by 0..100%	If Colour Adjust Mode is set to 1 then this changes functionality so that 0..127 = multiply by 0..100% & 128..255 adds colour into the channel
24	Green Param	Green Colour Adjust	0..255	255	0..255 Multiply media Green channel by 0..100%	If Colour Adjust Mode is set to 1 then this changes functionality so that 0..127 = multiply by 0..100% & 128..255 adds colour into the channel
25	Blue Param	Blue Colour Adjust	0..255	255	0..255 Multiply media Blue channel by 0..100%	If Colour Adjust Mode is set to 1 then this changes functionality so that 0..127 = multiply by 0..100% & 128..255 adds colour into the channel

26	Strobe	Strobe	0..255	0	0..63 Square wave adjustable period 64..127 Single Frame, adjustable period 128..191 Random, adjustable probability 192..255 Random, adjustable sustain
27	Trails	-	-	-	Future use
28	Colour FX	Colour Effect / Blend Mode	0..220	3	0 = Flat (RGB Adjust) 1 = Alpha HSC (on R G B Params) 2 = Alpha Blend 3 = Alpha Blend 4 = N.A.M (Non additive Mix) 5 = Luma 6 = Lighten 7 = Additive 8 = Difference (like photoshop) 9 = Wipe 10 = Multiply 11 = Darken 12 = Screen 13 = Subtract 14..200 = Transitions 200-220 = Colour Curves
29	Visual FX	Visual FX	0..255	0	0 = Off 1 = Infinite Black border 2 = Soft Edge Shutters 3 = Blur 4 = 4 Point Warp 5..255 = FFGL Effects
30	Visual FX P01	Visual FX Parameter 1	0..255	0	Visual FX Parameter 1
31	Visual FX P02	Visual FX Parameter 2	0..255	0	Visual FX Parameter 2
32	Keystone / Crop X1	Keystone / Crop X1	0..255	0	Keystone / Crop X1
33	Keystone / Crop Y1	Keystone / Crop Y1	0..255	0	Keystone / Crop Y1
34	Keystone / Crop X2	Keystone / Crop X2	0..255	0	Keystone / Crop X2
35	Keystone / Crop Y2	Keystone / Crop Y2	0..255	0	Keystone / Crop Y2
36	Keystone / Crop X3	Keystone / Crop X3	0..255	0	Keystone / Crop X3
37	Keystone / Crop Y3	Keystone / Crop Y3	0..255	0	Keystone / Crop Y3
38	Keystone / Crop X4	Keystone / Crop X4	0..255	0	Keystone / Crop X4
39	Keystone / Crop Y4	Keystone / Crop Y4	0..255	0	Keystone / Crop Y4

## 80 channel mode: additional channels

40	Visual FX Opacity	Visual FX Opacity	0..255	0	FX Opacity 0..100%	
41	Visual FX P03	Visual FX P03	0..255	0	Visual FX Parameter 3	
42	Visual FX P04	Visual FX P04	0..255	0	Visual FX Parameter 4	
43	Visual FX P05	Visual FX P05	0..255	0	Visual FX Parameter 5	
44	Visual FX P06	Visual FX P06	0..255	0	Visual FX Parameter 6	
45	Visual FX P07	Visual FX P07	0..255	0	Visual FX Parameter 7	
46	Visual FX P08	Visual FX P08	0..255	0	Visual FX Parameter 8	
47	Visual FX P09	Visual FX P09	0..255	0	Visual FX Parameter 9	
48	Visual FX P10	Visual FX P10	0..255	0	Visual FX Parameter 10	
49	Visual FX P11	Visual FX P11	0..255	0	Visual FX Parameter 11	
50	Visual FX P12	Visual FX P12	0..255	0	Visual FX Parameter 12	
51	Visual FX P13	Visual FX P13	0..255	0	Visual FX Parameter 13	
52	Visual FX P14	Visual FX P14	0..255	0	Visual FX Parameter 14	
53	Visual FX P15	Visual FX P15	0..255	0	Visual FX Parameter 15	
54	Visual FX P16	Visual FX P16	0..255	0	Visual FX Parameter 16	
55	Visual FX 2	Visual FX 2	0..255	0	0 = Off 1 = Infinite Black border 2 = Soft Edge Shutters 3 = Blur 4 = 4 Point Warp 5..255 = SVFX Effects see page Error: Reference source not found	
56	Visual FX 2 Opacity	Visual FX 2 Opacity	0..255	0	FX2 Opacity 0..100%	
57	Visual FX 2 P01	Visual FX 2 P01	0..255	0	Visual FX2 Parameter 1	
58	Visual FX 2 P02	Visual FX 2 P02	0..255	0	Visual FX2 Parameter 2	
59	Visual FX 2 P03	Visual FX 2 P03	0..255	0	Visual FX2 Parameter 3	
60	Visual FX 2 P04	Visual FX 2 P04	0..255	0	Visual FX2 Parameter 4	
61	Visual FX 2 P05	Visual FX 2 P05	0..255	0	Visual FX2 Parameter 5	
62	Visual FX 2 P06	Visual FX 2 P06	0..255	0	Visual FX2 Parameter 6	
63	Visual FX 2 P07	Visual FX 2 P07	0..255	0	Visual FX2 Parameter 7	
64	Visual FX 2 P08	Visual FX 2 P08	0..255	0	Visual FX2 Parameter 8	
65	Visual FX 2 P09	Visual FX 2 P09	0..255	0	Visual FX2 Parameter 9	
66	Visual FX 2 P10	Visual FX 2 P10	0..255	0	Visual FX2 Parameter 10	
67	Visual	Visual FX 2	0..255	0	Visual FX2 Parameter 11	

	FX 2 P11	P11				
68	Visual FX 2 P12	Visual FX 2 P12	0..255	0	Visual FX2 Parameter 12	
69	Visual FX 2 P13	Visual FX 2 P13	0..255	0	Visual FX2 Parameter 13	
70	Visual FX 2 P14	Visual FX 2 P14	0..255	0	Visual FX2 Parameter 14	
71	Visual FX 2 P15	Visual FX 2 P15	0..255	0	Visual FX2 Parameter 15	
72	Visual FX 2 P16	Visual FX 2 P16	0..255	0	Visual FX2 Parameter 16	
73	MTC Hour	MTC Hour	0..24	0	Midi Time Code Hour Offset to Media Start	
74	MTC Minute	MTC Minute	0..60	0	Midi Time Code Minute Offset to Media Start	
75	MTC Second	MTC Second	0..60	0	Midi Time Code Second Offset to Media Start	
76	MTC Frame	MTC Frame	0..60	0	Midi Time Code Frame Offset to Media Start	
77	Cross Fade Period	Cross Fade Period	0..255	0	Cross Fade (on a single layer) Period in 10 <sup>th</sup> 's of a second	
78	Cross Fade Mode	Cross Fade Mode	0..255	0	0 = Flat (RGB Adjust) 1 = Alpha HSC (on R G B Params) 2 = Alpha Blend 3 = Alpha Blend 4 = N.A.M (Non additive Mix) 5 = Luma 6 = Lighten 7 = Additive 8 = Difference (like photoshop) 9 = Wipe 10 = Multiply 11 = Darken 12 = Screen 13 = Subtract 14..200 = Transitions 200-220 = Colour Curves	
79	Aspect Mode	Aspect Mode	0..2	0	0 = Letterbox, 1 = Crop, 2 = Stretch	

## 100 channel mode: additional channels

80	Hue Adjust	Hue Adjust	0..255	0	Adjust Media Colour with Hue Adjust (0..360 degrees)	
81	Saturation Adjust	Saturation Adjust	0..255	0	0..127 = Grey through to full colour 128..255 = full colour through to over saturated	
82	Contrast Adjust	Contrast Adjust	0..255	0	0..127 = low contrast through to no contrast adjust 128..255 = no contrast adjust through to heavy contrast	
83	Colour Adjust Mode	Colour Adjust Mode	0..1	0	0 = R,G,B Params - 0..255 Multiply media Red channel by 0..100% 1 = R,G,B Params - 0..127 = multiply by 0..100% & 128..255 adds colour into the channel	
84	Custom	Custom	0	0		
85	Custom	Custom	0	0		
86	Custom	Custom	0	0		
87	Custom	Custom	0	0		
88	Custom	Custom	0	0		
89	Custom	Custom	0	0		
90	Custom	Custom	0	0		
91	Custom	Custom	0	0		
92	Custom	Custom	0	0		
93	Custom	Custom	0	0		
94	Custom	Custom	0	0		
95	Custom	Custom	0	0		
96	Custom	Custom	0	0		
97	Custom	Custom	0	0		
98	Custom	Custom	0	0		
99	Custom	Custom	0	0		