Converging Systems/Hardware and Software Initial Setup and Commissioning Guide for

e-Node/DMX

Setup Guide	
Manufacturer:	**Converging Systems, Inc.**
Model Number(s):	**e-Node/dmx**
Developer/Manufacturer:	Converging Systems Inc.
Document Revision Date:	8/7/2021 Rev 10.1

Table of Contents

Converging Systems Inc.• 32420 Nautilus Drive• Rancho Palos Verdes, CA 90275 USA
Tech support 310.544.2628 x2 • Sales 310.544.2628 x 1 • email:info@convergingsystems.com

Please consult the "**e-Node/dmx Multi-Channel DMX Control**" document found on the Converging Systems website for detailed information on settings for the most popular DMX fixtures as well as additional Integration information pertaining to third-party Integration Partners.

https://www.convergingsystems.com/lighting_install_library.php

Backgrounder on DMX Lighting Devices. There are many third-party lighting devices available in the marketplace that support the DMX512 lighting standard ("standard for digital communication). The DMX 512 protocol is based on the EIA/TIA-485 standard (commonly known as Recommended Standard 485 or RS-485) which uses asynchronous, differential data transmission. This standard supports 32 devices or fixtures on one network at a distance of up to 4000 feet. DMX devices were originally utilized for theatrical interior and architectural lighting application only, but recently their adoption rate has grown in other areas where colored lighting is desired. Popular DMX 3-channel lighting fixtures utilizing Red, Green, Blue (RGB) illuminants (and 4-color derivatives utilizing Red, Green, Blue, White (RGBW) illuminants), which although practical for theatrical applications by the trained lighting designer are often impractical for general lighting and general automation adaptations because of interfacing, compatibility and basic functionality issues. Specifically, most DMX fixtures with channels dedicated to particular colors (i.e., Red, Green, Blue, etc.) lack a slider or control for dimming and through this inherent structural weakness lack the capability for hue accurate dimming without color shifts (because linear movement of color sliders cannot dim accurately). ***But that has all changed now...***

Converging Systems' e-Node/dmx. Converging Systems has developed an adaptation of its lighting/dimming technology currently available within its ILC-x00 line of LED controllers and has re-purposed that technology into a separate product known as the e-Node/dmx. Existing third-party automation and lighting control software drivers for Converging Systems' product line also enable support for the e-Node/dmx (color engine/dmx translator) controller. Unique to the e-Node/dmx is its ability to perform color adjustments within its own processor to enhance hue-accurate dimming without colors shift along with the added benefit of light level stores and recalls as well bi-directional communication. In addition, the robust color engine embedded within the e-Node/dmx offloads DMX support from the lighting or automation platform. (See the listing of commands that are supported with the e-Node/dmx device within the supported LED command section within this document or within any specific Integration Note for a third-party platform.)

NOTE: DMX cannot be split reliably by making T-connectors or Y-cables. Third-party splitter/repeaters typically use optical isolation to protect each segment from electrical faults or reflections on other branches. These can be used to increase the number of devices on one network beyond the limit of 32. However, each branch of a splitter/repeater can support only 32 devices. Converging Systems maintains that limitation of 32 devices or fixtures per e-Node/dmx.

Please follow the directions which follow to drive DMX fixtures utilizing the e-Node/dmx and a host automation or lighting controller.

DMX Channels/Compatibility and Interfacing Issues

The e-Node/dmx has been designed to adapt to a tremendous breadth of DMX interfacing scenarios. It is important to understand however, the methodology on how interfacing works. Device drivers from third-party platform manufactures are based upon two kinds of models- one is the single channel monochrome type scenario (1-channel) and the other is a multi-channel RGB or RGBW scenario (3-channel or 4-channel). For both of these types of devices, setup and programming is quite straightforward. In some cases, however, DMX fixtures may come with upwards of 7 or 15 or even 57 channels of control (that is they occupy 7 or 15 or 57 channels of the 512 possible DMX channels in a universe controlling pan, tilt, other motion and even 16-bit color addressing). No standard automation or lighting systems would have ever imagined driving 57 different parameters within a lighting fixture and that is why specialized theatrical control devices have come into existence.

Converging Systems' recognizes though that from time-to-time that some of these fully functional DMX fixtures may by necessity or convenience be desired to be interfaced with traditional lighting and automation systems. It is here that Converging Systems has become creative and has developed procedures thus enabling this type of adoption of a theatrical device (i.e., DMX fixture) into a traditional lighting or automation system.

COMPONENT HARDWARE SETUP

WIRING DIAGRAM (for DMX control using e-Node/dmx and Internet Protocol-IP)

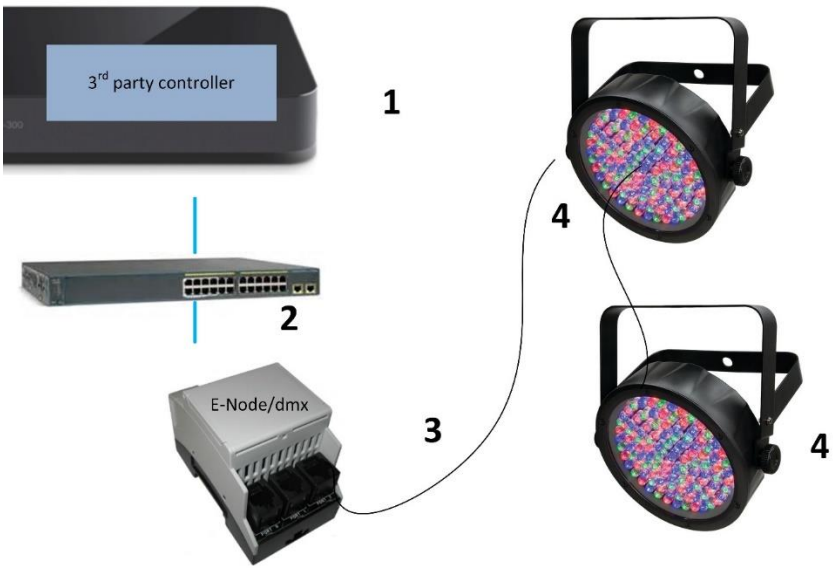


Figure 1

Wiring/Configuration Notes:

1. Maximum length of CS-Bus cabling from e-Node to the last DMX fixture using DMX cabling = 1200 meters (3,900 feet). This theoretically limit may be reduced with some fixtures. Consult individual fixture documentation for more information here
2. Maximum number of DMX fixtures connected to a single e-Node/dmx device = 32. If more than 32 fixtures are required, implement additional e-Node/dmx devices.

3. Maximum number of e-Nodes that can exist on a typical lighting or automation platform = 254 generally. Consult automation platform documentation for more information here.

BILL OF MATERIALS (for IP control)

Table 1

#	Device	Manufacturer	Part Number	Protocol	Connector Type	Notes
1	Automation family processors	Various	Various	Ethernet	various	
2	Network Switch	Various	Various	Ethernet	RJ-45	
3	e-Node/dmx	Converging Systems	e-Node/dmx	Ethernet	RJ-45 (for Ethernet) RJ-25 for local DMX bus	
4	Third party DMX fixtures	Various	Various	DMX512	RJ-25 for DMX communication	Must terminate final OUT or THRU connector on last DMX fixture using a 120-ohm resistor

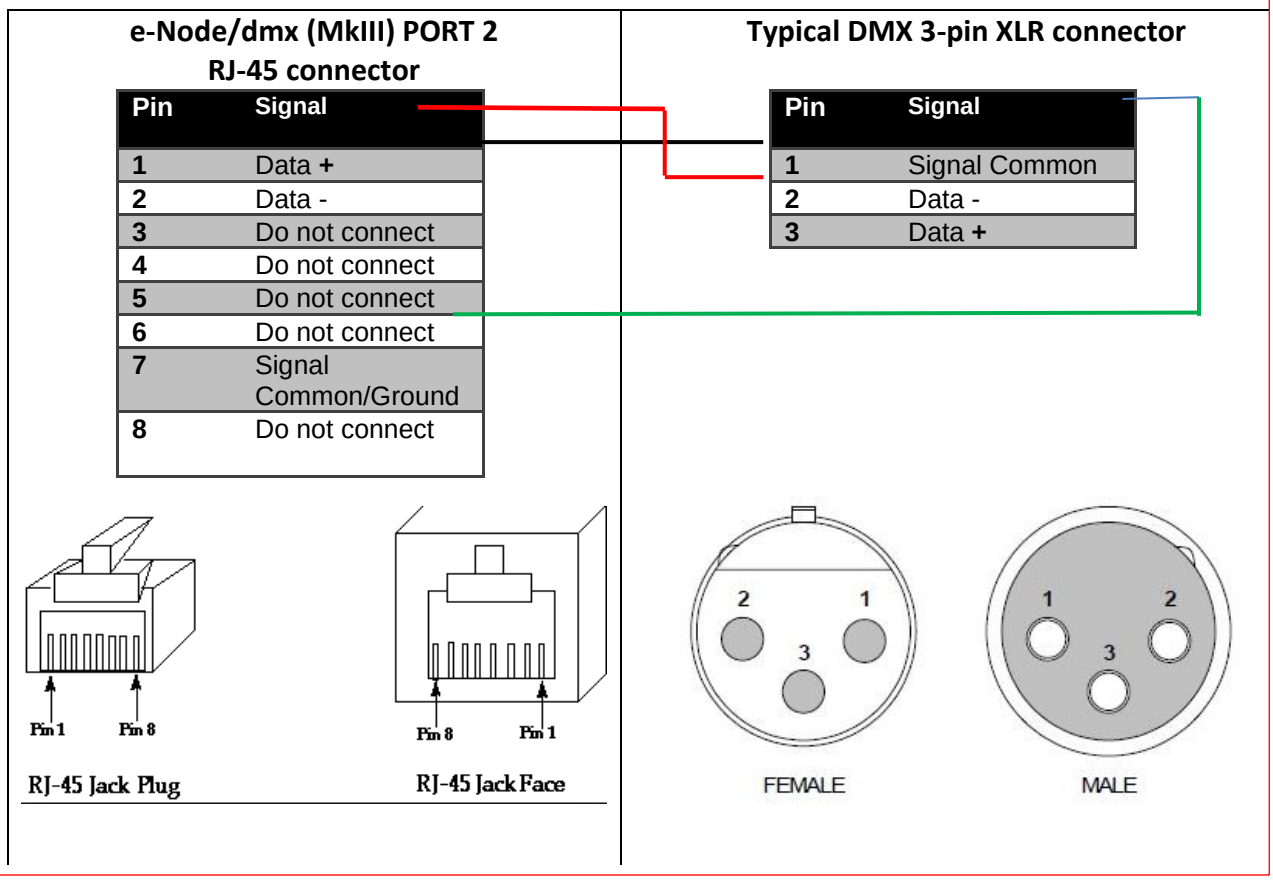
Wiring Detail

-e-Node/dmx with power supply. (If using power supply not provided by factory, DC voltage provided should be between 12v and 24v with output current of at least 90ma.)
-CAT cable to connect e-Node/dmx to local switch or network.
-Necessary cabling to connect e-Node/dmx **PORT 2** to first DMX fixture (see "e-Node Interfacing with DMX Guide"). For reference the pin-outs for **PORT 2** on the e-Node/dmx as well as popular pin-outs for DMX fixtures are included below as well.

Note: The Data**+** signal on one connector should be connected to the Data**+** signal on the other connector. Similar connections for Data**-** and Signal Ground should also be made.

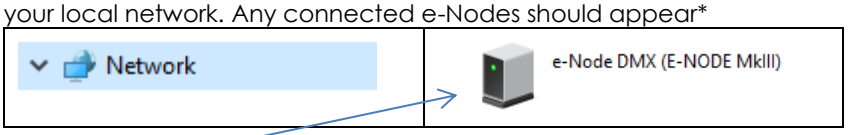
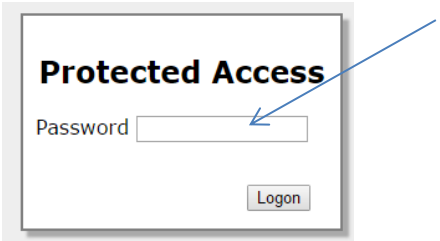
E-Node RJ-45	XLR connector	Std RJ-45 DMX*	Philips RJ-45
Pin 1 (485+)	Pin 3	RJ-45 Pin 1	RJ-45 Pin 2
Pin 2 (485-)	Pin 2	RJ-45 Pin 2	RJ-45 Pin 1
Pin 7 (Gnd)	Pin 1	RJ-45 Pin 7	RJ-45 Pin 7
(all other pins)	N/C	*Std wiring	N/C

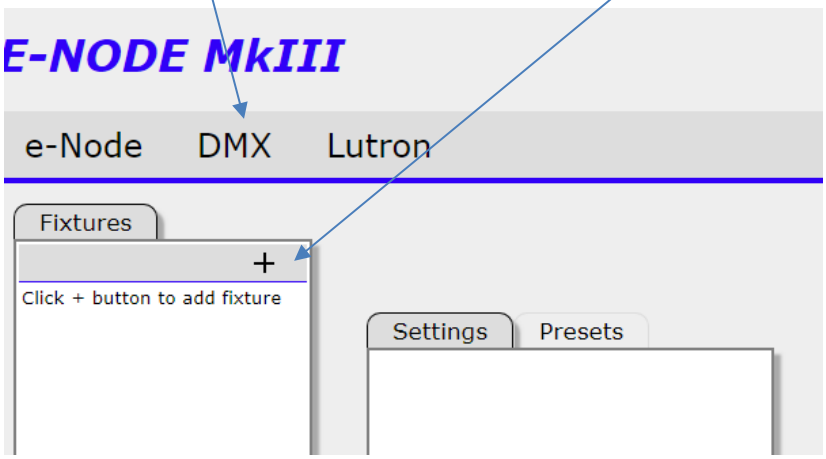
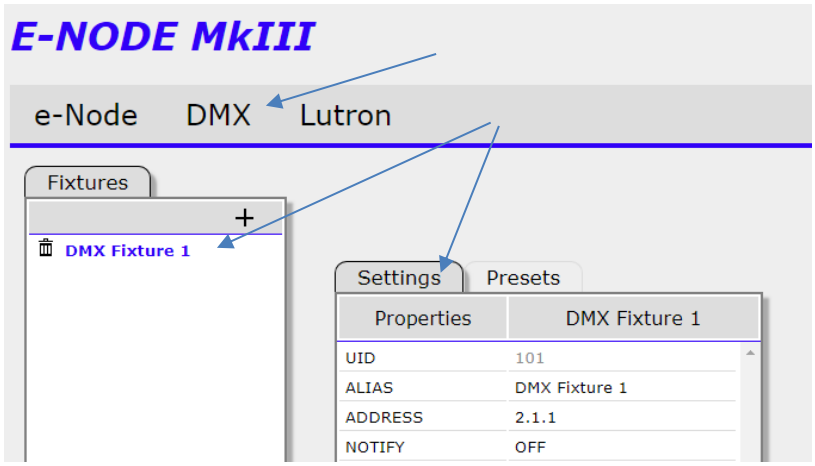
Figure 2

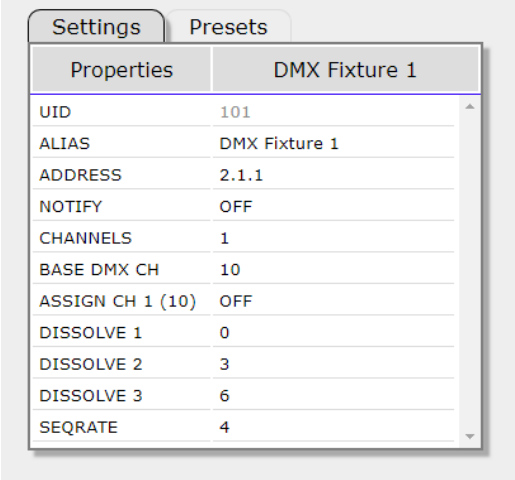


e-Node/dmx Programming *(using new Web Pilot application)*

Note: The MK**III** hardware release of e-Node/dmx is required for this level of functionality operating with e-Node/dmx firmware versions 2.01.14 or later. If you have a previous version of your e-Node MKIII hardware please review to legacy directions for "e-Node Interfacing with DMX (MKIII version) version 1.04"

Step	Setting	Choices
DMX-WP1	e-Node/dmx setup	-Power on e-Node/dmx and connect its Ethernet cable to your switch. -Use a Windows computer connected to the same switch and open your Microsoft **File Explorer** (or **Windows Explorer)**  and search for the **Network** tab to expand it to see available uPnP devices on your local network. Any connected e-Nodes should appear*  -Double click on the icon representing your newly discovered e-Node/dmx and the Web Pilot Home Page will appear (as picture below).  -Click on the triple dash menu icon on that home page (above) and you will be asked for a **Password**. Unless this Password has been changed, enter ADMIN and select **Logon**.  ***Note on uPnP Troubleshooting**: You may have to turn on (Microsoft) Discovery or load the **uPnP** service on your respective computer depending upon the version or settings of Windows loaded. Make sure that your router or switch has **UPnP** turned on which in some cases is turned OFF by default. Before you waste too much time resolving **uPnP** issues on your computer, you can always load the standalone e-Node Pilot application and follow the steps (WP5) below to find the IP address of your e-Node dmx. After you have found that address, simply type that address into your address bar on your browser and continue onto the next step.

DMX-WP2	Opening the DMX Fixture Wizard	-Select the DMX tab on the top to access the DMX Wizard. By default, no DMX fixtures are initially installed or present under **Fixtures.** Click on the + button to add first fixture.  -After first (or subsequent) DMX Fixture(s) are installed, each will populate under the **Fixtures** tab. Select that fixture and all of its properties will be displayed using **Settings**. 
DMX-WP3	Enter settings for DMX Fixture	-A number of programmable fields appear that are necessary to fill out in order to establish connection with any connected DMX fixture(s). The entries and available choices are presented below.

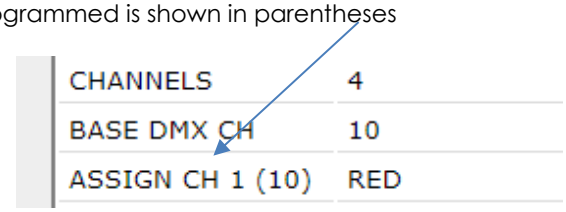


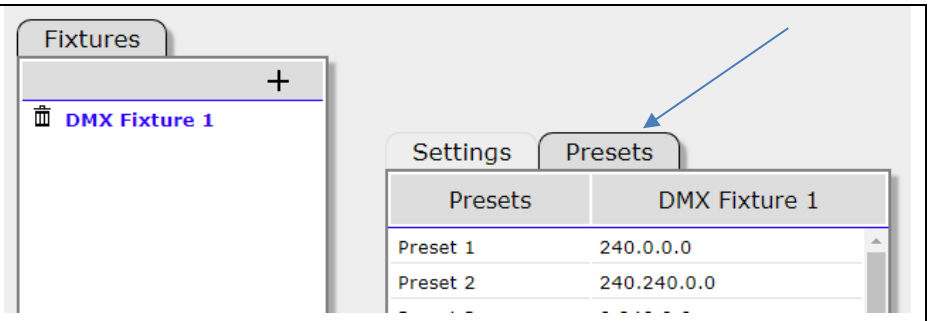
UID	This is an auto-programmed unique ID for each fixture being added. The number cannot be altered. **Note**: no two fixtures can have the same UID.
Alias	You may enter a description for the DMX fixture to make it easier to identify especially if you will be adding multiple fixtures. Click on field to change.
ADDRESS	-Enter a Zone/Group/Node (**ZGN**) address separated by periods that will be used to control this particular Fixture from any supported third-party automation and lighting systems. See information on ZGN Addressing found in any Converging Systems Third-Party Integration document under "Background for Addressing."
NOTIFY	This is a pulldown selector that selects the type of bi-directional feedback which will be provided from the e-Node/dmx back to a supported automation or lighting system. ***Any value other than OFF is required to enable the integration system to able to update its sliders or status buttons when there are color state changes.*** -Mouse select on the current entry and right click to expose available choices. Select desired entry from choices below.

COLOR	This enables Hue/Saturation/ Brightness (HSB) feedback (Preferred for most systems)
VALUE	This enables Red/Green/Blue (RGB) or RGBW feedback. (Useful for legacy systems where just RGB or RGBW control is desired.)
BOTH	This enables both HSB and RGB (RGBW if selected) feedback
OFF	This turns off bi-directional feedback **Note:** for large networks sometimes OFF is preferable to reduce amount of back-channel data (but in such case no feedback is provided).

CHANNELS	-Select the number of channels that the e-Node/Pilot wizard will help you program. **Note:** For each **UIDn/DMX** Fixture it is important to select the appropriate # of Channels in order for the embedded software to be able to properly adapt itself for the target output device. Channels 1 to 15 are currently supported. See note on DMX Channels/Compatibility and Interfacing Issues for cases where you require more.
BASE DMX CH	-Select the starting DMX Universe address for the targeted fixture. Typically fixtures have 1, 3, 4 or n-channels available. If your DMX fixture has more than 4 channels available that you wish to control, see DMX Channels/Compatibility and Interfacing Issues.
ASSIGN CH 1(n)	Depending upon the number selected under **Channels** above, the operation of that channel can be programmed here. Drop down boxes permit various "commands" to be assigned to each Channel. Below is a table showing standard Commands available See the Examples section for more information.

Option	Notes
RED	Standard for 3- and 4-color devices which provide Red as an available color
GREEN	Standard for 3- and 4-color devices which provide Green as an available color
BLUE	Standard for 3- and 4-color devices which provide Blue as an available color
WHITE	For 4- channel RGBW fixtures, use White for the W channel
MONO	For monochrome DMX fixtures (single color) select MONO
FULL	Typically use this setting if the fixture has a simple dimming channel (that just varies the RGB(W)sliders on a linear basis). Set this channel to **FULL** and use the e-Node/dmx's embedded HUE ACCURATE DIMMING enhanced dimming function available to dim the fixture properly.
HUE	Advanced DMX fixtures which provide a **Hue** control
SAT	Advanced DMX fixtures which provide a **SATURATION** control

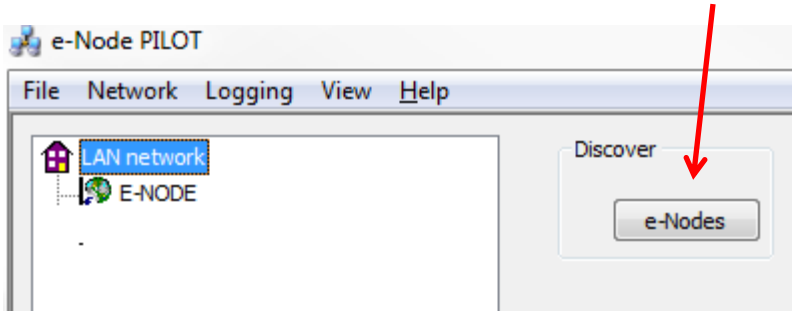
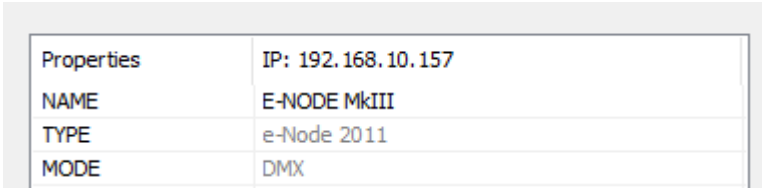
			<table><tr><td>**VALUE**</td><td>Advanced DMX fixtures which provide a **BRIGHTNESS** control</td></tr><tr><td>**CCT**</td><td>Advanced DMX fixtures which provide a **CCT** control</td></tr><tr><td>**PAN**</td><td>Theatrical DMX fixtures which provide a **PAN** control</td></tr><tr><td>**TILT**</td><td>Theatrical DMX fixtures which provide a **TILT** control</td></tr><tr><td>**WARM**</td><td>Tunable White-type fixtures which provide a **WARM** control</td></tr><tr><td>**COOL**</td><td>Tunable White-type fixtures which provide a **COOL** control</td></tr><tr><td>**RGB ENABLE**</td><td>Special operator that enables Brightness control of an RGB set of channels separate from a Brightness control of Tunable White.</td></tr><tr><td>**OFF**</td><td>For DMX fixtures that typically have more than 4 channels, set each non-applicable channel to **OFF** that you choose not to control (the e-Node will simply send out a "0" to each set channel). For more information see DMX Channels/Compatibility and Interfacing Issues.</td></tr></table> **Note**: For convenience, the DMX Universe channel associated with the specific channel being programmed is shown in parentheses 
DMX-WP4	Continue adding all required DMX Fixtures using the e-Node web application	Once completed with all DMX Fixture additions, you are now ready to start integrating the e-Node/dmx into your third-party automation system. The relevant items that need to be considered are as follows: -IP address and any passwords for e-Node/dmx -The **Z**one/**G**roup/**N**ode address for each DMX fixture -The type of control available for each DMX fixture (i.e. monochrome using the FADE command, RGB/RGBW commands or HSB brightness commands)	
DMX-WP5	Additional (optional) settings available	Typically, automation and lighting systems support the e-Node/dmx's built-in **STORE** and **RECALL** functions. Some system designers prefer to pre-set their own presets (i.e., RECALLS) and not make the storing of such presets available to the end-user. In such event, you can enter information within the **Preset** tab to overwrite the factory settings (and simply not expose the saving of presets t to the end-user through your automation platforms UI pages).	



Depending upon the Number of Channels setting (previously made, the syntax for entering color or brightness data dynamically changes.

Available color space choices are shown below:

If Channel is set to	**Color Space**	**Settings available)**
1	Monochrome Mode (brightness is only option)	Level of brightness from 0 to 255 for DMX can be entered.
3	RGB Mode (3-color mode)	Separate Red, Green and Blue entries separated by periods (i.e., 255.255.255 for all colors on. The 1st entry represents Red, the 2nd entry represents Green, and the 3rd entry represents Blue)
4	RGBW Mode (4-color mode)	Separate Red, Green, Blue and White entries separated by periods (i.e. 255.255.255.255 for all colors on. The 1st entry represents Red, the 2nd entry represents Green, the 3rd entry represents Blue and the 4th entry presents White)
>4		It is assumed that the Channels is set to >4, that some unused or non-varying channels will be set (see DMX Channels/Compatibility and Interfacing Issues). Regardless, the maximum variable color space (RGBW) is still preserved (regardless of what those RGB and W entries control). Therefore, enter preset color data in the RGBW virtual format with whatever is in the first field controlling the virtual "Red" channel, and whatever is in the 2nd filed controlling the virtual "Green" channel and so on.

DMX-WP6	Using Pilot application (on a PC) to determine IP address of e-Node/dmx	Note: In the unlikely event that your computer's network discovery (uPnP) is not functional and your e-Node/dmx cannot be found with Network Scanners, download and unzip the e-Node Pilot application from the Converging Systems website http://www.convergingsystems.com/downloads_library.php -Launch the desktop Pilot application and from the View e-Node tab select the Discover e-node button. Any e-Node(s) connected on the same network will appear as shown. Simply click on the targeted e-Node/dmx and you will find its IP address under the **Properties** window   -If e-Node Pilot cannot find your targeted e-Node/dmx, it may have been given a static IP address outside your existing Subnet. In such event, you can reset the e-Node/dmx to Dynamic DHCP Addressing such that Pilot will once again Discover the device. To do so, remove the shroud to the right of the 2-pin power connector and depress the reset button and hold it until **three** sets of flashes on the on-board LED are observed. Immediately, release the button and the on-board PCB LED will go out and then start flashing fast. If it secures a DHCP address in a short period of time, it will start flashing slowly. Then once again try to discover it with the **Discover e-Node button** within Pilot.

Examples

Here is an excerpt from the Converging Systems document entitled "**e-Node/dmx Multi-Channel DMX control guide**" (referenced above) that indicates popular DMX fixtures and the applicable settings for those fixtures' DMX channels. If you download the original document, hyperlinks are present to make selection and programming a breeze.

Also programmed into this DMX Fixture wizard (from the original document) are hyperlinks to specific vendor models as well as abridge documentation for third-party integration.

We advise you to use this document and save time to letting the DMX Fixture Wizard help you with your programming.

DMX Fixture Type	Case		DMX Fixture Type (continued)	Case		DMX Fixture Type (continued	Case
Case Examples for Popular DMX Fixtures							
Monochrome (single ch. output)	.1a		V+H+S	6a		V + CCT + S + H	9
Pan or Tilt-type Device	.1b		H+S+V	6b		W1+W2+W3	10
R+G+B	1		V+ H+S+W1+W2	7a		W1+W2+W3 +V^{TW}	11
R+G+B+W	2		H+S+V+W1+W2	7b		R+G+B+W1+W2+V^{C}+V^{TW}	12
R+G+B+W1+W2	3		V+CCT+S+H	8a		V + CCT	13
V^{C} +R+G+B	4		V+H+S+CCT	8b			
V+R+G+B+W	5		H+S+V+CCT	8c			
Automation/Lighting Partners Examples							
Specific Vendor Models	Appendix 1		Elan Integration	Appendix 4		Savant Integration	Appendix 7
Control4 Integration	Appendix 2		Lutron Integration	Appendix 5		Vantage Integration	Appendix 8
Crestron Integration	Appendix 3		RTI Integration	Appendix 6			

Appendix 1

Dealing with Special DMX Channels-non mainstream

Occasionally, there is a demand to support DMX fixtures with non-color output channels such as pan, tilt, zoom or even fog/smoke controls. In this case, mapping of any DMX channel to a supported channel within the e-Node is the process by which these random channels can be controlled from third-party automation systems.

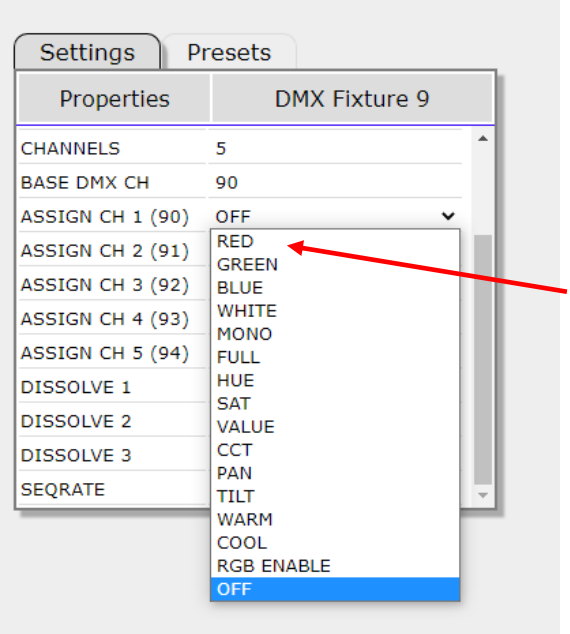
Effectively, the concept here is the map any DMX channel to a non-color computer-controlled variable (i.e., not Hue, not Saturation, not CCT) from the pull-down below such that a third-party platform could control certain e-Node non-color computer-controlled variables AND that then could be mapped to any button/action/event within a 3rd automation system without encountering unexpected results.

Note: The reason a non-color-controlled variable should be used is that the embedded color computer within the e-Node would not unexpectedly alter its value if certain external eventualities occurred (i.e., those eventualities are our trade-secrets).

After this mapping was programmed within the e-Node/dmx, that action could be renamed as desired by the programmer of the 3rd party automation system to a name that makes more sense and relates to the actual actions of real function (see example below).

Example: Specifically, fog might be remapped to a variable below (Red) that then could be supported by the automation system (because Red is commonly supported and is not a color- controlled variable), and then the Red command could be renamed "FOG."

Supported variable within 3rd party automation driver	Programmer would rename RED for button or action as
"RED"	**"FOG"**



Here are some examples of non-color channels which could be controlled:

Examples of DMX channels that might need controlling	Type of Control	Target value within the e-Node to which to map that value	Then control that variable with a button named
Pan	0 to 255	Pan	"Pan"
Tilt	0 to 255	Tilt	"Tilt"
Fog	On or Off (0 or 255)		
Special Motor Movement	O to 255	Red for instance (but not H,S,B)	Red
Special Sound	0 to 255	Green for instance (but not H,S,B)	Green
Any channel that you want turned off	0	OFF	OFF

Now let's begin

Step	Topic	Detail
1	- Document (I) all channel ***numbers*** of the DMX fixture available and (ii) their channel name (i.e., RED, GREEN, PAN, etc.). Transcribe this information on the table on the right in the **first** and **second** column. -Determine which channels of the N-channel DMX device that you wish to actually control and which channels that you wish to bypass (and not control). Note that information on the table in the **third** column.	

DMX channel assignment on fixture	Channel name or functionality (i.e., Red, Green, Pan, etc.)	Control (Y) or Bypass (N)
N (base DMX address for that fixture)	(fill in)	
N+1		
N+2		
N+3		

	Note: Think about Red, Green Blue and White as virtual placeholders understood by the automation system but which could have varying meaning to the outside world. Specifically, if your device has a PAN mode that Pan mode could be driven by a virtual RED slider regardless of its functionality.	N+4		
		N+5		
		N+6		
		N+7		
		N+8		
		N+9		
		N+10		
		N+11		
		(expand this table as appropriate to any length)		
2	Review the table created in Step 1 above, ***-If you have anywhere from 2-4 channels to be supported (with variable control) and your DMX fixture has no more than 15 channels available, proceed to Step 2a*** ***-If you have more than 5 channels to be supported (with variable control) or if you DMX fixture has more than 15 channels available regardless if you want to support more than 5 of those channels, proceed to Step 2b.***			
2a	**Background**: Automation and lighting systems currently support up to 4 controls within their Converging Systems drivers. The existing names for these controls are ***Red, Green, Blue and White***. Think about these name as virtual names which could be mapped to anything (i.e., Pan, Tilt, Zoom, Move CCW, Move CW, Vibrate, etc.) Here for environments where you wish to provide variable control for up to four controls on the DMX fixture (for any fixture than has up to **15 discrete DMX channels**), map each channel to one of the following variables (V) or binary (B) options: -RED (V) -GREEN (V) -BLUE (V) -WHITE (V) -MONO (V) -FULL (B) -HUE (V) -SAT (V) -VALUE (V) -WHITE (V) -CCT (V) -PAN (V) -TILT (V) -WARM (V) -COOL (V) -RGB ENABLED (B) -MONO (V) -OFF (B)	Actual DMX channel assignment on fixture	Channel mapping (from available mapping choices)	
		N (base DMX address for that fixture)	(choose)	
		N+1		
		N+2		
		N+3		
		N+4		
		N+5		
		N+6		
		N+7		
		N+8		
		N+9		
		N+10		
		N+11		
		(expand this table as appropriate to any length)		
		Example. Here is an example where there is a dimmer channel (low-tech channel that will ***not be used***) on DMX Channel 1, and R, G, B, W controls on Channels 6,7,8,9 on a 10 channel DMX fixture. Other channels although available on the DMX fixture are not relevant here and will be disabled (bypassed).		

	Note: From time-to-time additional placeholder names may be added for convenience, however, regardless of the virtual names added, any supported (variable) operational name can be used ***for variable control*** **(V) (Red, Green, White, etc.)** in addition to any binary operational name can be used for ***binary control (B) (i.e., Full ON or OFF).*** -Given the above, map all channels to be controlled to the supported **Variable** and **Binary** names -See the example to the right for more information here. -When completed refer to this programming information when programming in **Step DMX-WP3** below	<table><tr><th>Actual DMX channel assignment on fixture</th><th>Channel mapping (from available mapping choices)</th></tr><tr><td>1 (base DMX address for that fixture)</td><td>**FULL** (to keep brightness on full such that the R/G/B/W components can be controlled separately</td></tr><tr><td>2</td><td>**OFF** (for this is an irrelevant channel for our example)</td></tr><tr><td>3</td><td>**OFF** (for this is an irrelevant channel for our example)</td></tr><tr><td>4</td><td>**OFF** (for this is an irrelevant channel for our example)</td></tr><tr><td>5</td><td>**OFF** (for this is an irrelevant channel for our example)</td></tr><tr><td>6</td><td>**RED**</td></tr><tr><td>7</td><td>**GREEN**</td></tr><tr><td>8</td><td>**BLUE**</td></tr><tr><td>9</td><td>**WHITE**</td></tr><tr><td>10</td><td>**OFF** (for this is an irrelevant channel for our example)</td></tr></table>
2b	**In the event that you wish to control more than the currently number of channels permitted with the latest e-Node/dmx firmware with variable output on a single DMX fixture, this step provides a procedure to link together more than one virtual e-Node/dmx "fixture" to provide additional channels of variable output and up to a possible128 channels of variable control.** -Follow the procedure in Step 2a for the first set of DMX channels to be controlled (Variable). Then, add additional DMX channels to be variably controlled on that same DMX fixture to a ***second*** e-Node DMX Fixture, -Continue until all variable controls have been allocated to subsequent e-Node DMX Fixtures -See the example to the right for more information -When completed refer to this programming information when programming in **Step DMX-WP3** below	**Example** A DMX fixture with 25 channels (base DMX channel 1) is desired to be supported with offers the following relevant channels that are desired to be controlled -RED (Channel 1) -GREEN (Channel 2) -BLUE (Channel 3) -WHITE (Channel 4) -DIMMER (Channel 11) -CCT (Channel 14) -PAN LEFT (Channel 15) -TILT (Channel 16) -ZOOM (Channel 17) There is also a **DIMMER** channel available (DMX Channel 11) that only moves R/G/B/W sliders on a proportional basis and which we want ***to disable*** so that the e-Node/dmx' s Pure Mode HUE ACCURATE DIMMING color computer is utilized alternatively for dimming. All other channels for this example are irrelevant and will be set to 0 (not controlled or bypassed). Bypassing them (setting them to 0) in this case will not cause any negative impact on the remaining channels to be controlled.

DMX Fixture 1	DMX Fixture 2
ALIAS Virtual DMX Fixture A-1	ALIAS Virtual DMX Fixture A-2
ADDRESS 2.1.**1**	**ADDRESS** 2.1.**2**
NOTIFY BOTH	**NOTIFY** BOTH
CHANNELS 13	**CHANNELS 11**
BASE DMX CH 1	**BASE DMX CH 14**
ASSIGN CH 1 (1) RED	**ASSIGN CH 1 (14)** CCT
BASE DMX CH 2 (2) GREEN	**BASE DMX CH 2 (15)** PAN
BASE DMX CH 3 (3) BLUE	**BASE DMX CH 3 (16)** TILT
BASE DMX CH 4 (4) WHITE	**BASE DMX CH 4 (17)** ZOOM
BASE DMX CH 5 (5) OFF	**BASE DMX CH 5 (18)** OFF
BASE DMX CH 6 (6) OFF	**BASE DMX CH 6 (19)** OFF
BASE DMX CH 7 (7) OFF	**BASE DMX CH 7 (20)** OFF
BASE DMX CH 8 (8) OFF	**BASE DMX CH 8 (21)** OFF
BASE DMX CH 9 (9) OFF	**BASE DMX CH 9 (22)** OFF
BASE DMX CH 10 (10) OFF	**BASE DMX CH 10 (23**) OFF
BASE DMX CH 11 (11) FULL	**BASE DMX CH 11 (24)** OFF
BASE DMX CH 12 (12) OFF	**BASE DMX CH 11 (25)** OFF
BASE DMX CH 13 (13) OFF	