CONVERGING SYSTEMS

TechNotes

Revision 1/6/2024

Lutron RadioRA3 User Interface Primer

Options available to control Converging Systems loads

Background/Feature Set

Currently, RadioRA3 only supports Lutron's Lumaris Tunable White load type for the control of CCT + Intensity. However, Converging Systems e-Node/4x000 supports fixture types that also offer full color support (similar to the functionality of Lutron's Ketra) . His document defines how RadiRA3 can be used to control those type of devices natively with available user interface controls within the Lutron App as well as any Lutron keypad. For the control of tunable white (TW) only fixtures, please refer to the standard Quick Start Guide for Homeworks QSX. This tech note describes the steps that can be followed to create a user interface for full color control that might not otherwise we intuitive within Lutron Designer.

This document assumes that you have already set up your device as per the **Q**uick **S**tart **G**uide for Lutron QSX (see separate document).

Functionality available with the e-Node/4x00 combined with RadioRA3 includes the following:

-On/Off with adjustable dissolve rate
-Selection of any color from the HSV color space (for RGB and RGBW supported devices)
-Selection of any CCT (for RGBW and tunable white supported devices)
-Accurate dimming to any level and without flicker for Pure Mode device
-Hue accurate and CCT accurate dimming for all supported devices
-Dim-to-Warm option (in lieu of Dim-to-black) for all supported devices
-Optional ability to control colors using the RGB or RGBW color Space
-Ability to run one or more Effects (shows)
-Ability to run a Circadian Show tracking for any location throughout the world (see separate document)

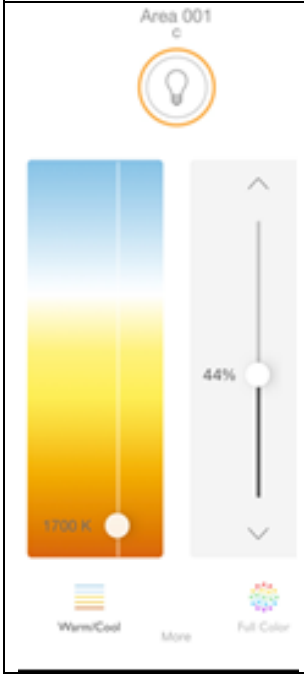
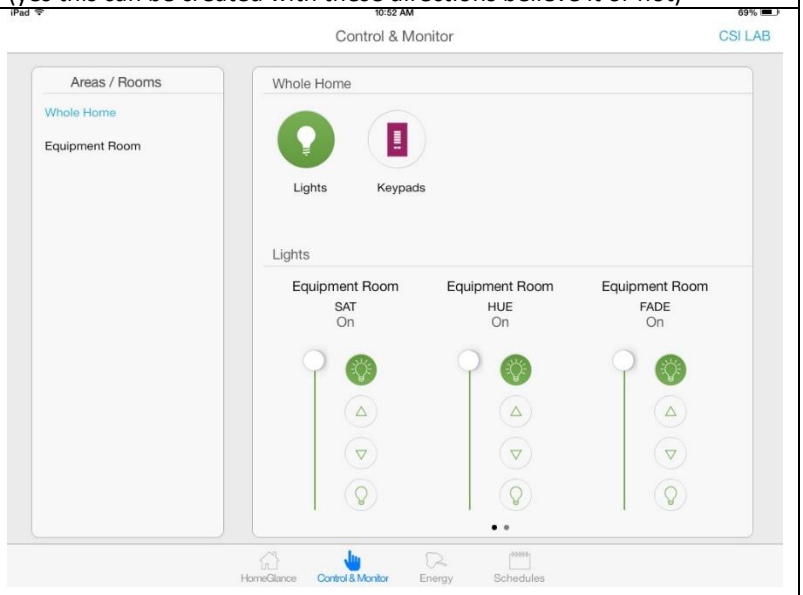
Lutron Platform support/non-support matrix

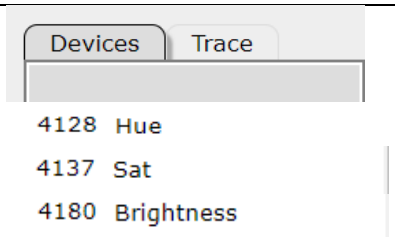
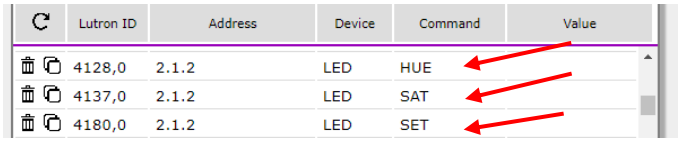
Supported Features	Non-supported/non-tested features
RadoRA3 Systems	
Tracking of real and phantom Button Presses	
Tracking of Lumaris tunable white loads	
Tracking of Loads (real and phantom)	
SeeTouch, Sunnata and Other Hybrid Keypads	
Sensor output can be tracked, if needed, by tracking a real or phantom load (linked to those outputs with Lutron Designer) with SLIM	Sensor output cannot be tracked directly
Timeclock output can be tracked, if needed, by tracking a real or phantom load linked to those triggers (in Lutron Designer) with SLIM	Native Timeclock tracking is not possible

Button presses from Switches and Dimmers (real and phantom) can be tracked, if needed, by tracking a real or phantom load linked to those devices (in Lutron Designer) with SLIM	Tracking of connected loads to switches and dimmers is supported
	Fade Rate of dimmers[1]
	Control of Lutron button LED logic
Support of Press/Release/Multi-Tap and Hold features (only if identical/matching programming is made within SLIM)	SLIM cannot create a button type and upload to Lutron Designer for control. Button type has to be programmed with Lutron Designer
CCT can be controlled by tracking a real or phantom Lumaris with SLIM.	CCT output direct
	Ketra Vibrancy control is not monitored.
CCT control of supported LED elements from 1700K to 7000K	If CCT is set to a level outside of the range of any connected LED luminaire, the SLIM module will substitute the closest CCT value.

[1] It is possible to enter a matching dissolve rate though within the SLIM data field (see Appendix 1)

User interfaces Available within RadioRA3

Existing TW + Intensity Control Available	User Interface Control on Lutron App for the control of Full Color LEDs (yes this can be created with these directions believe it or not)
	

How to create a (phantom) User Interface to control color		
Step	Overview	Detail
B1-1	Create three phantom dimmers within Lutron Designer (and upload project to processor)	Name them -Hue -Saturation -Brightness
B1-2	Discover those three phantom dimmers within the e-Node/Lutron Devices tab	
B1-3	Program those three phantom sliders to control applicable functions on an e-Node connected device (CS-Bus or DMX loads)	-**ID.** Select the Hue (phantom dimmer)  (Verify that Dimmer and Level are set as shown above and hit the **Upload** button to program  -**Address.** From the scroll list (right click within **Address**) , select the applicable load (**ZGN**) address for the device to be controlled. -**Device**. From the scroll list (right click within **Device**), select the Device type (**LED** for lighting, **Motor** for motor) -**Command**. From the scroll list (right click within **Command**), select the applicable command shown above to track the slider. -Duplicate the above step for (ii) Saturation and (iii) Brightness -

Lutron Button (real and phantom) button press operation

Please see separate documentation on how to program button presses to control color on e-Node/xxx connected devices (as well as monitoring timeclock and occupancy sensor triggers).