TechNotes

Revision 6/3/2024

True Color Backgrounder

How to Update and Utilize True Color within the ILC-400/450

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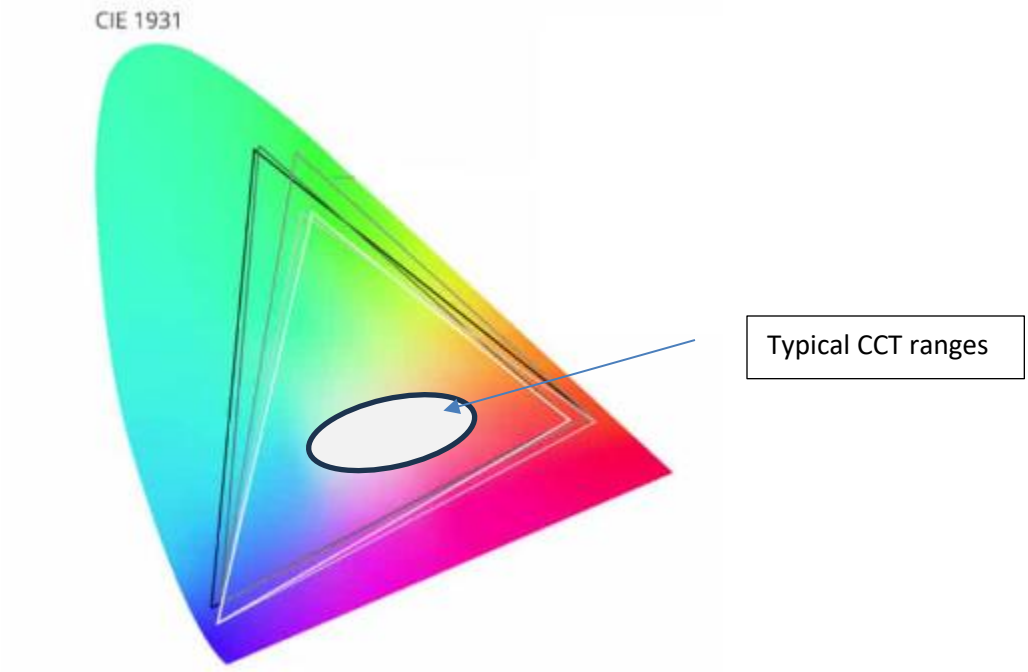
Background

The ILC-400/450 controllers embed a very sophisticated color computer. This embedded color computer has resulted from over 35 years of color science technology developed internally by Converging Systems engineers (first marketed within nearly all major color inkjet/color laser and color dye sublimation printers sold throughout the world). It should be understood that the ILC-400/ILC-450 LED lighting controllers support luminaries that currently have a very wide color gamut (deeper greens, reds and blues) vis-à-vis other luminaries that may be present in installations where high quality luminaries can be found. In particular this discussion focuses on color matching with Lutron's Ketra luminaires. When Converging Systems' manufactured linears and supported third-party luminaries are analytically measured vis-à-vis Ketra fixtures, color output differences can be noticeable especially in the secondary colors of yellow, cyan and magenta. However, basic color matching of CCT (correlated color temperature) between luminaire platforms is much easier to achieve and has been part of the ILC-xxx control technology offerings since day one when our partners with Lutron began.



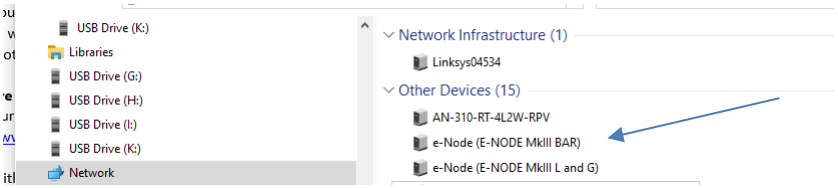
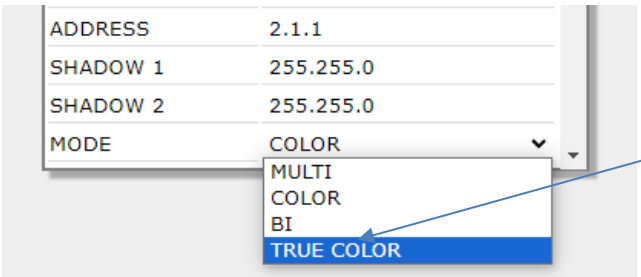
The challenge that presents itself is when the Converging Systems' ILC-400/450 is requested to match the color gamut output of third-party luminaires (i.e., Ketra or others) that differ from color gamut which is available from our own manufactured and

supported luminaires. The solution that is now available as a new feature is called Converging Systems True Color or “CSTC.” In effect when True Color/CSTC is turned on, the HSV/HSV output (particularly those colors generated outside the central core of the above diagram where CCT colors exist) have been adjusted/optimized to more precisely match the target Ketra luminaire.

Note: The ability to represent accurate Correlated Color Temperatures (CCT) (see oval above) has long been an integral part of the ILC-xxx technology without the need for True Color. True Color adds the additional feature benefit of matching HSV/HSB color values (the hues shown in the above diagram) separate from standard CCT matching.

Directions on how to Activate True Color

Please follow these instructions on how to setup your ILC-400/450 to support True Color.

1	Launch the e-Node web pilot application	-Find the IP address for the e-Node. Using Windows File Explorer on a Windows PC, select **Network/Other devices** and click on the target e-Node.  Note: You may have to enable **File Sharing** within Windows to enable this discovery.  -Select the applicable e-Node and double-click on the entry to expose the e-Node’s built-in webpage.  - 

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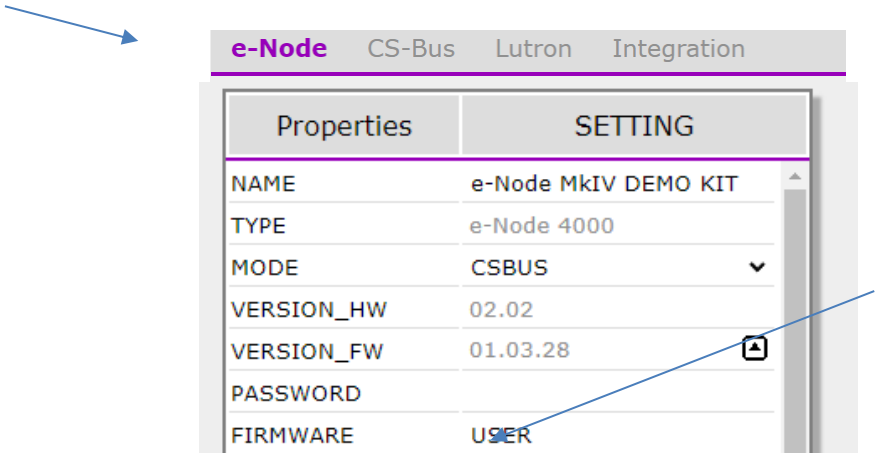
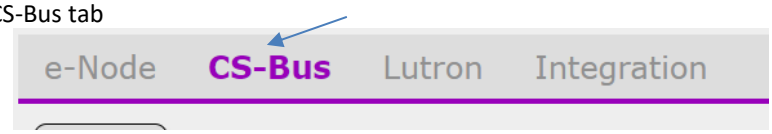
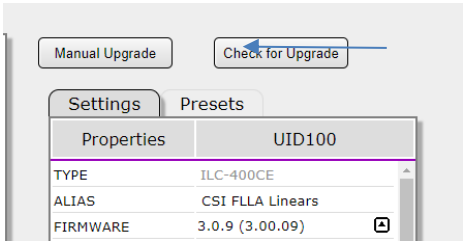
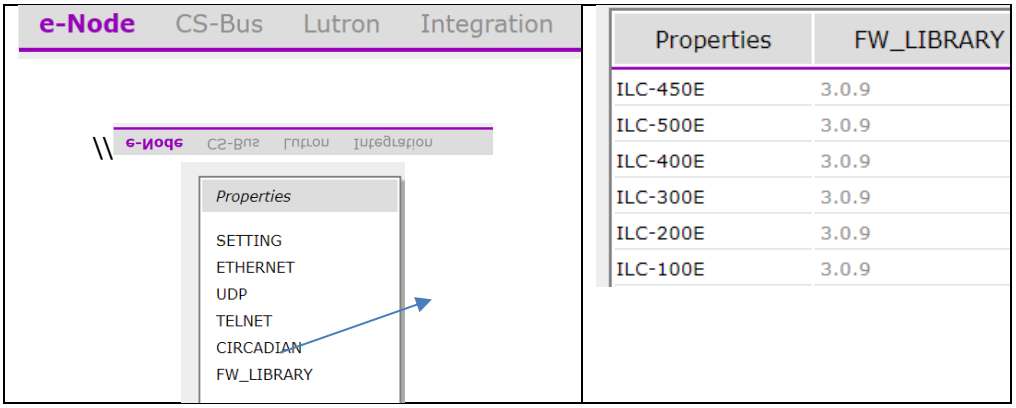
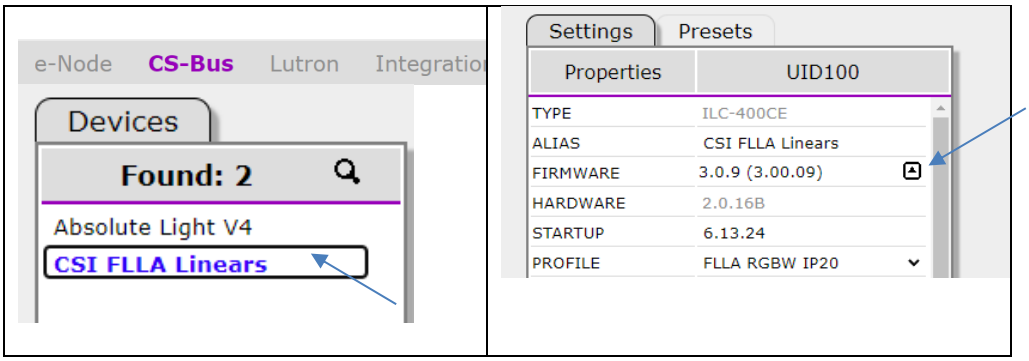
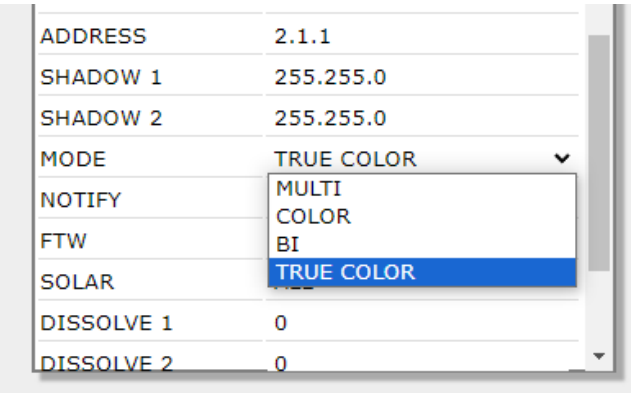
2	Verify of you have the latest firmware that supports True Color	-Select the e-**Node** tab, and verify the Firmware credential is correct (typically User) unless otherwise provided to you by Converging Systems.  -Next select the CS-Bus tab  ,and select the **Check for Upgrade** button.  -Allow a few seconds for a network connection to occur (to our cloud). Then go to the e-Node tab/**FW_Library** tab and verify if V3.09 or later is available.  -Then go back to the **CS-BUS** tab and once again select the target ILC-400/450 and hit the upgrade icon.

		
3	Activate True Color	-While in the **CS-Bus** tab and within the **Settings** section of the target ILC-400/450 device, scroll down to the **Mode** entry and select **True Color**  True Color is now activated. -Continue this process for all additional target ILC-400/450 controllers that you wish to activate True Color.