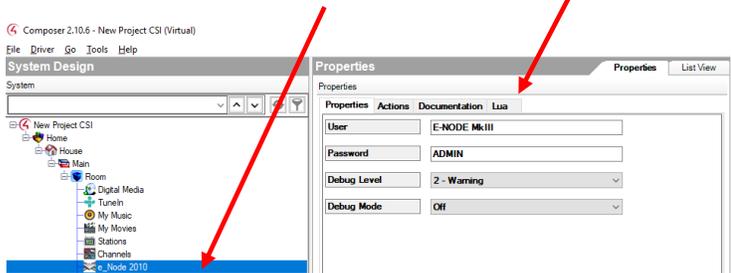# TechNotes

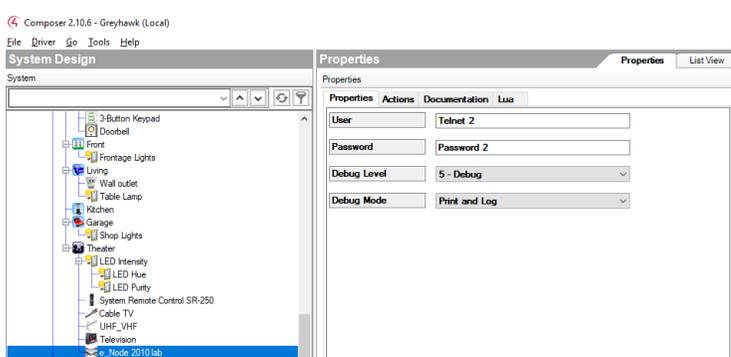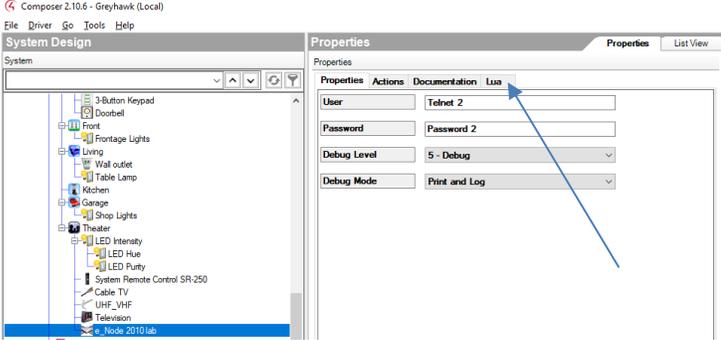# Control 4 Troubleshooting Guide

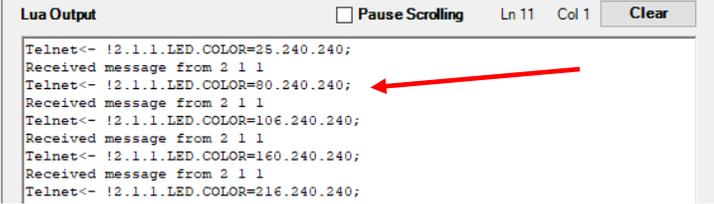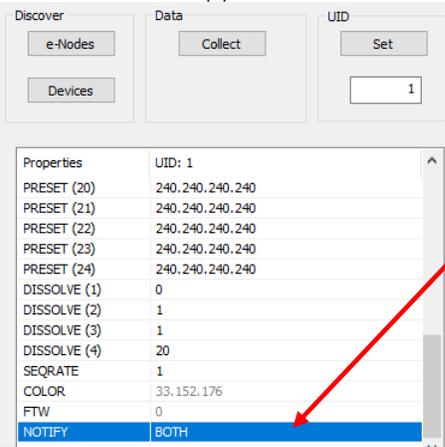## Converging Systems LED and Motor Controller Systems
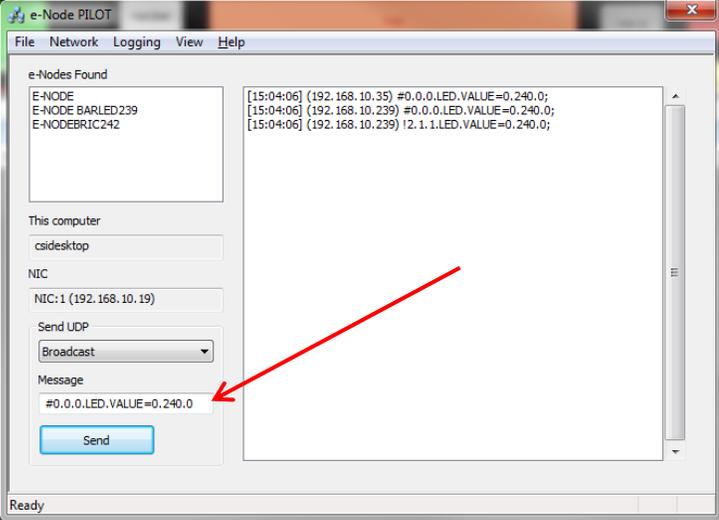
Backgrounder

Control4 has certified our Converging Systems drivers for use with Control4 platforms. We have systems inhouse that are running 2.10.6 (OS2) and well as 3.0.1 (OS3). All work perfectly. We have created this troubleshooting guide to assist in solving field issues. If you are unable to achieve success after following these directions, we recommend that you call Control4 for additional support.

Troubleshooting Steps

Step #	Test	Steps
1	Test communication from Control4 processor to Converging Systems' -Communication Device, and -LED and/or Motor Load Device(s)	-Within Composer, select the **System Design** tab and select the **Communication Device** to which the suspect ILC-xxx/IMC-xxx is connected. -Set the **Debug** Level to "5-Debug" and set the **Debug Mode** to "Print and Log." -Open up the **Composer LUA** Window for the Communication Device being tested/observed (i.e. e-Node here).

-Invoke a button push or slider operation on a known good Control4 user interface and see if LUA code appears in the LUA window (shown below). You must see commands such as #Z.G.N.TYPE=Command, level going over on Telnet (see #2.2.1.LED=SAT, 80 below). If you see the same command followed by a "PRI 8" as the next line in the sequence, you know data is getting to and being received by the target communication device for this is a mirroring/acknowledgement being broadcast back to the C4 system from the communication device (in this case the e-Node).
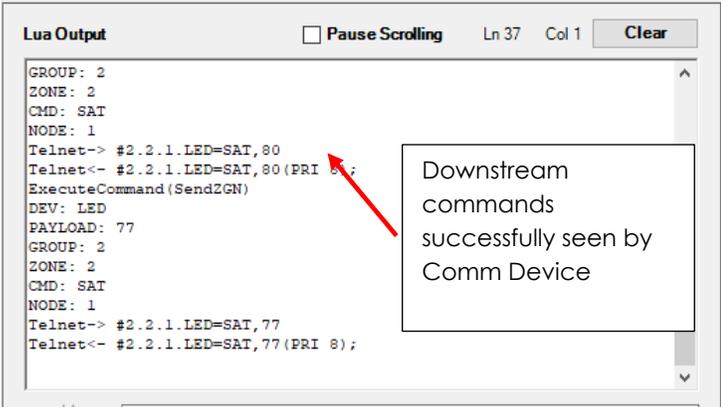
Provided you see the above type commands, you now know that
(1) You have good communication from C4 to the Converging Systems' Communication Device (e-Node)
(2) You have appropriate communication of Device specific commands flowing to ILC-100/IMC-100 devices (ON, OFF, etc.)

2	Test backchannel communication from -LED and/or Motor Load Device(s)	-Follow the steps specified in Step 5a above and open the LUA output window for the **Communication Device** (i.e. e-Node) -Press any button on a C4 User Interface Device that will change the state of the ILC-xxx/IMC-xxx device such as an ON (if the LEDs are off) or an UP (if the Motor is down). -Monitor the LUA window (for the target Communication Device and see if you see backchannel data in the form of a "!" prior to a command that indicates -Color (for Hue, Saturation, and Brightness data) -Value (for RGB, or RGBW data) -Position (for Motor Position data)

-Provided you see this type of bi-directional data (which you will only see if there is a state change (i.e. On to OFF, UP to DOWN, but not one OFF after a previous OFF), you now know that

(i) Bi-directional data is traveling from a Converging Systems Load device (ILC-xxx/IMC-xxx) and is being received/monitor by a Director.

Note: Typically, if downstream commands are working (see Step 1) and upstream ! commands are not seen (Step 2), you have not set NOTIFY to the appropriate setting within the Pilot application or the Web Pilot application.

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| 3 | Launch the Converging Systems' Pilot application which communicates with the Converging Systems' e-Node Ethernet bridge.

Note this step requires the Pilot application from the Converging Systems software download page. |
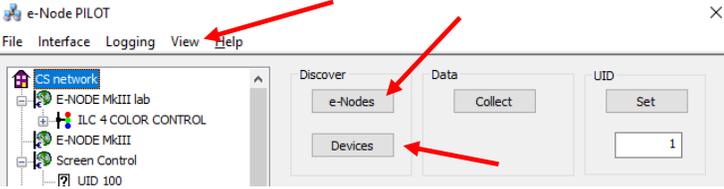
-Within the Pilot application, select the **View Map** Tab and discover **e-Nodes** and **Devices**. Then go to the **Traffic** Tab, and enter the following command in the **Message** window to see if your e-Node and connected LED controllers are properly functioning.

#0.0.0.LED.VALUE=0.240.0 |

The connected LEDS should turn GREEN