Converging Systems Quick Start Guide for Control4 OS v3.3.0 (with e-Node/xxx gateways with IP control)

The Converging Systems' control environment is based upon at least (i) one SDDP-equipped IP controlled Communication Device (i.e., e-Node™, e-Node/dmx or CVM) or (ii) one non SDDP-equipped IP Device (IMC-170) or (iii) one non-SDDP serial device (IBT-100) (hereinafter all referred to as **Comm Device(s)**). Connected to a **Comm Device** are between 1~254 CS-Bus controllers or 1~32 DMX virtual controllers (**Load Devices**) depending on the particular model. In order to interface the CSI environment to Control4's platform, carefully follow these steps. Commission devices using the e-Node web Pilot application and make sure NOTIFY is set to AUTO for all devices to be tracked.

O/S 3.3.0 requires a download of the latest C4 (Online/Certified) components* from within Composer.

All e-Node/xxx and ILC-xxx devices need to be upgraded to the latest firmware rev. in order to enable support OS3.3.0

Model Name	*e-Node 2000/2100 MK3*	*e-Node 4000/4100 MKIV*	*Ilc-300e/400e*	*ILC-300c/ILC-400c*
Min FW Level	*2.4.53*	*1.01.09*	*2.1.21*	*3.4.1*

***Note**: For a much more detailed set of instructions, consult Integration Notes refereneced at https://www.convergingsystems.com/inres_control4.php*

Step 1

Download Communication and Load Drivers (see Step 2 for type)

Composer Driver Search. C4 Certified drivers can be found within *Composer/System Design/Items/Search* under Converging Systems/ Control-ALL (check both Online & Certified boxes).

Converging Systems Driver Search. Any updates may be found here (https://www.convergingsystems.com/software/local_profiles_library.php#control4). Download, unzip and drag into your standard C4 driver directory.

Load Comm Device. Drag one Comm Device driver anywhere into project for each physical device installed within your system.

Load (Child) Load Drivers. Drag one Load Driver(s) into each room (for each ILC-xx0/DMX fixture in system).

- "LED Lighting Controller Color" for any lighting device (**LH**)
- "Projection Screen" for each motor channel (**M1**)

Step 2

Backgrounder on Drivers

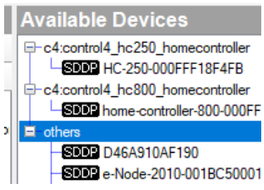
Communication Devices (Comm Device)	
e_Node_Hybrid	One req'd for each e-Node, CVM, IMC-170 or e-Node/dmx to be controlled within system
Device Load Devices (Child Device Drivers)	
LED Lighting controller Hybrid[1]- **(LH)**	(Just) one req'd for each lighting device regardless of the type
Projection Screen **(M1)**	One req'd for each motor to be controlled with or without a slider (CVM needs 3)

[1]**Note:** Control for 3 sliders (**H/S/B)** is provided as standard for color devices. Control for 2 sliders (CCT+INT) provided as standard for tunable white devices. Simple single brightness slider is provided as standard for monochrome devices. Full control using Agents, Custom Buttons can be achieved for all supported commands (for list see Step 6). C4's Advanced Lighting supports a subset of all available commands (no sliders relevant here).

Step 3

Discover & Assign Communication Devices

Discover Comm Device(s). All CSI SDDP-equipped communication devices (i.e., e-Node/xxx & CVM) if properly powered on with their SDDP feature ENABLED (see Web Pilot for setting) will auto appear within *Composer/Connections/Network/Available Devices* view

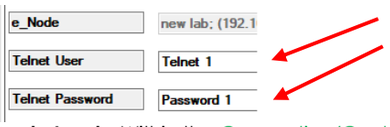


Assign Comm Device(s). Highlight the applicable CSI device and drag it over to the previously programmed/listed CSI Comm. Device under IP Network Connections.

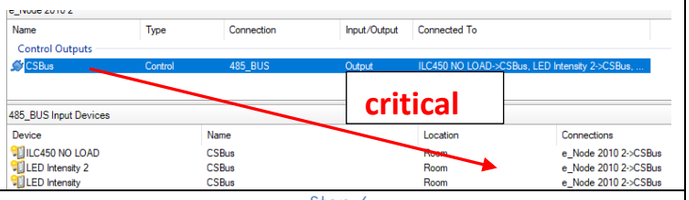
Step 4

Set Parameters for Comm Device/Connect Comm to Loads

Set Parameters for Comm Devices. Within the *System Design/ Properties* tab for the CSI Comm Device enter the credentials for Telnet User/Password (default **Telnet 1** and **Password 1**).



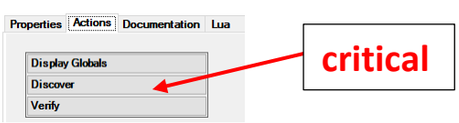
Connect Comm Device to Loads. Within the *Connection/ControlAV* view select **CSBus** entry (for the CSI Comm device being programmed) and drag it to **each** 485_Bus Output Device to which you desire to link this device. **NO LINKAGE – NOTING WILL WORK**



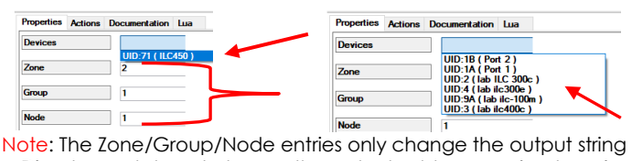
Step 5

Discover Load Devices/Link Loads and Review Settings

Discover (connected) devices. Within the *System Design/ Properties/ Actions* tab (for the CSI Comm Device), select Discover and wait 20 seconds until data from all connected CS-Bus devices is auto gathered. To verify Discovery-turn Debug Mode to Print and Log and open LUA- see data collected.



Link Load. Within the *System Design/Properties* view for each Load Driver that appears (for CSI equipment), select Devices' gray entry field and select from the pulldown the desired device. All non-grayed fields can be updated.



Note: The Zone/Group/Node entries only change the output string from a Director and do not change the actual address previously assigned to the actual CS-Bus device. For setting ZGN see Appendix 1.

Step 6

Available Custom Button

In addition to standard UI controls (on/off and sliders), custom buttons can be programmed to handle particular lighting and motor requirements (given the type of device selected) as follows:

For LED Lighting Control

On	Off
Recall,n (preset # from 1~24)	Store,n (location # from 1~24)
Fade Up/Down (brightness)	Hue Up/Down
Saturation Up/Down	CCT Up/Down (color temp)
SUN Up/Down (Circadian) (0~240)	Red,r (from 0~240)
Green,g (from 0~240)	Blue,b (from 0~240)
Hue,h (from 0 red to Y,G,C,B,M,R ~ 240)	SAT,s (from 0 ~240)
Set (from 0 off ~ 240 on)	CCT,k (from 1700K to 7000K)
Effect, n (for Effects 1,3,4)	HSV,h.s.v (HSB setting)
RGB,r.g.b (RGB setting)	RGBW,r.g.b.w (RGBW setting)
Dissolve,d,n (type,seconds)	Stop (stop ramp or effect)
Toggle (toggles On/Off)	Circadian Ito activate Server)*

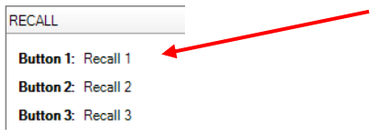
*on e-Node/4000 only see Tech Note.

For Motor Control

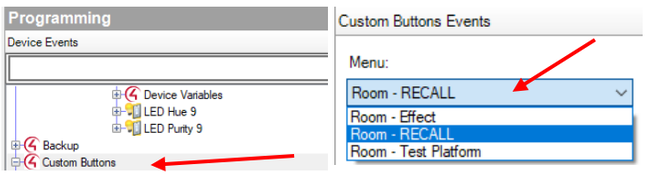
Motor UP/Down	Stop
Recall,n	Store,n

Step 7
Adding and Configuring Text for Custom Buttons

Add Custom Button. Within the *Agents* tab, select **Custom Buttons.** Within **Rooms** window, select where the new Custom Button will appear. Edit template with custom names

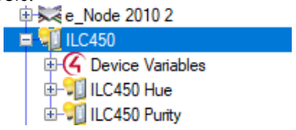


Configure Custom Buttons. Within *Programming*, select **Custom Buttons**. Within Programming/Custom Buttons Event, select under **Menu** the programmed template to be programmed for the type of button operation (press or release).

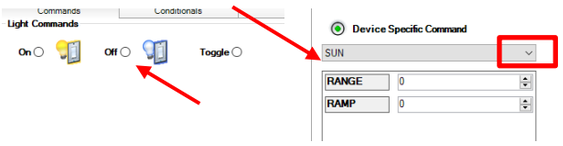


Step 8
Programming a Custom Button

Program Device Actions. Within the *Programming/ Actions* tab, select the CSI Device Driver that will respond when a referenced Button event occurs.



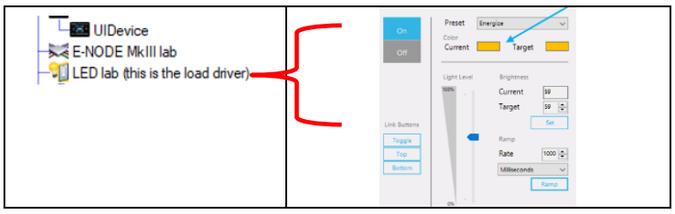
-In the lower window under **Actions**, pick a (i) general function (On, Off, Toggle) or a (ii) Device Specific Command (scroll down to reveal green radial button for **Device Specific**).



-Select desired **Command** from the pulldown and fill in appropriate levels (0 to 240), values and Ramp Time (in seconds)
-Continue moving between **Custom Button Event** and the **Device Actions** until all buttons have been programmed.

Step 9
The Lighting Widget

The time-honored C4 lighting widget has been enhanced. With the new pop-up widget, the new widget is exposed. Simply double click on the Load lighting driver to expose the new pop-up



Various settings can be adjusted/set/tested using this popup. See on the embedded within Composer for more information here.

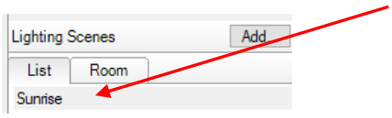
Step 10
The C4 Color Picker

Whenever you see a color or CCT embedded rectangle (see Step 9 arrow on UI), you can click on it to expose the new C4 color/CCT picker. You can select any HSB or CCT value using this picker. Use this control throughout Composer to select accurate colors/CCT/brightness values.

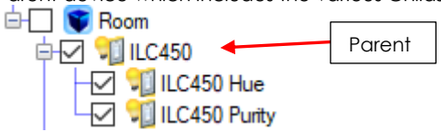
For HSV Control	For CCT Control
 For color use HSV Type	

Step 11
Advanced Lighting Agent

Select Advanced Lighting. Within the *Agents* view, Add **Advanced Lighting** and then add a Lighting Scene and name.



Add Load. Within *Advanced Lighting Scenes* view, select **Add/Remove Loads**, and select the target **Device Driver**. For Lighting typically select the Parent device which includes the various Childs



-In order to select a particular **H**ue/**S**aturation/**B**rightness (HSB), select the (i) **H**ue and **S**aturation levels with 0 second delay and (ii) the Default (i.e., **B**rightness) level) with a *1 second or more delay* than the H&S values (for the ILC-xx0 parser needs to see Brightness last).

- **H**ue ranges from 0(**R**)-40(**Y**)-80(**G**)-120(**C**)-160(**B**)-200(**M**)-240(**R**)
- **S**at ranges from 240(full color) to 0(desaturated or white)
- **B**rightness ranges from 0(off) to 240(on)

Step 12
Testing/Troubleshooting/Common Mistakes

Direct Control Pop-up. Use the widget shown in Step 9 to test lighting features. (The traditional motor widget is also exposed in the same manner by selecting the Motor load.)
Note: For ramping set units to seconds ramp (*not milliseconds*).

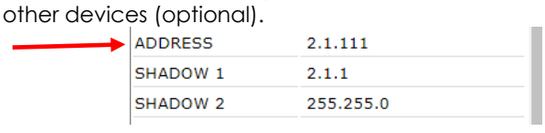
LUA testing feedback. Within the *Systems Design/Properties* view for the targeted Comm Device that you wish to see traffic, select the **Comm Device, s**et Debug settings to **5/Print and Log** and open the LUA window to see traffic.

Common Mistakes.

Symptom	Remedies
If no output on LUA window	Review Step 3 and Step 4
If the wrong controller (IMC-xx0 or ILC-xx0) responds	Zone/Group/Node numbers are not pointing to correct device
C4 sliders bounce back after being set	Auto has not been selected for NOTIFY within Web Pilot commissioning.
No pulldown box in Step 5 appears	Discover has not been selected in Step 5
No cntl for 2nd motor on CVM	Only one Proj. driver added. Add add't. - (1 per motor.

Appendix 1
How to Set Zone/Group/Node Addresses

See applicable Quick Start Guides. Use Web Pilot to set Zone/Group/Node address (for Address mandatory). Here Z.G.N is 2.1.111 as primary address. Shadow address track other devices (optional).



Appendix 2
Mandatory Setting of Notify to AUTO

Within web-Pilot/Settings for each load, set Notify to **Auto.**