![Converging Systems logo]

Converging Systems Quick Start Guide for Control4 (with e-Node 2010/xxx or similar 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. *This QSG requires the CSI v7 Driver package (or later from [CSI site](https://www.convergingsystems.com)) which includes some certified '21 Control4 (Online) drivers*.*

*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)

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

Composer Driver Search. Certified drivers (may not be the latest) can be found within *Composer/System Design/Items/Search* under *Converging Systems* (check on-line box).

Load Comm Device. Drag one Comm Device driver anywhere into project for each physical device installed within your system.
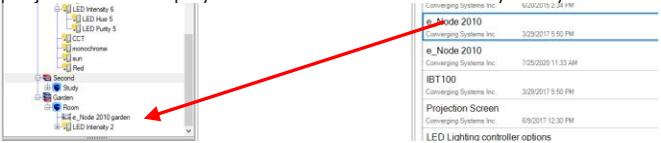
Load (Child) Device Drivers. Drag at minimum one or more Device Driver(s) into each room (for each ILC-xx0/DMX fixture in system).
- "LED Lighting Controller Multi" for standard HSB Sliders (**LM**)
- "LED Lighting Controller Generic" (for misc. Sliders—RGB,White, CCT) (**LG**)
- "Projection Screen" for each motor channel (**M1**)

Step 2
Backgrounder on Drivers

Communication Devices (Comm Device)	
e_Node 2010	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 Multi[1-] **(LM)** (v6 req'd for DMX fixtures)	One req'd for **H**ue/**S**aturation/**B**rightness sliders (min. one per physical ILC-xx0 device or any additional virtual ILC-xx0 device to be addressed with group/wildcard control)
LED lighting controller Generic (**LG**) (v8 req'd for DMX fixtures)	One req'd for each *additional* slider (i.e. **R**ed, **G**reen, **B**lue, Color Temp-CCT, Circadian) for (i) **each** physical ILC-xx0 device installed or (ii) **any** additional virtual ILC-xx0 devices to be addressed with group/wildcard control or (iii) each monochrome channel
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 with the **LM** driver. Each additional slider requires one additional **LG** driver. 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 Pilot or Web Pilot for setting) will auto appear within *Composer/Connections/Network/Available Devices* view
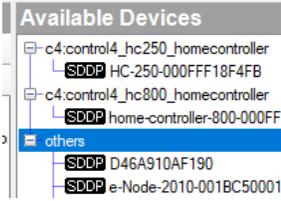

Assign Comm Device(s). Highlight the applicable CSI device and drag it over to the previously programmed/listed CSI Comm. Device under *IP Network Connections*.


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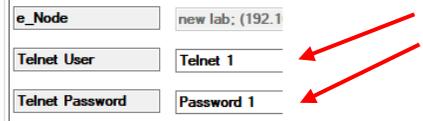
Connect Comm Device to Loads. Within the *Connection/ControlAV* view select **CSBus** entry (for the CSI Comm device being programmed) and drag it to **each** 485_Bus Output Device to which you desire to link this device. **NO LINKAGE – NOTING WILL WORK**
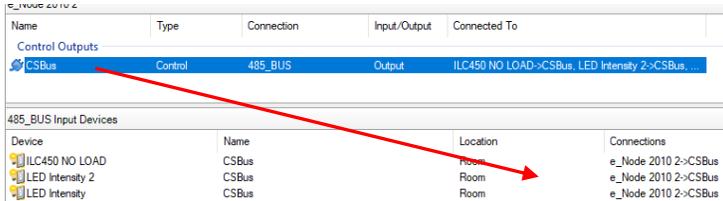

Step 5
Discover Load Devices/Link Loads and Review Settings
(**CSDDP auto-discovery of DMX Fixtures requires v6 of **LM** + v8 of **LG** which can be download in [Step 1] until posted Online by C4)*

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.
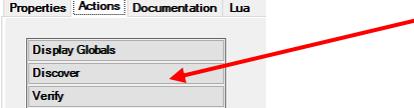
Link Load. Within the *System Design/Properties* view for each Load Driver that appears (for CSI equipment), select Device gray entry field and select from the pulldown the desired device. All non-grayed fields can be updated. For the Generic Driver, select the desired slider type.
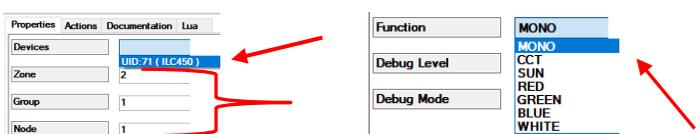
Note: The Zone/Group/Node entries only change the output string from a Director and do not change the actual address previously assigned to the actual CS-Bus device.

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)	

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


RECALL

Button 1: Recall 1
Button 2: Recall 2
Button 3: Recall 3
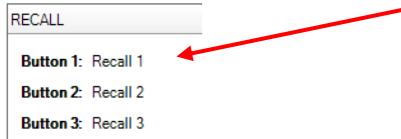
Configure Custom Buttons. Within *Programming*, select **Custom Buttons**. Within *Programming/Custom Buttons Event,* select under **Menu** the programmed template to be programmed for the type of button operation (press or release).
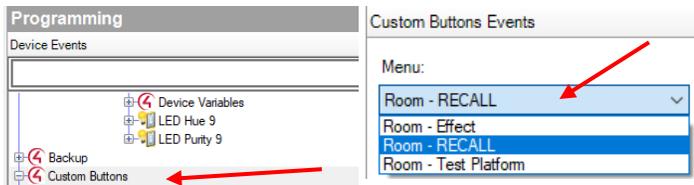
Step 8
Programming a Custom Button

Program Device Actions. Within the *Programming/ Actions* tab, select the CSI Device Driver that will respond when a referenced Button event occurs.
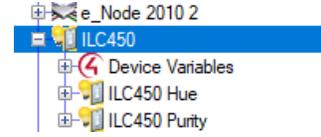
-In the lower window under **Actions**, pick a (i) general function (On, Off, Toggle) or a (ii) Device Specific Command (scroll down to reveal *green* radial button for **Device Specific**).
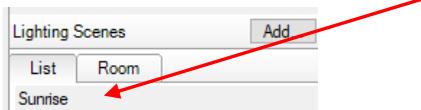

-Select desired **Command** from the pulldown and fill in appropriate levels (0 to 240), values and Ramp Time (in seconds)

-Continue moving between **Custom Button Event** and the **Device Actions** until all buttons have been programmed.
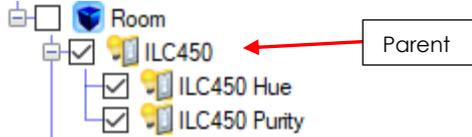
Step 9
Advanced Lighting Agent

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


Parent

-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)

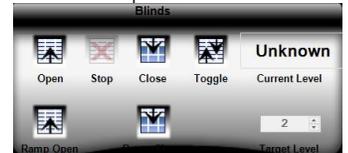## Step 10
Testing/Troubleshooting/Common Mistakes

Direct Control Pop-up. Within the *Systems Design* view, double click on an CSI **Device Driver** that you wish to test to reveal the Direct Control widget. Selected actions should impact the targeted controller.
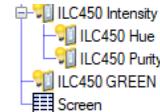
Note: For ramping set units to seconds (*and not to Millisec*) and select a minimum time of 1 sec for the ramp.

Lighting   Motors

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
Incorrect number of sliders appear for a target controller	Not enough Generic drivers loaded (see Step 2)
No cntl for 2nd motor on CVM	Only one Proj. driver added. Add add't. - (1 per motor.

Important Safety Information

The ILC-xx0 LED Controller/IMC-xx0 Motor Controllers and specified associated components are listed under UL File 2108 and/or UL-325 and have been tested by the following safety agency:
TO REDUCE THE RISK OF ELECTRIC SHOCK, ANY EQUIPMENT THAT HAS A GROUNDING TYPE PLUG HAS A THIRD (GROUNDING) PIN. THIS PLUG WILL ONLY FIT INTO A GROUNDING TYPE OUTLET. IF THE PLUG DOES NOT FIT INTO THE OUTLET, CONTACT A QUALIFIED ELECTRICIAN TO INSTALL THE PROPER OUTLET. DO NOT CHANGE THE PLUG IN ANY WAY.

POUR REDUIRE LES RISQUES DE CHOC ELECTRIQUE, CET APPAREIL EST QUIPE D'UNE FICHE AVEC MISE A LA TERRE COMPORTANT UNE TROISIEME BROCHE (BROCHE DE TERRE). CETTE FICHE NE PEUT ETRE BRANCE QUE DANS UNE PRISE AVEC MISE A LA TERRE. S'IL N'EST PAS POSSIBLE DE LA BRANCHER DANS LA PRISE, FAIRE POSE UNE PRISE APPROPRIEE PAR UN ELECTRICIEN QUALIFIE. NE PAS MODIFIER LA FICHE *UTILISER A L'INTERIEUR SEULEMENT

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