The Converging Systems’ control environment is based upon at least (i) one SSDP-equipped IP controlled Communication Device (i.e. node), (ii) e-NODE/dmx or CVM or (iii) one non-SSDP-equipped IP Device (IMC-170) or (iii) one non-SSDP serial device (BIT-100) (hereinafter all referred to as Comm Device(s)). Connected to a Comm Device are one or more 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 Quick Start Guide is only applicable to V6 or later of Control4 drivers.


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**Converging Systems Quick Start Guide for Control4 (with e-Node 2010/xxx or similar with IP control)**

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**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

**Composer Driver Search**. Certified drivers may not be the latest can be found within Composer/System Design/Items/Upload/Driver Library. Check on-line box.

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

**Load Device Drivers.** Drag at minimum one or more Device Drivers into each room (for each LCL-x00/IMC-x00 in system).

- “LED Lighting Controller Multi!” for standard HSB sliders
- “LED Lighting Controller Generic” for additional sliders (i.e. R.G.B, CCT, Circadian)
- “Projection Screen” (one per motor)

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**Step 2**

**Background on Drivers**

**Communication Devices (Comm Device)**

- e_Node 2010 One req’d for each e-Node/DMX or IMC-170 to be controlled within environment
- e_Node/dmx One req’d for each e-Node/dmx to be controlled within environment

**Device Load Devices (Device Driver)**

- LED lighting controller Multi! One req’d for LED/Saturation/Brightness sliders/min. one per physical ILC-x00 device or any additional virtual ILC-x00 device to be addressed with group/wildcard control
- LED lighting controller Generic One req’d for each additional slider (i.e. Red, Green, Blue, Color Temp-CCT, Circadian) for (i) each physical ILC-x00 device installed or (ii) any additional virtual ILC-x00 device to be addressed with group/wildcard control or (iii) each monochrome channel

**Projection Screen** One req’d for each motor to be controlled with or without a slider (CVM needs 3).

*Note: Slider control for (3) specified sliders is provided as standard with this driver. Additional sliders require one LED Lighting controller Generic per added slider. Full control using Agents, Custom Buttons can be achieved for all supported commands (for list see Step 4). C4’s Advanced Lighting supports a subset of all available commands (no sliders relevant here).

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**Step 3**

Discover & Assign Communication Devices

**Discover Comm Device(s).** All CSI SSDP-equipped communication devices (i.e. e-NODE/xxx CVM) if properly powered on with SSDP 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,

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**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/ControllerAV view select CSIbus entity (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 UNLINKAGE – NOTING WILL WORK

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**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 CSI-Bus devices is auto gathered. To verify Discover-turn Debug Node 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-graied fields can be updated. For the Generic Driver, select the desired slider type.

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**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**

<table>
<thead>
<tr>
<th>On</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recall (preset # from 1~24)</td>
<td>Store.n (location # from 1~24)</td>
</tr>
<tr>
<td>Fade Up/Down (brightness)</td>
<td>Tune Up/Down</td>
</tr>
<tr>
<td>Saturation Up/Down</td>
<td>CCT Up/Down (color temp)</td>
</tr>
<tr>
<td>SUN Up/Down (Circadian) (0~240)</td>
<td>Red.r from 0~240</td>
</tr>
<tr>
<td>Green.g from 0~240</td>
<td>Blue.b from 0~240</td>
</tr>
<tr>
<td>Hue.h from 0 red to Y.G.C.B.M.R (0~240)</td>
<td>SAT.S (from 0~240)</td>
</tr>
<tr>
<td>Set (from 0 off to 240 on)</td>
<td>CCT.x (from 1700K to 7000K)</td>
</tr>
<tr>
<td>Effect (n for Effects 1, 3, 4)</td>
<td>HSV.h.s.v (HSV settings)</td>
</tr>
<tr>
<td>ERGB.g.b (RGB settings)</td>
<td>IRGBW.g.b.w (IRGBW settings)</td>
</tr>
<tr>
<td>Dissolve.d.n (type, seconds)</td>
<td>Stop (stop ramp or effect)</td>
</tr>
<tr>
<td>Toggle (toggles On/Off)</td>
<td>Toggle (toggles On/Off)</td>
</tr>
</tbody>
</table>

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**For Motor Control**

<table>
<thead>
<tr>
<th>Motor UP/Down</th>
<th>Recall.n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop</td>
<td>Store.n</td>
</tr>
</tbody>
</table>
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 Button 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 window 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 Action and fill in appropriate levels (0 to 240) 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.

In order to select a particular Hue/Saturation/Brightness (HSB), select the (i) Hue and Saturation levels with 0 second delay and (ii) the Default (i.e. Brightness) level with a 7 second or more delay than the H/S values (for the ILC-xx0 parser needs to see Brightness last):
- Hue ranges from 0(R)-45(Y)-90(G)-135(C)-180(B)-225(M)-270(R)
- Sat ranges from 240(full color) to 0(desaturated or white)
- Brightness 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 Millisecc) and select a minimum time of 1 sec for the ramp.

LUA testing feedback: Within the Systems Design/Properties view for the targeted Comm Device that you wish to see traffic, select the Comm Device, set Debug settings to 6/Print and Log and open the LUA window to see traffic.

Common Mistakes:

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>If no output on LUA window</td>
<td>Review Step 3 and Step 4</td>
</tr>
<tr>
<td>If the wrong controller (IMC-xx0 or ILC-xx0) responds</td>
<td>Zone/Group/Node numbers are not pointing to correct device</td>
</tr>
<tr>
<td>Incorrect number of sliders appear for a target controller</td>
<td>Not enough Generic drivers loaded (see Step 2)</td>
</tr>
<tr>
<td>No control for 2nd motor on C.V.M</td>
<td>Only one Pot, driver added. Add add2* (1 per motor)</td>
</tr>
</tbody>
</table>

Important Safety Information

The ILC-xx0 LED Controller/IMC-xx0 Motor Controllers and specified associated components are listed under UL Files 2108 and/or UL 305 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 (GROUNNING) 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 DOTÉ D’UNE FICHE AVEC MISE A LA TERRE COMPORTANT UNE TROISIÈME BROCHE (BROCHE DE TERRE). CETTE FICHE NE PEUT ETRE BRANCHE QUE DANS UNE PRISE AVEC MISE A LA TERRE. S’IL N’EST PAS POSSIBLE DE LA BRANCHER DANS LA PRISE, FAIRE POSSE UNE PRISE APPROPRIEE PAR UN ELECTRICIEN QUALIFIE. NE PAS MODIFIER LA FICHE "UTILISER A L’INTERIEUR SEULEMENT".