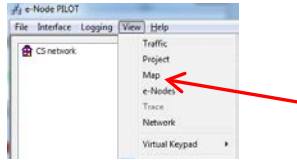


IMC –xxx/Virtual Terminal Family Quick Reference Installation Guide (with e-Node for communication)

The Converging Systems e-Node is an intelligent (I)nternet (P)rotocol front end to Converging Systems’ IMC-x00™ family of motor controllers. In addition to be supported by IP, Converging Systems motor controllers are also supported through either built-in RS-232 serial connections (on-board on some controllers) or through a separate standalone serial adapter accessory (IBT-100). Typically for systems with more than one IMC-x00 controller (or where multiple channels of control are desired on some platform), initial setup is completed through the functionality of the e-Node™ (which may be embedded in some configurations). This documentation describes an easy-to-use virtual keypad that can be used after a system is first commissioned to test the functionality of the entire motor-driven system. *Full Installation Manuals are available for IMC-xxx family controllers, the e-Node, and IBT-100 at www.convergingsystems.com*

SOFTWARE SETUP-Virtual Terminal only is supported through e-Node (or a system with a built-in e-Node). Alternative control with keypads and 3rd party control systems (except Lutron) is supported through all communication devices (IBT-100 or e-Node).

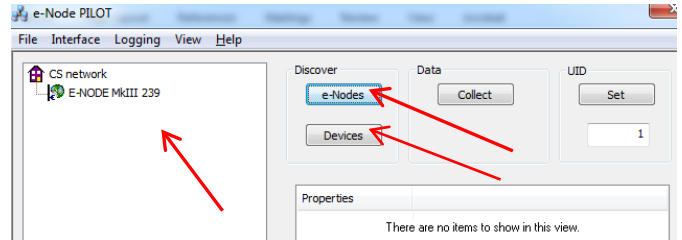
Figure 1
e-Node Software Download and Launch



Download and Launch Pilot. Download and launch the (PC compatible) e-Node **Pilot Application** available from the Converging Systems website. Before running, please make sure you **unzip** the file. http://www.convergingsystems.com/downloads_library.php. You may need to enter a username (**csdealer**) and password (**4212color**).

Note: If you are using e-Node Pilot Virtual Keypad, wired or wireless communication is typically acceptable. However, if you are using e-Node Pilot to make any system changes (not recommended for the end-user), it is highly advised to make a **hardwired** Ethernet connection from the e-Node to your network switch and another **hardwired** Ethernet connection from your switch to your computer running the Pilot application. Data may be lost or corrupted.

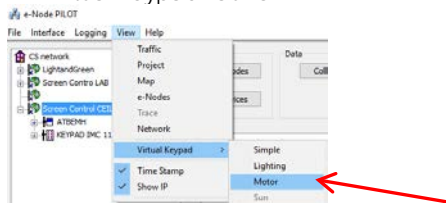
Figure 2
Discover e-Nodes/Devices



Discover e-Node. From the **View/Map** window, select the **Discover e-Node** button and any e-Nodes that have been powered-up and which exist on the same subnet that your computer will populate within the left window.

Discover Devices. From the **View/Map** window, select the **Discover Devices** button and any IMC-0xx controllers that have been powered-up and previously activated on the same subnet as your computer will populate within the left window with either their alias or **UID** (Unique ID number).

Figure 3
Virtual Keypad Launch



Launch Virtual Keypad/Motor. From the **View/Virtual Keypad** window, select the **Motor** button and launch the pop-up keypad. For convenience, should you wish to view other Pilot windows otherwise available, drag the pop-up to another location on your desktop.

Virtual Keypad popup-drag away from pilot

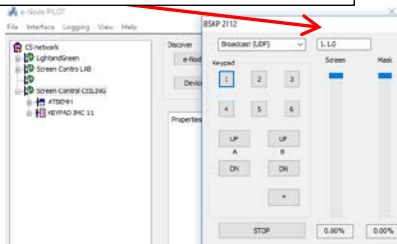
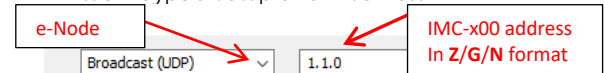


Figure 4
Virtual Keypad Setup and Initial Test



Select e-Node. Should you have multiple e-Nodes, elect the applicable e-Node within the left window. Otherwise **Broadcast (UDP)** will work for entire system.

Select Address for Motor device. Enter address as per table below:

Channels	Description	Address
2 or more	If multiple channels of motor output share the same first two octets in their Zone/ Group/ Node addresses (i.e. 1.1.1 and 1.1.2), enter the Z/G address followed by a " 0 " for the Node. Enter address as shown	1.1.0
Single	For simple/single motor, enter discrete address as assigned to your output, typically:	1.1.1

Initial Test. Select the **UP** or **DN** (Channel A) buttons and verify system operation (for the first motor only).

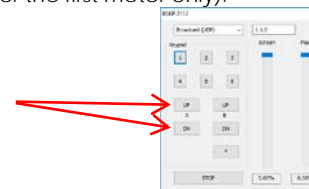
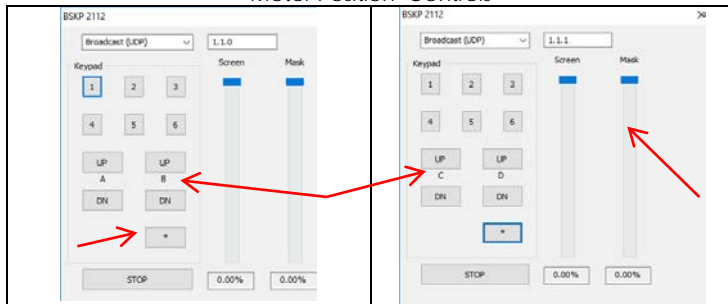


Figure 5
Motor Position Controls

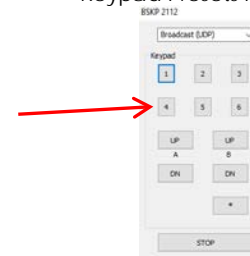


Select Bank of Motors to adjust Position. The above keypad is dynamic and can be changed from the 1st bank (with A and B motors shown) to the 2nd bank (with C and D motors shown). Select the * button to switch banks.

Move Motors with UP/DN/STOP buttons. Press the appropriate directional buttons to move the targeted motor (i.e. UP/DN/STOP by A motor moves A motor, etc.)

Move A & B Motors (only) with sliders. Press the appropriate sliders to also move Motors A and B only.

Figure 6
Keypad Presets Recalls



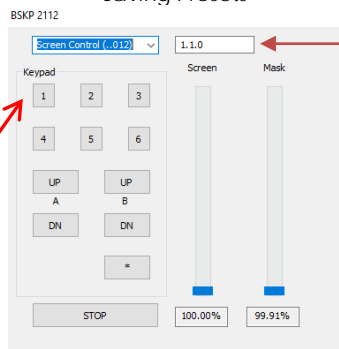
Select Preset. Select a preset button (#1 to #6) for factory or user stored presets.

Note: The User Field column is provided as a convenience if custom presets have been set and a written reference is desired.

Keypad #	Standard	User Field (reserved for user input)
1	16:9	
2	4:3	
3	1.85	
4	2.35	
5	User 1	
6	User 2	

Figure 7
Saving Presets

After one or more motor positions have been set, press **Preset** button (#1 to #6) for 5 seconds and then release



-For **Multi-motors**, set see Address to wildcard address 1.1.0

-For **Single Motor** set to specific address of motor to be set

Multi-Motor Controller (IMC-300 BRIC II) Set **Address** to a wildcard value (containing a "0") which covers the universe of motors for which a Group Preset will be stored (for IMC-300MKII BRIC-MK2 set to 1.1.0). Use **Sliders** or **UP/DN/STOP** buttons above to select motor position for **each** motor to be included in general preset. (**Note:** if you have a door, do not worry about that motor.) After setting each non-door motor's position, to save that value, press the specific Keypad Number (#1 to #6) desired to be programmed for 5 seconds or more until the desktop speaker beeps and then release. At that point all current motor settings have been stored into that Numbered location (i.e. Button #1 refers to Preset 1, Button #2 refers to Preset 2, etc.)

Single-Motor Controller (IMC-100) Set **Address** to the specific address for the motor for which a Single Preset will be stored. Use **Sliders** or **UP/DN/STOP** buttons above to select motor position for the targeted motor. Once desired position is obtained, press any of the **Keypad Number** buttons (#1 to #6) desired to be programmed for 5 seconds or more until the desktop speaker beeps and then release. At that point the current motor setting has been stored into that Numbered location (i.e. Button #1 refers to Preset 1, Button #2 refers to Preset 2, etc.)

Figure 8 (Dealer Setting)

Bi-Directional Communication

Enable Bi-directional Communication. Some IMC-100 controllers (i.e. IMC-300MKII/BRIC II) allow bi-directional communication so that a control system with bi-directional capabilities can show feedback when there are changes in IMC-x00 controller's motor position(s). The setting that enables this functionality is called **NOTIFY**. You can verify if this is activated by entering selecting the **View Map** window and then selecting specific motor the **MOTOR** tab and then verifying if the **NOTIFY** value is set to **ENABLE**. If not, set to **ENABLE**. Now whenever there is a change in a motor position, the system will send out a status message of !1.1.1.MOTOR.POSITION=n; with "n" being a number from 0.00 (closed) to 100.00 (opened)

Note: Existing third party automation drivers from Crestron, Elan, Savant, Control4 are being updated to support this new **MOTOR.POSITION** command. If your driver being used does not support this command, please call our automation platform provider to determine if this new command is yet supported and request an update.