



Crestron Module

for iRoom's iBezel





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1 - Introduction

This document will assist Crestron programmers and installers with the integration of this module into their Crestron program. The module was designed to integrate an iRoom iBezel dock into an Crestron system (including Crestron Pyng). This driver has been designed to provide two-way control of an iRoom iBezel iPad dock via TCP/IP.

The driver receives events from the iBezel (buttons, digital inputs and proximity sensor) that can then trigger further automation within Crestron. These inputs are modelled as CONTACT_SENSORS within Crestron and can be integrated into Composer in the standard manner. The iBezel also has an integrated RELAY output that is made available as a RELAY proxy in Composer. Additional features on the iBezel are then made available with custom commands.

2 – Resources and Assumptions

SIMPLWINDOWS NAME:	iRoom_iBezel
CATEGORY:	Miscellaneous
VERSION:	1.00
SUMMARY:	This module will receive events from and control iRoom's iBezel iPad via TCP/IP.
GENERAL NOTES:	The module receives events (Button pushes, digital inputs and proximity sensor) from the iBezel which can then be used to trigger additional automation within the Crestron system. Additionally it can control the operation of the Dock (open/close) and button LED backlight level.
CRESTRON HARDWARE REQUIRED:	Any Ethernet-enabled processor
SETUP OF CRESTRON HARDWARE:	Connect the Crestron processor to the same subnet as the iRoom iBezel.
VENDOR FIRMWARE:	N/A
VENDOR SETUP:	It is recommended that the iBezel be installed, configured and tested by a suitably qualified engineer, according to iRoom documentation, prior to integration with Crestron.
CABLE DIAGRAM:	N/A

2 - Control

[OpenDock]	D	Open the Dock
[CloseDock]	D	Close the Dock
[ToggleDock]	D	Toggle the open/close state of the Dock
[OpenRelay]	D	Open the Relay
[CloseRelay]	D	Close the Relay
[ToggleRelay]	D	Toggle the state of the Relay
[ShortBeep]	D	Trigger the Dock to emit a short duration audible Beep (length determined by Parameter)
[MediumBeep]	D	Trigger the Dock to emit a medium duration audible Beep (length determined by Parameter)
[LongBeep]	D	Trigger the Dock to emit a long duration audible Beep (length determined by Parameter)
[Set_LED_Home]	A	Set the LED backlight level for the Home Button
[Set_LED_x]	A	Set the LED backlight level for Button x

3 - Parameters

IP ADDRESS	S	The IP address of the iBezel
PORT	S	The port to use. Default is 13601
ShortBeepDuration	T	Duration of a short duration audible Beep (in seconds)
MediumBeepDuration	T	Duration of a medium duration audible Beep (in seconds)
LongBeepDuration	T	Duration of a long duration audible Beep (in seconds)

3 - Feedback

[Status]	S	Text indicating current status, e.g. disconnected, ready, busy
[aStatus]	A	Numerical version of the status. 0 = Disconnected, 1 = Ready, 2 = Busy, 3 = Error
[Relay0Feedback]	D	Active when relay is opened
[ProximityEvent]	D	Active when a proximity event triggers
[Beep]	D	Active when a beep is in process
[iBezelMode]	D	Feedback that unit is in iBezel operational mode
[PlugDrive_Docked]	D	Active when the plug drive is docked
[ClackDrive_Open]	D	Active when the clack drive is open
[Dock_Docked]	D	Current Dock status (Docked / Undocked)
[IR_Detector_FB]	A	Value of the IR Detector (proximity sensor) from 0 to 255
[Button_Home]	D	Active when Home Button is pressed
[Button_x]	D	Active when Button_x is pressed
[DigitalInput_x]	D	Active when digital input is opened
[LED_Home_FB]	A	Feedback of current Home Button LED backlight level from 0 to 100
[LED_x_FB]	A	Feedback of current Button_x LED backlight level from 0 to 100



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4 – Testing

OPS USED FOR TESTING:	MC3 1.007.0019
SIMPL WINDOWS USED FOR TESTING:	4.02.48
CRESTRON DB USED FOR TESTING:	46.00.004.00
DEVICE DB USED FOR TESTING:	57.05.001.00
SAMPLE PROGRAM:	iRoom iBezel Demo V1.00
REVISION HISTORY:	V. 1.00 – initial release

5 - Pyng (Trigger Pyng Actions) v1.1.cmc

Summary

This module allows the programmer to trigger actions on a Pyng system. The connection to the Pyng system must be setup using the Pyng Connection Configuration v1.1.2.cmc

Important:

There should only be 1 instance of the Pyng Connection Configuration v1.1.2.cmc per program. If the program already contains an instance of the Pyng Connection Configuration module, do not add another one. Adding multiple Pyng Connection Configuration modules may result in system errors.

Inputs/Outputs/Parameters:

Inputs

Set_Signal_1...20	These signals are used to activate various functions within the Pyng system including: scene recall, load control, room control, volume control, etc. The corresponding "Signal_Active" output on this module will indicate if the assigned function is active.
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Outputs

Set_Signal_1...20	These signals indicate the active status for the function configured with the corresponding "Set_Signal" within Pyng.
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Parameters

Signal Name 1...20	Sets the name of the signal that will be displayed within the Pyng system. NOTE: At least one signal on this module needs to be named in order for this module to be displayed within Pyng.
Module Name	Sets the name of the module that will be displayed within Pyng. This name must be unique for each Pyng Module within the SIMPL program.

Revision History:

Version 1.1 – Initial Release

6 - Pyng (Listen for Pyng Events) v1.1.cmc

Summary

This module allows the programmer to receive events from a Pyng system. The connection to the Pyng system must be setup using the Pyng Connection Configuration v1.1.2.cmc module.

Important:

There should only be 1 instance of the Pyng Connection Configuration v1.1.2.cmc per program. If the program already contains an instance of the Pyng Connection Configuration module, do not add another one. Adding multiple Pyng Connection Configuration modules may result in system errors.

Inputs/Outputs/Parameters:

Inputs

Set_Signal_1...20	These signals are used to set the feedback on the buttons within the Pyng system that are configured to control the corresponding "Signal_Active" outputs on this module.
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Outputs

Signal_Active_1...20	These signals are configured within the Pyng system to indicate when a keypad button within Pyng is pressed. The corresponding "Set_Signal" inputs on this module control the feedback state of the keypad button.
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Parameters

Signal Name 1...20	Sets the name of the signal that will be displayed within the Pyng system. NOTE: At least one signal on this module needs to be named in order for this module to be displayed within Pyng.
Module Name	SSets the name of the module that will be displayed within Pyng. This name must be unique for each Pyng Module within the SIMPL program.

Revision History:

Version 1.1 – Initial Release