# Partner: Crestron
# Model: KNX
# Device Type: System control

## GENERAL INFORMATION:

| | |
|---|---|
| **SIMPLWINDOWS NAME:** | "Crestron KNX IO v3.3 .umc" |
| **CATEGORY:** | System control |
| **VERSION:** | V3.3 |
| **SUMMARY:** | This macro takes care of the communication between the CGEIB-IP/CI-KNX and the Crestron processor. |
| **GENERAL NOTES:** | **PLEASE CAREFULLY READ THE CGEIB-IP/CI-KNX MANUAL BEFORE PROGRAMMING.**<br>This macro takes care of the communication between the CGEIB-IP with firmware 7.03/CI-KNX and the Crestron processor.<br>The macro is assigned a gateway ID to link it to a KNX Data type module. The KNX IO module defines the Gateway type (CGEIB-IP or CI-KNX) that will be used to communicate with the KNX system.<br><br>CI-KNX:<br>The CI-KNX uses Object IDs that can be found in ETS in the parameter section for CI-KNX. I.e. if CI-KNX Object ID 1 added to the same group address as the 1 bit object that switches a light then the ID parameter on this module should contain "1".<br>**The CI-KNX supports up to 250 data type modules connected to one KNX IO module.**<br><br>CGEIB-IP:<br>The CGEIB-IP uses group address as it is stated in the KNX software. I.e. if your group address is "12/3/255", you copy this exact sequence in the module's "Group Address" parameter. The parameter also allows 2-level group addresses.<br>**The CGEIB-IP supports up to 500 data type modules connected to one KNX IO module.** |
| **CRESTRON HARDWARE REQUIRED:** | 3-Series processor |
| **SETUP OF CRESTRON HARDWARE:** | The demo program was written for a CP3.<br>The CGEIB-IP is controlled via TCP/IP. Port: 10001.<br>The CI-KNX is controlled via TCP/IP. Port: 12004. |
| **VENDOR FIRMWARE:** | CGEIB-IP: V7.03<br>CI-KNX: N/A |
| **VENDOR SETUP:** | CGEIB-(IP)/CI-KNX connected to the KNX bus |
| **CABLE DIAGRAM:** | Standard ethernet cable. |


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## CONTROL:

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|---|---|---|
| **Initialize** | D | Pulse to Initialize the module. |
| **Enable_Debug_Mode** | D | Set high debug mode. When debug mode is enabled extra information regarding the communication process will outputted on the text console.<br>The signal should only be set high when debugging the system. Keeping debug mode on during the normal operation of the system is not recommended as it will slow down the system. |
| **Poll_All** | D | Pulse to poll all registered data type objects. |
| **Enable_Set_Poll_From_Bus_Flag** | D | When the Poll_All_Objects signal is triggered while the Enable_Set_Poll_From_Bus_Flag input is high, the CI-KNX is instructed to update its memory by retrieving all object values from the KNX bus. To update the Crestron program the Enable_Set_Poll_From_Bus_Flag needs to be set low and the Poll_All_Objects signal should be triggered again to execute a normal poll command.<br><br>So the full procedure is :<br><br>1. Set Enable_Set_Poll_From_Bus_Flag to high<br>2. Trigger the Poll_All signal<br>3. Set Enable_Set_Poll_From_Bus_Flag to low<br>4. Tigger the Poll_All signal to retrieve the values to the Crestron program.<br><br>This procedure can also be used in combination with poll commands for single objects instead of the poll_all command.<br>**This should only be used to build the CI-KNX memory when the KNX Settings were lost. For example: when a power cycle occurs on the KNX side.** |

## FEEDBACK:

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|---|---|---|
| **Initialization_is_Complete** | D | High to indicate that the module is ready to be used. |
| **ConnectionStatus** | A | Indicates the status of the connection with the gateway. |

## PARAMETERS:

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|---|---|---|
| **Gateway ID** | Num | This ID should match with one of the Gateway IDs defined on the Crestron KNX IO modules in the program. |
| **Gateway Type** | Num | The gateway that will be used to communicate with the KNX bus. |
| **IP Address** | S | The IP address of the gateway. |
| **Port** | S | The control port for the gateway. |


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## TESTING:

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|---|---|
| **OPS USED FOR TESTING:** | CP3: V. 1.501.2867.24563 |
| **SIMPL WINDOWS USED FOR TESTING:** | V.4.14.20 |
| **CRESTRON DB USED FOR TESTING:** | V. 203.05.001.00 |
| **DEVICE DB USED FOR TESTING:** | V. 200.15.001.00 |
| **SAMPLE PROGRAM:** | “Crestron KNX v3.3 CP3 Demo” |
| **REVISION HISTORY:** | V. 3.1<br>Fixed communication bug in the IO module.<br>Fixed bug for sending the time of the Crestron system to the KNX system.<br>V. 3.2<br>Added 3 byte data type module<br>Fixed bug for CI-KNX 4 byte and 6 byte data types<br>Updated logic for recovering the connection after a communication failure.<br>V. 3.3<br>Added Enable_Set_Poll_From_Bus_Flag signal to enable polling from bus. |


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