Partner: GreenIQ
Model: Smart Garden Hub
Device Type: Irrigation

CRESTRON CERTIFIED INTEGRATED PARTNER

GENERAL INFORMATION

SIMPLWINDOWS NAME:	GreenIQ Smart Garden Hub v1.0
CATEGORY:	Irrigation
VERSION:	1.0
SUMMARY:	This module integrates the GreenIQ Smart Garden Hub into your Crestron system.
GENERAL NOTES:	First, setup the hub and ensure it works with the mobile app at https://greeniq.net/. The module handles all communication to GreenIQ's cloud, so there will be some expected latency between communications. The module is programmed to send two polls, STATE POLL and EXTRAS POLL. The STATE poll will request information from the cloud every x seconds to get the state, name, and other zone related information of all the zones. The default poll interval is set to 60 seconds. This interval is the recommended time to stay in sync with the cloud, but can be modified if desired. This poll can be enabled/disabled as needed. The EXTRAS poll, which cannot be enabled or disabled, will request information from the cloud every 90 seconds to get the hub status, irrigation schedule, weather, savings, and other miscellaneous information. This poll interval is unchangeable and will always be enabled. Various types of sensors can be connected to the hub, so this module gives the option to toggle polling for sensor data. If one or many sensors have been connected to the hub, set sensors HIGH and the next time the EXTRAS poll happens, sensor data will be gathered.
CRESTRON HARDWARE REQUIRED:	3 series processor.
SETUP OF CRESTRON HARDWARE:	N/A
VENDOR FIRMWARE:	Smart Garden Hub software revision: 4.0005
VENDOR SETUP:	Ensure the hub is connected and registered to the cloud via provided Username, Password, and Serial Number.
CABLE DIAGRAM:	N/A

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CONTROL:		
Connect	D	Set HIGH to initialize the module.
Poll_Enable	D	Set HIGH to start polling.
Sensor_Enable	D	Set HIGH to start polling sensors.
Zone[1-8]	D	Sets the visibility of the OFF Image for all zones. NOTE: Zone 7 is not used.
Man_Duration$	S	Manual Duration
Status$	S	Hub Status
Version$	S	Version
Mac_Address$	S	MAC Address
API$	S	API Token Status.
P_Interval$	S	Poll Interval
Zone_Schedule$	S	Sets data with the first of many zone schedules. The schedule could consist of just one schedule or it could consist of many schedules in which case they can be viewed through the previous and next buttons in the schedule area on the interface.
Weather$	S	Sets data with the current weather information taken from the weather source set by the cloud application. Weather information includes temperature, humidity, evapotranspiration and precipitation.
Savings$	S	Sets data with the current savings information taken from the cloud's internal zone analysis. These values are broken up into One Day, Seven Day, and Thirty Day percentages.
Sensor_List$	S	Sets data with the first of many sensors. The list could consist of just one sensor or it could consist of many sensors. In order for this data to be gathered, a sensor must be connected to the hub and sensor polling must be checked in the interface. Corresponding sensor readings will be displayed in Sensor_Data$. If multiple sensors are connected, by clicking previous and next in the sensor area of the interface you will be able to iterator through each sensor.
Sensor_Data$	S	Sets data with the sensor data corresponding with one of the sensors on the

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		Sensor_List$. If all of them have been gathered and they are successfully reading data, the current sensor list sensor should match up to the current Sensor_Data$ sensor. If one sensor is not responding with data, the sensor data will be out of sync with the sensor list, but regardless the list and sensor can be matched up with the sensor number.
		For Example: List Sensor 1, Serial Number 1234 Data Sensor 1, Sensor Data 50%
Zone_State$[1-8]	S	Sets the data with the current state [On,Off] of one of the zones. Default is off for all zones until the poll data is received. NOTE: Zone 7 is not used.
Zone_Name$[1-8]	S	Sets the data with the current name of one of the zones. Default is "Zone" until the poll data is received with the names given on the cloud application. The zones go 1-8 [Left to Right] on the interface. For Example: Cloud Application -> Zone 1 Name -> Back Yard Poll Module replaces zone's 1 name with Back Yard. NOTE: Zone 7 is not used.

FEEDBACK:

Duration_Final	D	Gets the value of the manual duration slider when the slider has been released.
Poll	D	Gets the value and determines whether the module should start or stop polling.
Poll_Interval_Final	D	Gets the value of the poll interval slider when the slider has been released.
Prev	D	Gets the previous item in the Zone Schedule.
Next	D	Gets the next item in the Zone Schedule.
PollNow	D	Sends poll commands immediately to the cloud for manual updating. Not recommended to do while device is automatically polling.
Sensor	D	Gets the value of the sensor check box and determine whether the module should start or stop sensor polling.
Prev_Sensor	D	Gets the previous item in the sensor list and previous item in the sensor data list.
Next_Sensor	D	Gets the next item in the sensor list and next item in the sensor data list.
Zone_Toggle[1-8]	D	Gets a toggle command from one of the zones and after determining the current state of the zone [On/Off], will send [On/Off] to the cloud toggle that zone. If manually starting a zone, the manual duration will be used as the

		time. Manual Duration is set to 5 minutes by default but can be adjusted.
Duration$	A	Gets the value of the duration slider as it is being adjusted.
Poll_Interval	A	Gets the value of the poll interval slider as it is being adjusted.

PARAMETER:

Username	S	Username given with the GreenIQ Smart Garden Hub.
Password	S	Password given with the GreenIQ Smart Garden Hub.

TESTING:

OPS USED FOR TESTING:	RMC3 1.010.0060
SIMPL WINDOWS USED FOR TESTING:	4.02.65
DEVICE DB USED FOR TESTING:	65.05.003.00
CRES DB USED FOR TESTING:	51.05.007.00
SYMBOL LIBRARY USED FOR TESTING:	944
SAMPLE PROGRAM:	GreenIQ Smart Garden Hub Demo
REVISION HISTORY:	v1.0 – Original Release

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