CRESTRON INTEGRATION MODULE

INTRODUCTION

The Garmin ConnectIQ platform allows for basic applications to be developed for their range of activity watches. The watch can communicate with the outside world using the Connect Mobile App on a paired mobile phone (iOS, Android or Windows Phone) so, given certain pre-requisites, you can now trigger events on a Crestron system from the Garmin on your wrist.
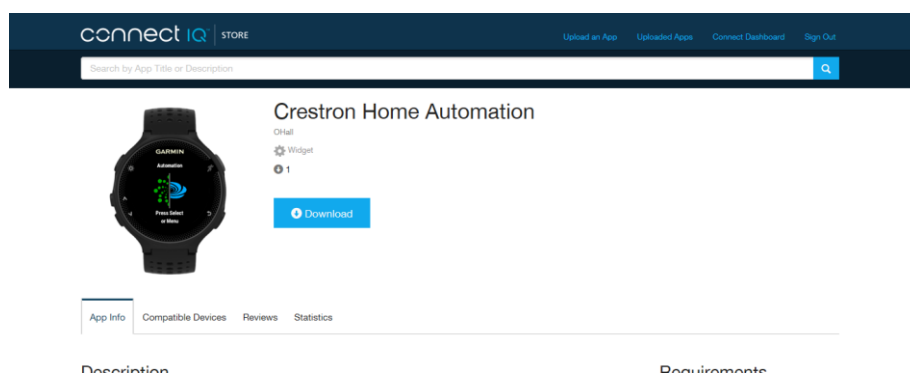
This document is intended for Authorised Crestron Programmers and assumes you are familiar with Crestron control systems, networking and programming.

To achieve this, you will need the following:

- A suitable Garmin device that supports ConnectIQ
- Install the Ultamation Home Automation Widget to the watch from the Garmin ConnectIQ store.
- Install and run the Garmin Connect Mobile on your phone – the application can be left running in the background.
- Pair the watch with Garmin Connect Mobile.
- Configure the settings for the widget either through the phone, or using the Garmin Connect desktop application.
- Update your Crestron control system with the integration module and configure one or more triggers, driving logic within your system.
- Make any necessary changes to your network infrastructure to ensure that messages from the Internet are routed correctly to the Crestron system.

INSTALLING THE WIDGET

To install the Widget on your watch, log into the Garmin app store at https://apps.garmin.com and install to your selected device.
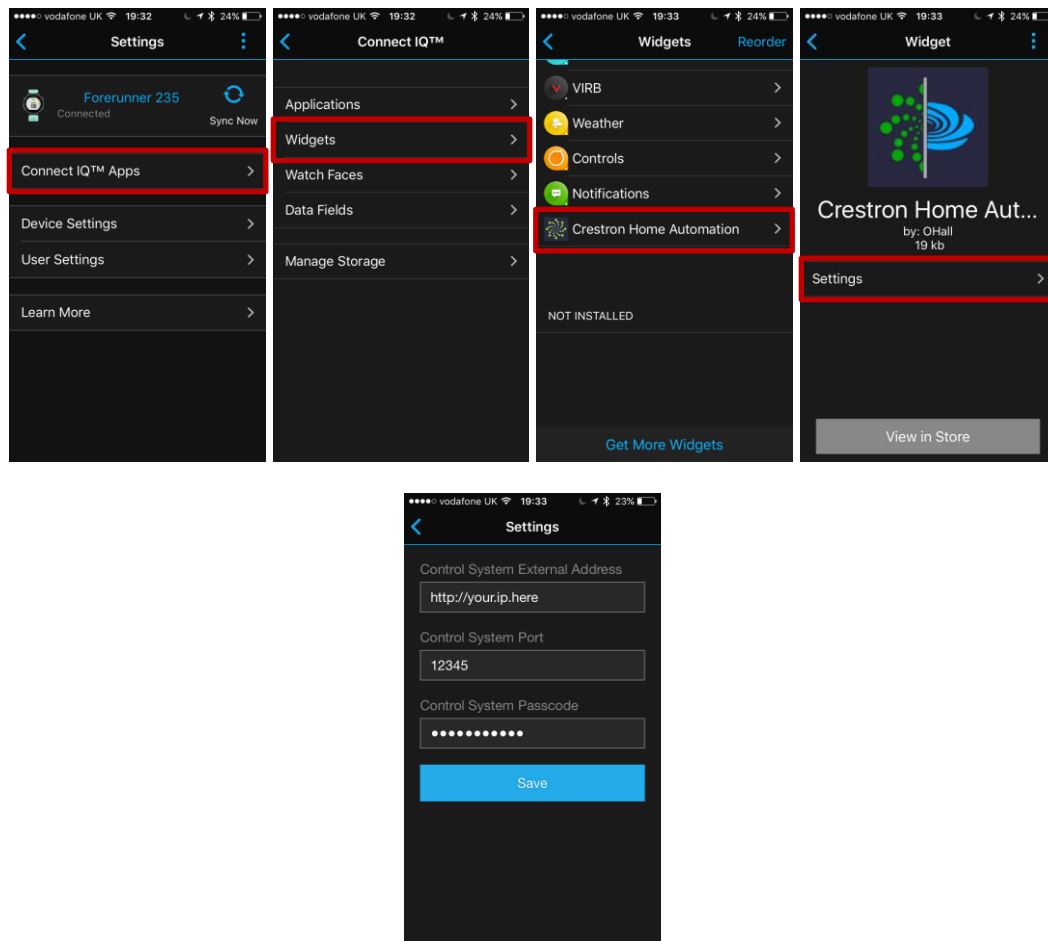

Unfortunately we cannot provide instructions on how to install the widget.

CONFIGURING THE WIDGET

Once installed, the watch widget requires a small amount of configuration so that it knows where your Crestron system lives, and you must provide a pass phrase to authenticate your messages.

This configuration can be accomplished via the Garmin Connect Mobile application on your phone or using Garmin's desktop application.

The iOS application configuration is as follows:

The control system address is the EXTERNAL HTTP address via which control system can be reached. This setting must start with HTTP:// and not include a trailing /

The port number must correspond with the TCP port which is routed to your control system, and will usually be the same as that assigned in the Crestron module (see below). You must set up any NAT or firewall rules so that requests sent to this port are routed to the control system, and (if necessary) port translation used to match the port assigned in the module.
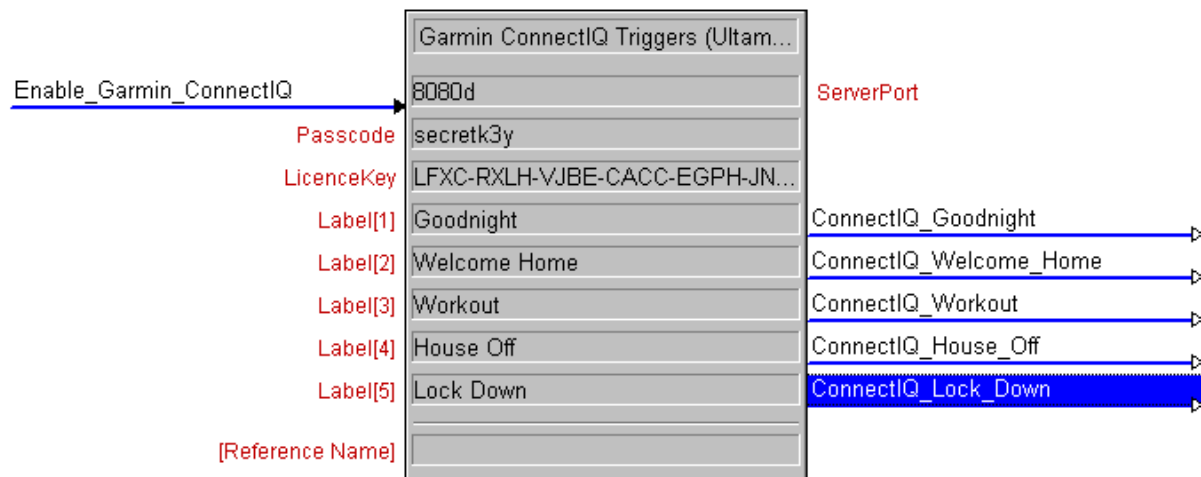
Finally, you must set a passcode which MUST match the one specified in the Crestron module (see below)

CRESTRON PROGRAMMING

Once the watch is configured, you must have somewhere to receive the messages.

Download the module/example program from the Ultamation shop and add the Garmin ConnectIQ Triggers module to your program.

Note: This module is for 3-Series processors ONLY.

Configure the signals/parameters as follows:

Enable – This will start/stop the TCP listener. We recommend you raise this signal AFTER the program has started, and do not use a '1' here.

ServerPort – This is the TCP port that the module will listen on. This port must (a) not already be in use and (b) be routable from the external IP address & port configured earlier in the Garmin Connect Mobile app.

Passcode – This must match the passcode configured in the Garmin Connect Mobile app.

LicenceKey – Each module must be licenced for the Crestron processor it will run on. Without this key, the module will function for 1 hour in "trial mode". You can check the current licencing be viewing the Error log which will include a notice for successful licencing and an error when in trial mode. The licence key is created and issued at the time of purchase from the Ultamation shop, where you must enter the processor's numeric serial number. Upon successful payment, the licence key will be emailed to you and should be copied EXACTLY. Multiple instances for multiple Garmin devices can share the same key, but must use unique ports!

Label/Trigger[n] – You can define 1 to 15 triggers which will appear on the watch after the user has updated successfully for the first time. The test for these triggers is defined in the Label parameter. When the user select one of the labels from the Connect IQ device, the corresponding trigger will fire in the Crestron program. This can then be tied to whatever logic you require.

INFRASTRUCTURE

As mentioned above, you must also configure your network infrastructure to correctly route TCP packets from the external interface/port to the Crestron processor/port.

This is beyond the scope of this document.

TESTING

Once everything is in place, scroll down from the watchface on your Connect IQ device to the Ultamation widget. Select the widget using either the select, or menu functions of the watch.

On first use, or to test the connection, scroll to the bottom of the list and you will find the "Update" command. This is not a trigger, but instead will connect to the Crestron processor and pull the programmed trigger list from the processor.

If successful, you will now find the trigger list is populated with the labels you configured in the program.

Remember: The Garmin Connect Mobile app is REQUIRED to proxy messages form the app to the Internet and onward to your Crestron system.

Therefore:

- Your watch must be connected to your phone
- Your phone must be running the Garmin Connect Mobile app (though it can be in the background)
- Your phone must have an active data connection (WiFi, 3G, 4G, etc.)
- Your app must be configured correctly
- Your firewall/router must be configured to allow packets to pass through to the Crestron system
- You must be running a licenced module on the Crestron processor.

LICENCE

This module (including software, images and any and all other associated assets distributed as part of the purchased download package) is licenced on a PER PROCESSOR basis.

A licence key is generated at the point of purchase and is linked at that time to specific information that MUST be provided at the time of purchase. A purchase should not be completed without correct information as refunds cannot be issued for errors or changes made to details following purchase.

The licence key for each processor will be delivered via email along with links to download the module. There is no physical delivery.

The module is provided without any warranty with respect to Garmin's ConnectIQ platform. We will endeavour, through best efforts, to maintain the module's functionality and any bug fixes will be provided free-of-charge. Additional functionality may be released as a variation of this module and this will be a separate, purchasable, product.