Alexa Helper

A SmartThings Suite of SmartApps for controlling your home with your voice



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**What is Alexa Helper:**

The suite of Alexa Helper SmartApps are add-ins to the main SmartThings mobile application that allow for additional control over your SmartThings devices using the Amazon Echo. The Amazon Echo already has control over switches and dimmers within the SmartThings environment; however, it cannot natively control other SmartThings devices such as locks, speakers or thermostats. In addition, there is no way to natively trigger SmartThings modes, routines or security states. With the Alexa Helper SmartApps, almost all things within the SmartThings home can be controlled, along with the ability to control other locations, a function not even the SmartThings infrastructure allows easily.

**Definitions:**

**SmartApp-**Add-in to the SmartThings mobile application that allows for functionality outside of what is provided by default. These SmartApps are not stand alone, but only operate within the SmartThings mobile application. SmartApps are open source and written in a form of Java called “groovy”.

**Parent/Child SmartApp**-A code structure within the SmartThings development environment where a single instance of a parent SmartApp can have multiple child SmartApps of the same functionality associated with it. Alexa Helper uses this structure; there can only be one instance of the Alexa Helper Parent SmartApp. However, each scenario created within the parent SmartApp is actually an instance of the child SmartApp. This structure cuts down on repeated code within a single SmartApp.

**Virtual Switch**-A device within the SmartThings environment that appears to be a regular switch. However, the device is ‘virtual’ and not tied to a physical device.

**Momentary Tile**-A type of virtual switch that behaves like a spring loaded physical switch. In other words, it is in a normally closed (off) state. When pressed, it comes on momentarily and the turns itself off.

**Virtual Dimmer**-Another type of virtual switch that acts as a dimmer. You can not only turn this virtual device on or off but you can also set different levels (0 to 100) of ‘brightness’. Again, this is just a virtual device that is not tied to any physical device in the SmartThings environment.

**IDE**-Abbreviation for “Integrated Development Environment”. In the context of the SmartThings environment, this is the web site located at <http://ide.smartthings.com> that allows for advanced functionality within the SmartThings environment. This allows you to set up custom devices and applications that appear within your SmartThings mobile application.

**GitHub**-A web-based repository that allows for distribution revision control and source code management functionality.

**OAuth**-Provides client applications a secure method for accessing resources on behalf of the resource owner. Within the context of SmartThings, certain custom applications that allow for remote access (such as remotely turning on or off a light) will require additional authentication. As the owner of the resource, you can authorize remote access to an application by enabling OAuth.

**Access Token**-A security identity that is linked to OAuth and in the context of SmartThings, allows for remote control of a locations devices.

**URL**-Uniform Resource Locator, or basically the address of a web site or online resource, such as <http://www.smartthings.com>

**Conventions:**

The following conventions are used throughout this manual.

**Web sites/URLs** - <http://www.smartthings.com>

**Website links**-“Save”, “Publish”

**Spoken Commands** - *<”Alexa, turn on the front porch”>*

**Installation:**

While there are a total of four components of Alexa Helper, only the Parent/Child(scenario) apps are required. If you are wanting to add a virtual dimmer for speaker or thermostat control, you will also install the virtual dimmer code. Finally, if you desire to generate URLs for use in Alexa Helper, you will also need the Cloud Interface code as well.

*Alexa Helper-Parent*

The code for the main parent app is found of the GitHub site:

<https://github.com/MichaelStruck/SmartThings/blob/master/Other-SmartApps/AlexaHelper/Alexa%20Helper.groovy>

While on this site, find the “Raw” button and click it. This will bring up a blank page with just the code present. Select all of the code (typically Ctrl+A) and copy It (Typically Ctrl+C).

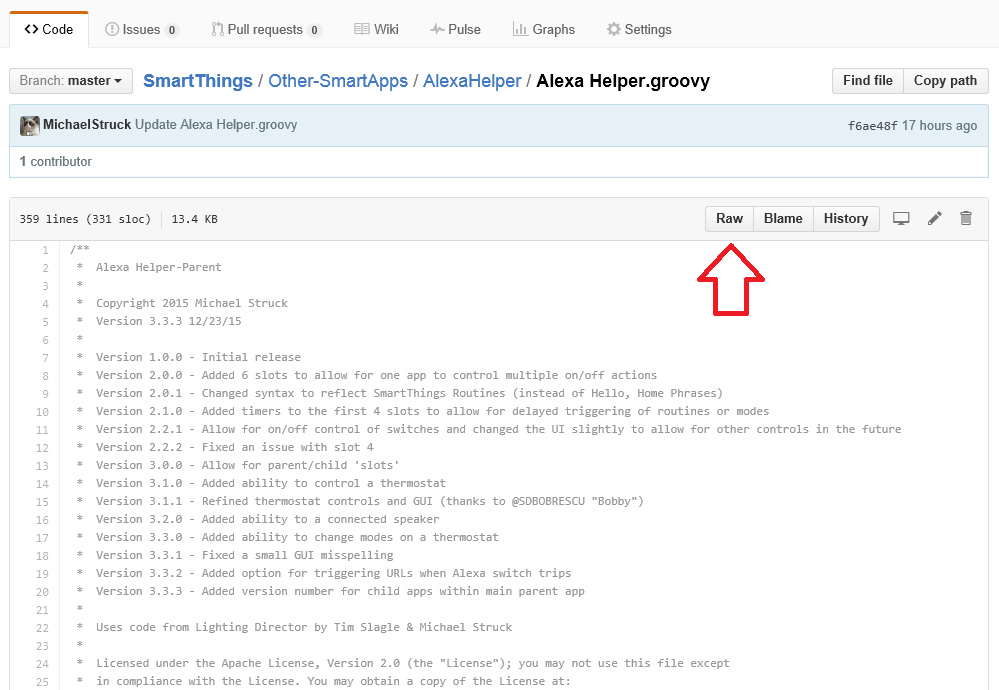


Figure - GitHub "Raw" Button

Next, point your browser to you SmartThings IDE (<http://ide.smartthings.com>) and log in.

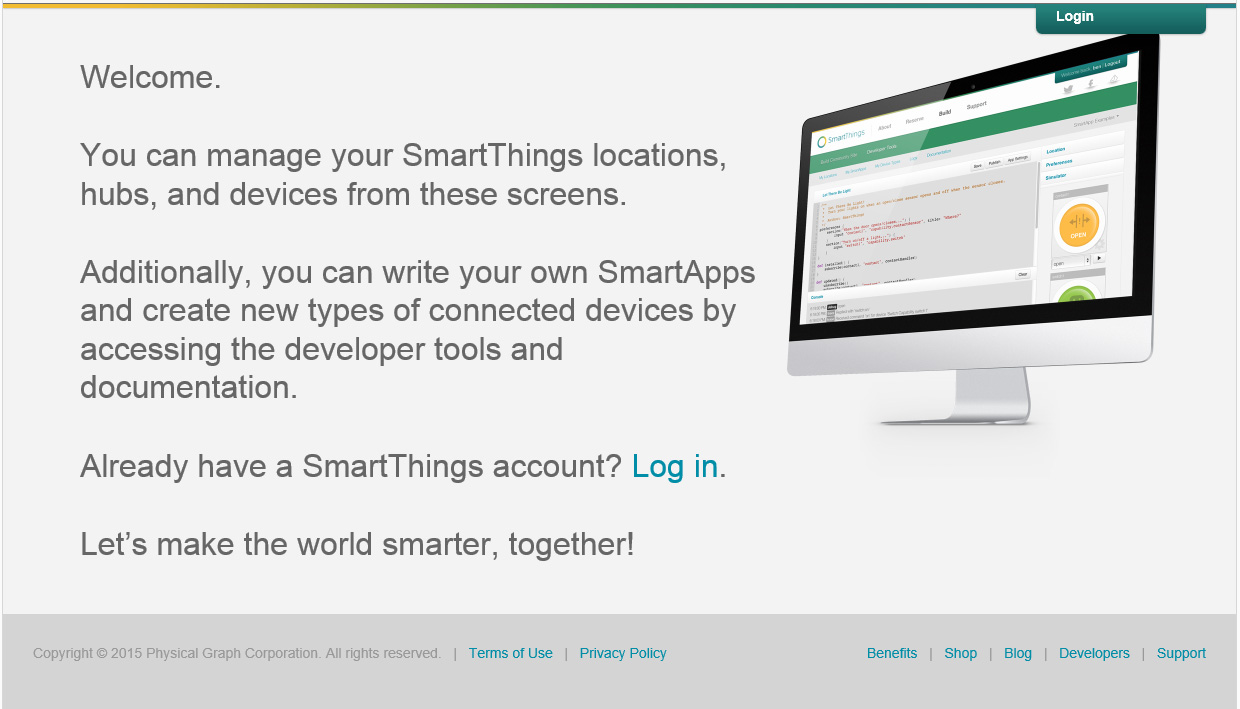


Figure - SmartThings IDE Login

Once you are logged in, find the “My SmartApps” link on the top of the page.

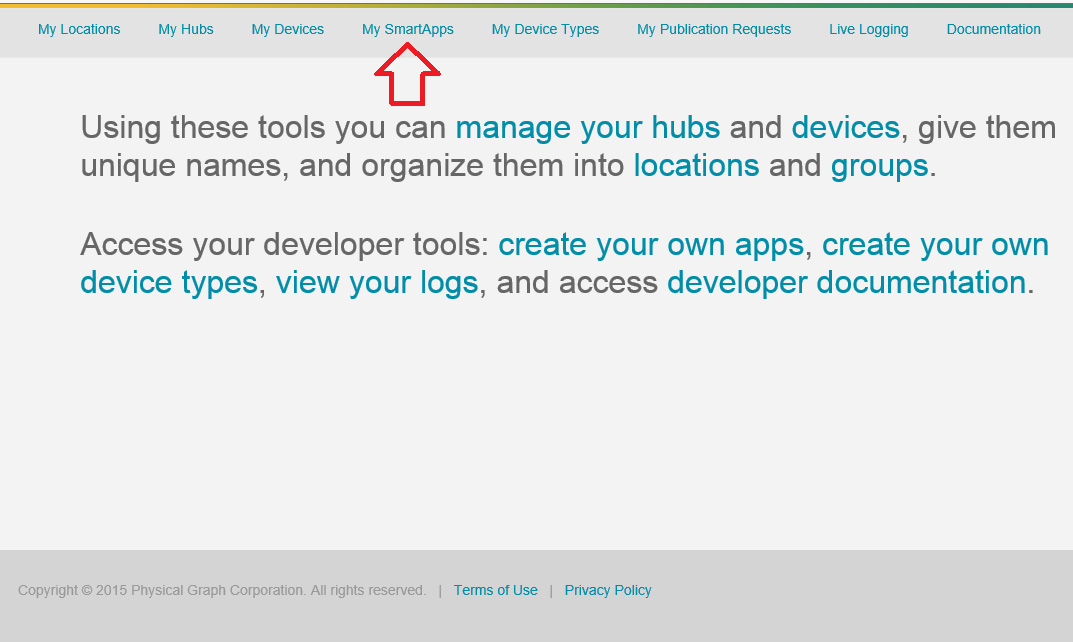


Figure - SmartThings IDE My SmartApps

Clicking this will allow you to produce a new SmartApp. Find the button called “+New SmartApp” and click it. Since you already have the code in your computer’s clipboard, find the tab along the top section called “From Code”. In the area provided, paste (typically Ctrl+V) the code you copied from GitHub. Click “Create” in the bottom left portion of the page. This will bring up another page, with the code now formatted within the IDE. If the code was copied correctly, there are no other steps except to save and publish the code. In the upper right corner of the page, find “Save”. Clicking it should give you confirmation the code was saved. Now, click publish, and you should receive a confirmation of the publishing the code.

Next, you will need to load up the child (scenario app). This code is located here:

<https://github.com/MichaelStruck/SmartThings/blob/master/Other-SmartApps/AlexaHelper/Alexa%20Helper-Scenario.groovy>

The steps for installation are almost exactly the same as above:

* Copy the raw code from the GitHub link above
* Go to the SmartThings IDE page
* Click the “My SmartApps” link
* Click the “+New SmartApp” link
* Click the “From Code” tab
* Paste the GitHub code in the open area
* Click “Create” from the bottom left corner
* Save the code using the button in the upper right hand corner of the page
* DO NOT publish this code. The child apps do not need to be published as they should only be accessed via the main (parent) app.