



HCA Tech Note 701

Using the Hubitat Rule Machine to send JSON to HCA

While many of the devices supported by the Hubitat Elevation hub will send JSON messages to HCA once they have been added in the Hubitat Maker App, not all will do this. However, the Hubitat Rule Machine can be used to make the device send JSON messages to HCA when a device action occurs.

An example of such a device is the Zooz Zen34 Z-Wave rocker switch. This switch is essentially a two-button keypad, and it can report four states: pushed, double-tapped, held, released. This makes it a good candidate to provide wireless control via HCA of, for example, UPB lighting at a location where it would be inconvenient to install a wired UPB switch. UPB switches also have the same four actions.

The first step is to add the device to the Hubitat Elevation using the normal pairing process. Once the device is added (in this example “Utility Overhead Light Switch”), it should be enabled in the Maker App as shown in HCA Tech Note 613. After doing this, the Hubitat device discovery program “#1 Do Discover” in the HCA Hubitat library should be run and the addition of the new device in HCA confirmed. The next step is to add rules to the Hubitat Rule Machine that will send JSON to HCA when the appropriate operation is performed using the switch.

First, select the Rule Machine app and “Create New Rule” and name it as appropriate, e.g. “Utility Overhead Light Switch Button 1 DoubleTapped”.

Next, use the “Select Trigger Events” button to create the trigger. In the next menu, for the capability of the Trigger Event, select “Button” from the drop down, then “Click to set” to select the device, in this example “Utility Overhead Light Switch”, and press “Update”. This results in a page where you can select which of the two buttons triggers the action, as well as the type of button action [pushed, held, released, doubleTapped]. For this example, select “doubleTapped” and “Done with this Trigger Event”.



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Select Trigger Events (ANY will trigger)

Utility Overhead Light Switch button 2 doubleTapped

Capability Button

Button Device * Utility Overhead Light Switch	Button number* 2	Button pushed/held/doubleTapped/released doubleTapped
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The next step is to select the action that takes place when the trigger event occurs. This is done by choosing “Select Actions to Run” on the Rule Definition screen.

Send, Speak or Log a Message, Send HTTP Request	Send HTTP Post
Select content type json	Enter URL to send request to http://192.168.1.47:8088/Hubitat
Enter body for POST <pre>{ "content": { "name": "doubleTapped", "value": 2, "displayName": "Overhead Light Switch", "deviceId": "45", "descriptionText": "Overhead Light Switch button 2 was doubleTapped", "unit": null, "type": "digital", "data": null } }</pre>	
Delay? none	
Cancel this action	Done with action

A drop down will appear “Select Action Type to add” and you should select “Send, Speak or Log a Message, send HTTP Request”. When this is done, another drop down will appear: “Select Which Action”. Choose “Send HTTP Post” from the drop down. Another drop down will appear: “Select Content Type”. Choose “json”, and where it says: “Enter URL to send request to:” enter



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HTTP://[IP address of your HCA Hubitat Event Server]:[port of your HCA Hubitat Event Server]/Hubitat

e.g. HTTP://192.168.1.47:8088/Hubitat

In the box labeled “Enter body for POST”, you would enter the JSON to send, e.g.

```
{"content":{"name":"doubleTapped","value":"2","displayName":" Utility Overhead Light Switch","deviceId":"45","descriptionText":" Utility Overhead Light Switch button 2 was doubleTapped","unit":null,"type":"digital","data":null}}"
```

Then select “Done with action”.

The general form of this for each rocker switch button and action is:

```
{"content":{"name":"[BUTTON ACTION]","value":"[BUTTON NUMBER]","displayName":"[DEVICE NAME]","deviceId":"[ DEVICE ID#]","descriptionText":"[DEVICE AND ACTION]","unit":null,"type":"digital","data":null}}"
```

The DEVICE ID# can be obtained by looking at the device’s User Class Object tab after it has been added to HCA. The exact form of the JSON was obtained by looking at the JSON in the HCA Interface Viewer sent by another button device which sends JSON without having to use the Rule Machine.

You would then use the above procedure to create additional rules for each button and button function for which you wish to send JSON, editing the JSON as appropriate for each button and action.

You can then use the My Hubitat User Event Handler program in HCA to perform whatever actions you want HCA to do when the Hubitat device’s buttons are pressed.

##end##