



HCA Tech Note 704

Library Package Self Help

Suppose you are working to resolve an issue you have with a package downloaded from the library, for example the Hubitat package. What to do? Here are some of the HCA Tools *you already have and know how to use*, that can help find the problem.

The programs in a downloaded package aren't anything special – they are just the same HCA programs you already know how to create. As with any HCA program you can look at their implementation and then use the tools described here to try and resolve issues. While you may not have the expertise to understand all that the programs do, there are some general questions these tools help answer.

As an example, lets use the Hubitat package.

- Are the programs in the Hubitat package getting executed? The Log will help here.
- What are the programs doing? The log and the Program Notes Viewer are the tools you need.
- What is being sent to the Hubitat and what is it responding? Are their error responses or no responses? Using HTTP element logging will help.
- Is the Hubitat sending to HCA and HCA receiving from it? The interface viewer is the key tool.

These same tools and techniques also help resolve problems with all programs downloaded from the online library.

Finally, as regular HCA programs you are free to modify them to customize for your needs.

Step-by-step program execution log

Your first tool used should always be the log as it shows step-by-step what the program is doing. Normally when you download something from the library it gets imported to your design with logging disabled. To reenable logging for a program, open the properties of the program and enable logging from the Log tab.

When the program is run, an entry is made in the log for each element that it executes. This is very useful for making sure the program performs as you expect, but it can fill the log quickly. Use this option to disable element logging when the program runs.

Don't log elements actions when the program runs

Untick the box to enable logging then close the popup with OK.

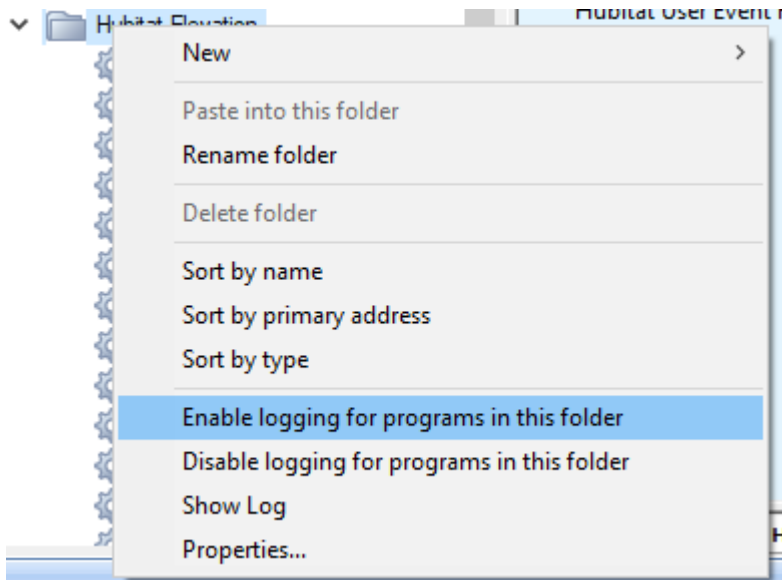
TechSup@HCATech.com

www.homecontrolassistant.com



HCA Tech Note 704

Here is a tip: To enable or disable logging for all programs in a folder, right click on the folder and there are menu options for that:



Program Note element

Many of the programs from the online library contain “Program Note” elements or have Compute elements that use the “_PgmNote” function. These are added by the developer to help in seeing what the program is doing as it executes. That output might be useful for you to see as well. Open the “Program Notes Viewer” from the “Tools” ribbon category.

First click on the “Options” button in the Program Notes Viewer and you get one of those two-column popups that you should be very familiar with. Move to the right list any of the programs you want to see notes from. If a program isn’t seen in either the left or right list, then it contains no Program-Notes element or _PgmNote functions in Compute elements.

Leave the viewer open and then cause whatever action you are trying to figure out. The viewer shows any program notes output.

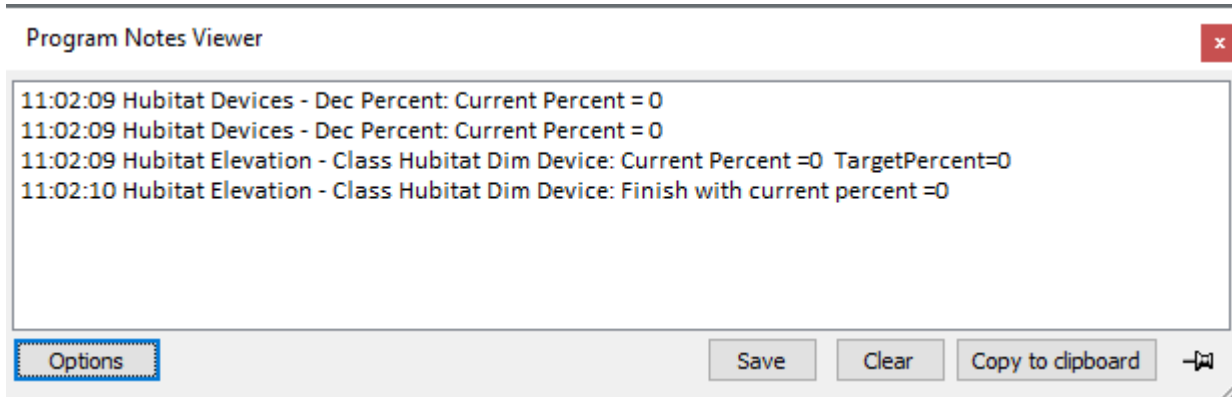
You should be able to get a sense of what the program is doing or that it is executing.

TechSup@HCATech.com

www.homecontrolassistant.com

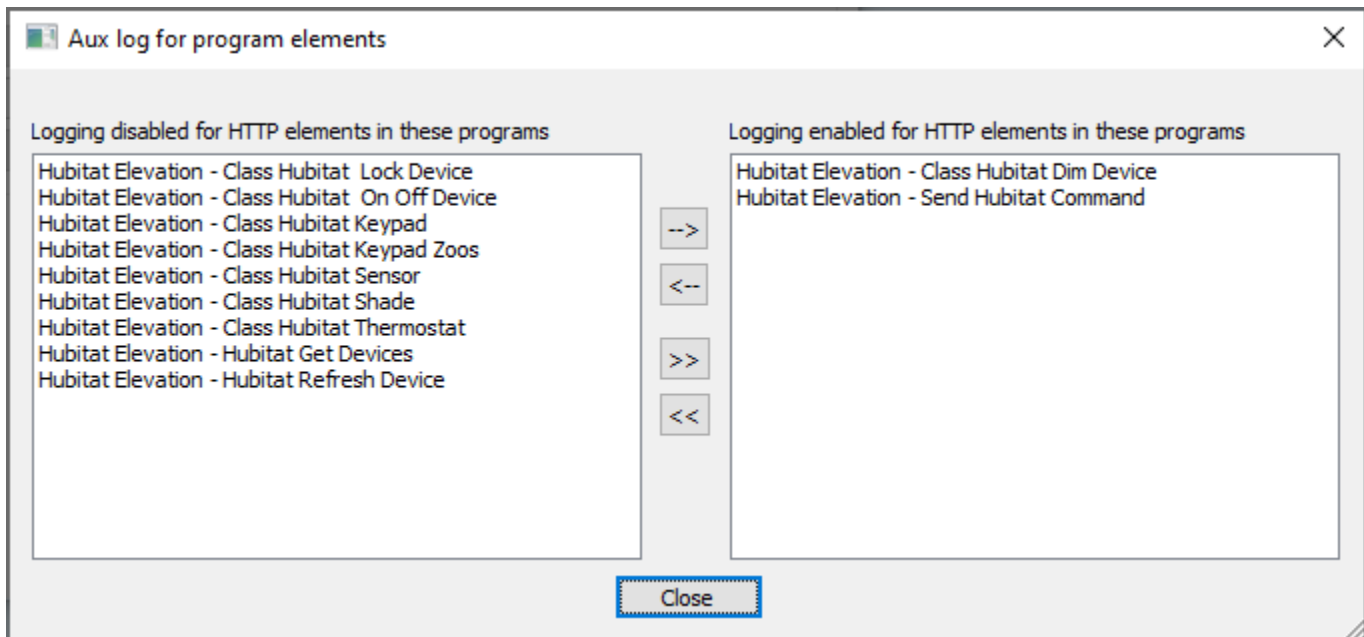


HCA Tech Note 704



HTTP element logging

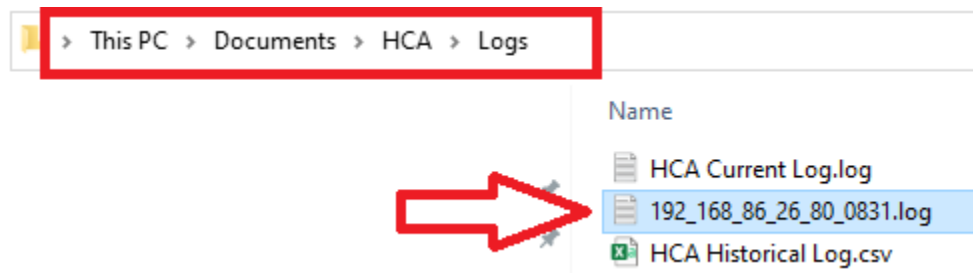
Many of the library packages use the HTTP element to send messages as part of their operation. HCA has a way to show what the HTTP message transmitted was and any response received. Open the “Aux Log Setup” tool from the “Tools” ribbon category. Next, click on the “HTTP element” button. Another 2-column popup lets you select which programs contain HTTP elements that generate this type of logging. Make your selection and the close with the “Close” button.





HCA Tech Note 704

Unlike viewers, HTTP element logging goes to a file. That file is in the HCA Documents area “Logs” sub-folder. The filename contains the HTTP destination address – where the HTTP message was sent – rendered into a useable filename. If you are unsure of what that filename will be, after you do whatever action that causes the program to execute, use the Windows file explorer and look for the most recent files in the “Logs” sub-folder.



Once you have the log you can look for error responses or non-response timeouts.

Interface Viewer

If part of the issue you are exploring receives message from an interface, you can use the “Interface Viewer”. Open this viewer from the “Interfaces” ribbon category. Enable for that interface and what actions to view – I would select all actions.

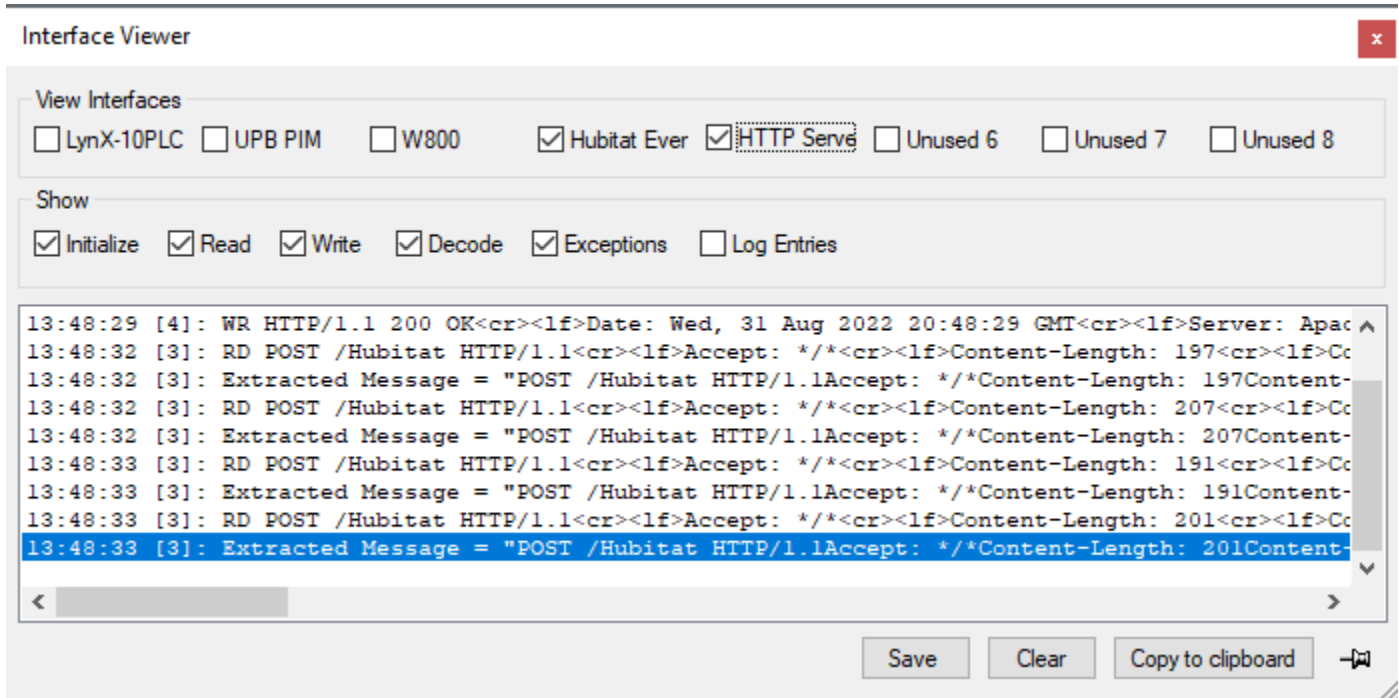
It may be hard to know what goes to the interface viewer and what goes to a HTTP log file. For example, controlling a device by HTTP is a message transmission so that would go to a HTTP log file. An operation like Get-Status is a message transmission and a reply, also using an HTTP element, so it also logs to a file.

However, an asynchronous message reception – for example a message from the Hubitat to have HCA control a device - goes through the interface viewer.

Again, you may not understand what the message is, but you can see that some sort of message is being received (or not). And you can look for obvious error messages being sent.



HCA Tech Note 704



Here is a tip that may help if you are looking into a potential problem with the Hubitat package: When working with Hubitat there are two HTTP Interfaces: The “Hubitat Event Server” and the “HTTP Server”.

When the Hubitat is controlling a HCA managed device – you use the Hubitat UI and control a device manually or you speak to a voice assistant – that message from Hubitat to HCA arrives on the “HTTP Server” interface.

When Hubitat sends a state update of a Hubitat managed device to HCA, those messages arrive on the “Hubitat Event Server” interface.

##end##