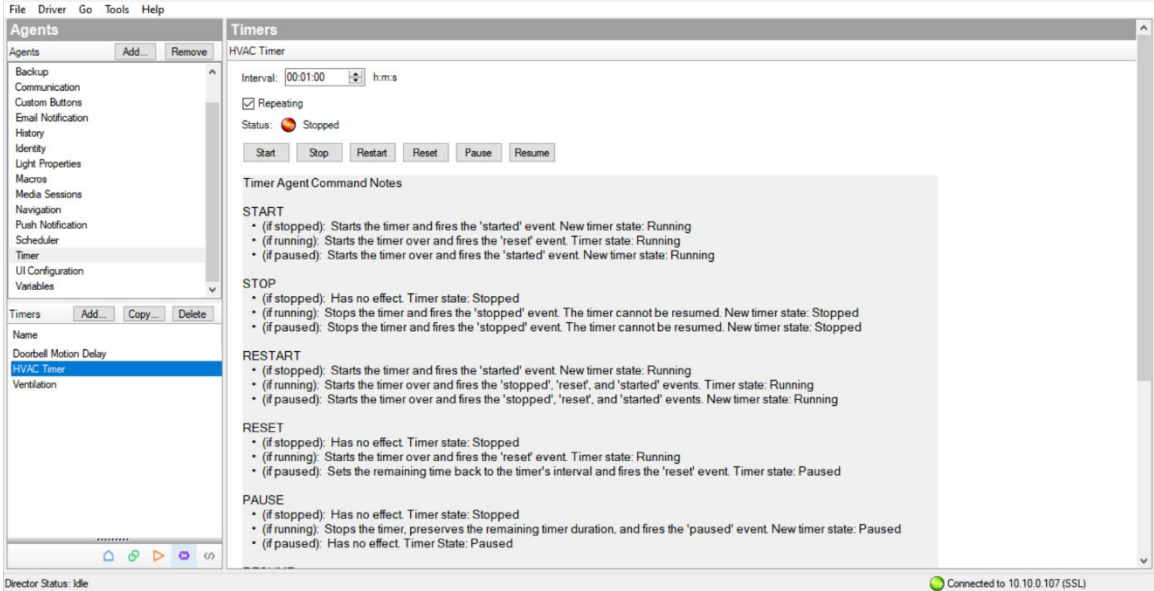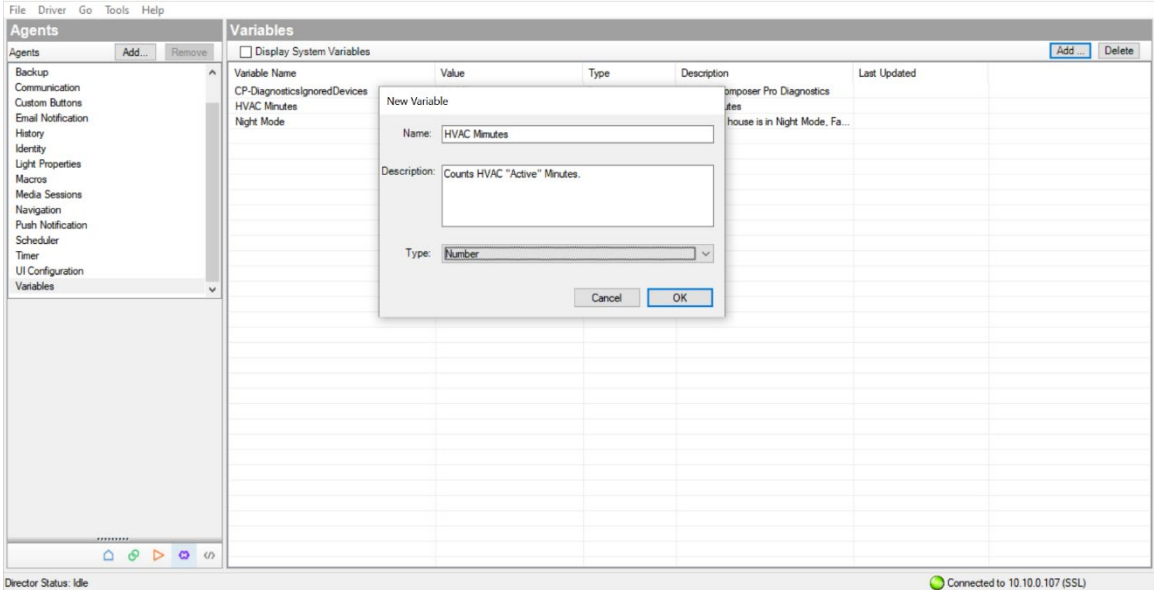# Programming Tips and Tricks

HVAC USAGE NOTIFICATION PROGRAMMING

In the example below, we're tracking how many minutes our HVAC system runs each day (for both heating and cooling), and getting a notification each night, letting us know how long it's run for. This same programming concept could easily be adapted to show how long a TV has been on, or a door opened, or you could track pool pump run times, etc. – anything that doesn't already have a native timer built into the driver... you get the idea...

1. Create an appropriately named one-minute repeating timer, **HVAC Timer**.

2. Create a corresponding number variable, **HVAC Minutes**.

3. In the Programming tab, under the Thermostat Variables, program:
   [When HVAC State Changed]
   –> If State is **Stage 1 Cool** (and/or **Stage 1 Heat** if you want to see Heating minutes)
      –> Start **HVAC Timer**
   –> If State is **Off** –> Stop **HVAC Timer**

4. In the Programming tab, under the HVAC Timer, program:
   [When HVAC Timer expires]
   –> Variables > **HVAC Minutes** = Variables > **HVAC Minutes +1**

5. Set up a Push Notification being sure to include the following variable {Variables::**HVAC Minutes**}. You can add other variables too for additional information, as in the example below. (The variables can be found by clicking on **Add Variable** in the bottom-left corner of the Push Notification agent screen, then navigating to variables and/or a specific device in the drop-down).
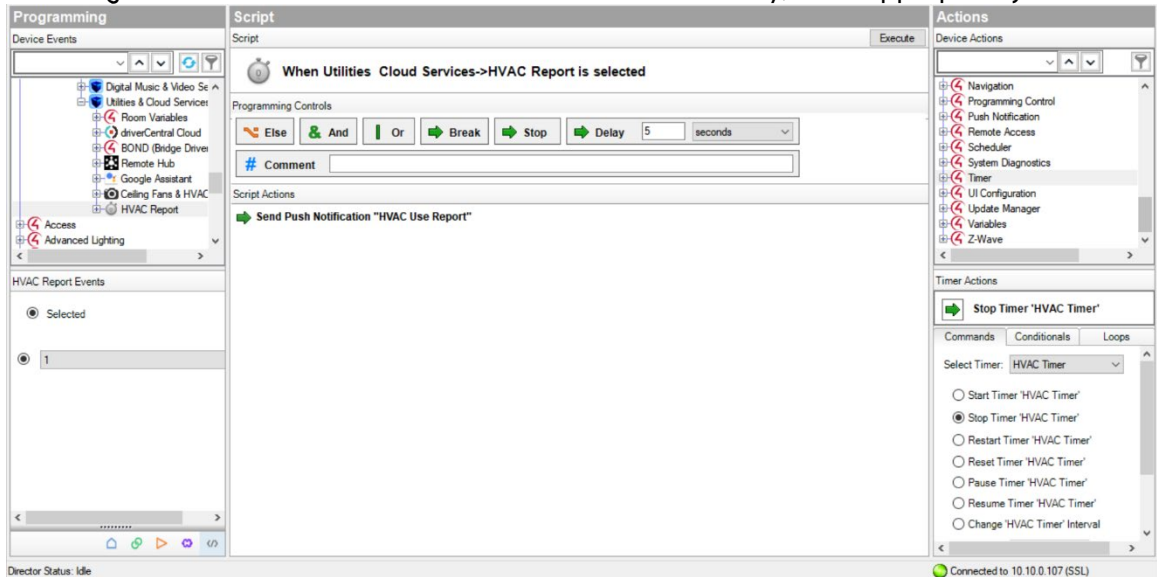

6. Set up a scheduled event once a day to send the notification and reset the variable back to zero.

7. Optionally, you could program a **Custom Button** or **Experience button** to send the notification as well. (Just be sure to set the variable back to zero once a day, or as appropriate).

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