DYNAMIC AUTOMATION MADE SIMPLE: A TRIGGER AND REACTION MODEL SSC24-P1-08 - RYAN MELTON - RYANGOPENCS.COM

2 STEPS TO DEFINE YOUR AUTOMATION



Trigger Groups spawn a microservice which process all triggers sequential have a high priority Trigger or overlapping Triggers you may want to close t and create a new group.

Group Name
DEFAULT

Input Left Operand: INST HEALTH_STATUS TEMP3 (CONVERTED)

emetry Item

 RAW
 O
 CONVERTED
 O
 FORMATTED
 O
 WITH_UNITS
 O

NST

ALTH_STATUS

Description: Temperature #3

Input Right Operand

DEFINE THE TRIGGERS

Triggers are based on values received in telemetry

They can compare the values to constant numbers or other telemetry values with standard operators: < <= > >= != == CHANGE, NO CHANGE.

Triggers can be combined with "AND" or "OR" logic to make complex triggers.

DEFINE THE REACTIONS

Edge Reactions - React to the trigger changing state, from True to False, or vice versa Level Reactions - React periodically to a trigger being a specific state, True or False Actions - Send a command, Run a Script, or Notify the User Snooze - Sets a minimum delay between taking action(s)

1 Input Triggers

When should the Action run? Edge only runs the action when the trigger transitions to active. If the trigger is currently active the action will not run. Level runs the action if the trigger is currently active.

Edge Trigger
Level Trigger

DEFAULT: TRIG2 (TEMP3 < -10)</td>

DEFAULT: TRIG1 (TEMP2 > 30)

Input Actions
Snooze and Review

Snooze and Review
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RECEIVE TELEMETRY

TRIGGERS CHANGE STATE (OR MAINTAIN STATE)

Triggers evaluate the new telemetry and either change state, or maintain their state based on the telemetry values and limits states

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COSMOS receives telemetry from your satellite, decommutates the data, and performs limits monitoring

REACTIONS RESPOND TO TRIGGERS

Reactions respond to triggers by sending a command, running a script, or simply alerting the user. Snooze settings can be used to prevent level reactions from causing continous responses.

