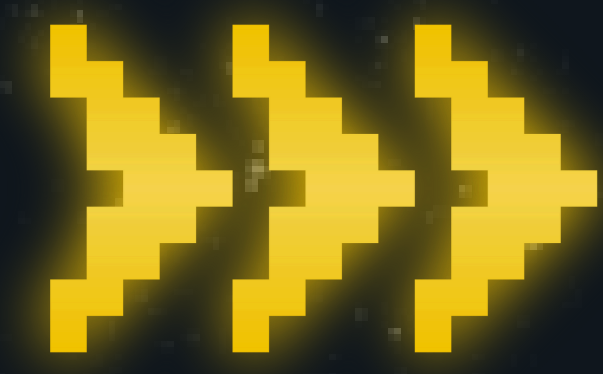


DYNAMIC AUTOMATION MADE SIMPLE: A TRIGGER AND REACTION MODEL

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2 STEPS TO DEFINE YOUR AUTOMATION



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

Group Name: DEFAULT

1 Input Left Operand: INST HEALTH_STATUS TEMP3 (CONVERTED)

Operand Type: Telemetry Item

RAW CONVERTED FORMATTED WITH_UNITS

Select Target: INST

Select Packet: HEALTH_STATUS

Operator: TEMP3

Description: Temperature #3

Continue

2 Operator

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)

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)

DEFAULT:TRIG1 (TEMP2 >30)

2 Input Actions

3 Snooze and Review

Actions	Updated At	Name	State	Enable / Disable	Snooze	Snooze Unit	Triggers	Level	Actions
	2024-07-28 21:30:50.363	REACT1		↓	300		DEFAULT:TRIG2	EDGE	
	2024-07-28 21:31:12.045	REACT2		↓	300		DEFAULT:TRIG1	LEVEL	

Events

Time	Type	Source	Message
2024-07-28 21:31:12.045	REACTION	REACT2	REACT2 was created
2024-07-28 21:31:09.411	TRIGGER	TRIG2	DEFAULT:TRIG2 (TEMP3 <-10) is false
2024-07-28 21:30:54.907	REACTION	DEFAULT_OPENC3_REACTION	DEFAULT_OPENC3_REACTION was deployed
2024-07-28 21:30:50.363	REACTION	REACT1	REACT1 was created
2024-07-28 21:30:48.422	TRIGGER	TRIG2	DEFAULT:TRIG2 (TEMP3 <-10) is true

Updated At	Name	State	Enable/Disable	Expression	Reactions	Actions
2024-07-28 21:28:56.422	TRIG1		↓	TEMP2 > 30		
2024-07-28 21:29:18.421	TRIG2		↓	TEMP3 <-10		

Events

Time	Type	Source	Message
2024-07-28 21:29:18.421	TRIGGER	TRIG2	DEFAULT:TRIG2 (TEMP3 <-10) is false
2024-07-28 21:28:57.423	TRIGGER	TRIG2	DEFAULT:TRIG2 (TEMP3 <-10) is true
2024-07-28 21:28:56.422	TRIGGER	TRIG1	DEFAULT:TRIG1 (TEMP2 > 30) is true
2024-07-28 21:28:37.066	TRIGGER	TRIG2	DEFAULT:TRIG2 (TEMP3 <-10) was created
2024-07-28 21:28:35.417	TRIGGER	TRIG1	DEFAULT:TRIG1 (TEMP2 > 30) is false

THEN AUTOMATION DOES THE REST



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



RECEIVE TELEMETRY

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 continuous responses.

