Training Kit SC100-MP Requirements

# Digital Input FB [4]

The 5 UI1..4 inputs are model using 4 open loop sensor objects. Each object has the with the following characteristics

1. Digital output network variable reporting HW state uses SNVT\_switch type.
2. Include a CP implemented to define the heartbeat (cpMaxSendTm) Default 60s. Note this type uses 0.1s resolution which you can ignore. Always round up to the nearest multiple of 10. In the absence of input change, the current output NV propagates at this rate.
3. HW level transitions reflected on output NV with minimum delay.
4. It is preferred to have a cpMaxSendTm for each sensor object, but if necessary, a single CP could apply to all 4.

# Digital Output [5]

The 4 DO1..5 outputs are modeled using 5 open loop actuator objects. Each object has the following characteristics.

1. Digital input network variable uses SNVT\_switch type.
2. Include a CP implemented the defines the maxRcvTime Default 180s. Note this type uses 0.1s resolution which you can ignore. Always round up to the nearest multiple of 10. Value is heartbeated at this rate.
3. A maxRcvTime of 0 implies the input is not checked.
4. A defOutput CP, cpDefOutput (SNVT\_switch). This value is played at reset, and if the maxRcvTime expires.

# Temperature Sensor

1. Report temperature using an output network variable of SNVT\_temp\_p
2. Provide a configuration property for send on delta (SCPTsndDelta SNVT\_temp\_p) default 0.10C
3. Include a CP implemented to define the heartbeat (cpMaxSendTm) Default 60s. Note this type uses 0.1s resolution which you can ignore. Always round up to the nearest multiple of 10. In the absence of significant input change, the current output NV propagates at this rate.
4. Provide SCPTgain and SCPToffset CPs for sensor calibration. 1/1

The LonMark Object self doc string should look like this:

"&3.4@0NodeObject,1040TempSensor,1[4DI],3[5DO

The NV self doc strings should map each DI or DO FB so there will should be a total of 11 individual FBs when rendered in IzoT CT.