

## Model Commanding

### Parameters:

```
subsystemType : {ApogeeBACnet, ApogeeBACnetFLN, 3rdPartyBACnet, Modbus, DesignoClassic, SystemOne, SystemOneAX100}  
pointType: {BO, MO, AO, BV, MV, AV, BI, AI, HoldingReg1, HoldingReg2}  
commandType: {slider, buttons_plusMinus, textBox, buttonsOnOff, buttons3stages, NA}  
commandToPointValue : { readOnly, cancel, anyValue, higherByOne, lowerByOne, lowBoundary, highBoundary, lowBoundaryBeyond, highBoundaryBeyond}
```

Point type:

BO (Binary Output) or  
BV (Binary Value)

A UI control for BO (Binary Output) or BV (Binary Value) point types. It features a title bar labeled "Inactive". Below the title bar, there are two buttons: "Inactive" (highlighted in blue) and "Active" (greyed out). To the right of these buttons are two circular icons: one with an "X" and one with a checkmark.

### Constraints:

```
// if pointType is BO or BV, you can only command it +1, -1, cancel, command type is fixed to OnOff and it's not readOnly  
# (pointType = BO) || (pointType = BV) => ((commandToPointValue = higherByOne) || (commandToPointValue = lowerByOne) || (com
```

Point type:

MO (Multi-state output) or  
MV (Multi-state value)

A UI control for MO (Multi-state output) or MV (Multi-state value) point types. It features a title bar labeled "UnDef". Below the title bar, there are four buttons: "UnDef" (highlighted in blue), "Poor", "Okay", and "Good". To the right of these buttons are two circular icons: one with an "X" and one with a checkmark.

```
// if pointType is MO or MV, you can only command it +1 (and another), -1 (and another), cancel, command type is fixed  
# (pointType = MO) || (pointType = MV) => ((commandToPointValue = higherByOne) || (commandToPointValue = lowerByOne) ||
```

Point type:

AO (Analog output) or  
AV (Analog value)

A UI control for AO (Analog output) or AV (Analog value) point types. It features a title bar labeled "122 °F". Below the title bar, there is a slider control with a minus button on the left and a plus button on the right. To the right of the slider is a text box containing the value "122". To the right of the text box are two circular icons: one with an "X" and one with a checkmark.

```
// if pointType is AO or AV, commandType cannot be those used for BO and MO, and it's not readOnly  
# (pointType = AO) || (pointType = AV) => (commandType != buttonsOnOff) && (commandType != buttons3stages) && (commandToP  
// if commandType buttons + - (and AO or AV), commandToPointValue one higher or one lower  
# ((pointType = AO) || (pointType = AV)) && (commandType = buttons_plusMinus) => (commandToPointValue = higherByOne) || (  
// if commandType is slider, you cannot go beyond the boundaries and no need to test +1 -1  
# ((pointType = AO) || (pointType = AV)) && (commandType = slider) => (commandToPointValue != lowBoundaryBeyond) && (comm
```