USER GUIDE

Turntide Tagging Guide
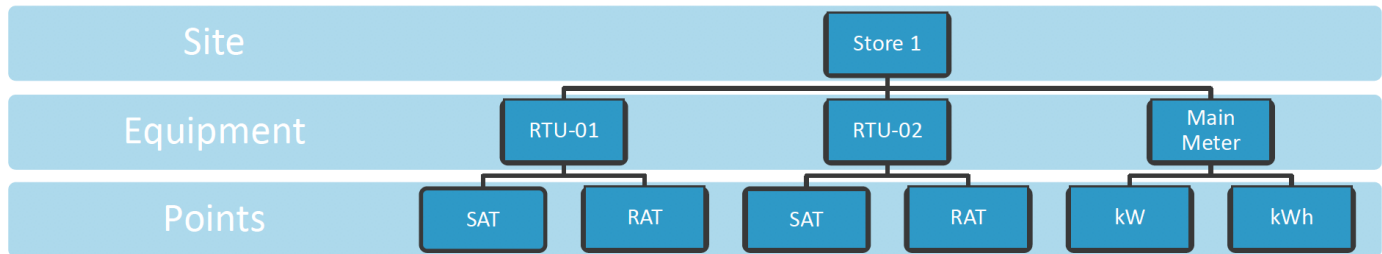
TABLE OF CONTENTS
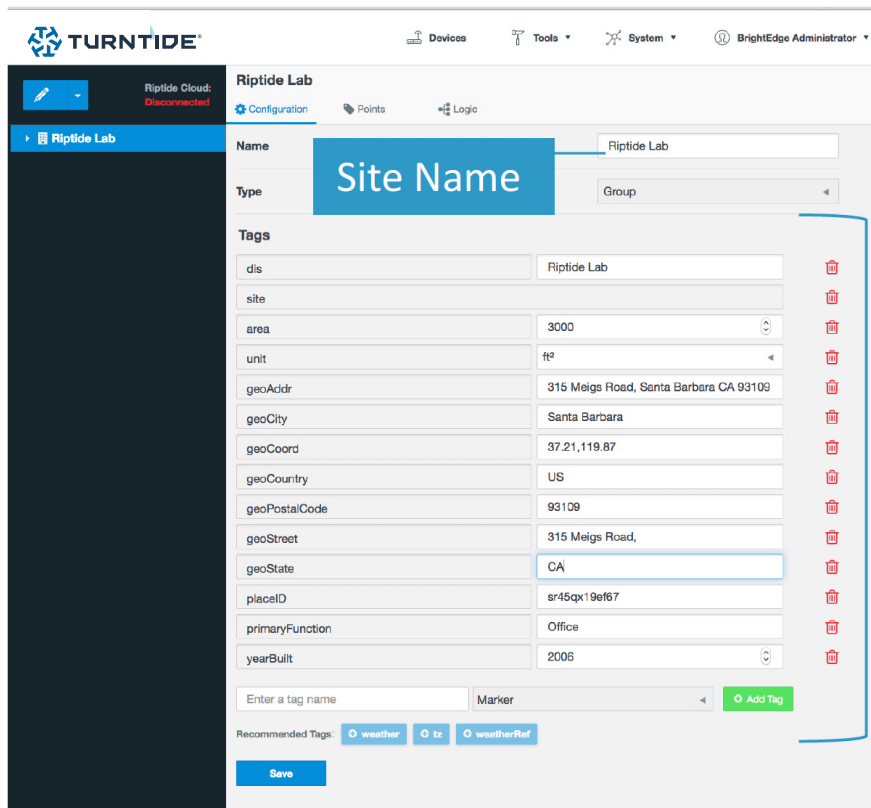
System Tagging

Bacnet-Centric Abstraction Layered With Haystack Tags

Site Tags

Core Required Tags

dis: Is appended to the Site Name (optional)

geoAddr: Street Address, City, State, Zip code

geoCoor: Geo-coordinates of the Site (Can be found by right click in google maps on the address, which then displays the geo-coordinates)

placeID: Adds available locational info such as, opening hours and phone number.

Can be found using https://developers.google.com/places/place-id
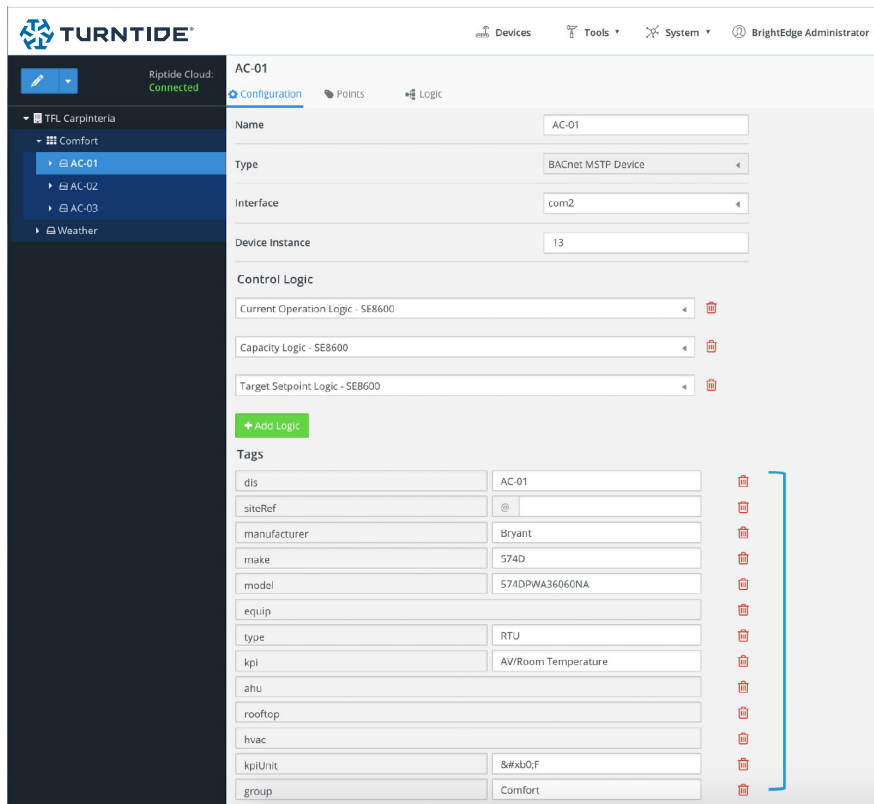
geoCity: City the site is in

geoState: State the site is in

Tips:

- Any **Str** tag added can be used to filter sites in the Web Application

- Allowing browser Location Services will attempt to auto populate fields (check for final location accuracy!)

- Add a Weather device for correct display of the weather conditions

Device Tags

Auto Added Tags

dis: Display Name

siteRef: Site the point is in

Core Required Tags

Equip: Denotes it as a piece of equipment

group: Where the device is group on the Equipment View in the UI

locationServed: Name of area served

type: Type of equipment, this drives how the auto graphics will be displayed (see graphics tagging for more information
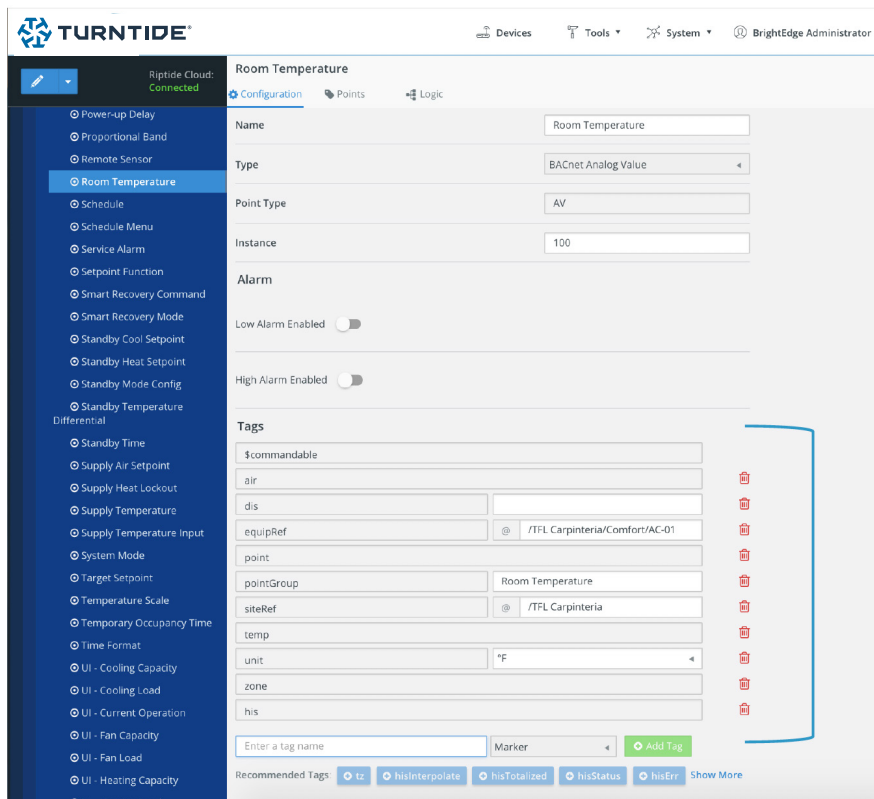
kpi: Value displayed in the site summary page and Equipment View Chart

kpiUnit: Unit of the kpi point

Tips:

- SecondaryKpi and TertiaryKpi can be added for multiple point display on Equipment
- View charts

Point Tags

Auto Added Tags

equipRef: Equipment the point is connected to

siteRef: Site the point is in

his: Point data is being stored

$commandable: Point value can be changed

dis:

Core Required Tags

point: Denotes it as a point

pointGroup: Point Group for display in the UI Advanced Equipment view

unit: Unit of measure
A unit deriving point type must be added for all unit points (see Unit Deriving Tags)
Point specific tags as per Project Haystack Standard

Tips:

- Check the Recommended Tags at the bottom to quickly add relevant tags

Unit Deriving Tags

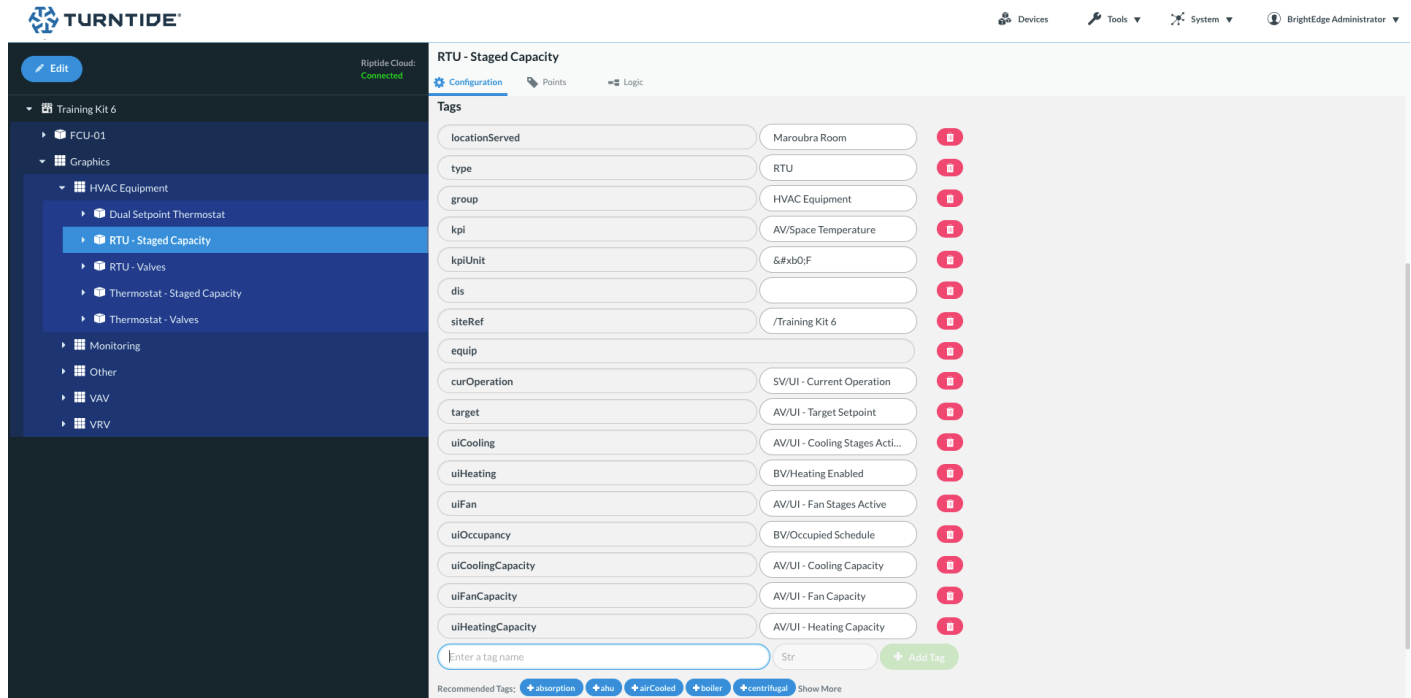| TAG	UNITS	APPLICATION
angle	deg	Angle
area	$ft^2 \mid m^2$	Area
barometric	$inHg \mid mbar$	Barometric Pressure
cloudage	$\%$	Cloud Cover
co	ppm	Carbon Monoxide
co2	ppm	Carbon Dioxide
coolingCapacity	$BTU/h \mid kW \mid tonref$	Ability of a chiller to remove heat
damper	$\%$	Damper Position
dew	$C \mid F$	Dew Point Temperature
direction	deg	Compass Direction
ductArea	$ft^2 \mid m^2$	Area of a duct
efficiency	$\% \mid COP \mid kW/ton$	Chiller Efficiency
energy	$BTU \mid MWh \mid kWh \mid m^3 \mid tonrefh$	Energy Consumption
filter	$Pa \mid inH2O \mid kPa \mid psi$	differential pressure across a filter
flow	$ACH \mid L/s \mid cfm \mid fpm \mid gph \mid gpm \mid lph \mid lpm \mid m/s$	Liquid / Gas flow
humidity	$\%RH$	Air humidity
irradiance	W/m^2	Energy arriving at the earth surface
level	$\%$	Fill level of a tank
lightLevel	$lumen \mid lux$	Light Level
load	$\%$	Chiller load
pf	pf	Power Factor
precipitation	$in \mid mm$	Amount of rain
pressure	$Pa \mid inH2O \mid kPa \mid psi$	Pressure
reactive	$kVAR \mid var$	reactive power or imaginary power
speed	$\% \mid km/h \mid mph \mid rpm$	Speed
temp	$C \mid K \mid F$	Temperature
thd	$\%$	Total Harmonic Distortion
visibility	$ft \mid km \mid miles$	Distance of visibility
volt	V	Electrical Voltage
volume	$ft^3 \mid gal \mid m^3$	Volume
wetBulb	$C \mid F \mid K$	Wet Bulb Temperature

QuickView Graphics

This user guide outlines how to setup and configure the Turntide QuickViews. Each QucikView type has a table that lists all the tags that are applicable to the view Type with a description of each tag. The description denotes the device point types that will work with the tag (A = Analog | B = Binary | M = Multi-State | S = String) a labeled example graphics.

QuickViews are set in the Turntide Hub in the Device Configuration page. First add the tag **type** to the device and set the tag value to the QuickView graphic desired for that device (red circle). Each device can only render a single QuickView. Add the appropriate tags for the QuickView type as shown in this guide by using the **Add Tag** button (blue circle), these tags should be Str tags.

Once the relevant tags have been created (green circles), device points are assigned to each tag's value. Device points are added in the format of **point_type/point_name**. The points added must be on the device being configured.

Point Types		
AI	Analog Input	
AV	Analog Value	
AO	Analog Output	
BI	Binary Input	
BV	Binary Value	
BO	Binary Output	
MV	Multi-State Value	
SV	String Value	

VRV Indoor Unit *

kpi	kpiUnit	target	uiFan	uiFilter	uiOnOff	secondaryKpi	uiOccupancy	curOperation
room temp (A)	°F = °F °C = °C	space setpoint (A)	Current Fan Operation a. fan speed (A or M) b. fan status (B)	Filter Status a. clean/dirty filter status (B) b. filter dP (A)	fan on-off (B)	return air temp (A)	occupancy (B)	Mode (A or S)

VRV Outdoor System *

kpi	kpiUnit	uiCondensingTemp	uiEvaporationTemp	uiCooling	uiHeating	secondaryKpi
target evaporation temp (A)	°F = °F °C = °C	condensing temp (A)	evaporation temp (A)	cooling status on/off (A or B)	heating status on/off (A or B)	optional additional graph point (A)
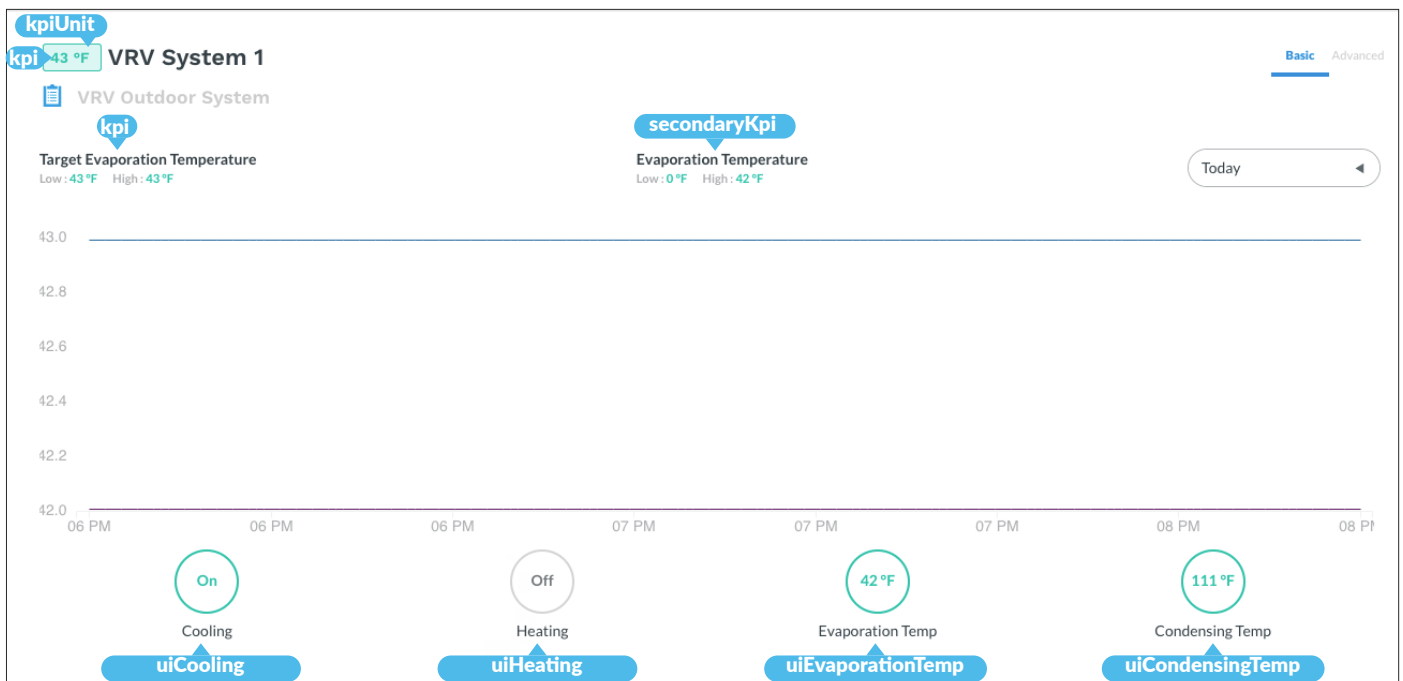
Auto generated when using Turntide's VRV auto-discovery

VRV Outdoor Unit

kpi	kpiUnit	uiCondensingTemp	uiEvaporationTemp	uiDischargeTemp	uiAmbientTemp	secondaryKpi
target evaporation temp (A)	°F = °F °C = °C	condensing temp (A)	evaporation temp (A)	discharge temp (A)	ambient temp (A)	optional additional graph point (A)

Dual Setpont VRV Indoor Unit

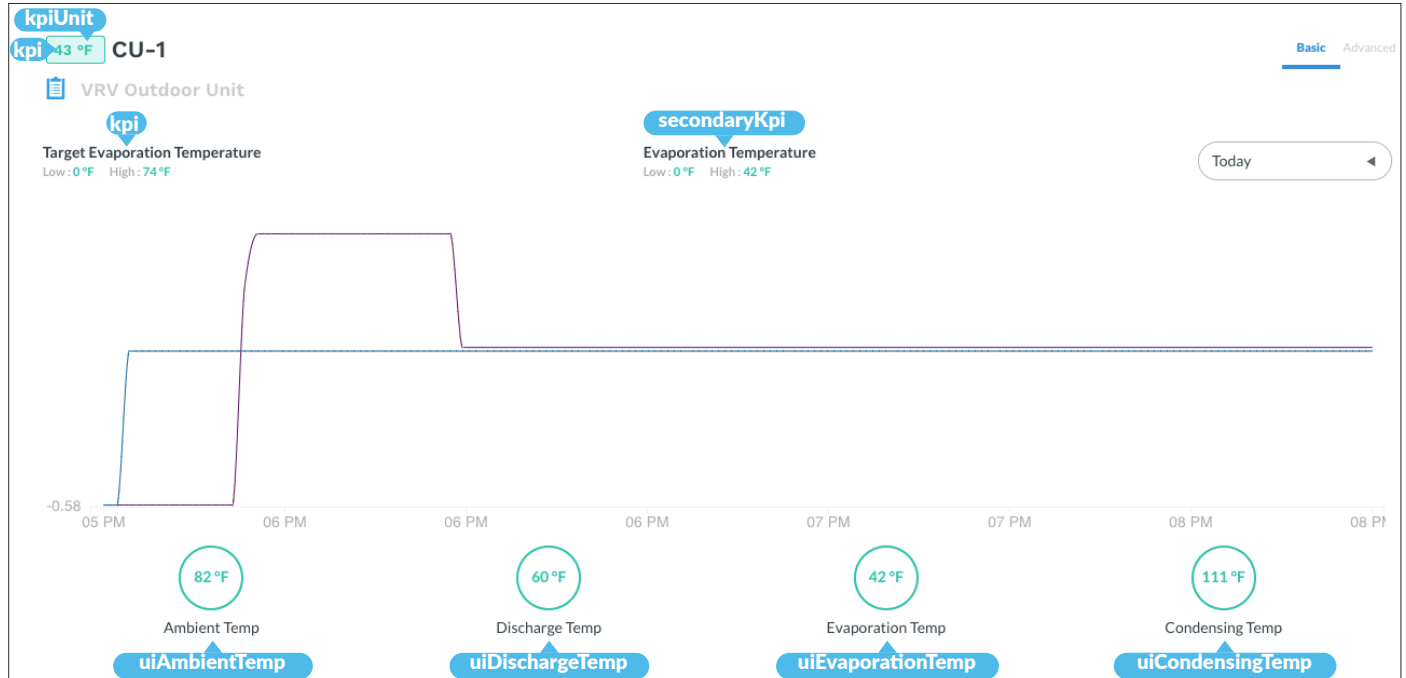| kpi	kpiUnit	target	uiFan	uiFilter	uiOnOff	secondaryKpi	uiOccupancy	curOperation
room temp (A)	°F = °F °C = °C	space setpoint (A)	Current Fan Operation a. fan speed (A or M) b. fan status (B)	Filter Status a. clean/dirty filter status (B) b. filter dP (A)	fan on-off (B)	return air temp (A)	occupancy (B)	Mode (A or S)

VAV Box

kpi	kpiUnit	target	secondaryKpi	tertiaryKpi	uiHeating	curOperation	uiDamper
space temp (A)	°F = °F °C = °C	space setpoint (A)	discharge air temp (A)	air flow (A)	Current Heating Load a. number of active heating stages (A) b. for single stage heating, (B, on/off)	occupancy/ operating mode (S) occupancy (B)	damper position (A)

VAV Box (ex. unit with heating valve)
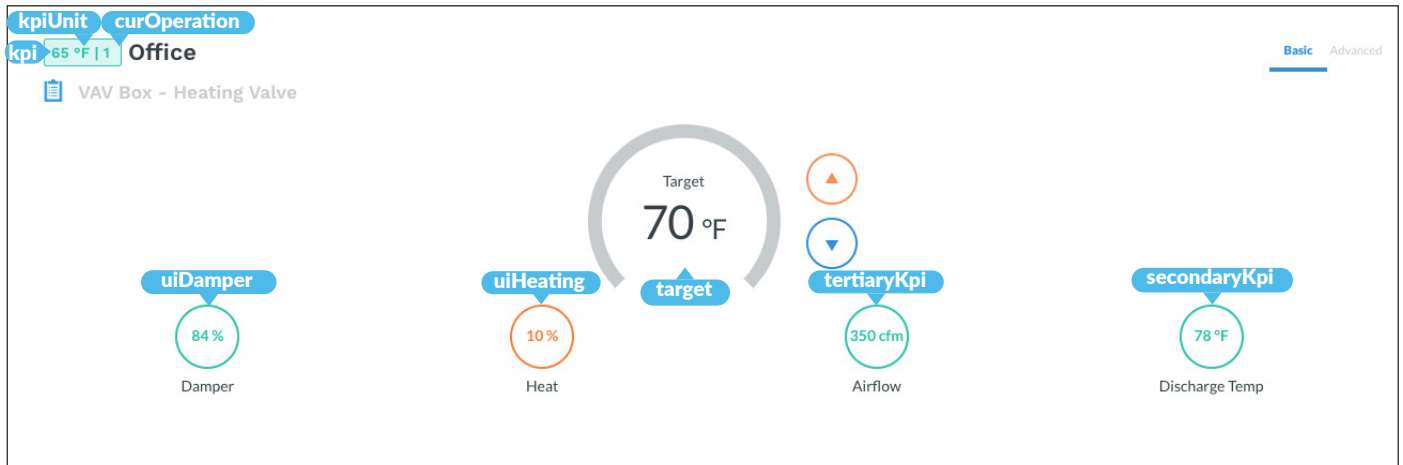
VAV Box (ex. unit with EDH)
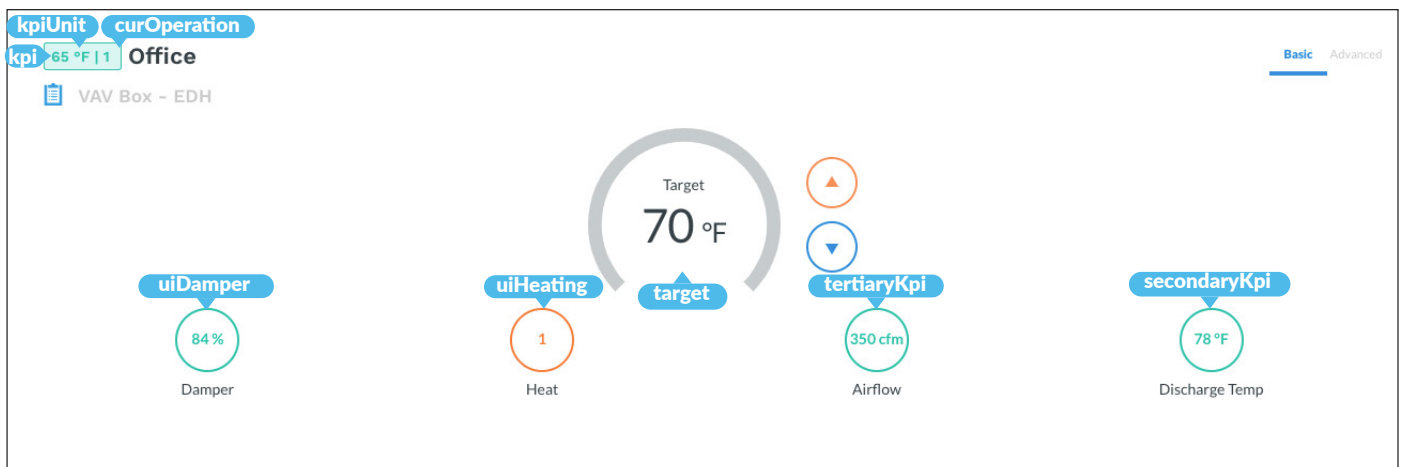
Dual Setpoint VAV Box

kpi	kpiUnit	secondaryKpi	tertiaryKpi	uiHeating
space temp (A)	°F = °F °C = °C	discharge air temp (A)	air flow (A)	Current Heating Load a. number of active heating stages (A) b. for single stage heating, (B, on/off) c. valve position (A, 0-100)

curOperation	uiDamper	setpointCooling	setpointHeating
occupancy/operating mode (S or A) occupancy (B)	damper position (A)	cooling setpoint (A)	heating setpoint (A)
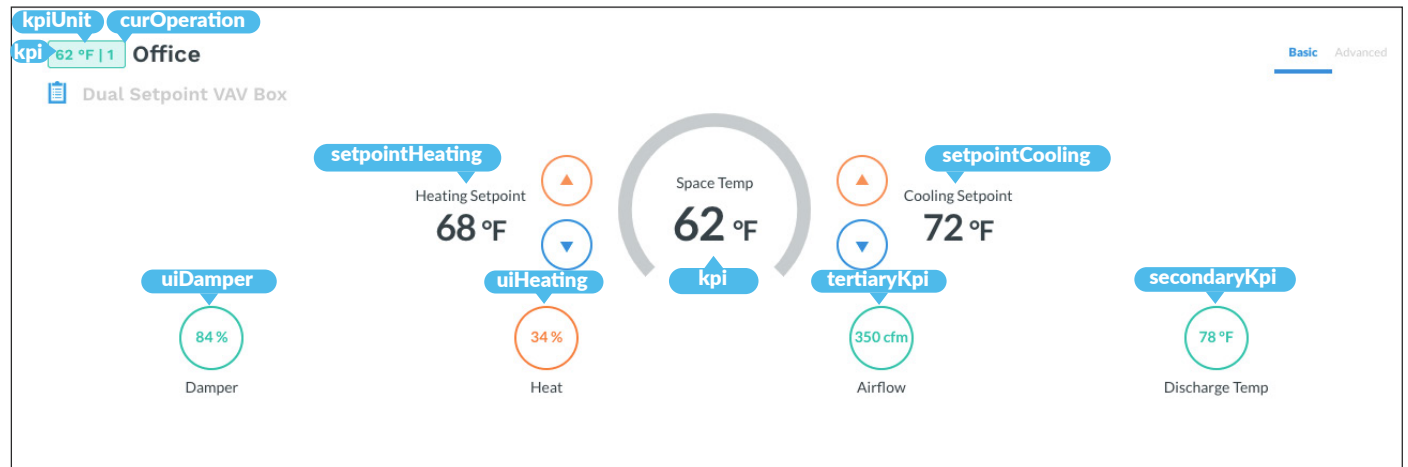
Fan Powered Box

kpi	kpiUnit	target	secondaryKpi	tertiaryKpi
space temp (A)	°F = °F °C = °C	space setpoint (A)	discharge air temp (A)	air flow (A)

uiHeating	uiOccupancy	uiDamper	uiFan	uiInletTemperature
Current Heating Load a. number of active heating stages (A) b. for single stage heating, (B, on/off) c. valve position (A, 0-100)	occupancy (B)	damper position (A)	Current Fan Load a. fan on/off (B) b. fan speed (A)	supply air temperature (A)

RTU

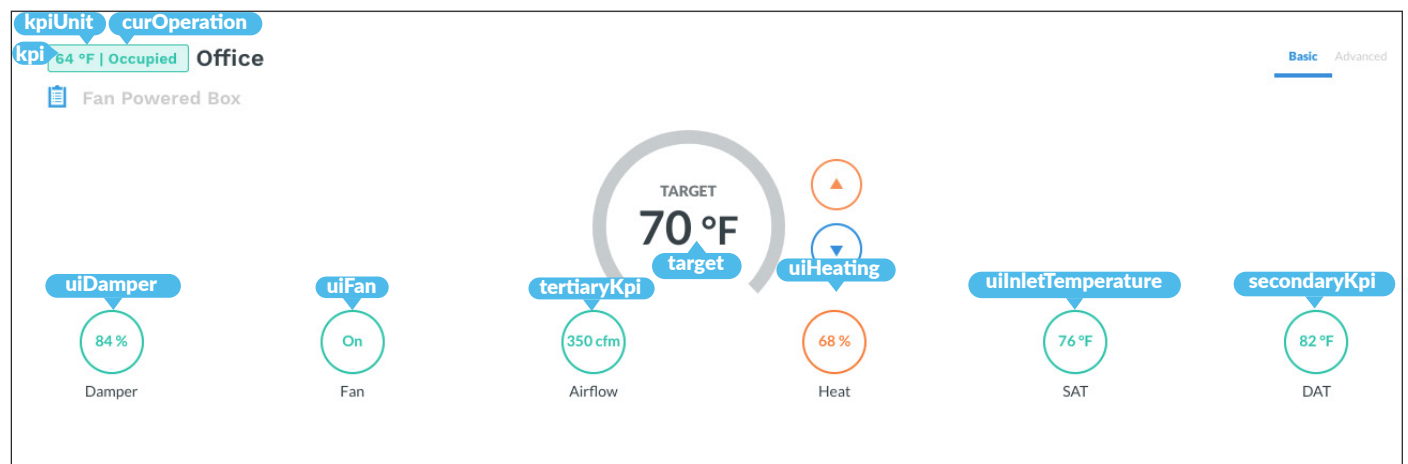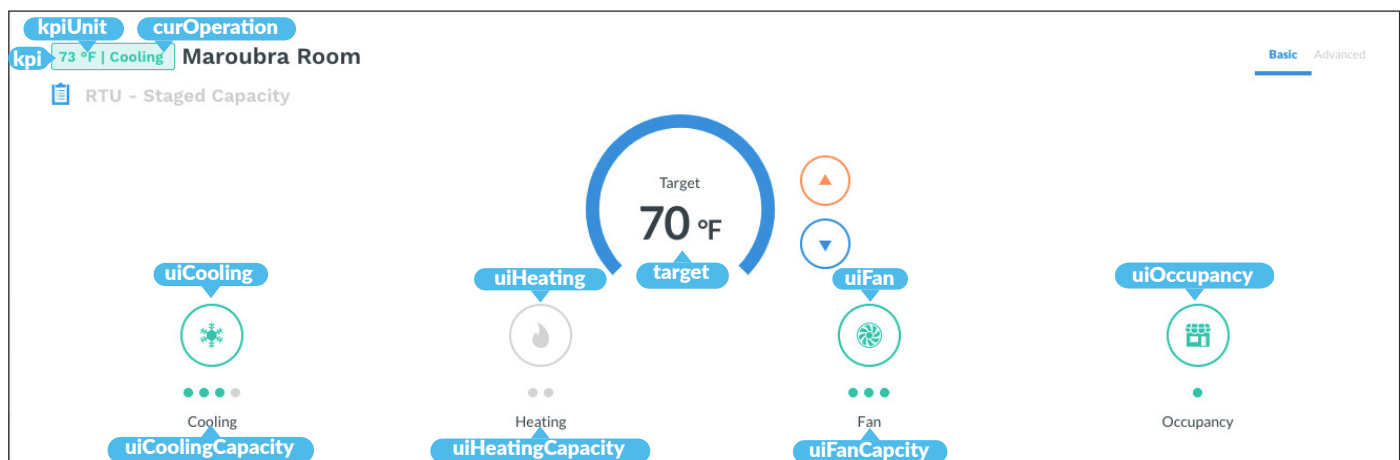| kpi	kpiUnit	target	uiCooling	uiCoolingCapacity	uiHeating
space temp (A)	°F = °F °C = °C	space setpoint (A)	Current Cooling Load a. number of active cooling stages (A, 0-4) b. for single stage cooling (B, on/off) c. valve position (A, 0-100)	Maximum Cooling Available a. number of cooling stages available (A, 0-4) b. omitted for valves and single stage cooling	Current Heating Load a. number of active heating stages (A, 0-4) b. for single stage heating (B, on/off) c. valve position (A, 0-100)

uiHeatingCapacity	uiFan	uiFanCapacity	uiOccupancy	curOperation
Maximum Heating Available a. number of heating stages available (A, 0-4) b. omitted for valves and single stage heating	Current Fan Load a. number of active fan stages (A, 0-4) b. for single stage fan (B, on/off) c. fan speed (A, 0-100)	Maximum Fan Stages Available a. number of fan stages available (A, 0-4) b. omitted for vfd controlled and single speed fans	occupancy (B)	operating mode (S)

RTU (ex. unit with 0-10v control)
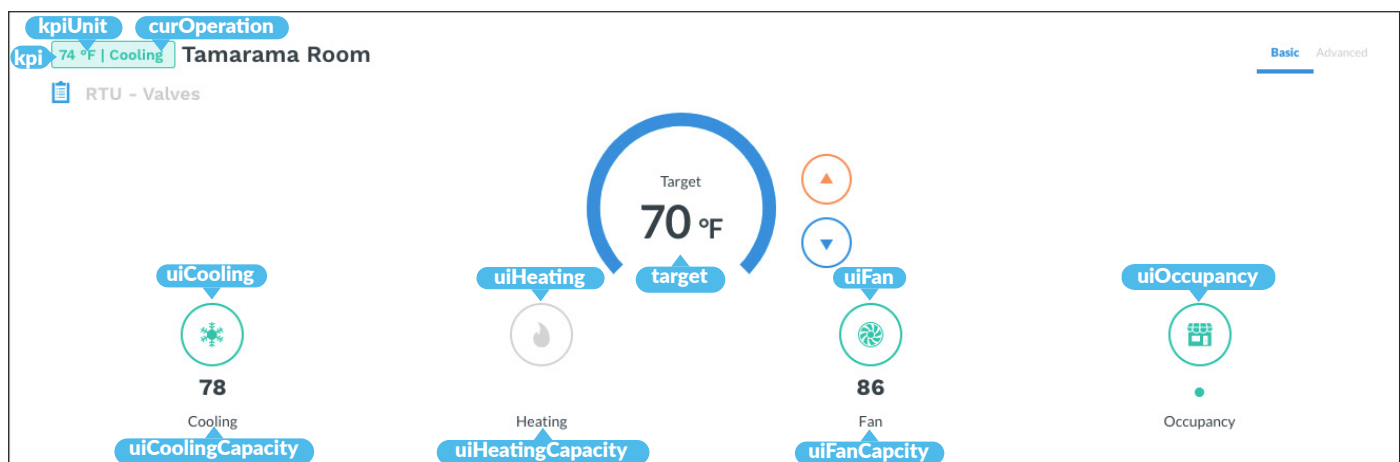
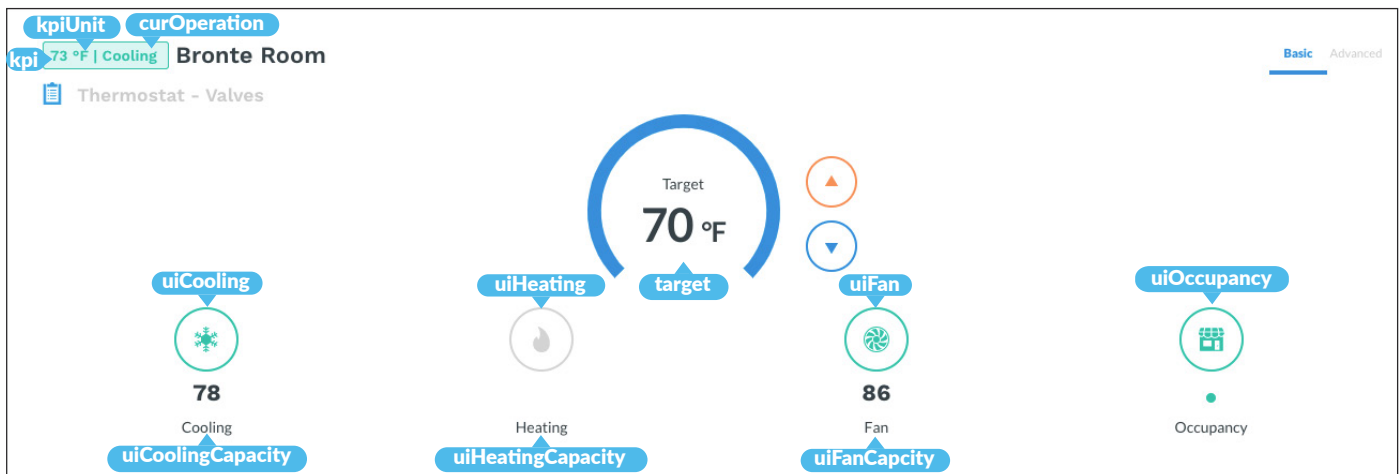## RTU (ex. unit with staged control)

Thermostat

kpi	kpiUnit	target	uiCooling	uiCoolingCapacity	uiHeating
space temp (A)	°F = °F °C = °C	space setpoint (A)	Current Cooling Load a. number of active cooling stages (A, 0-4) b. for single stage cooling (B, on/off) c. valve position (A, 0-100)	Maximum Cooling Available a. number of cooling stages available (A, 0-4) b. omitted for valves and single stage cooling	Current Heating Load a. number of active heating stages (A, 0-4) b. for single stage heating (B, on/off) c. valve position (A, 0-100)

| uiHeatingCapacity	uiFan	uiFanCapacity	uiOccupancy	curOperation
Maximum Heating Available a. number of heating stages available (A, 0-4) b. omitted for valves and single stage heating	Current Fan Load a. number of active fan stages (A, 0-4) b. for single stage fan (B, on/off) c. fan speed (A, 0-100)	Maximum Fan Stages Available a. number of fan stages available (A, 0-4) b. omitted for vfd controlled and single speed fans	occupancy (B)	operating mode (S)

Thermostat (ex. unit with 0-10v control)

Thermostat (ex. unit with staged control)
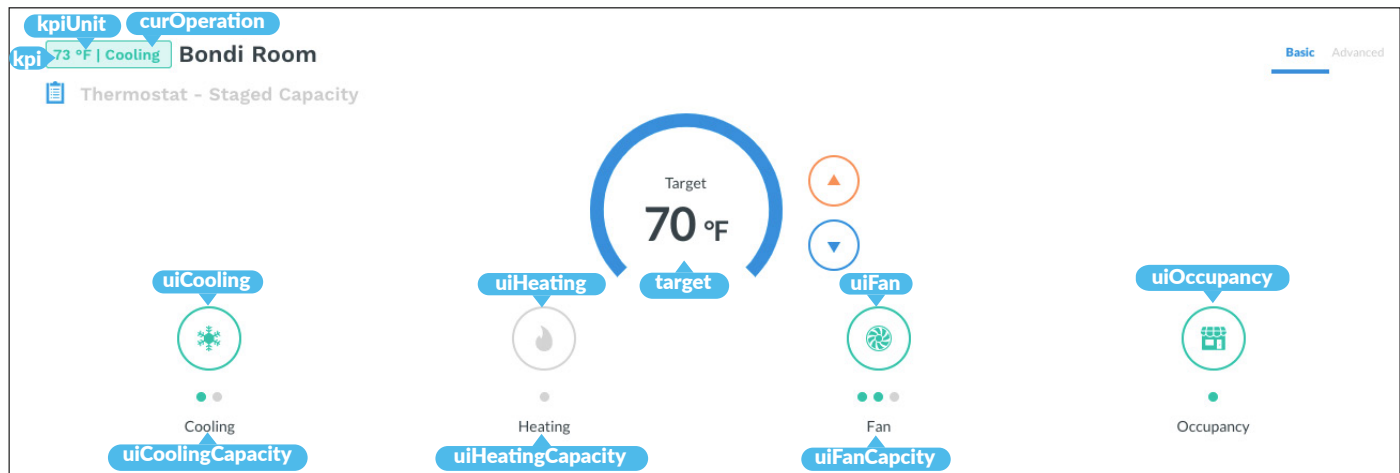
Dual Setpoint Thermostat

kpi	kpiUnit	uiCooling	uiCoolingCapacity	uiHeating	uiHeatingCapacity
space temp (A)	°F = °F °C = °C	Current Cooling Load a. number of active cooling stages (A, 0-4) b. for single stage cooling (B, on/off) c. valve position (A, 0-100)	Maximum Cooling Available a. number of cooling stages available (A, 0-4) b. omitted for valves and single stage cooling	Current Heating Load a. number of active heating stages (A, 0-4) b. for single stage heating (B, on/off) c. valve position (A, 0-100)	Maximum Heating Available a. number of heating stages available (A, 0-4) b. omitted for valves and single stage heating

| uiFan	uiFanCapacity	uiOccupancy	curOperation	setpointCooling	setpointHeating
Current Fan Load a. number of active fan stages (A, 0-4) b. for single stage fan (B, on/off) c. fan speed (A, 0-100)	Maximum Fan Stages Available a. number of fan stages available (A, 0-4) b. omitted for vfd controlled and single speed fans	occupancy (B)	operating mode (S)	cooling setpoint (A)	heating setpoint (A)
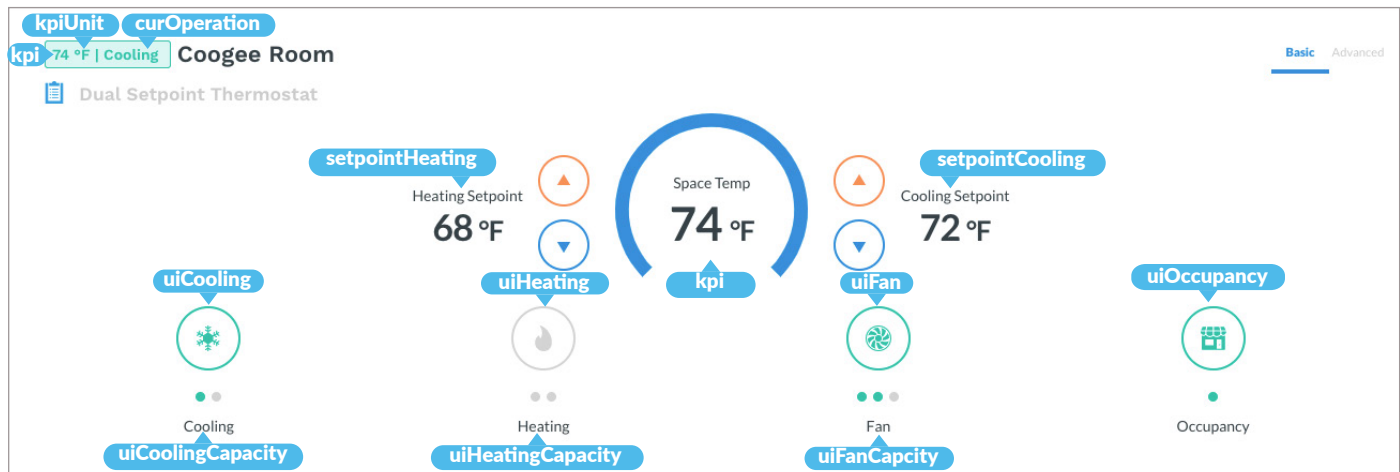
Sensor

kpi	kpiUnit	secondaryKpi	tertiaryKpi
primary data point (A)	primary data point's unit	optional additional graph point (A)	optional additional graph point (A)
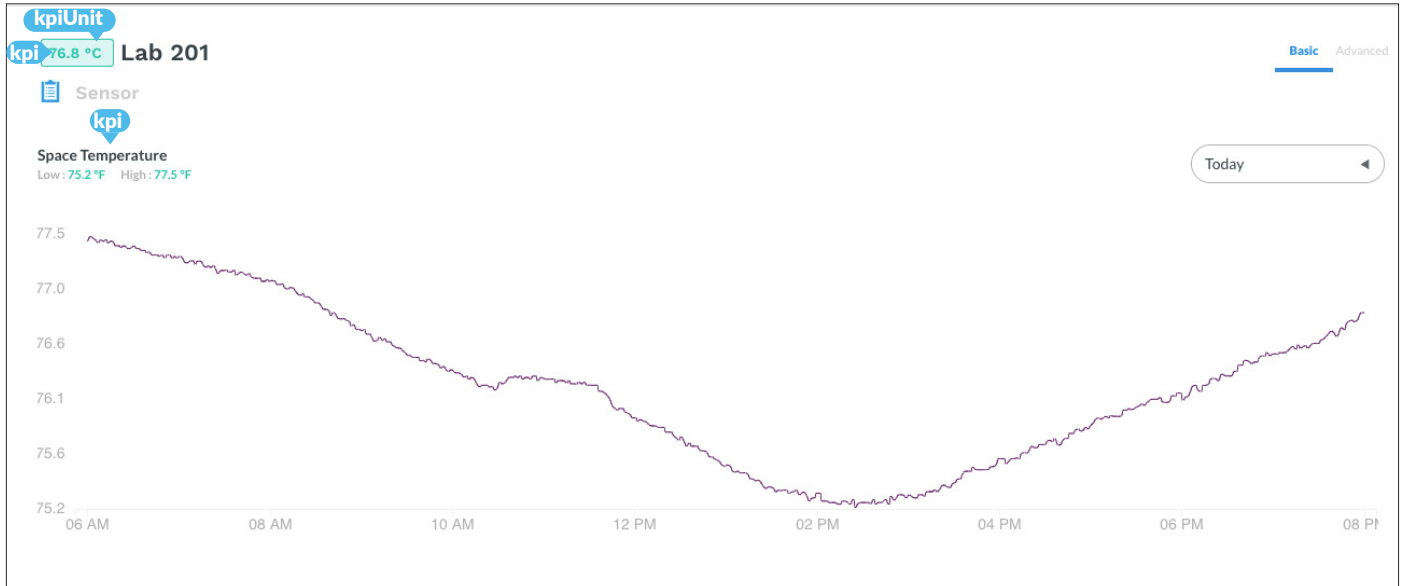
Meter

kpi	kpiUnit	secondaryKpi	tertiaryKpi
primary data point (A)	primary data point's unit	optional additional graph point (A)	optional additional graph point (A)
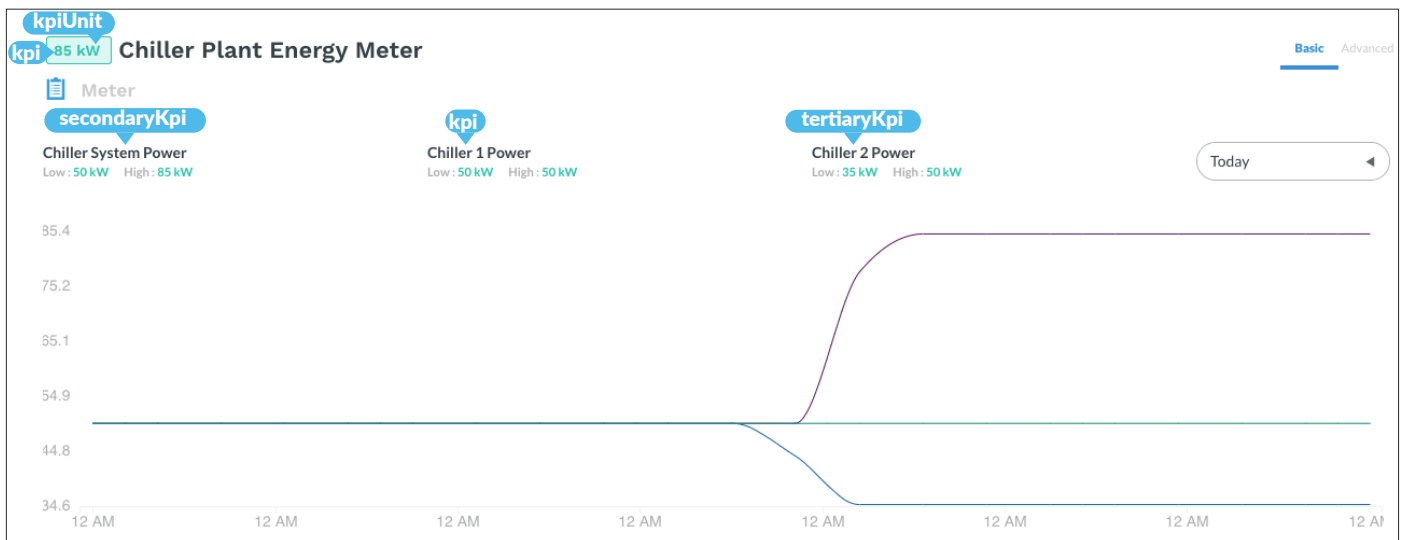
Refrigeration

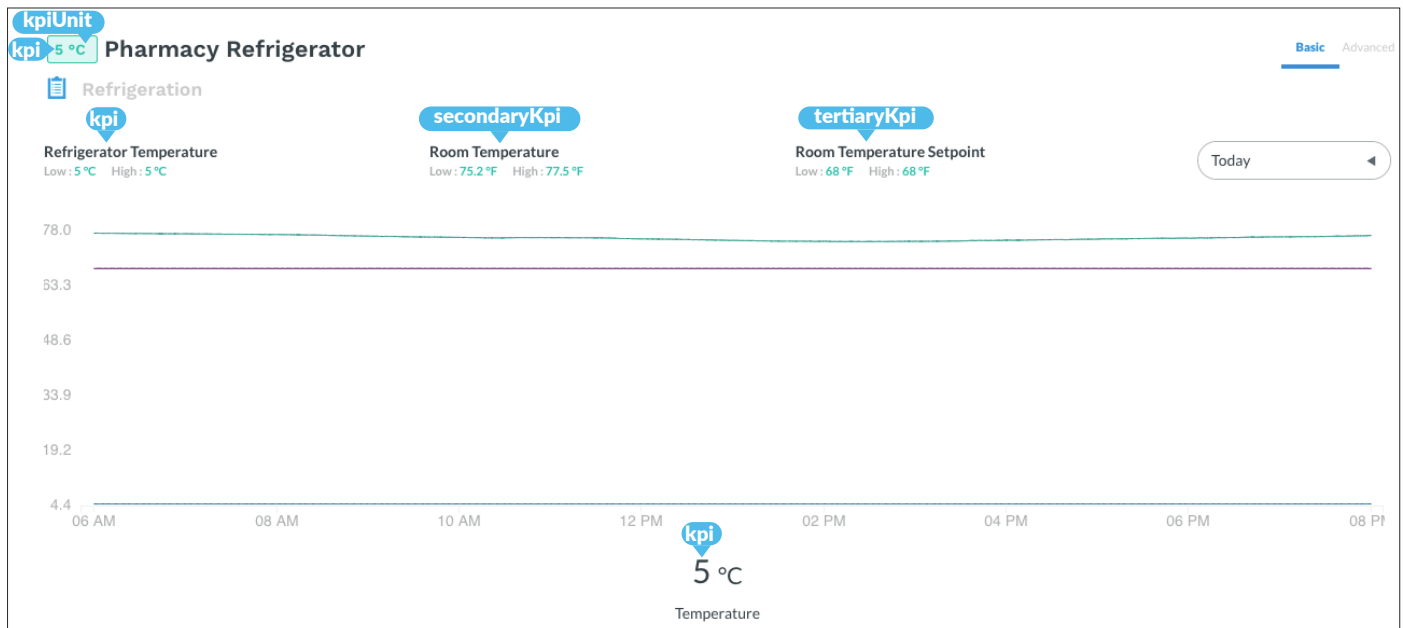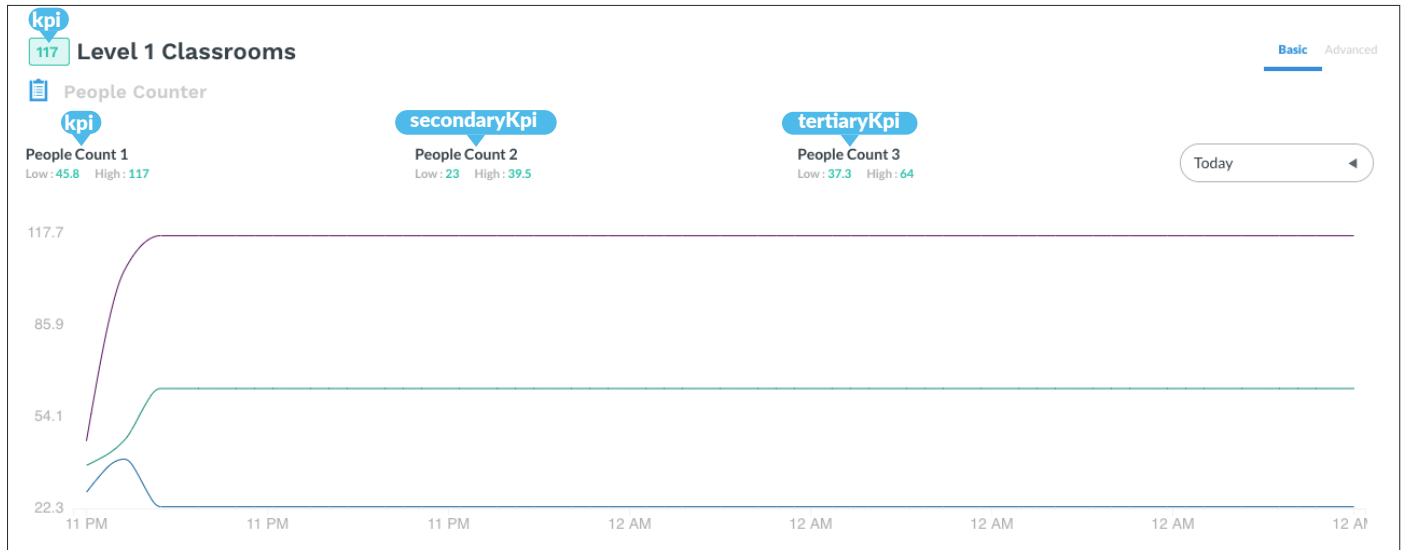| kpi	kpiUnit	secondaryKpi	tertiaryKpi
temperature point (A)	°F = °F °C = °C	optional additional graph point (A)	optional additional graph point (A)

Smart Plug

kpi	secondaryKpi	tertiaryKpi
plug on/off (B)	optional additional graph point (A)	optional additional graph point (A)
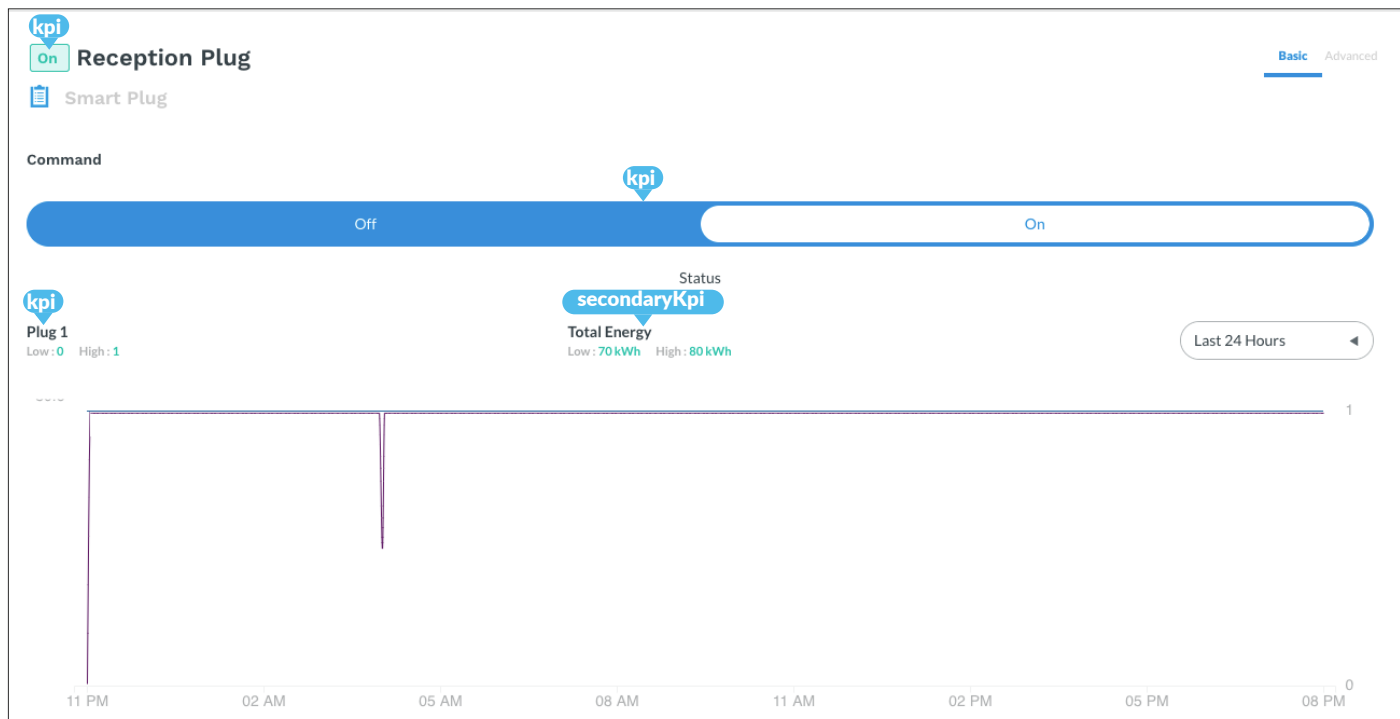
People Counter

kpi	secondaryKpi	tertiaryKpi
people count value (A)	optional additional graph point (A)	optional additional graph point (A)

kpi
117 **Level 1 Classrooms**

People Counter

Basic Advanced

kpi
People Count 1
Low : 45.8 High : 117

secondaryKpi
People Count 2
Low : 23 High : 39.5

tertiaryKpi
People Count 3
Low : 37.3 High : 64

Today ◄

117.7

85.9

54.1

22.3

11 PM 11 PM 11 PM 12 AM 12 AM 12 AM 12 AM 12 AM

Lighting Panel
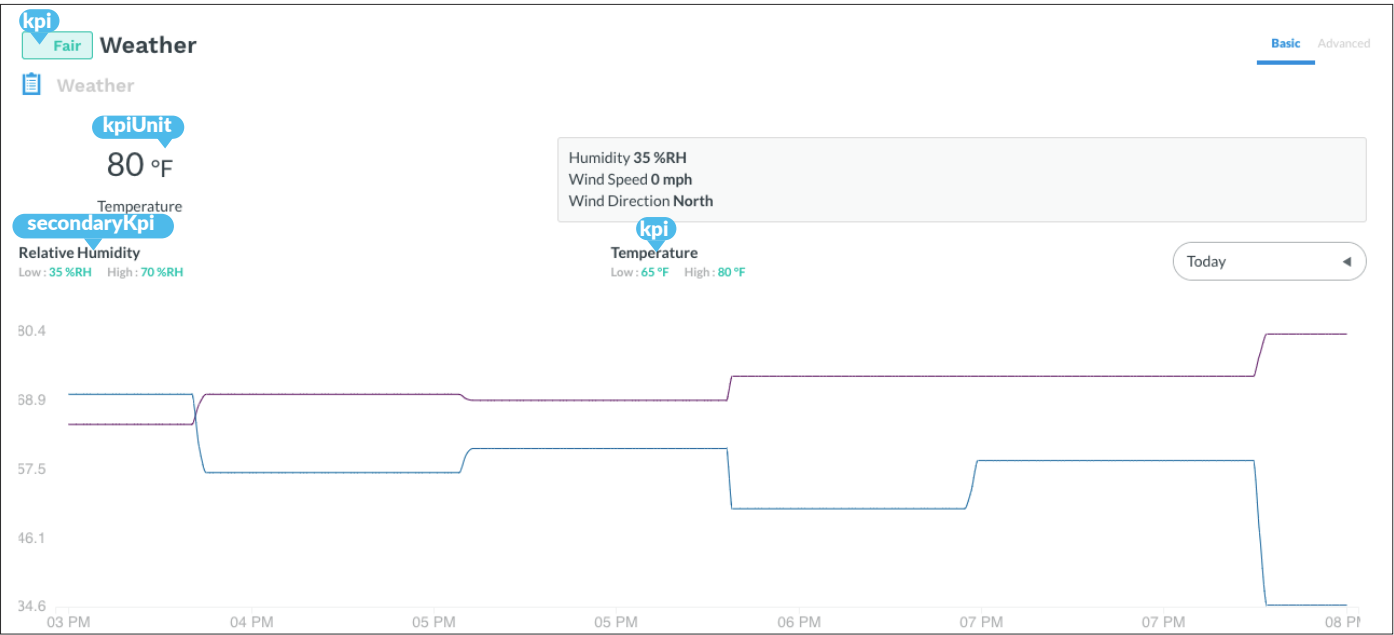
kpi
primary lighting circuit (B)

This graphic works by diaplaying any Binary, Multi-State or Analog points in the device that have the tag cmd on the point. Multi-State and Analog points are limited to a maximum of 3 values.

kpi
Enabled **Building Lighting**

Lighting Panel

Basic Advanced

Commands

Lighting Circuit 1 — Off | **On**

Lighting Circuit 2 — **Off** | On

Lighting Circuit 3 — Off | **On**

Lighting Circuit 4 — Off | **On**

Lighting Circuit 5 — Off | **On**

Outdoor Lighting 1 — Off | Low | **High**

Outdoor Lighting 2 — Off | **Low** | High
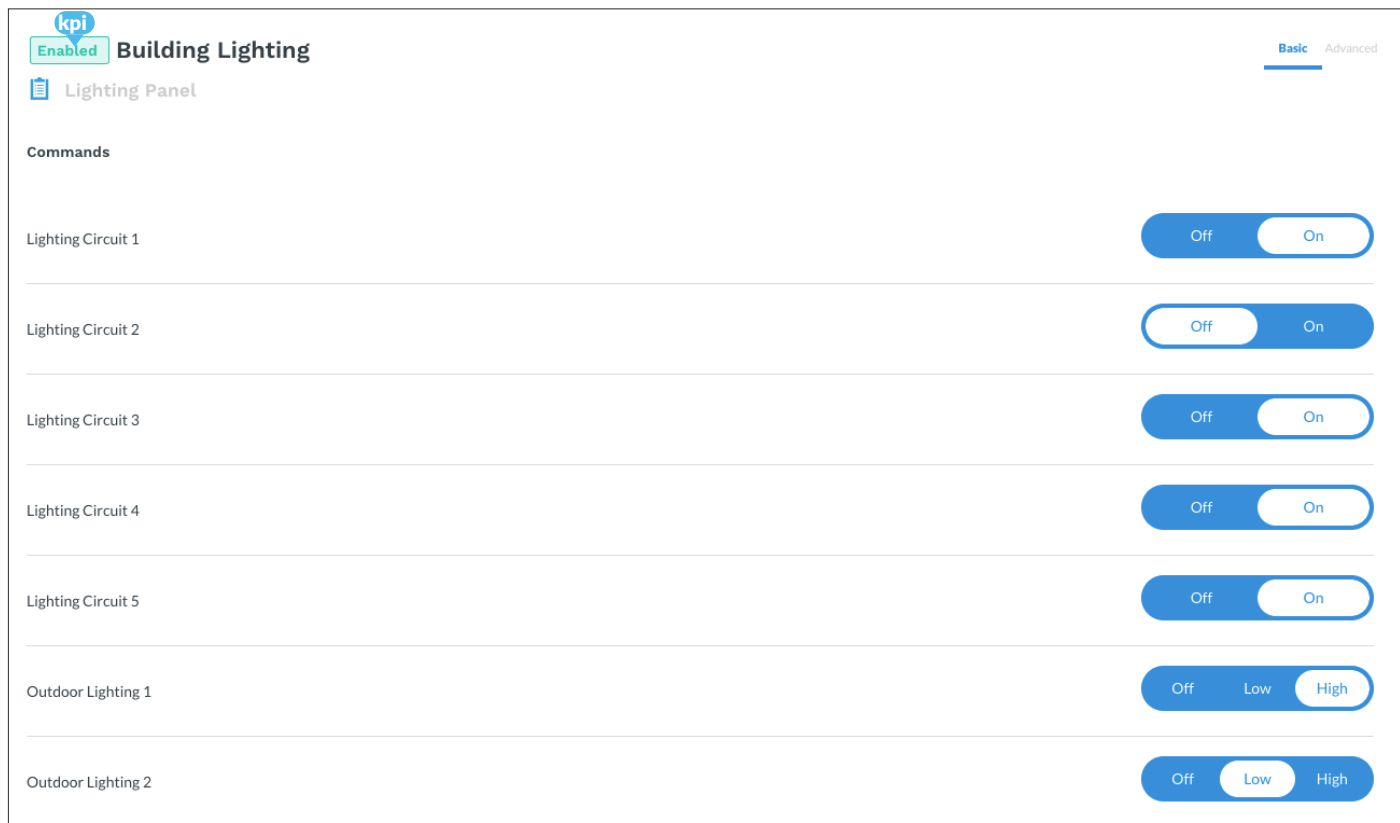
Weather

kpi	kpiUnit	secondaryKpi
people count value (A)	°F = °F °C = °C	optional additional graph point (A)