



# CONNECT

**Profiles – The foundation of  
Connect.**



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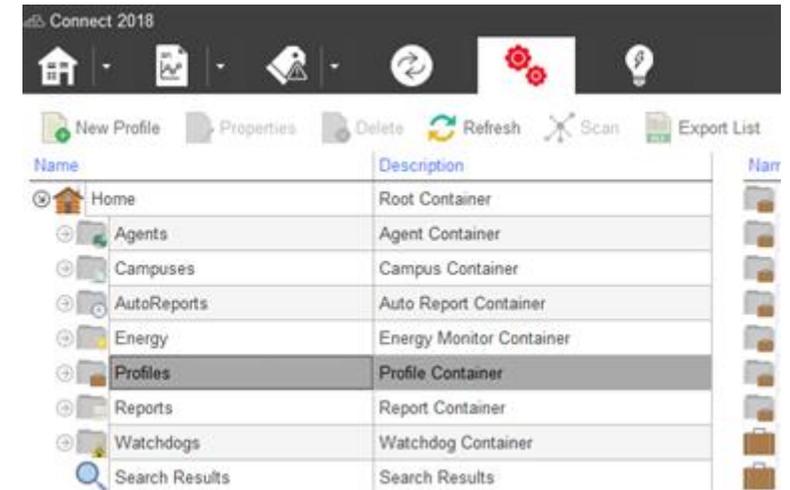
# Profiles-The foundation of Connect

## What is a Profile?

The Profile is the basic building block that everything inside Connect is built upon. The most important component!

The profile is a set of objects and the data type those objects present.

Accurate profiles will present trouble free results. Inaccurate profiles will produce inaccurate results and possible communications issues.



# Profiles-The foundation of Connect

**Sometimes all devices of the same type will not contain the same set of objects, names or data types.**

A common misconception is that all devices of the same type contain the same objects and data types.

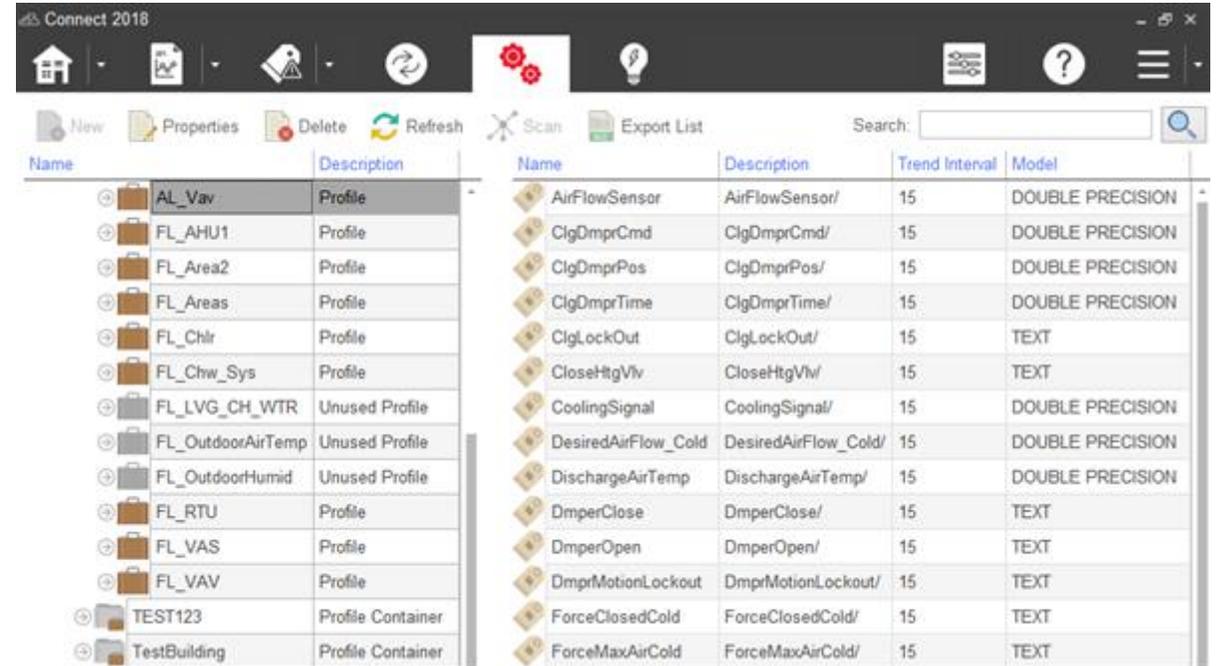
It is easy to assume that all the Fan Coils or Variable Air Volume Terminals will contain the exact same set of objects using the exact same data types.

But in reality many times a small group will contain a small difference.

An example is a case where an exhaust fan start stop and status is added to a small number of Fan Coils or Variable Air Volume Terminals. Another example is where a small set of devices have a CO2 or humidity sensor while the others do not.

There have been cases where different controls techs or contractors were used during different project stages and the same brand and model of devices contain different object sets, names or data type conversions.

Devices with different object sets must have different profiles. Identifying these differences requires some investigation.



The screenshot shows the Connect 2018 software interface. The top menu bar includes icons for Home, New, Properties, Delete, Refresh, Scan, Export List, and Search. Below the menu bar, there are two tables displaying profile information.

Name	Description
AL_Vav	Profile
FL_AHU1	Profile
FL_Area2	Profile
FL_Areas	Profile
FL_Chlr	Profile
FL_Chw_Sys	Profile
FL_LVG_CH_WTR	Unused Profile
FL_OutdoorAirTemp	Unused Profile
FL_OutdoorHumid	Unused Profile
FL_RTU	Profile
FL_VAS	Profile
FL_VAV	Profile
TEST123	Profile Container
TestBuilding	Profile Container

Name	Description	Trend Interval	Model
AirFlowSensor	AirFlowSensor/	15	DOUBLE PRECISION
ClgDmprCmd	ClgDmprCmd/	15	DOUBLE PRECISION
ClgDmprPos	ClgDmprPos/	15	DOUBLE PRECISION
ClgDmprTime	ClgDmprTime/	15	DOUBLE PRECISION
ClgLockOut	ClgLockOut/	15	TEXT
CloseHtgVlv	CloseHtgVlv/	15	TEXT
CoolingSignal	CoolingSignal/	15	DOUBLE PRECISION
DesiredAirFlow_Cold	DesiredAirFlow_Cold/	15	DOUBLE PRECISION
DischargeAirTemp	DischargeAirTemp/	15	DOUBLE PRECISION
DmperClose	DmperClose/	15	TEXT
DmperOpen	DmperOpen/	15	TEXT
DmprMotionLockout	DmprMotionLockout/	15	TEXT
ForceClosedCold	ForceClosedCold/	15	TEXT
ForceMaxAirCold	ForceMaxAirCold/	15	TEXT

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## Constructing Trouble free Profiles. Creating the Profile name.

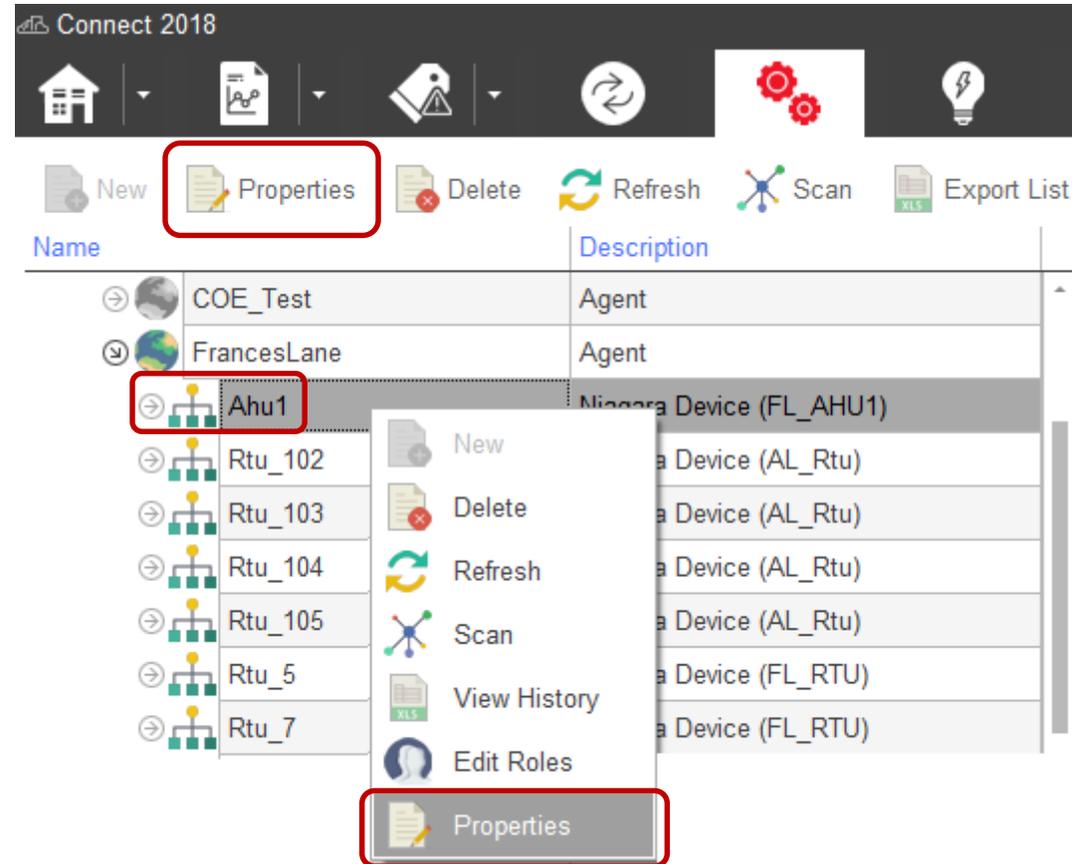
Once the devices have been discovered and saved. The profile names may be assigned.

Open Configuration Explorer. 

Select a device to create a Profile name in.



Select Properties from the Tool bar or r-click on the device name and choose properties from the drop down.



The screenshot shows the Connect 2018 software interface. The top toolbar contains icons for Home, New, Properties, Delete, Refresh, Scan, and Export List. The Properties icon is highlighted with a red box. Below the toolbar is a table with columns for Name and Description. The table lists several devices, including COE\_Test, FrancesLane, Ahu1, Rtu\_102, Rtu\_103, Rtu\_104, Rtu\_105, Rtu\_5, and Rtu\_7. The Ahu1 device is selected, and a context menu is open over it, showing options like New, Delete, Refresh, Scan, View History, Edit Roles, and Properties. The Properties option in the context menu is also highlighted with a red box.

Name	Description
COE_Test	Agent
FrancesLane	Agent
Ahu1	Niagara Device (FL_AHU1)
Rtu_102	a Device (AL_Rtu)
Rtu_103	a Device (AL_Rtu)
Rtu_104	a Device (AL_Rtu)
Rtu_105	a Device (AL_Rtu)
Rtu_5	a Device (FL_RTU)
Rtu_7	a Device (FL_RTU)

# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Creating the Profile name.

When a device has no profile assigned;  
The button on the right of the *Profile:* dropdown will be labeled *New* and the dropdown will display the text *(None)*.  
Click on *New*.



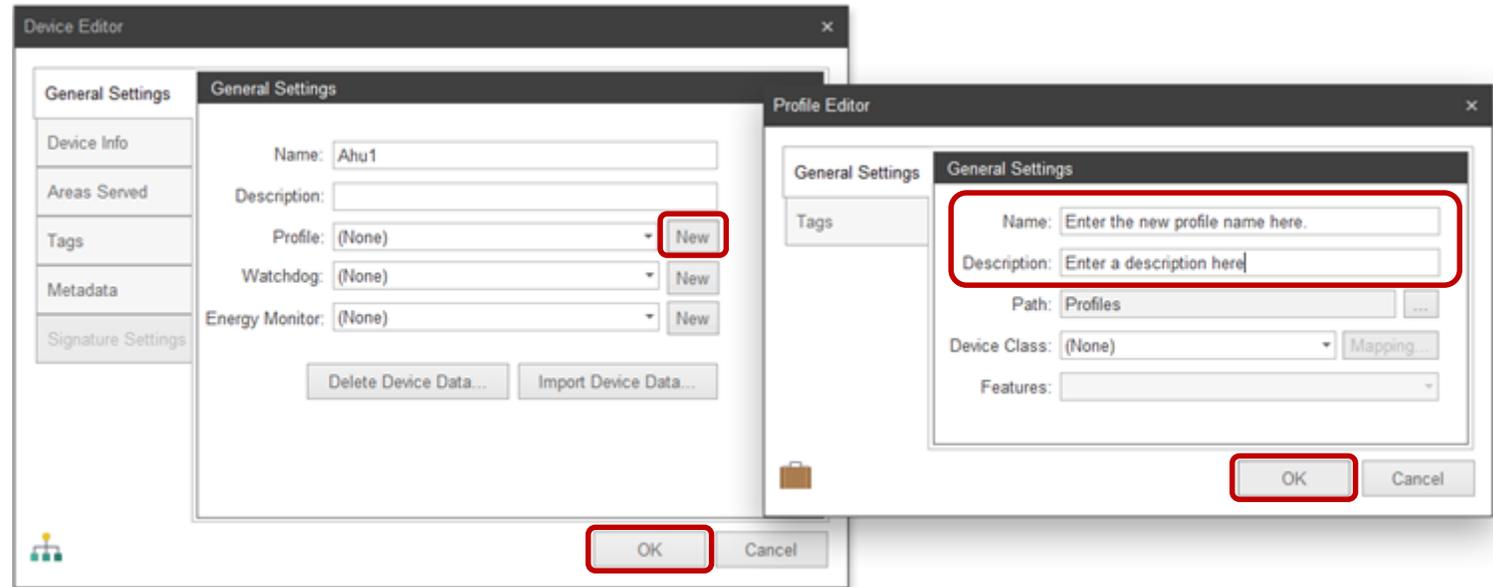
When a device has a previous profile assignment;  
The button on the right of the *Profile:* dropdown will be labeled *Edit* and the dropdown will display the name of the profile. Click on *Edit*.



The General settings window will open. Enter a new profile *Name* and *Description*.

Click *OK*.

Click *OK* again.



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## Constructing Trouble free Profiles. Discovering the Objects

With Configuration Explorer open.

Select a device to perform an Object Scan.

Click on the *Scan* button on the Tool Bar.

The screenshot displays the Connect 2018 interface. On the left, the Configuration Explorer shows a tree view of devices under 'Niagara Device (AI Rtu)'. The device 'Rtu\_101' is selected and highlighted with a red box. A context menu is open over 'Rtu\_101', with the 'Scan' option highlighted by a red box. The 'Object Scan' window on the right shows a table of discovered objects.

Name	Type	Display	Data Type	Value
BadSensorAlarm	Point	false [ok] @ def	TEXT	false
ClgAttainedAlrmSetpt	Point	60.00 [ok] @ def	DOUBLE PRECI...	60.0
ClgAttainedTemp	Point	0.00 cfm [ok]	DOUBLE PRECI...	0.0
ClgLockOut	Point	false [ok] @ def	TEXT	false
ClgLockoutTemp	Point	90.00 cfm [ok] @ def	DOUBLE PRECI...	90.0
ClgStage2Lockout	Point	false [ok] @ def	TEXT	false
Comp1Runtime	Point	131.00 hr [ok] @ def	DOUBLE PRECI...	131.0
Comp2Runtime	Point	133.00 hr [ok] @ def	DOUBLE PRECI...	133.0
Compressor1Starts	Point	0.00 [ok] @ def	DOUBLE PRECI...	0.0
Compressor2Starts	Point	4.00 [ok] @ def	DOUBLE PRECI...	4.0
CompStage1	Point	false [ok] @ def	TEXT	false
CompStage2	Point	false [ok] @ def	TEXT	false
CoolingSignal	Point	100.00 % [ok]	DOUBLE PRECI...	100.0
DischargeAirTemp	Point	4095.00 °F [ok]	DOUBLE PRECI...	4095.0
EconLockoutTemp	Point	60.00 cfm [ok] @ def	DOUBLE PRECI...	60.0
EconomizerPos	Point	0.00 % [ok]	DOUBLE PRECI...	0.0
EvapFan	Point	false [ok] @ def	TEXT	false
FanMode	Point	3.00 [ok] @ def	DOUBLE PRECI...	3.0
FanReqClg	Point	false [ok] @ def	TEXT	false
FanReqHtg	Point	false [ok] @ def	TEXT	false
FanRunStatus	Point	false [ok]	TEXT	false
FanRuntime	Point	6612.00 hr [ok] @ def	DOUBLE PRECI...	6612.0
FilterAlarm	Point	true [ok] @ def	TEXT	true
FilterRuntime	Point	6612.00 hr [ok] @ def	DOUBLE PRECI...	6612.0
HeatingSignal	Point	0.00 % [ok]	DOUBLE PRECI...	0.0

# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Discovering the Objects

It is a good policy to sort the object list by the Value column. Click in the Value column header cell to sort.

Then review these Values looking first for non valid Values such as NaN or blanks. Do NOT select objects that contain NaN or blank values.

Click on *Export* to save the object list to an Excel spreadsheet for a copy and review.

Make note of objects that return a Text data type. Some of these will require a Point Conversion so that Templates will correctly function. In particular the Occupancy object and output status objects. These are used in Templated Analytics. Examples are Fan Status, Heat Status, Compressor Status, Heat Cool Mode etc.. The exact spelling of the active state including capitalization is required. In this example the correct spelling to use in these Point Conversions is the text “true”.

Name	Type	Display	Data Type	Value
BadSensorAlarm	Point	false (ok) @ def	TEXT	false
ClgAttainedAlarmSetpt	Point	60.00 (ok) @ def	DOUBLE PRECI...	60.0
ClgAttainedTemp	Point	0.00 cfm (ok)	DOUBLE PRECI...	0.0
ClgLockOut	Point	false (ok) @ def	TEXT	false
ClgLockoutTemp	Point	90.00 cfm (ok) @ def	DOUBLE PRECI...	90.0
ClgStage2Lockout	Point	false (ok) @ def	TEXT	false
Comp1Runtime	Point	131.00 hr (ok) @ def	DOUBLE PRECI...	131.0
Comp2Runtime	Point	133.00 hr (ok) @ def	DOUBLE PRECI...	133.0
Compressor1Starts	Point	0.00 (ok) @ def	DOUBLE PRECI...	0.0
Compressor2Starts	Point	4.00 (ok) @ def	DOUBLE PRECI...	4.0
CompStage1	Point	false (ok) @ def	TEXT	false
CompStage2	Point	false (ok) @ def	TEXT	false
CoolingSignal	Point	100.00 % (ok)	DOUBLE PRECI...	100.0
DischargeAirTemp	Point	4095.00 °F (ok)	DOUBLE PRECI...	4095.0
EconLockoutTemp	Point	60.00 cfm (ok) @ def	DOUBLE PRECI...	60.0
EconomizerPos	Point	0.00 % (ok)	DOUBLE PRECI...	0.0
EvapFan	Point	false (ok) @ def	TEXT	false
FanMode	Point	3.00 (ok) @ def	DOUBLE PRECI...	3.0
FanReqClg	Point	false (ok) @ def	TEXT	false
FanReqHtg	Point	false (ok) @ def	TEXT	false
FanRunStatus	Point	false (ok)	TEXT	false
FanRuntime	Point	6612.00 hr (ok) @ def	DOUBLE PRECI...	6612.0
FilterAlarm	Point	true (ok) @ def	TEXT	true
FilterRuntime	Point	6612.00 hr (ok) @ def	DOUBLE PRECI...	6612.0
MastinaSignal	Point	0.00 % (ok)	DOUBLE PRECI...	0.0

Name	Type	Display	Data Type	Value
RoomTemp	Point	87.60 °F (ok)	DOUBLE PRECI...	87.5999984741211
HtgStg1Runtime	Point	889.00 hr (ok) @ def	DOUBLE PRECI...	889.0
ClgLockoutTemp	Point	90.00 cfm (ok) @ def	DOUBLE PRECI...	90.0
BadSensorAlarm	Point	false (ok) @ def	TEXT	false
ClgLockOut	Point	false (ok) @ def	TEXT	false
ClgStage2Lockout	Point	false (ok) @ def	TEXT	false
CompStage1	Point	false (ok) @ def	TEXT	false
CompStage2	Point	false (ok) @ def	TEXT	false
EvapFan	Point	false (ok) @ def	TEXT	false
FanReqClg	Point	false (ok) @ def	TEXT	false
FanReqHtg	Point	false (ok) @ def	TEXT	false
FanRunStatus	Point	false (ok)	TEXT	false
HeatStage1	Point	false (ok) @ def	TEXT	false
HtgLockOut	Point	false (ok) @ def	TEXT	false
HtgMode	Point	false (ok) @ def	TEXT	false
HtgStage2Lockout	Point	false (ok) @ def	TEXT	false
OADamper	Point	false (ok) @ def	TEXT	false
OADmprPurge	Point	false (ok) @ def	TEXT	false
OptStartClg	Point	false (ok) @ def	TEXT	false
OptStartHtg	Point	false (ok) @ def	TEXT	false
SnowDay	Point	false (ok) @ def	TEXT	false
SpaceTooCold	Point	false (ok) @ def	TEXT	false
FilterAlarm	Point	true (ok) @ def	TEXT	true
OccupiedCmd	Point	true (ok) @ def	TEXT	true
SpaceTooWarm	Point	true (ok) @ def	TEXT	true

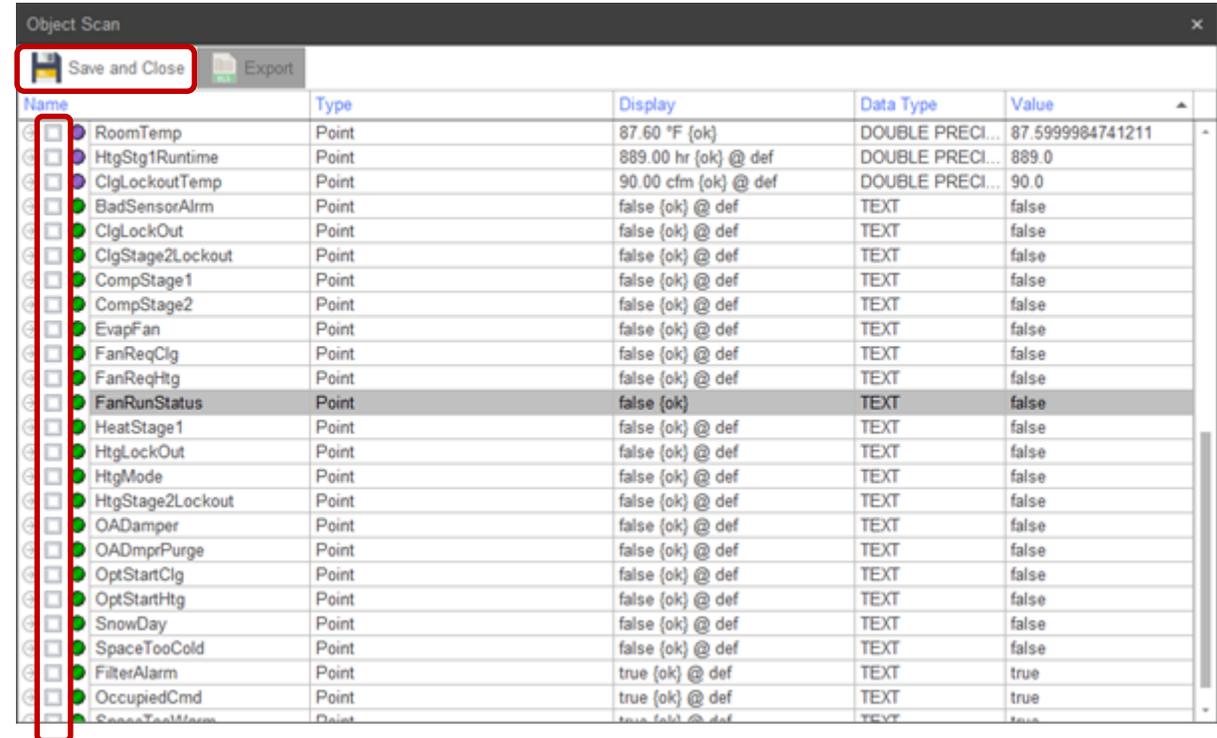
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## Constructing Trouble free Profiles. Selecting and Saving the Objects

Select the objects you wish to add to the database.

Keep in mind that you may add more objects than you wish to trend. Objects selected here are available to examine with the Dynamic Explorer tool set.

Once you have selected all the objects where either Dynamic viewing or trending is desired, then click on *Save and Close*.



Name	Type	Display	Data Type	Value
<input type="checkbox"/> RoomTemp	Point	87.60 °F (ok)	DOUBLE PRECI...	87.5999984741211
<input type="checkbox"/> HtgStg1Runtime	Point	889.00 hr (ok) @ def	DOUBLE PRECI...	889.0
<input type="checkbox"/> ClgLockoutTemp	Point	90.00 cfm (ok) @ def	DOUBLE PRECI...	90.0
<input type="checkbox"/> BadSensorAlarm	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> ClgLockOut	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> ClgStage2Lockout	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> CompStage1	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> CompStage2	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> EvapFan	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> FanReqClg	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> FanReqHtg	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> FanRunStatus	Point	false (ok)	TEXT	false
<input type="checkbox"/> HeatStage1	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> HtgLockOut	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> HtgMode	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> HtgStage2Lockout	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> OADamper	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> OADmprPurge	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> OptStartClg	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> OptStartHtg	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> SnowDay	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> SpaceTooCold	Point	false (ok) @ def	TEXT	false
<input type="checkbox"/> FilterAlarm	Point	true (ok) @ def	TEXT	true
<input type="checkbox"/> OccupiedCmd	Point	true (ok) @ def	TEXT	true
<input type="checkbox"/> SpaceTooWarm	Point	true (ok) @ def	TEXT	true

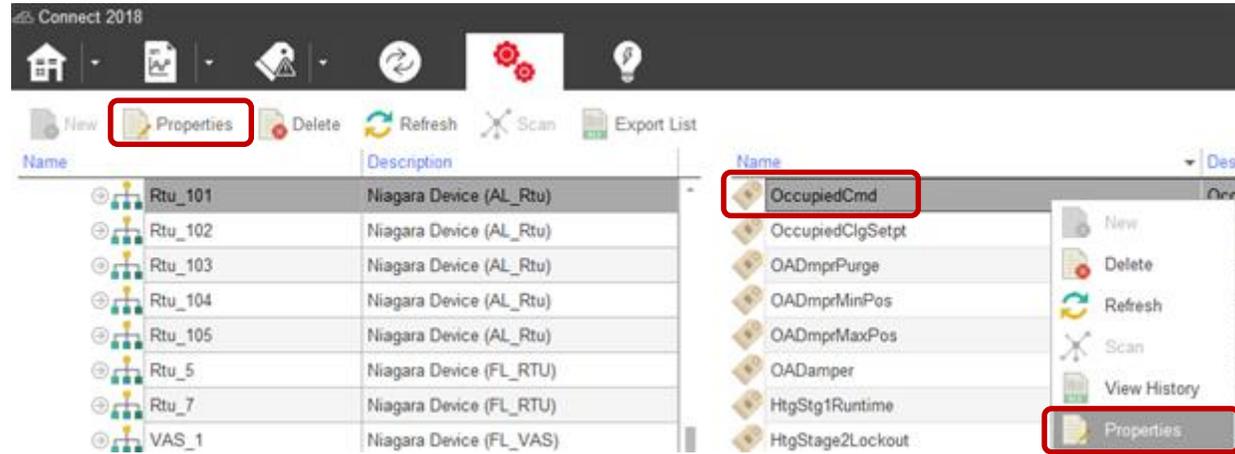
# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Point Conversions

With Configuration Explorer open.

Select the object where a Point Conversion is needed.

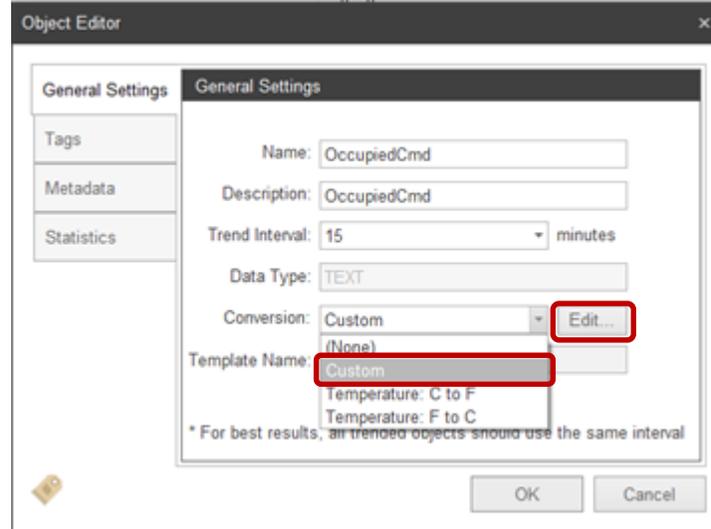
Select *Properties* from the Tool bar or r-click on the object name and choose *Properties* from the drop down.



The Object Editor General Settings tab window opens.

Click on the Conversion Dropdown and select *Custom*.

Then click on the *Edit* button.

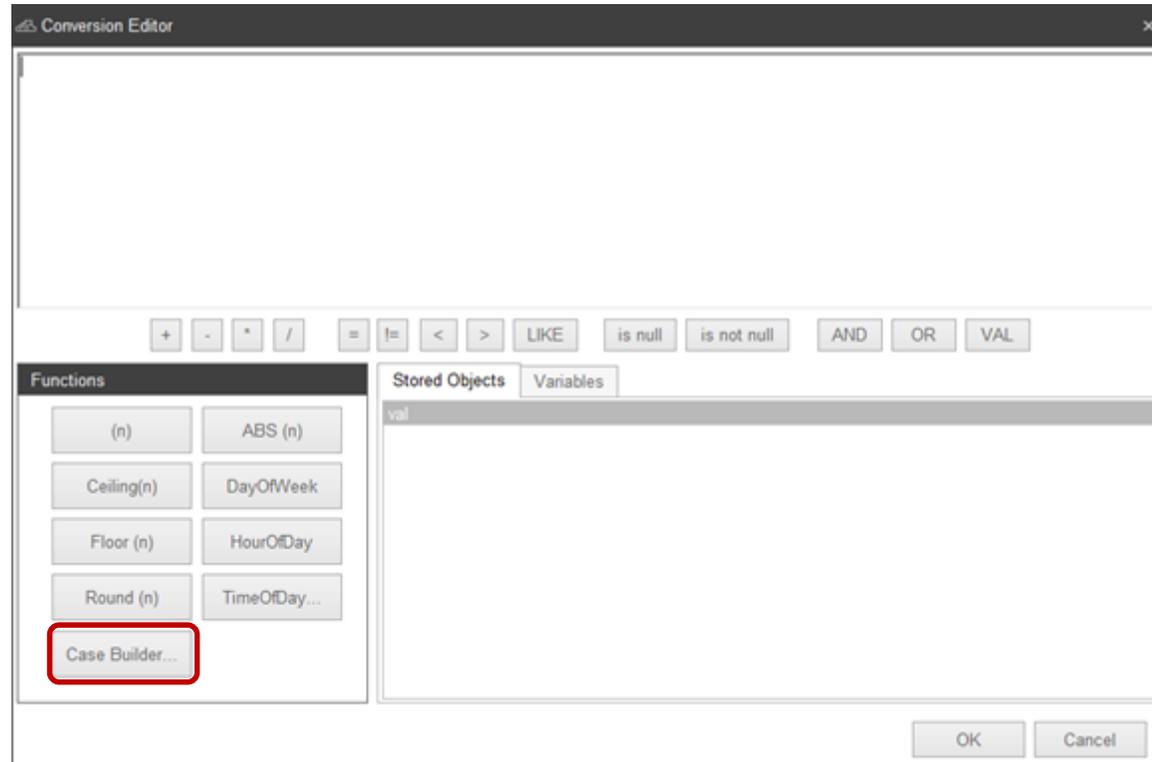


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## Constructing Trouble free Profiles. Point Conversions

The Conversion Editor window opens.

Click on the *Case Builder* button.



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## Constructing Trouble tickets Profiles. Point Conversions

The Case Builder window opens. Click on *Add*.

The Configuration Tab Edit Expression window opens.

The goal is to create an expression that will detect when the object value is equal to "true".

1. Double click on *val* to add it to the upper workspace.
2. Click on the *LIKE* button.
3. Click on the *VAL* button.
4. The Input Value pop up opens. Enter the text *true*.
5. Click *OK* on the Input Value pop up.

Verify the expression is *val LIKE 'true'*

6. Click on the *Result* tab.

The screenshot shows two overlapping windows from a software application. The top window is titled "Case Builder" and has a toolbar with "Add", "Remove", and "Edit Expression" buttons. The "Add" button is circled in red and labeled with a red "1". Below the toolbar is a large text area for "Case Expression" and "Result Value". The bottom window is titled "Edit Expression" and has a "Condition" field containing "[val] LIKE 'true'". The "Result" tab is selected and circled in red with a red "6". Below the condition field is a toolbar with various operators: "+", "-", "\*", "/", "=", "!=", "<", ">", "LIKE", "is null", "is not null", "AND", "OR", and "VAL". The "LIKE" and "VAL" buttons are circled in red with red "2" and "3" respectively. Below the toolbar are three tabs: "Functions", "Stored Objects", and "Variables". The "Stored Objects" tab is active, showing a list with "val" selected, indicated by a red arrow and a red "4". An "Input Value" dialog box is open over the "Stored Objects" tab, with "true" entered in the "Enter a value" field (circled in red with a red "4") and the "OK" button circled in red with a red "5".

# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Point Conversions

The Result Tab Edit Expression window opens.

The goal is to create an expression that will detect when the object value is equal to “true”.

1. Click on the VAL button.
2. The Input Value pop up opens. Enter a 1.
3. Click OK on the Input Value pop up.

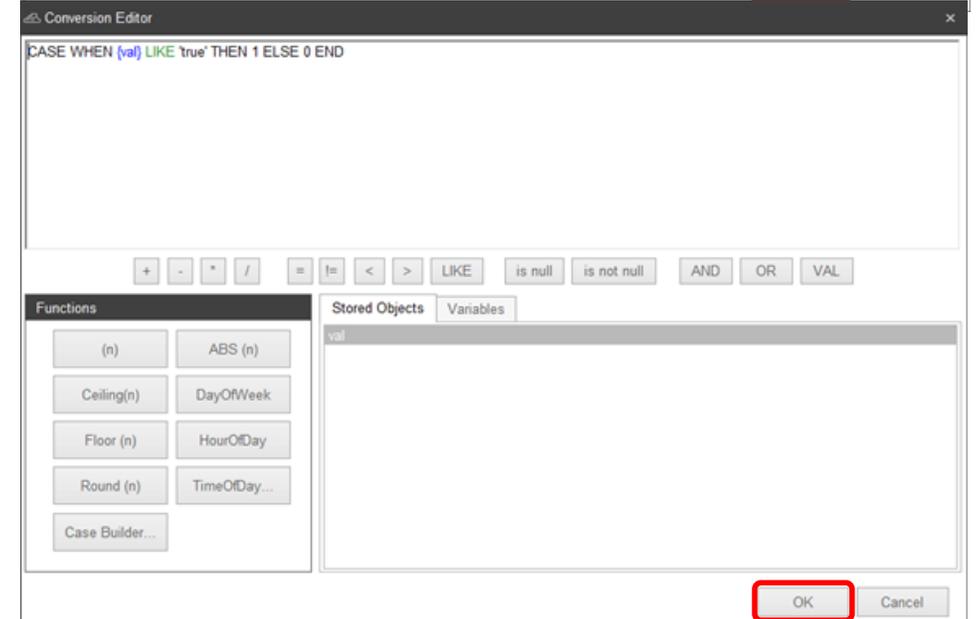
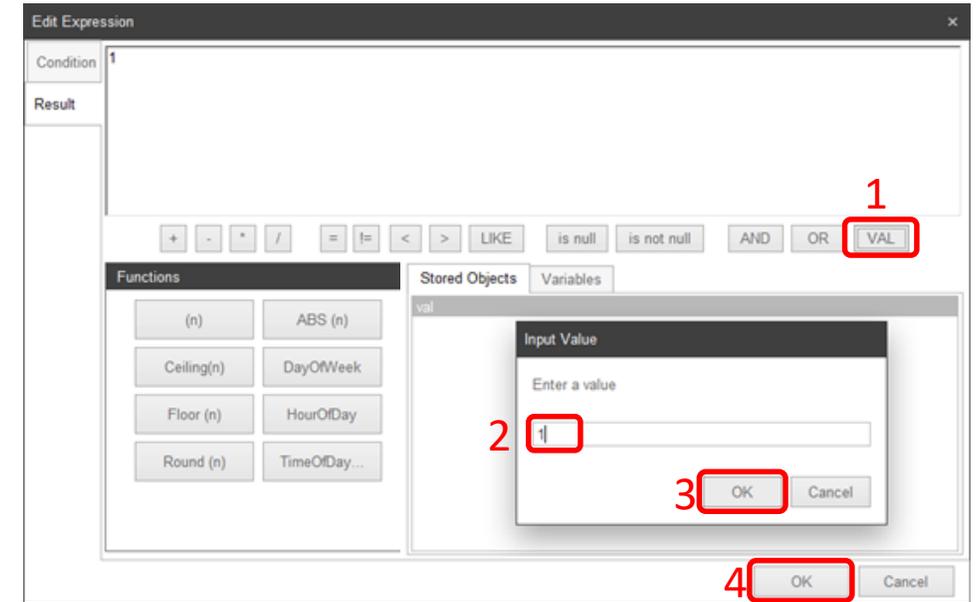
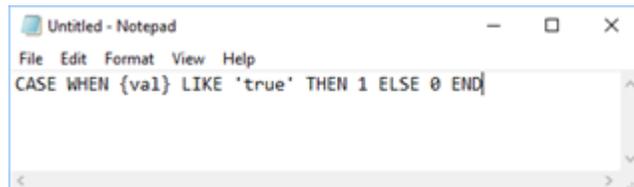
Verify the expression is 1.

4. Click on the OK tab.

The Conversion Editor window re opens.

Verify the expression is *CASE WHEN {val} LIKE 'true' THEN 1 ELSE 0 END*

Note that you may swipe over and copy the text then paste in a Notepad, Wordpad, Word, Excel etc.. for use in Point Conversions with other objects where they return a text value of true when the status is active.



# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Point Conversions

The Object Editor window re-opens.

Click on the *OK* tab.

Repeat this process for each of the objects that return Text data types and will be used in Templated Analytics. These are typically Occupancy, Heat Cool Mode and some Heating or Cooling Outputs.

Remember that if the expression; `CASE WHEN {val} LIKE 'true' THEN 1 ELSE 0 END` has been saved, then that expression may be copy and pasted into the *Conversion Editor* workspace.

If the object text is different, for example True as compared to true then the text must be edited. `CASE WHEN {val} LIKE 'True' THEN 1 ELSE 0 END`

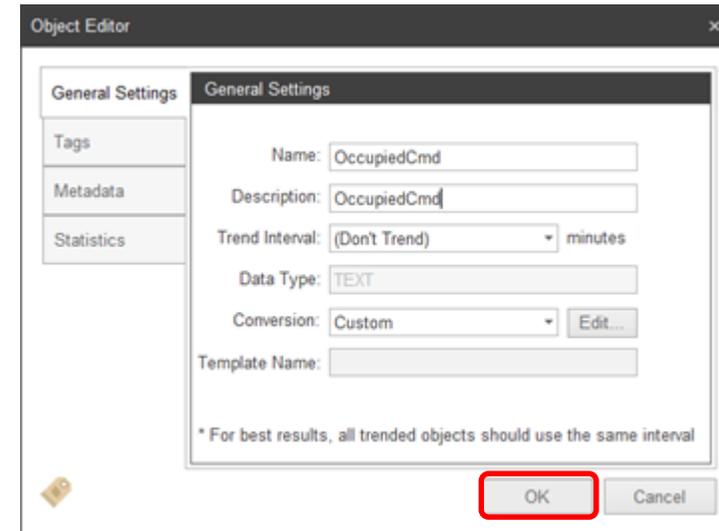
Example expressions;

`CASE WHEN {val} LIKE 'Occupied' THEN 1 ELSE 0 END`

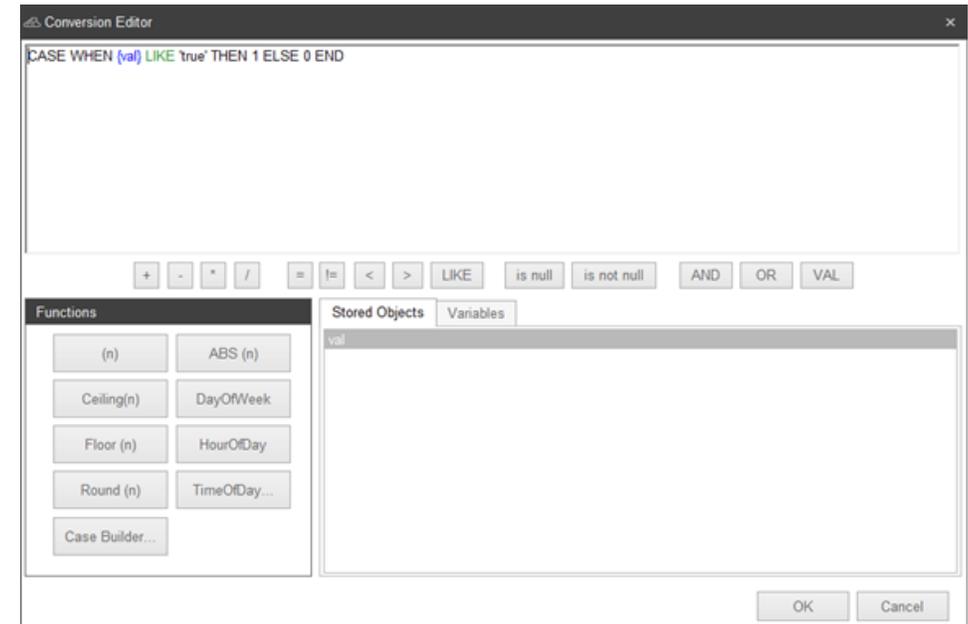
`CASE WHEN {val} LIKE 'occupied' THEN 1 ELSE 0 END`

`CASE WHEN {val} LIKE 'Heat' THEN 1 ELSE 0 END`

`CASE WHEN {val} LIKE 'heat' THEN 1 ELSE 0 END`



The screenshot shows the 'Object Editor' window with the 'General Settings' tab selected. The 'Name' field is 'OccupiedCmd', the 'Description' is 'OccupiedCmd', the 'Trend Interval' is '(Don't Trend)' minutes, the 'Data Type' is 'TEXT', and the 'Conversion' is 'Custom'. The 'OK' button is highlighted with a red box.



The screenshot shows the 'Conversion Editor' window with the expression `CASE WHEN {val} LIKE 'true' THEN 1 ELSE 0 END` in the workspace. Below the workspace is a toolbar with operators like '+', '-', '\*', '/', '=', '&#101;', '<', '>', 'LIKE', 'is null', 'is not null', 'AND', 'OR', and 'VAL'. There are also sections for 'Functions' and 'Stored Objects'.

# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Setting the Trend Interval.

With Configuration Explorer open.

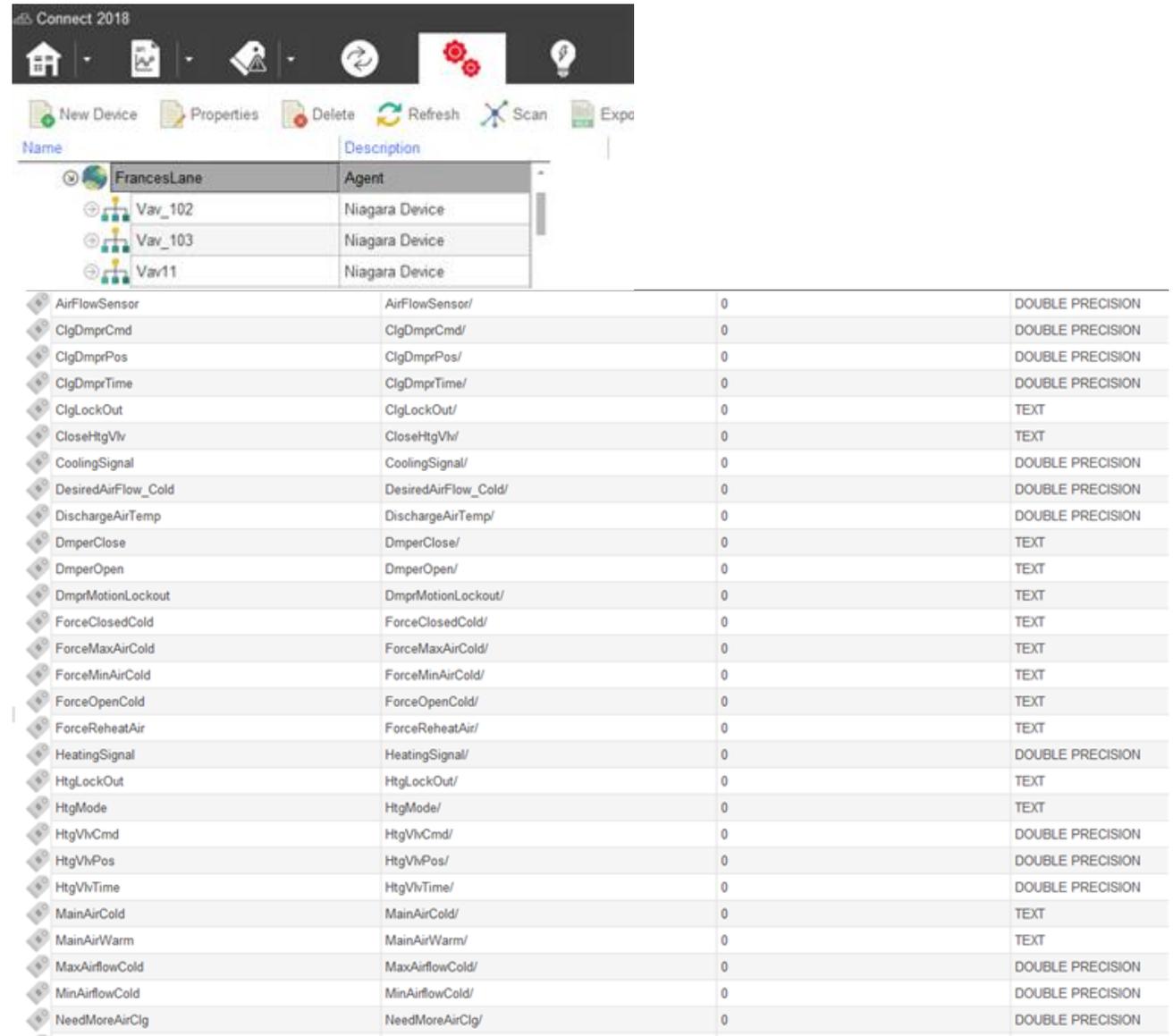
Select a device with the profile that you wish to set the Trend Intervals.

Carefully select the objects that you wish to set the Trend Interval.

There are several methods for multiple object selection;

1. Hold down the Ctrl button on your keyboard and click on each object.
2. Click on the first object of a contiguous group of objects, hold down the Shift button on the keyboard and then click on the last object of a contiguous group of objects. This will select the group.
3. Hold down the Shift button on the keyboard and then click and drag the mouse pointer from the first to the last object of a contiguous group of objects. This will select the group.
4. One object at a time.

Regardless of the method once you have the desired set of objects selected then;



The screenshot shows the Connect 2018 Configuration Explorer interface. The top toolbar includes icons for Home, New Device, Properties, Delete, Refresh, Scan, and Export. Below the toolbar is a tree view showing a hierarchy of devices under the name 'FrancesLane'. The selected device is 'Agent', which contains three sub-devices: 'Vav\_102', 'Vav\_103', and 'Vav11', all identified as 'Niagara Device'. Below the tree view is a table listing various objects and their properties.

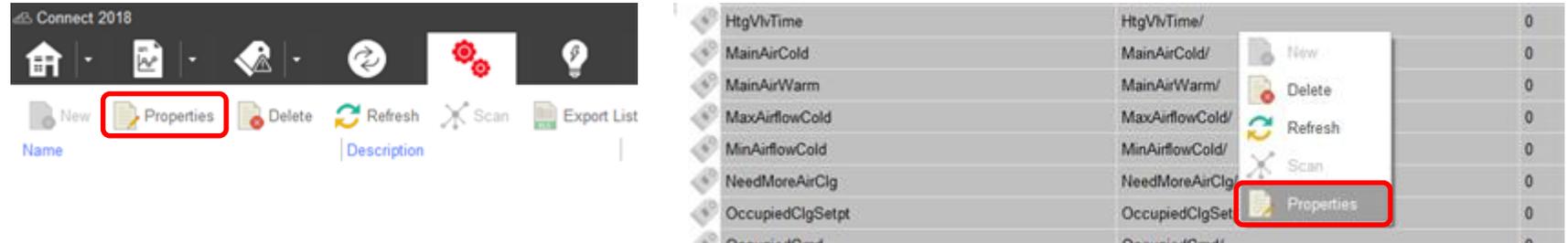
Name	Description	Value	Unit
AirFlowSensor	AirFlowSensor/	0	DOUBLE PRECISION
ClgDmprCmd	ClgDmprCmd/	0	DOUBLE PRECISION
ClgDmprPos	ClgDmprPos/	0	DOUBLE PRECISION
ClgDmprTime	ClgDmprTime/	0	DOUBLE PRECISION
ClgLockOut	ClgLockOut/	0	TEXT
CloseHtgVlv	CloseHtgVlv/	0	TEXT
CoolingSignal	CoolingSignal/	0	DOUBLE PRECISION
DesiredAirFlow_Cold	DesiredAirFlow_Cold/	0	DOUBLE PRECISION
DischargeAirTemp	DischargeAirTemp/	0	DOUBLE PRECISION
DmperClose	DmperClose/	0	TEXT
DmperOpen	DmperOpen/	0	TEXT
DmprMotionLockout	DmprMotionLockout/	0	TEXT
ForceClosedCold	ForceClosedCold/	0	TEXT
ForceMaxAirCold	ForceMaxAirCold/	0	TEXT
ForceMinAirCold	ForceMinAirCold/	0	TEXT
ForceOpenCold	ForceOpenCold/	0	TEXT
ForceReheatAir	ForceReheatAir/	0	TEXT
HeatingSignal	HeatingSignal/	0	DOUBLE PRECISION
HtgLockOut	HtgLockOut/	0	TEXT
HtgMode	HtgMode/	0	TEXT
HtgVlvCmd	HtgVlvCmd/	0	DOUBLE PRECISION
HtgVlvPos	HtgVlvPos/	0	DOUBLE PRECISION
HtgVlvTime	HtgVlvTime/	0	DOUBLE PRECISION
MainAirCold	MainAirCold/	0	TEXT
MainAirWarm	MainAirWarm/	0	TEXT
MaxAirflowCold	MaxAirflowCold/	0	DOUBLE PRECISION
MinAirflowCold	MinAirflowCold/	0	DOUBLE PRECISION
NeedMoreAirClg	NeedMoreAirClg/	0	DOUBLE PRECISION

# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Setting the Trend Interval.

R-click on the group.

Select *Properties* from the Tool bar or r-click on the selected group and choose *Properties* from the drop down.



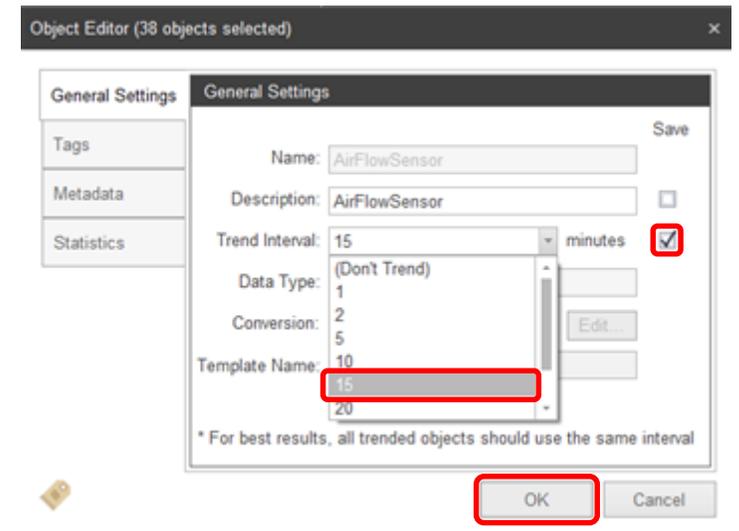
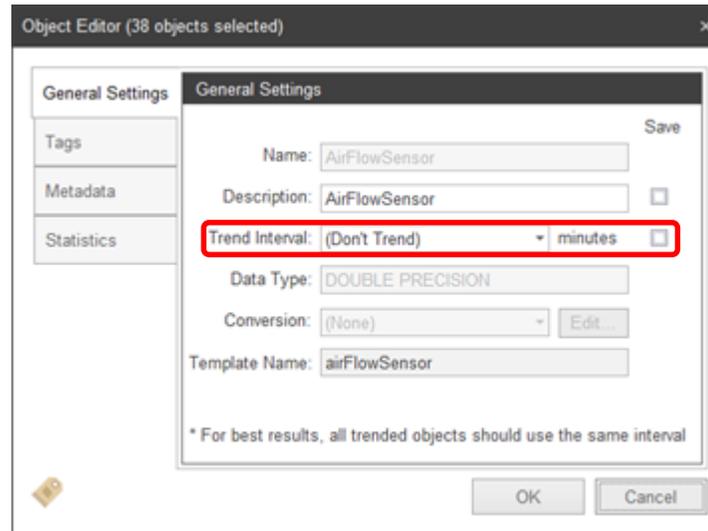
The Object Editor General Settings tab window opens.

Click on the Trend Interval Dropdown and select the desired Trend Interval time.

The check box to the right should be checked to save this value to all of the selected objects.

Click on the *OK*.

A pop up will open displaying the save process to all the devices in the Profile.



# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Setting Device Classes.

Templates provide for templated creation of Events in Watchdogs. Data Filter, Format Expressions and Event Chart Objects in Standard Reports. Inspection items in Inspection Reports.

With Configuration Explorer open.

Open the Profiles node in the Navigation Tree.

Select the profile to apply a Device class.

Select *Properties* from the Tool bar or r-click on the profile name and choose *Properties* from the drop down.

The screenshot shows the Connect 2018 software interface. The top toolbar includes icons for Home, Properties, Delete, Refresh, Scan, and Export List. Below the toolbar is a table with columns for Name and Description. The table lists several containers and profiles. The 'Profiles' container is expanded, showing a list of profiles. The 'AL\_Vav' profile is selected, and a context menu is open over it, showing options: New, Delete, Refresh, Scan, Edit Roles, and Properties. The 'Properties' option is highlighted.

Name	Description
AutoReports	Auto Report Container
Energy	Energy Monitor Container
Profiles	Profile Container
Frances_Lane	Profile Container
AL_Chw_System	Profile
AL_Rtu	Profile
AL_Vav	Profile
FL_AHU1	Profile
FL_Area2	Profile
FL_Areas	Profile
FL_Chlr	Profile
FL_Chw_S	Profile
FL_LVG_C	Used Profile
FL_OutdoorAirTemp	Unused Profile

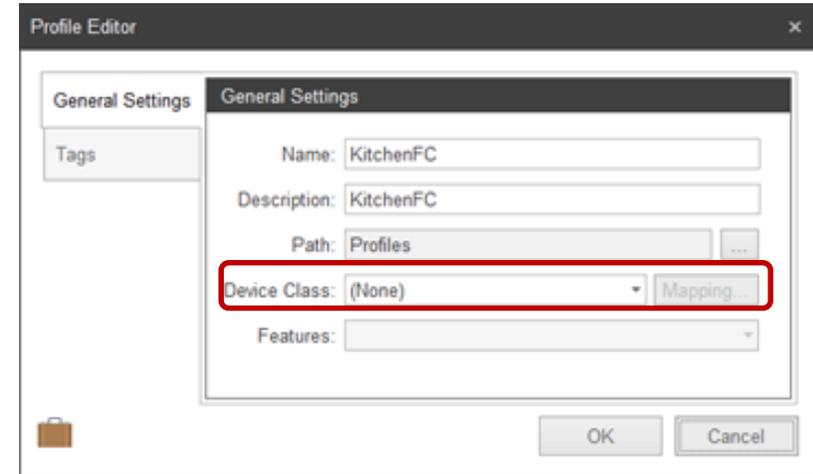
# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Setting Device Classes.

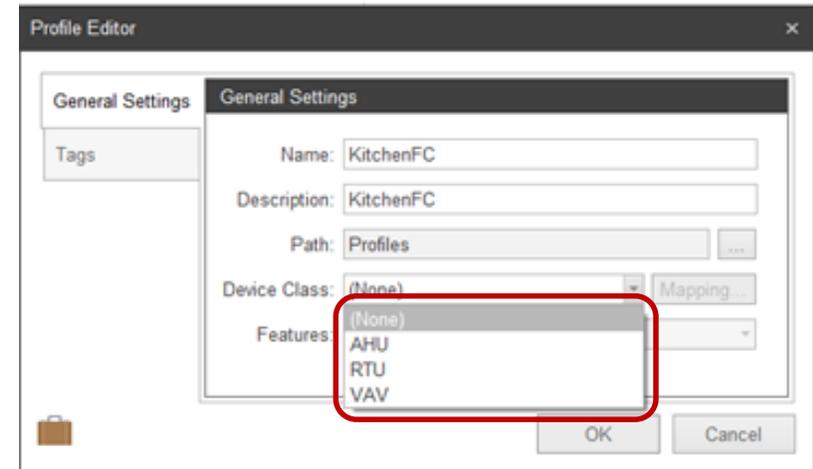
Templates provide for templated creation of Events in Watchdogs. Data Filter, Format Expressions and Event Chart Objects in Standard Reports. Inspection items in Inspection Reports.

The Profile Editor General Settings tab window opens.

Note the new dropdown “Device Class” in the Profile Editor - General Settings Tab



Click on the dropdown to expose the selections available at this time.



# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Mapping Device Classes and Features

Templates provide for templated creation of Events in Watchdogs. Data Filter, Format Expressions and Event Chart Objects in Standard Reports. Inspection items in Inspection Reports.

The Features dropdown.

The Features dropdown provides access to select options the selected Device Class may contain.

The selection of additional Features will result in additional point mapping. If Point Mapping had been completed prior to the addition of Features the user must reapply Point Mapping.

Clicking on the Mapping button will open the Template Mapping window.

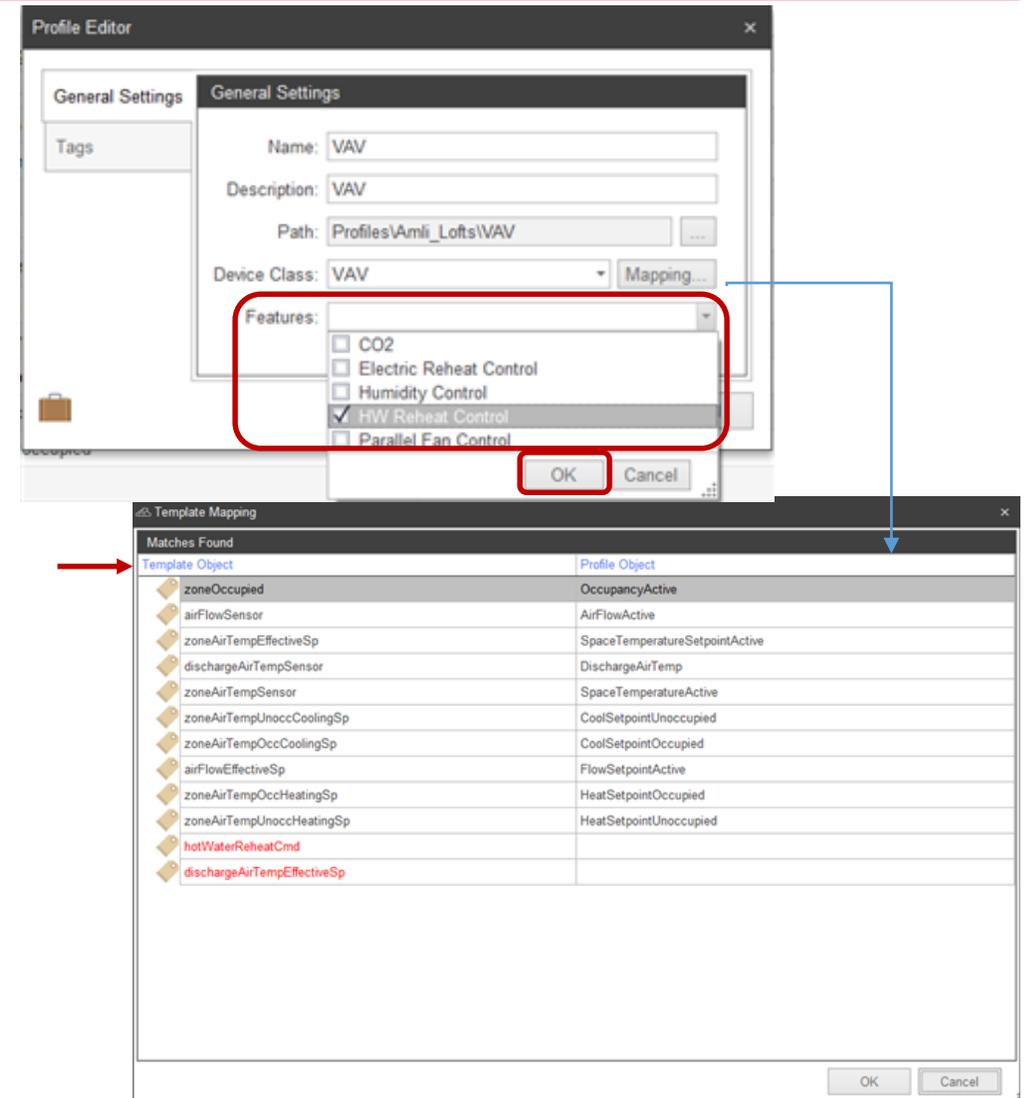
The Template Mapping window contains two columns of point names.

The right column named Profile Object contains the names of the objects discovered when the device was scanned.

The left column named Template Object contains the names of the objects that are used inside Templated analytics.

This window provides the user a tool to gauge the accuracy of the matching of Profile Objects to Template objects.

The user should carefully review each row for correctness.



# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Mapping Device Classes and Features

Templates provide for templated creation of Events in Watchdogs. Data Filter, Format Expressions and Event Chart Objects in Standard Reports. Inspection items in Inspection Reports.

Steps if the Template Mapping tool incorrectly matches a Profile Object to a Template Object or does not find a match.

Click in the empty cell, or a cell with an incorrect match. A dropdown arrow will appear on the right.

The dropdown will open containing all the Profile objects provided from the device scan.

The objects will be arranged by a scoring system where the object containing the highest score will be listed at the top of the list.

There will be occasions where there will be no viable Profile object to match a Template Object. These will be identified in red lettering.

If the Template object occurs as a result of a feature. The user may go back to the General Settings window and de-select that feature to remove the Template object.

Template Objects identified in red will not provide templated events, data filters, event chart objects or Inspection items.

The screenshot shows a 'Template Mapping' dialog box with a table of matches. The table has two columns: 'Template Object' and 'Profile Object'. The following table represents the data shown in the screenshot:

Template Object	Profile Object
zoneOccupied	OccupancyActive
airFlowSensor	AirFlowActive
zoneAirTempEffectiveSp	SpaceTemperatureSetpointActive
dischargeAirTempSensor	DischargeAirTemp
zoneAirTempSensor	SpaceTemperatureActive
zoneAirTempUnoccCoolingSp	CoolSetpointUnoccupied
zoneAirTempOccCoolingSp	CoolSetpointOccupied
airFlowEffectiveSp	FlowSetpointActive
zoneAirTempOccHeatingSp	HeatSetpointOccupied
zoneAirTempUnoccHeatingSp	HeatSetpointUnoccupied
hotWaterReheatCmd	
dischargeAirTempEffectiveSp	

A dropdown menu is open for the 'dischargeAirTempEffectiveSp' row, showing the following options: HeatOutputSecondary, CoolOutput, ModeActive, MaximumFlow, ModeHeatCool, and PresentValue. The 'OK' button at the bottom right is also highlighted.

Click OK.

# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Mapping Device Classes and Features

Templates provide for templated creation of Events in Watchdogs. Data Filter, Format Expressions and Event Chart Objects in Standard Reports. Inspection items in Inspection Reports.

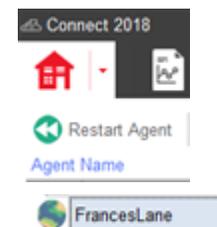
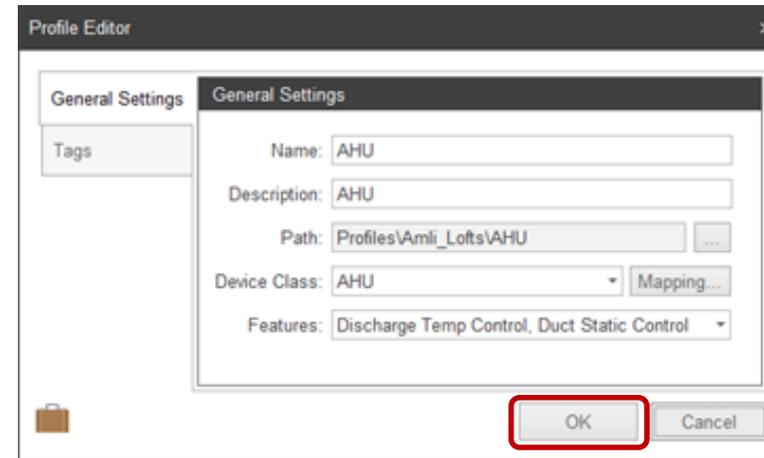
The General tab will reflect the Device Class and the selected Features.

Remember, if any changes are made, always click *Mapping* and recheck.

Click *OK*.

Repeat the Device Class and Mapping process for any profile which may fit one of the provided device classes; Vav, Ahu or Rtu.

The last step is to restart the agent. No Profile changes take effect until after the agent is restarted.



# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Mapping Device Classes and Features

Templates provide for templated creation of Events in Watchdogs. Data Filter, Format Expressions and Event Chart Objects in Standard Reports. Inspection items in Inspection Reports.

When Device Classes have been applied to the Profile. Template Rules will be available in;  
Watchdogs in the Event Notifications window.  
Inspection Reports in the Inspection Items window.  
Standard Reports in the Data Filter window.  
Standard Reports in the Format Expressions window.  
Standard Reports in the Event Chart Objects window.

Use Template Rules?

Would you like to import rules from the device template?

Custom Event Trigger

Event trigger from template library

Edit Object

From Template

Name	Description
<input checked="" type="checkbox"/> Setpoint Selection	Rule Group
<input type="checkbox"/> High Occ Cool	Missing: zoneAirTempOccCoolingSp
<input type="checkbox"/> High Occ Heat	Missing: zoneAirTempOccHeatingSp
<input type="checkbox"/> High Unocc Cool	Unoccupied Cooling setpoint is above the recommended value of 82 deg F.
<input type="checkbox"/> High Unocc Heat	Unoccupied Heating setpoint is above the recommended value of 55 deg F.
<input type="checkbox"/> Low Occ Cool	Missing: zoneAirTempOccCoolingSp
<input type="checkbox"/> Low Occ Heat	Missing: zoneAirTempOccHeatingSp
<input type="checkbox"/> Low Unocc Cool	Unoccupied Cooling setpoint is below the recommended value of 82 deg F.
<input type="checkbox"/> Low Unocc Heat	Unoccupied Heating setpoint is below the recommended value of 55 deg F.
<input checked="" type="checkbox"/> Space Temperature Control	Rule Group
<input type="checkbox"/> High Temp	Space Temperature is more than 3 degrees above the effective space temperature setpoint
<input type="checkbox"/> Low Temp	Space Temperature is more than 3 degrees below the effective space temperature setpoint
<input checked="" type="checkbox"/> VAV Air Flow Control	Rule Group
<input type="checkbox"/> High Air Flow	Airflow is above Airflow Setpoint.
<input type="checkbox"/> Low Air Flow	Airflow is below Airflow Setpoint.

Check All

OK Cancel

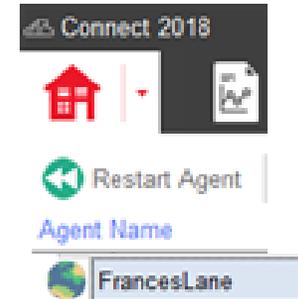
# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Final Check then restart the agent.

Templates provide for templated creation of Events in Watchdogs. Data Filter, Format Expressions and Event Chart Objects in Standard Reports. Inspection items in Inspection Reports.

Correct and trouble free Profiles require careful attention through multiple actions.

1. A Profile is required for each device that contains a unique object set.  
Create a Profile name for each individual device object set.
2. In at least one device of each Profile type, perform an Object scan.
3. Select any object that;
  - a. Does not return an invalid value such as NaN or a blank value.
  - b. The user may desire to apply in a Dynamic Explorer scan.
4. Save the selected objects.
5. Select Occupancy and Output objects returning Text values and apply the correct Point Conversions. You may wish to apply conversions to all objects returning Text values.
6. Select all the objects where trending is desired. Assign a Trend Interval.
7. Select a Profile, open the Properties window and assign a Device Class.
8. Perform the Object Mapping.
9. Save then review.
10. Restart the Agent.

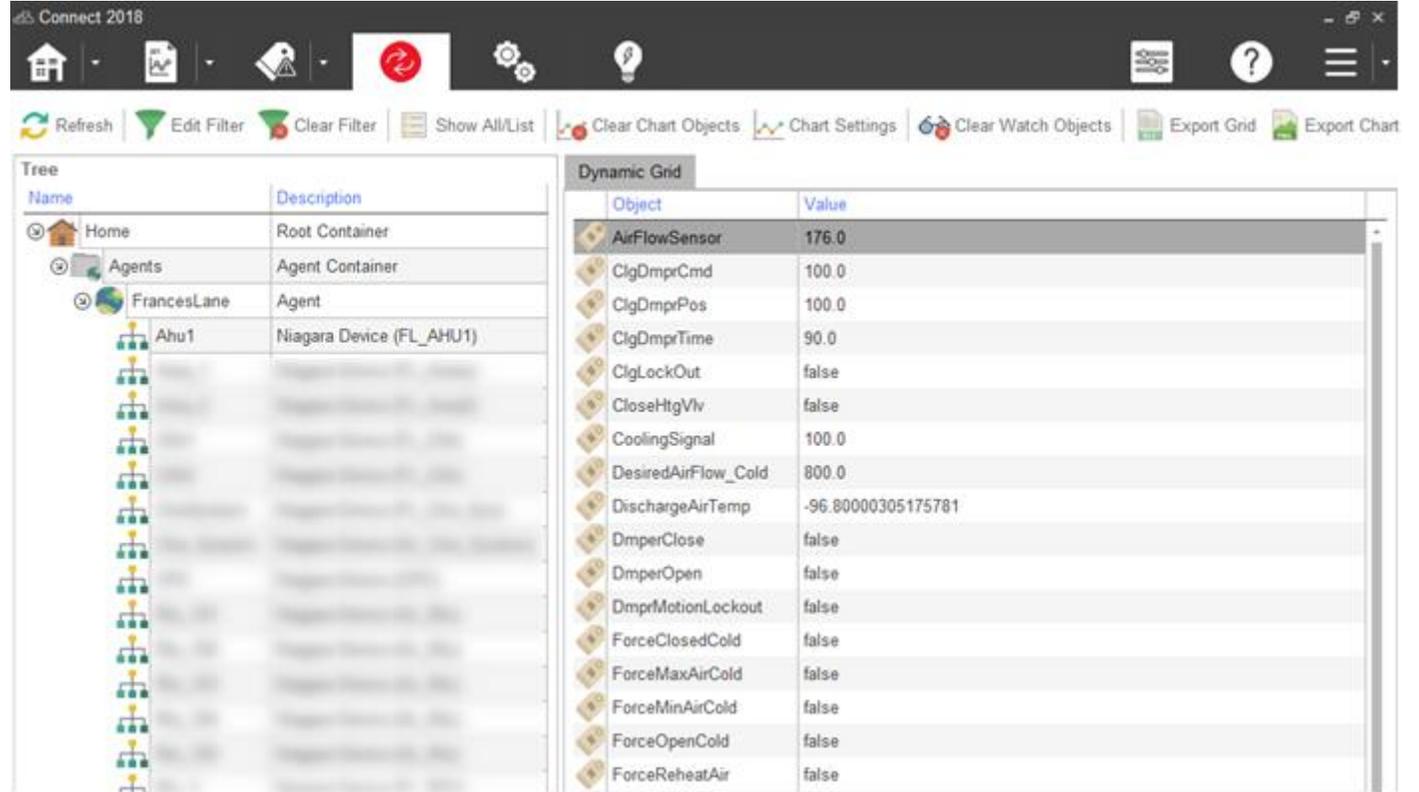


# Profiles-The foundation of Connect

## Constructing Trouble free Profiles. Final Check then restart the agent.

Templates provide for templated creation of Events in Watchdogs. Data Filter, Format Expressions and Event Chart Objects in Standard Reports. Inspection items in Inspection Reports.

One method to provide assurance of clean profiles is to use the Dynamic Explorer and scroll through each device, watching the Dynamic Grid for occurrences of blank, NaN or BadUri values.



The screenshot displays the Connect 2018 software interface. The top menu bar includes icons for Home, Reports, Agents, a red circular icon, Settings, a lightbulb icon, a Help icon, and a menu icon. Below the menu bar is a toolbar with buttons for Refresh, Edit Filter, Clear Filter, Show All/List, Clear Chart Objects, Chart Settings, Clear Watch Objects, Export Grid, and Export Chart.

The main interface is divided into two panels. The left panel, titled "Tree", shows a hierarchical view of the system structure:

Name	Description
Home	Root Container
Agents	Agent Container
FrancesLane	Agent
Ahu1	Niagara Device (FL_AHU1)

The right panel, titled "Dynamic Grid", shows a table of sensor data:

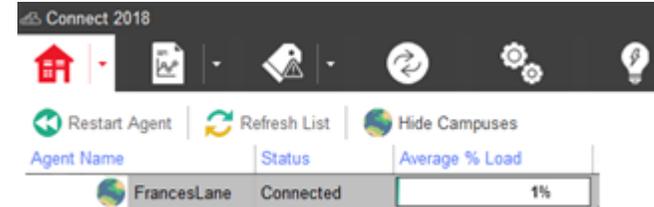
Object	Value
AirFlowSensor	176.0
ClgDmprCmd	100.0
ClgDmprPos	100.0
ClgDmprTime	90.0
ClgLockOut	false
CloseHtgVlv	false
CoolingSignal	100.0
DesiredAirFlow_Cold	800.0
DischargeAirTemp	-96.80000305175781
DmperClose	false
DmperOpen	false
DmprMotionLockout	false
ForceClosedCold	false
ForceMaxAirCold	false
ForceMinAirCold	false
ForceOpenCold	false
ForceReheatAir	false

# Profiles-The foundation of Connect

**Constructing Trouble free Profiles. Final Check then restart the agent.**

Templates provide for templated creation of Events in Watchdogs. Data Filter, Format Expressions and Event Chart Objects in Standard Reports. Inspection items in Inspection Reports.

Clean Profiles help produce lower Average Load %.



Connect 2018

Restart Agent | Refresh List | Hide Campuses

Agent Name	Status	Average % Load
FrancesLane	Connected	1%

Prevent Comm Errors.



Comm Errors (1 day, max 1000 errors)

AgentName	Error Count
-----------	-------------

Quicker scan times, higher Points per minute values.

Log Objects	Errors	PPM
740	0	740
740	0	740
740	0	740

Better performance overall.



THANK YOU