



# **ACTIVE Framework Auto-Program Niagara Using Tags**

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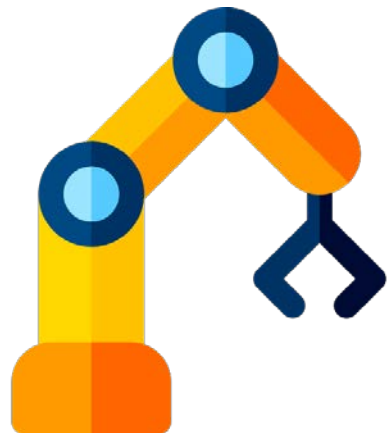
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**“ Tags are useless in a BAS  
and it’s painful to deploy ”**

*Anonymous System Integrator*





**Leverage on tags by  
automating the  
deployment**



**Deploy tags efficiently  
with a set of  
productivity tools**

## Deploy tags using Excel

**Export Configuration**

Destination Folder: C:\Niagara\Niagara-4.7.109.20\export

File name: export.xls

Base: 1

Host: A

Port: 1

Username: FriendlyID

Password: Base

First Export: Template

Id to reuse the component: Use@

Choose the types:

- driver
- control

Base	FriendlyID	Base	Template
1	@AHU 01	Id to reuse the component. Referen	compon
2	@AHU General command	Use@	
3	@Cool stage command		
4	@Discharge air flow		
5	@Discharge air temp		
6	@Discharge fan comma		
7	@Heat stage command		
8	@Humidity setpoint		
9	@Outside air temp		
10	@Recovery heat wheel s		
11	@Return air flow sensor		

1	FriendlyID	Base	Template	Instance	Tags	Relati
2	Define					
3						
4						
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# Using auto-tagging

**Auto-tagging interface**

1. Choose the target the tags will be applied on

?

2. Create your own rules to easily deploy tags on all your equipments

+ ?

?

Equals

?

→ + Haystack hs:zoneAirTempSensor X

?

Has

units=%RH >> ⌚

→ + + hs:air baja:Marker marker X

hs:temp baja:Marker marker X X

Define conditions on the left and combination of tags on the right



Monitor

Strategies

Station    Status

activeBAS    Idle

Nav

My Network

FCU\_01

Alarm Source Info

Device Data

Points

InfoSource

FCU\_02

FCU\_03

FCU\_04

FCU\_05

FCU\_06

FCU\_07

FCU\_08

FCU\_09

FCU\_010

Apps

Station Info Source

Palette

schedule

BooleanSchedule

EnumSchedule

NumericSchedule

StringSchedule

CalendarSchedule

TriggerSchedule

BooleanScheduleSelector

NumericScheduleSelector

StringScheduleSelector

EnumScheduleSelector

Wire Sheet

Occupancy s

Boolean Writab

Out: -(null) @ def

In10: -(null)

In18: -(null)

Humidity

Numeric Point

Out: 0 %RH (disabled)

Active setpoi

Numeric Point

Out: 0.0 °C (disabled)

Setpoint offs

Numeric Writab

Out: 0.0 °C (disabled)

In10: -(null)

In18: -(null)

Zone relative

Numeric Writab

Out: 0 %RH (disabled)

In10: -(null)

In18: -(null)

Window cont

Boolean Point

Out: Off (disabled)

Heat output

Numeric Point

Out: 0 % (disabled)

Cool output

Numeric Point

Out: 0 % (disabled)

Fan speed c

Numeric Writab

Out: 0 % (disabled) @

In10: -(null)

In18: -(null) ble

Heat valve state

Boolean Writab

Out: -(null) @ def

In10: -(null)

In18: -(null)

Setpoint

Numeric Writab

Out: 0.0 °C (disabled)

In10: -(null)

In18: -(null)

Using the macro recorder to do once a set of operations and replay the sequence to many

Monitor

Strategies

Station Status

activeBAS Idle

Nav

My Network

FCU\_01

Alarm Source Info

Device Data

Points

InfoSource

FCU\_02

FCU\_03

FCU\_04

FCU\_05

FCU\_06

FCU\_07

FCU\_08

FCU\_09

FCU\_010

Apps

Station Info Source

Palette

schedule

BooleanSchedule

EnumSchedule

NumericSchedule

StringSchedule

CalendarSchedule

TriggerSchedule

BooleanScheduleSelector

NumericScheduleSelector

StringScheduleSelector

EnumScheduleSelector

Wire Sheet

Occupancy s

Boolean Writab

Out - {null} @ def

In10 - {null}

In16 - {null}

Humidity

Numeric Point

Out 0 %RH [disabled]

Active setpoi

Numeric Point

Out 0.0 °C [disabled]

Setpoint offs

Numeric Writab

Out 0.0 °C [disabled]

In10 - {null}

In16 - {null}

Zone relative

Numeric Writab

Out 0 %RH [disabled]

In10 - {null}

In16 - {null}

Window cont

Boolean Point

Out Off [disabled]

Heat output

Numeric Point

Out - {null} @ def

Cool output

Numeric Point

Out 0 % [disabled]

Fan speed c

Numeric Writab

Out 0 % [disabled]

In10 - {null}

In16 - {null}

Heat valve state

Boolean Writab

Out - {null} @ def

In10 - {null}

In16 - {null}

Setpoint

Numeric Writab

Out 0.0 °C [disabled]

In10 - {null}

In16 - {null}

Using the macro recorder to do once a set of operations and replay the sequence to many





INHERITS FROM

SELECT SUPERSOURCE ▾

✕ Clear selection

Category
Search
Production
Zone
Water distribution
Outside
Metering
Air Handling

Equipment
Search
AHU
Terminal Unit
Sky dome
CO2 Detection System
Boiler
Préparateur ECS

Element
Search
Burner
Fan
Pre Heating Coil
Compressor
Filter
Heat Recovery Coil

NodeGroups
Search
Chilled Water Temp Leaving
Outside Air Temperature
Duct Flow Control
Duct Humidity Sensor
Chilled Water Pump Status
Zone Pressure

Position
Search
Leaving

Type
Search
Boolean Alarm

Dimension
Search
Position

Resource
Search
Furnace

Characteristic
Search
Cooling Type

Display name

Zone relative humidity

Tags

Relations

Use the decision tree  
if you don't know  
which tags to choose



INHERITS FROM

SELECT SUPERSOURCE ▾

✕ Clear selection

Category
Search
Production
Zone
Water distribution
Outside
Metering
Air Handling

Equipment
Search
AHU
Terminal Unit
Sky dome
CO2 Detection System
Boiler
Préparateur ECS

Element
Search
Burner
Fan
Pre Heating Coil
Compressor
Filter
Heat Recovery Coil

NodeGroups
Search
Chilled Water Temp Leaving
Outside Air Temperature
Duct Flow Control
Duct Humidity Sensor
Chilled Water Pump Status
Zone Pressure

Position
Search
Leaving

Type
Search
Boolean Alarm

Dimension
Search
Position

Resource
Search
Furnace

Characteristic
Search
Cooling Type

Display name

Zone relative humidity

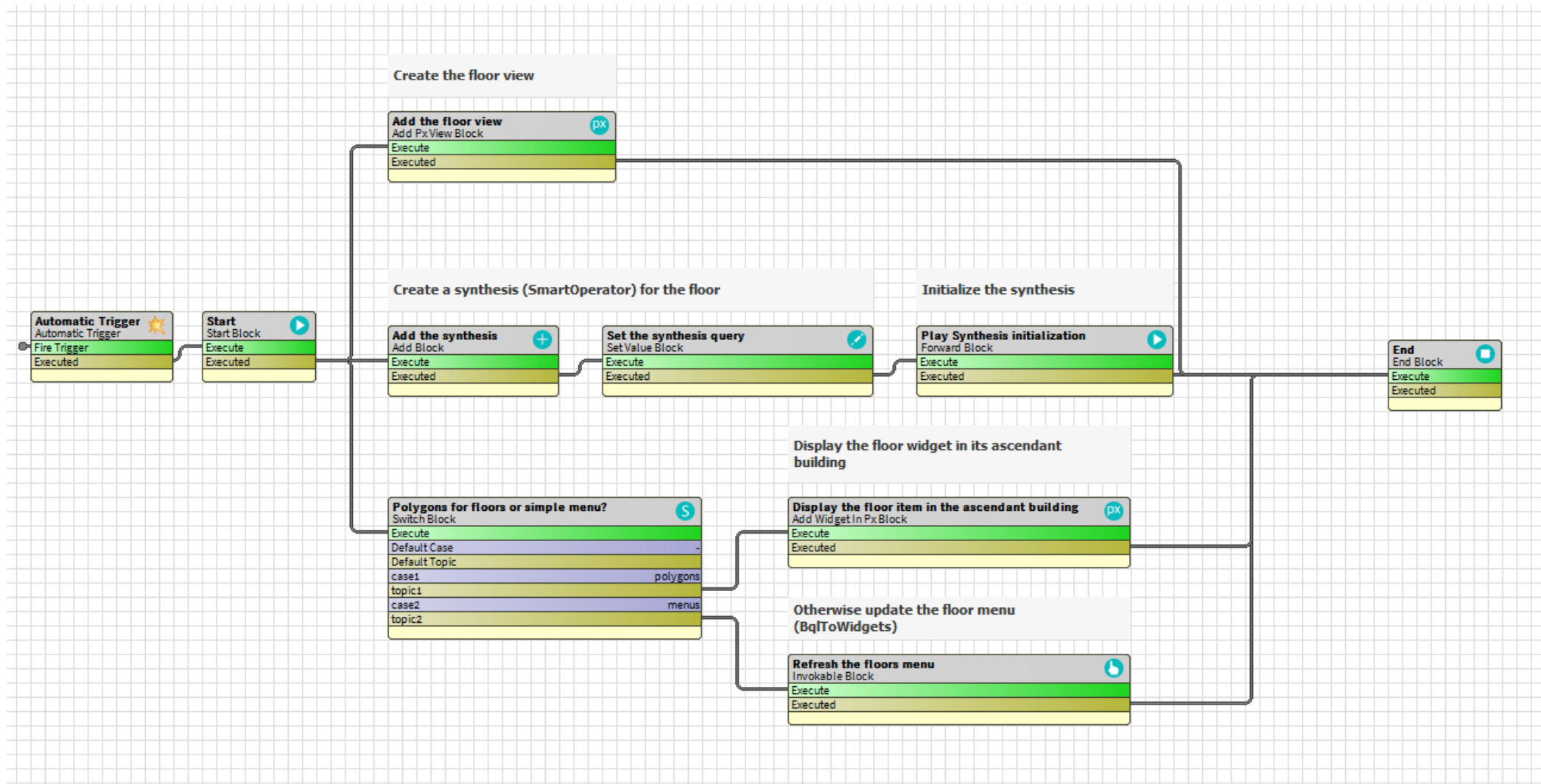
Tags

Relations

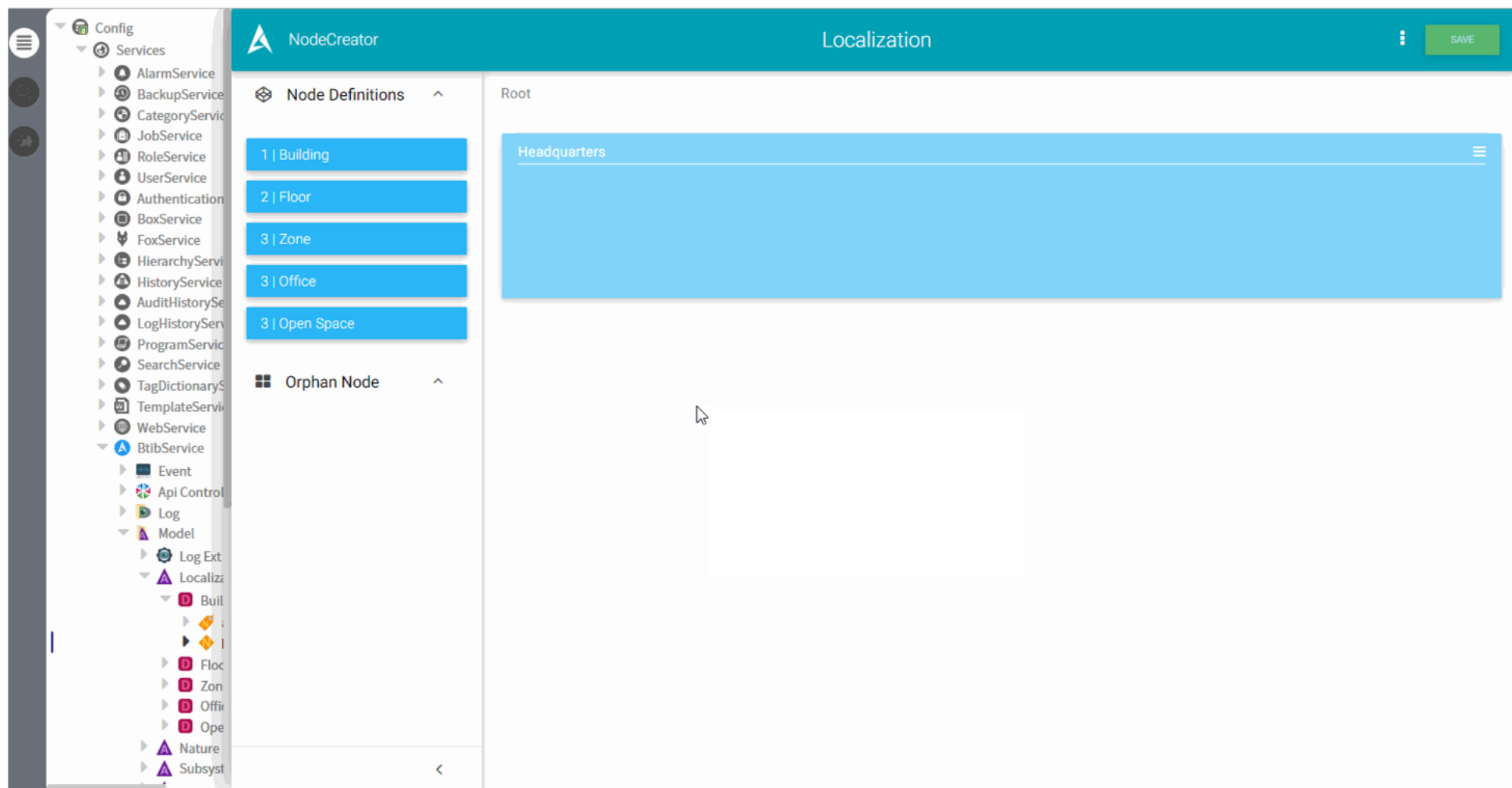
Use the decision tree  
if you don't know  
which tags to choose

**How do you benefit instantly from tagging?**

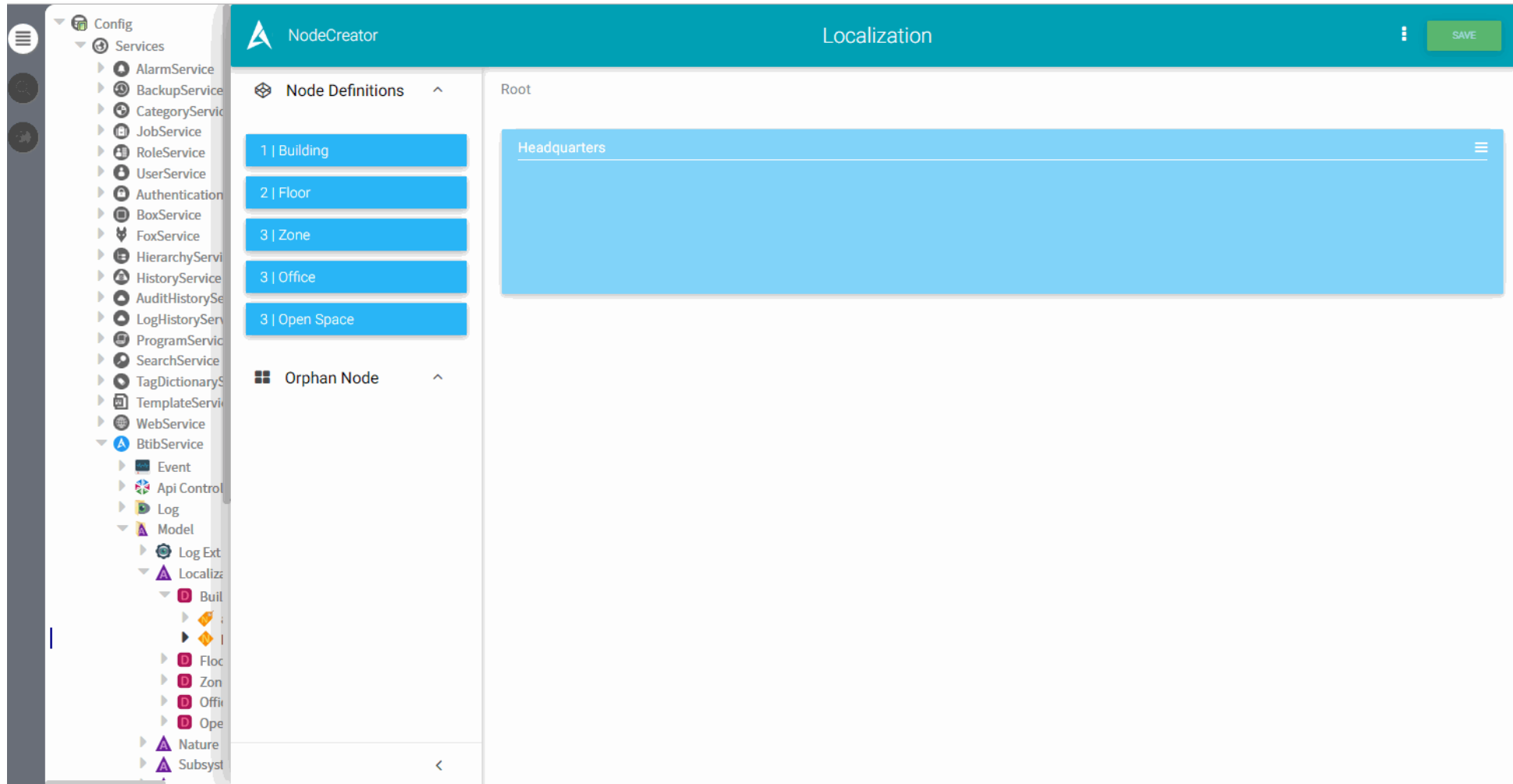
# Automate every step by defining workflows based on tags and relations



# Workflows can create new views, complete menus



# Workflows can create new views, complete menus





## Or add graphics to a view, all based on tags

The screenshot displays the 'FCU\_01' configuration interface, which is currently 'disabled'. The interface is divided into a left sidebar, a top navigation bar, and a main content area.

**Left Sidebar:** A tree view showing the project structure. It includes 'Config', 'Services', 'Drivers', and 'LonNetwork'. Under 'LonNetwork', there is a 'Local Lon De' folder containing 'FCU\_Demo' and a list of 'FCU' units from 'FCU\_01' to 'FCU\_010'. Other top-level items include 'Apps', 'Station Info Source', 'Home', 'Files', 'Histories', 'Subsystem', 'Nature', 'Equipment', and 'Localization'.

**Top Navigation Bar:** A blue bar with tabs for 'INFORMATION', 'SYNOPTIC', 'TRENDS', 'POINT LIST', and 'MODEL'. The 'MODEL' tab is currently selected.

**Main Content Area:** The 'AssignmentView' for 'FCU\_01'. It features a teal header with the title 'AssignmentView' and 'FCU\_01', along with a 'SAVE' button. The view is organized into two main sections:

- Localization:** Contains blue boxes for 'Building', 'Floor', 'Zone', 'Office', and 'Open Space'.
- Nature:** Contains boxes for 'Category', 'Equipment', 'Element', 'NodeGroups', 'Position', 'Type', 'Dimension', 'Resource', and 'Characteristic'.

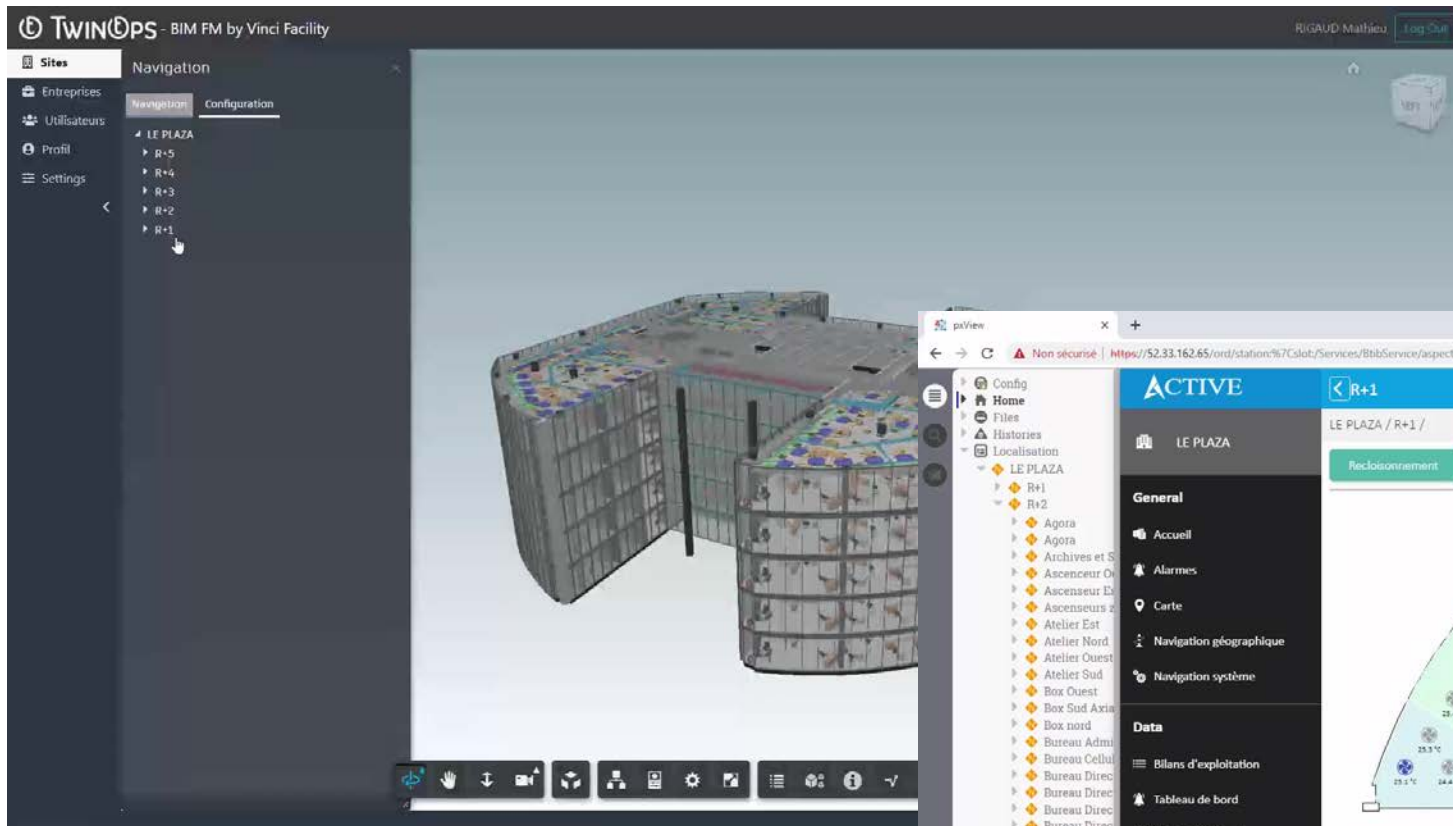
On the right side of the main content area, there is a sidebar with the following fields:

- Display name:** FCU\_01
- Tags:** (with an expand/collapse arrow)
- Relations:** (with an expand/collapse arrow)

At the bottom of the main content area, there is a 'Subsystem' section.

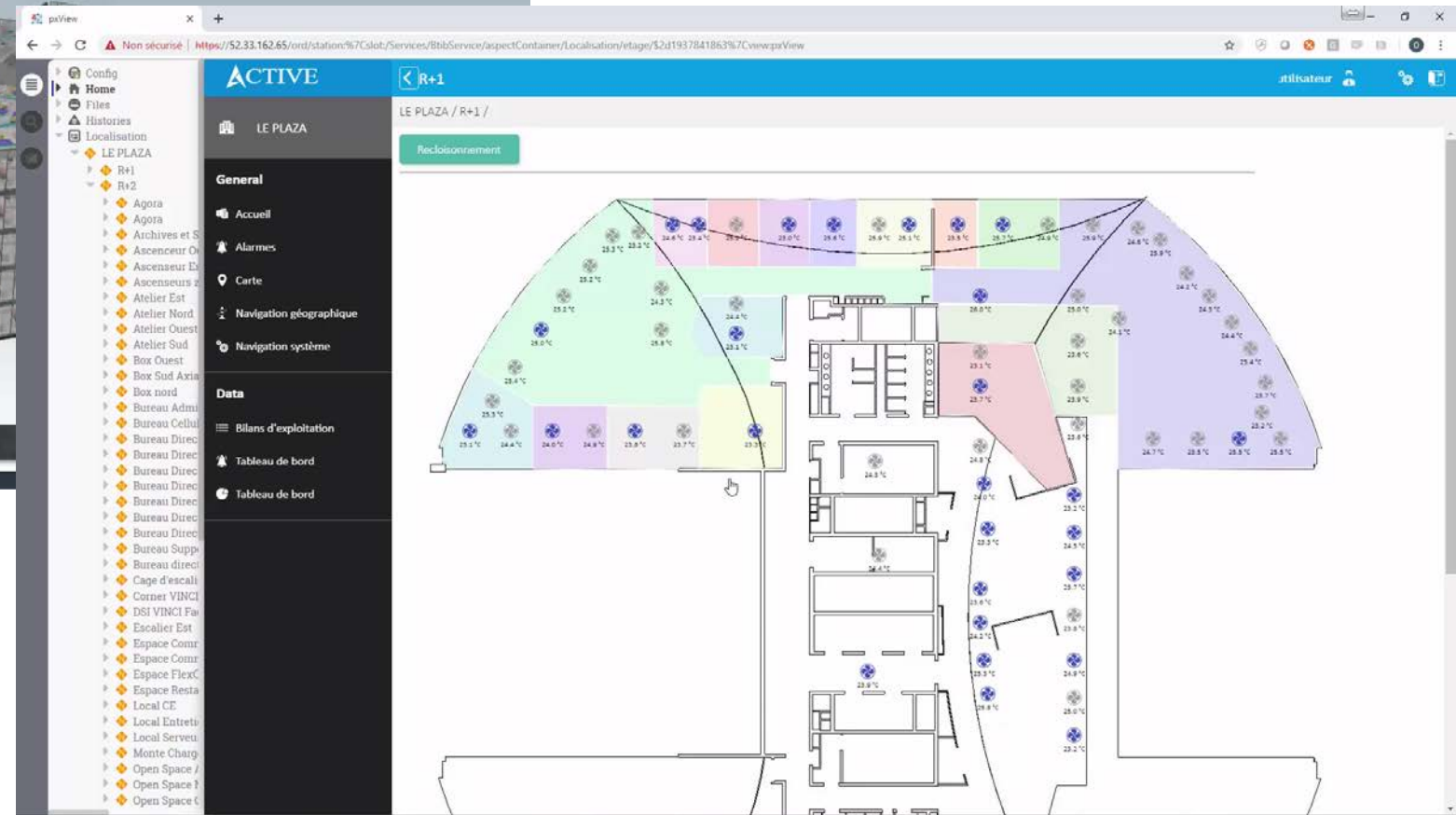
## Or add graphics to a view, all based on tags

The screenshot displays the 'FCU\_01' AssignmentView interface. The top navigation bar includes 'INFORMATION', 'SYNOPTIC', 'TRENDS', 'POINT LIST', and 'MODEL'. The 'MODEL' tab is active, showing the 'AssignmentView' for 'FCU\_01'. The interface is divided into two main sections: 'Localization' and 'Nature'. The 'Localization' section contains tags for 'Building', 'Floor', 'Zone', 'Office', and 'Open Space'. The 'Nature' section contains tags for 'Category', 'Equipment', 'Element', 'NodeGroups', 'Position', 'Type', 'Dimension', 'Resource', and 'Characteristic'. A right-hand sidebar shows the 'Display name' as 'FCU\_01' and lists 'Tags' and 'Relations'. A 'SAVE' button is visible in the top right corner of the AssignmentView panel. The left sidebar shows a tree view of the system hierarchy, including 'Config', 'Services', 'Drivers', 'NiagaraNetwork', 'FileDriver', 'ModbusTcpNet', 'Netatmo (RestN', 'BacnetNetwork', 'LonNetwork', 'Local Lon De', 'FCU\_Demo', 'FCU\_01', 'FCU\_02', 'FCU\_03', 'FCU\_04', 'FCU\_05', 'FCU\_06', 'FCU\_07', 'FCU\_08', 'FCU\_09', 'FCU\_010', 'Apps', 'Station Info Source', 'Home', 'Files', 'Histories', 'Subsystem', 'Nature', 'Equipment', and 'Localization'.

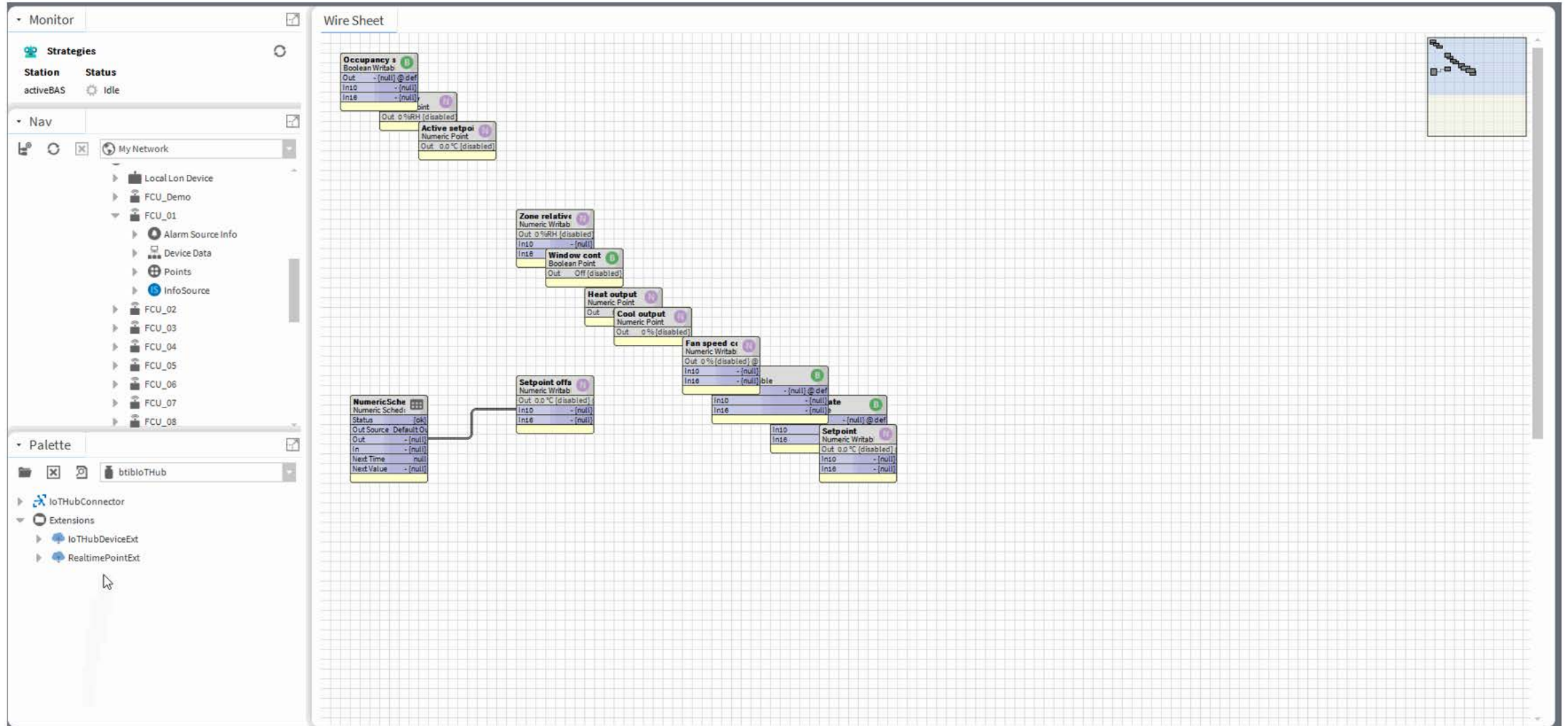


**Synchronization with a BIM application to retrieve the same terminology as tags**

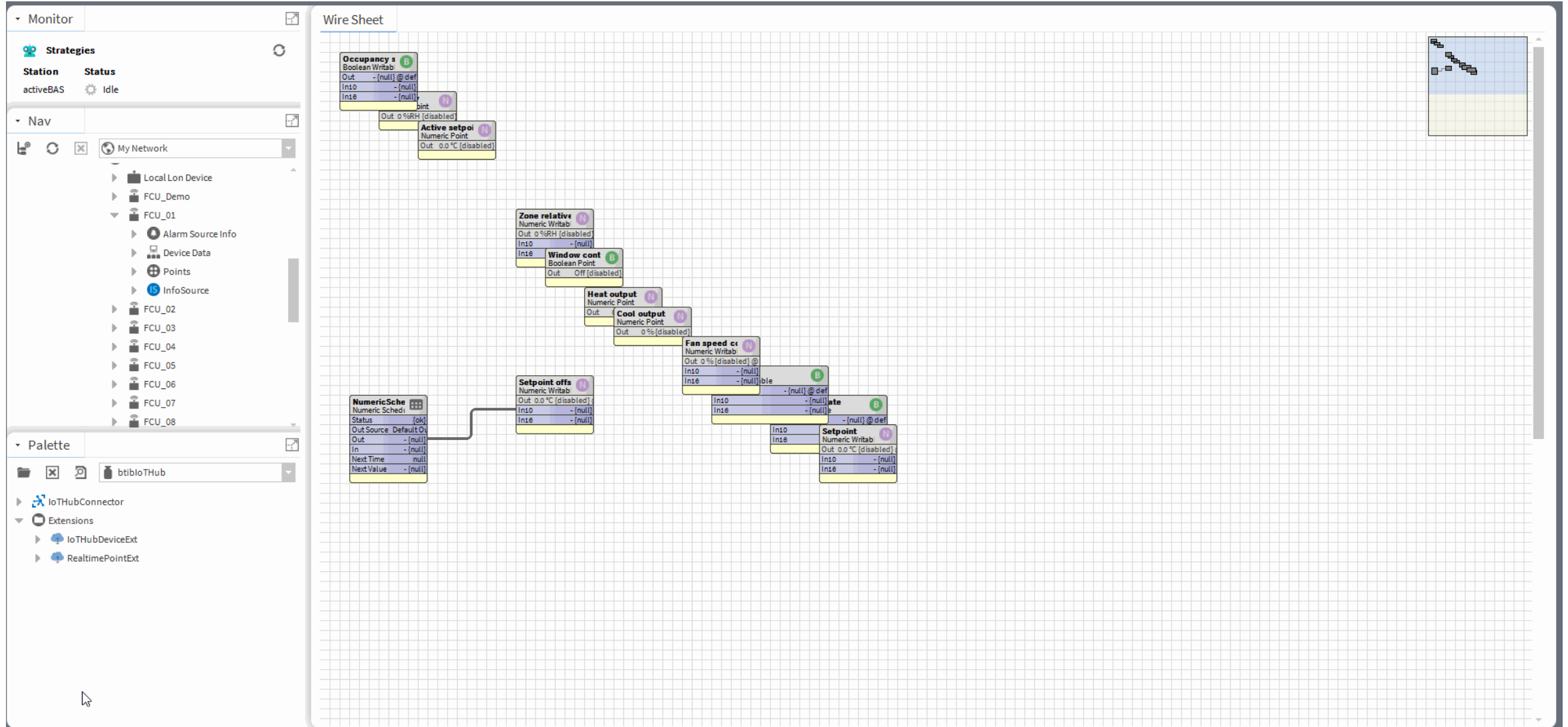
**Build the floor plans and position the devices automatically**



# Synchronize structured data with third party applications



# Synchronize structured data with third party applications



**active-framework.com**