Nuvo®
Whole Home Audio

# Nuvo KNX InterfacePoint Integration Guide

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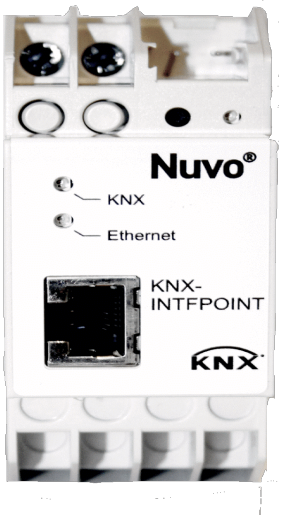

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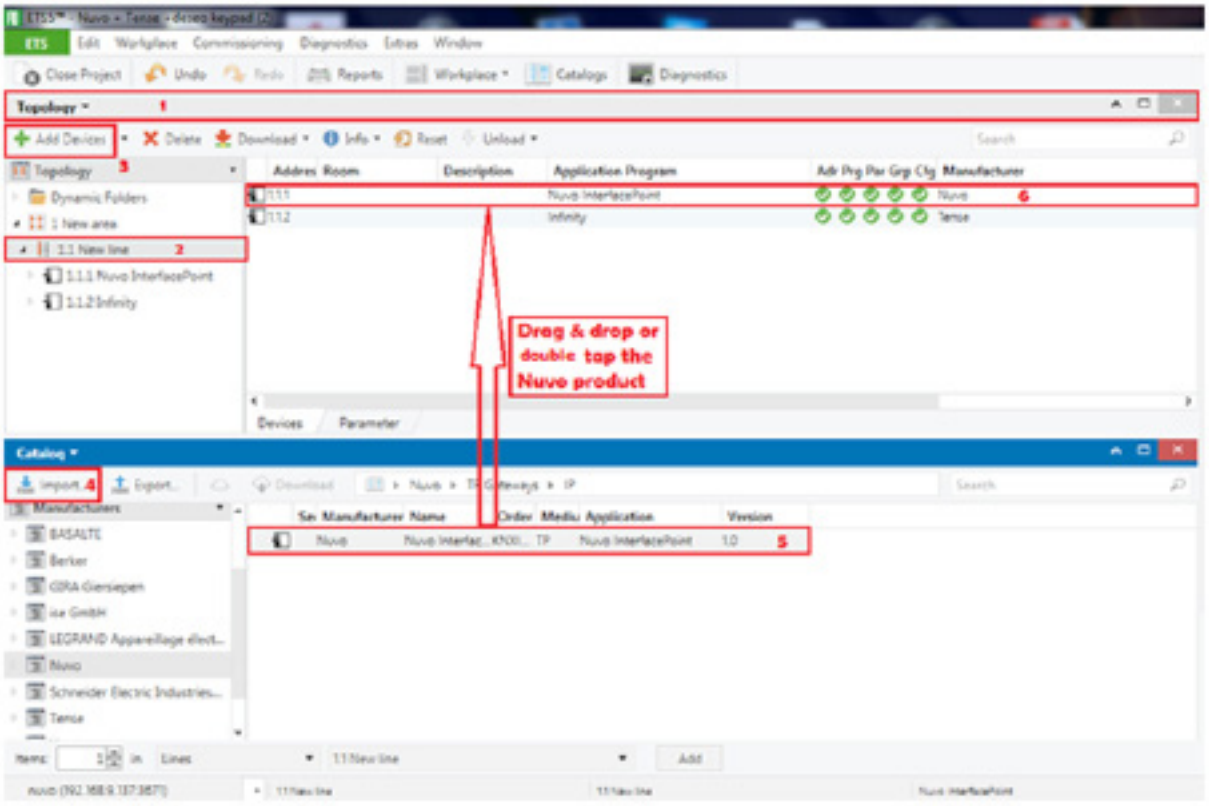
# 1. Adding the Nuvo KNX InterfacePoint

## 1.1 Insert The Nuvo KNX InterfacePoint in ETS

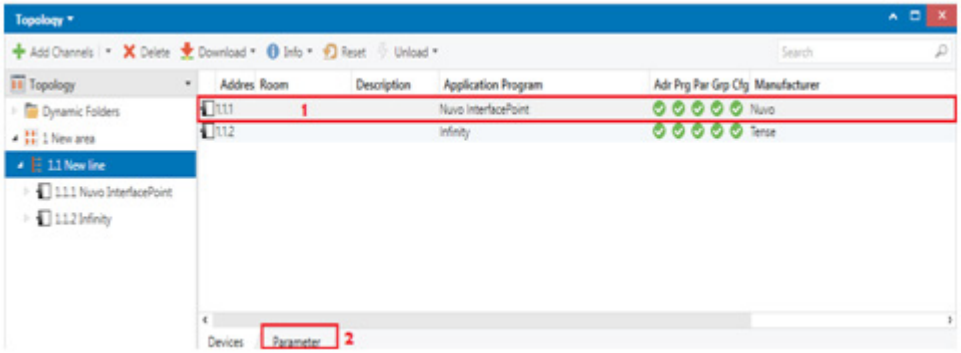
Start a new project in the ETS software. Go to Workspace --> Topology (1) and add a New Line (2) , open the New Line and click on Add Devices (3). Import the Nuvo interface into your Database (4). Select the Nuvo KNX InterfacePoint (5). The interface is now visible in the New Line (6).




# 2. Configure the Nuvo KNX InterfacePoint

## 2.1 Parameters

Click on the Nuvo InterfacePoint (1). Go to Parameter (2).

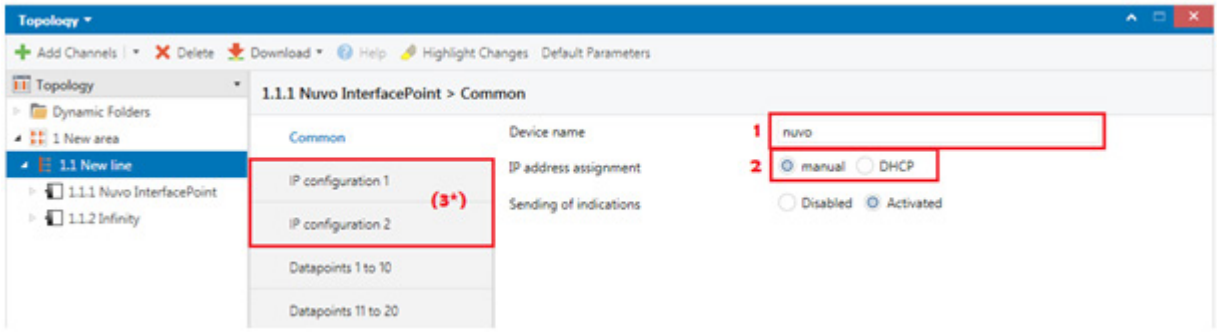


## 2.2 Naming and IP Settings

Leave the name of the interface on Nuvo (1).

Set the IP settings on manual or on DHCP (2). When you set the settings on manual, you can configure interface to a static IP. In 'IP configuration 1' you can assign the static IP and in 'IP configuration 2' you have to assign the correct 'IP subnet' and 'IP Interface address '.

When you set the interface on DHCP, it will get a DHCP address and the IP configuration pages will disappear (3*).




## 2.3 Datapoints

To define the datapoints of the interface you'll need the players Device ID (the MAC address of the Nuvo zone you want to control). You'll also need to define the data length of the group object that you want to use. This data length you will find in tables Control Datapoints, Feedback Datapoints. (paragraph 2.3.1 & 2.3.2)

You will need to define the Nuvo's interface datapoint with a function like: mute, play, pause, …
Define in the description of the Datapoint <Nuvo Device ID>:<option>

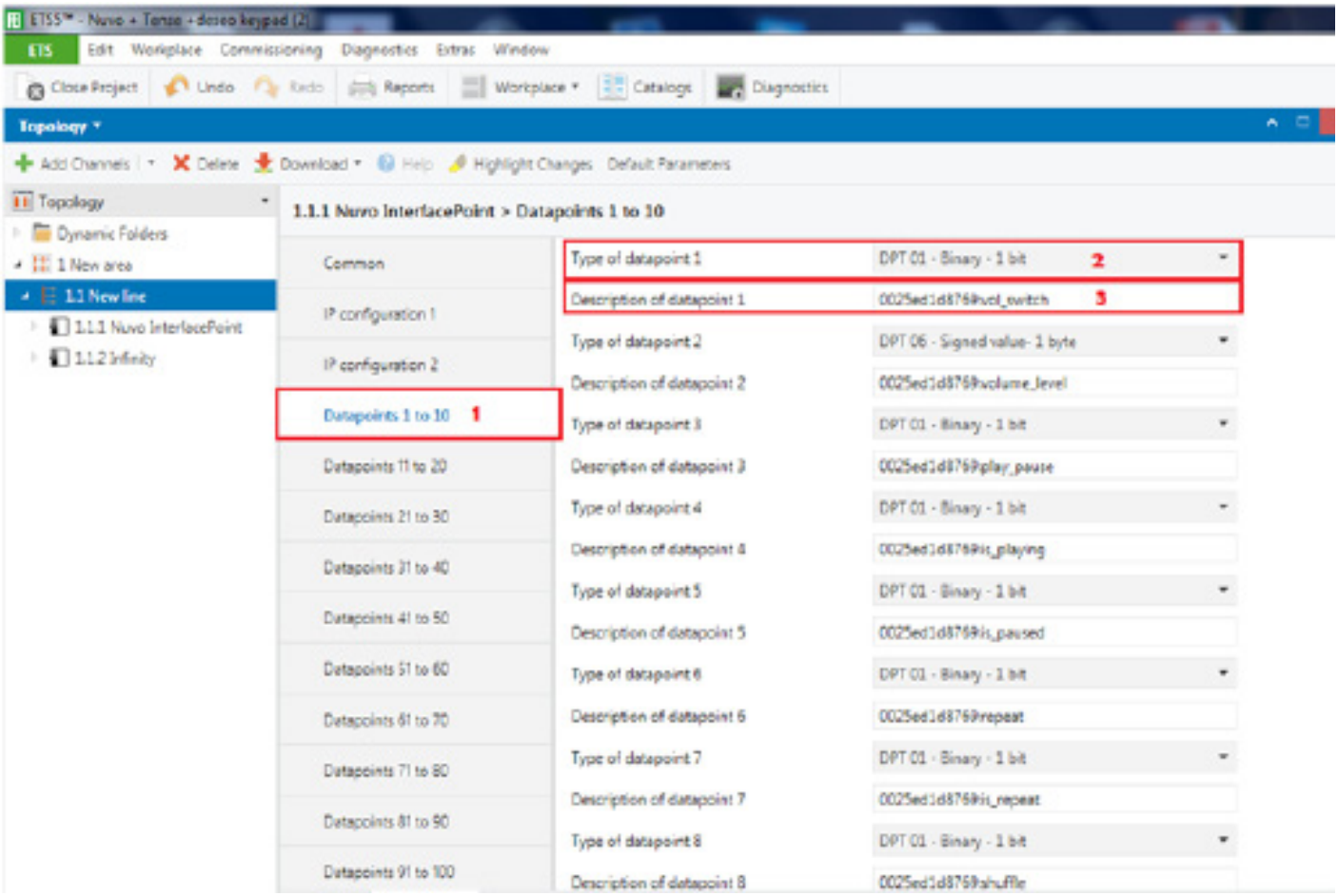
Some examples are:

| Description of the Datapoint | Type of Datapoint |
|---|---|
| DeviceID:mute | DPT01-1bit |
| DeviceID:t_next | DPT01-1bit |
| DeviceID:vol_up | DPT01-1bit |

Note:
1. Write the MAC address of the Nuvo zone without the colons (:).
2. You can find the Nuvo zone Mac address in the Nuvo app (settings => general => about).
3. See the MAC address in the picture below.

In ETS:

1. Go to the 1st datapoints you want to assign.
2. Define the 'Type of datapoint' with a bit or byte value.
3. Fill in the 'Description of the datapoint' with DeviceID:option.



### 2.3.1 Control Datapoints

| Option | Type | Action |
|---|---|---|
| play | 1-bit | Sends play regardless of value |
| pause | 1-bit | Sends pause regardless of value |
| play_pause | 1-bit | High = play, low = pause |
| t_next | 1-bit | Sends track next regardless of value |
| t_prev | 1-bit | Sends track prev regardless of value |
| t_switch | 1-bit | High = track next, low = track prev |
| shuffle | 1-bit | High = on, low = off |
| repeat | 1-bit | High = on, low = off |
| like | 1-bit | Sends like regardless of value (Pandora only) |
| dislike | 1-bit | Sends dislike regardless of value (Pandora only) |
| vol_switch | 1-bit | High = volume up, low = volume down |
| vol_up | 1-bit | Sends volume up regardless of value |
| vol_down | 1-bit | Sends volume down regardless of value |
| vol_set | 1-byte | Absolute volume level (1-100) |
| mute | 1-bit | High = on, low = off |
| g_switch | 1-bit | High = group next, low = group prev |
| g_next | 1-bit | Sends group next regardless of value |
| g_prev | 1-bit | Sends group prev regardless of value |
| favorite | 1-byte | Select Top10 (1-10) |
| fav1 | 1-bit | Select Top10 item #1 regardless of value |

Table 1: Control Datapoints

### 2.3.2 Feedback Datapoints

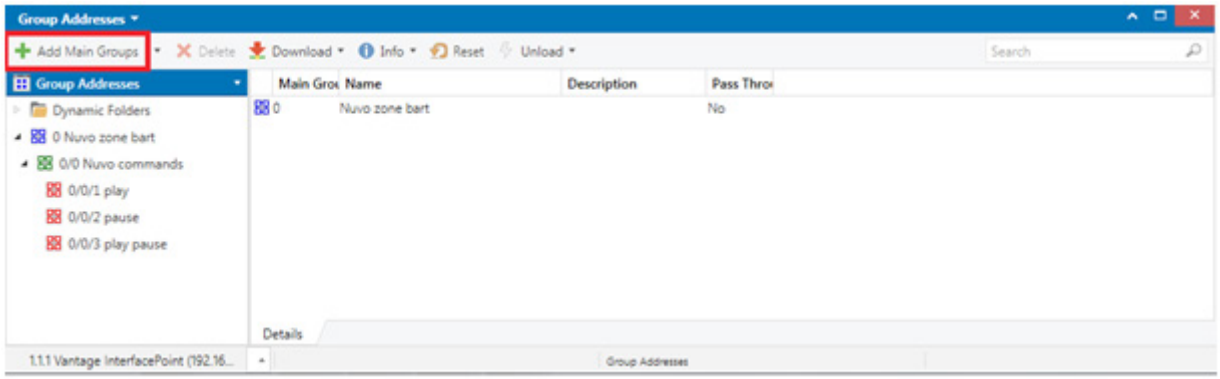
| Option | Type | Action |
|---|---|---|
| title | 14-char string | Metadata feedback |
| subtitle | 14-char string | Metadata feedback |
| description | 14-char string | Metadata feedback |
| is_playing | 1-bit | High = playing, low = other |
| is_paused | 1-bit | High = paused, low = other |
| is_shuffle | 1-bit | High = on, low = off |
| is_repeat | 1-bit | High = on, low = off |
| is_muted | 1-bit | High = on, low = off |
| volume_level | 1-byte | Level 1-100 |

Table 2: Feedback Datapoints

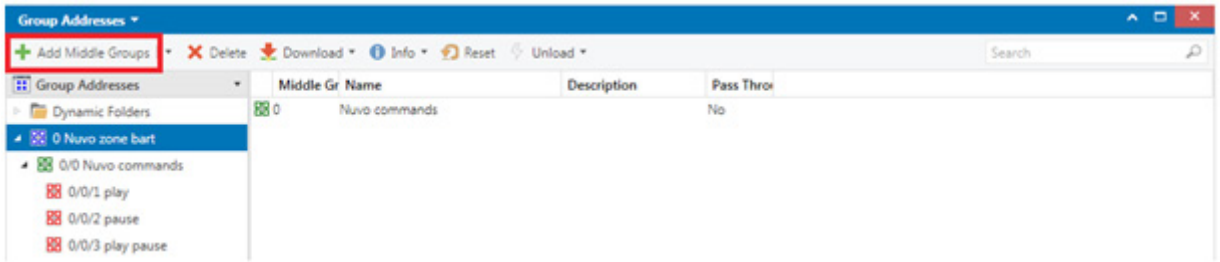
## 3. Configure Group Address

Go to the toolbar -> Workplace -> Open New Panel -> Group Addresses

1. Add a Main Group (blue logo). Assign a logic name.

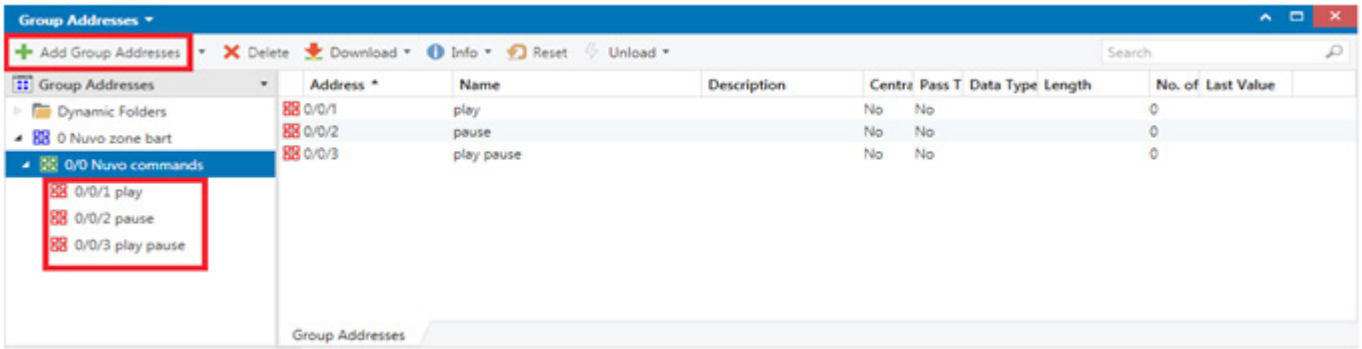



2. Add a Middle Group (green logo). Assign a logic name.



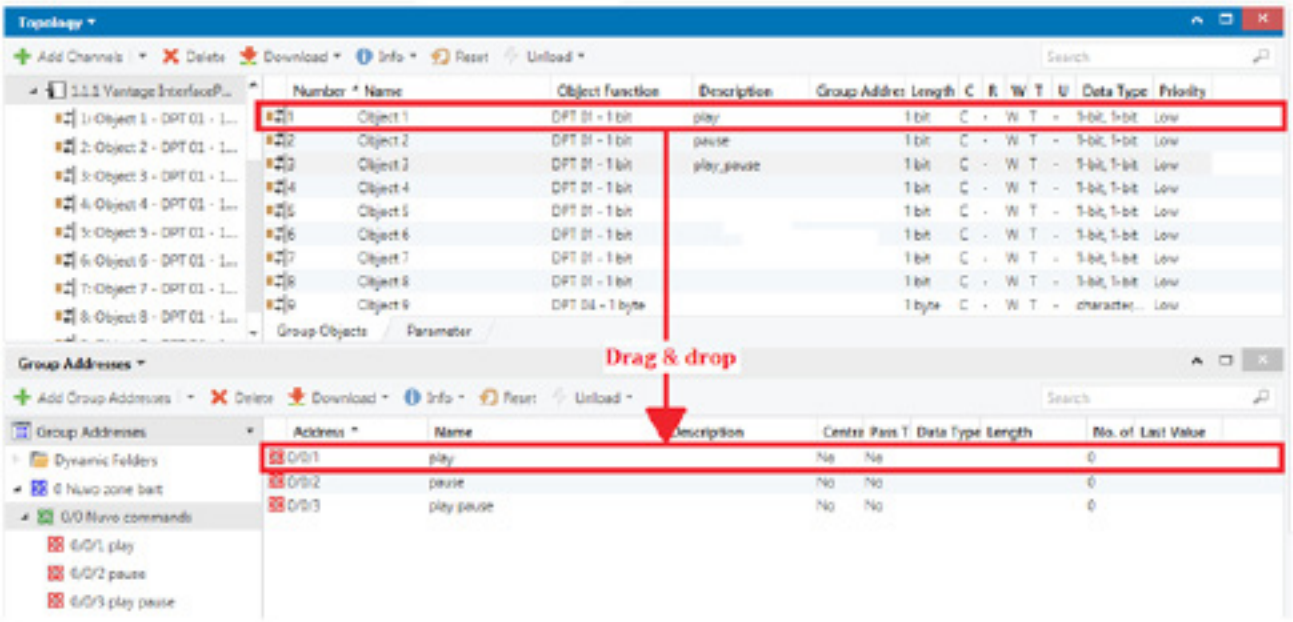

3. Add Group Addresses.
For each function you need a group address (red logo). Assign a name of the function you want to implement to this group object. For example: play, pause,…

In the group addresses you link the group object of the button where you want to control the Nuvo player with.

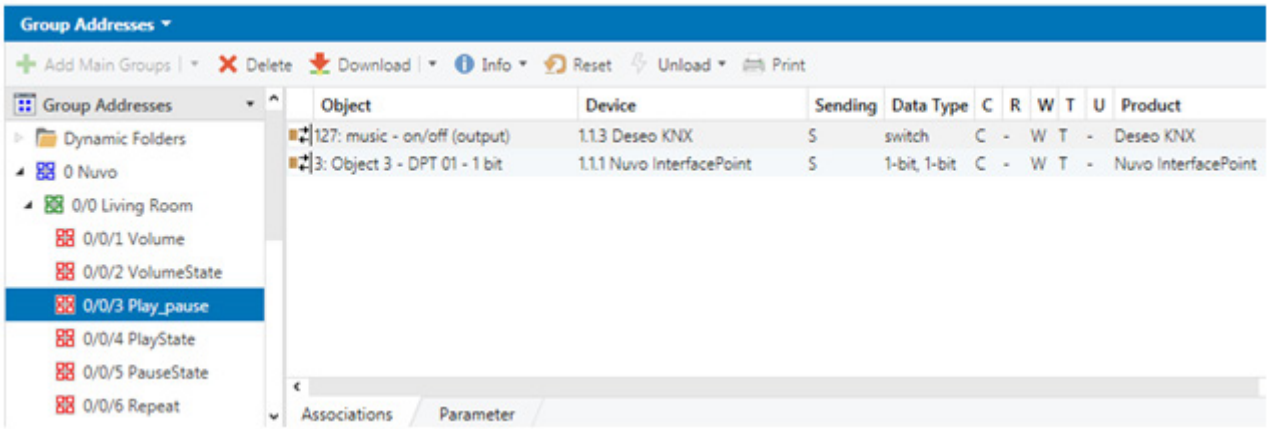


4. Add Group Objects.
Go to Topology and open the Nuvo KNX InterfacePoint. Drag object 1 (play) to the group address 0/0/1 play (in your project the addresses can be different).

If you insert a button, you can link the 1 bit object of that button with the play group address and that button will control the nuvo play object of the Interface.



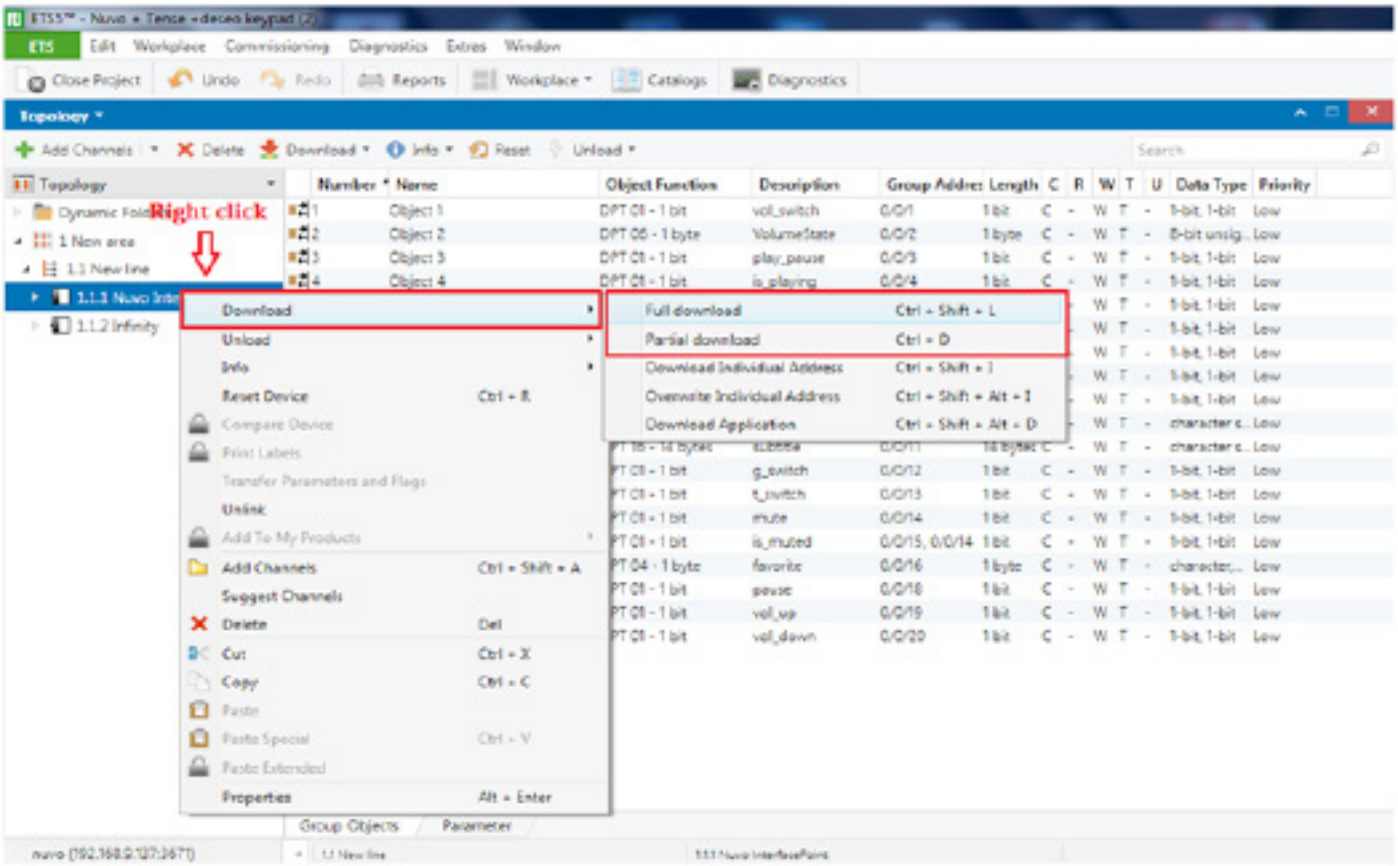

For example the next group address to play, pause the Nuvo player:



## 4. Configuration

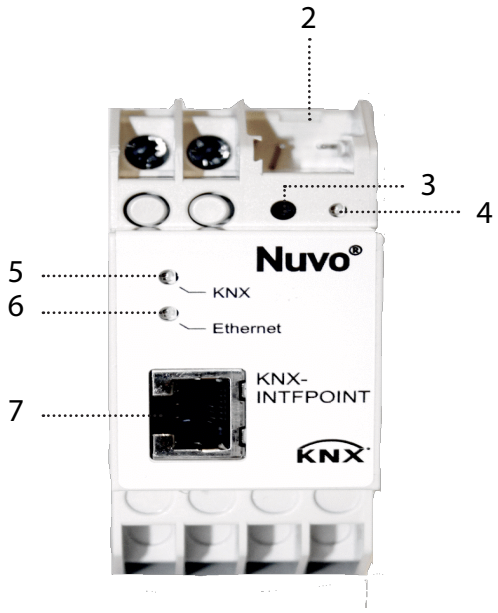
If the configuration in ETS is done, you can download the full program (right click on the interface). At the first download you must press the learn key of the Nuvo KNX InterfacePoint. The ETS software will ask to do this because the interface doesn't have an individual address yet.

Perform a full program the first time when you download your project. If you do small changes you can also do a partial download of the object you changed. If you change the individual address of an interface you must download again the individual address.



## 5. Connection details

The Nuvo KNX Interface is designed for installation on DIN rail with a width of 2 units (36 mm). It has the following display and control elements:




1. Connector for external power supply(12V-24V AC or 12V-30V DC)

2. Connector for KNX/EIB with a bus terminal

3. Learn key (program key KNX)

4. Learn LED (red)

5. LED (green):
- Lights up to indicate bus voltage on KNX/EIB
- Flashes to indicate telegram traffic

6. LED (green):
- Lights up to indicate ethernet connection
- Flashes to indicate telegram traffic

7. RJ45 socket for connecting an ethernet network