

Nuvo KNX InterfacePoint.

Integration Guide

Nuvo: “Whole Home Audio” by Legrand

This Interface is the bridge between the Nuvo players and the KNX system. This document will guide you through the installation and configuration of the KNX Interface. You can find the connection details on the last page in chapter 5 “connection details”.

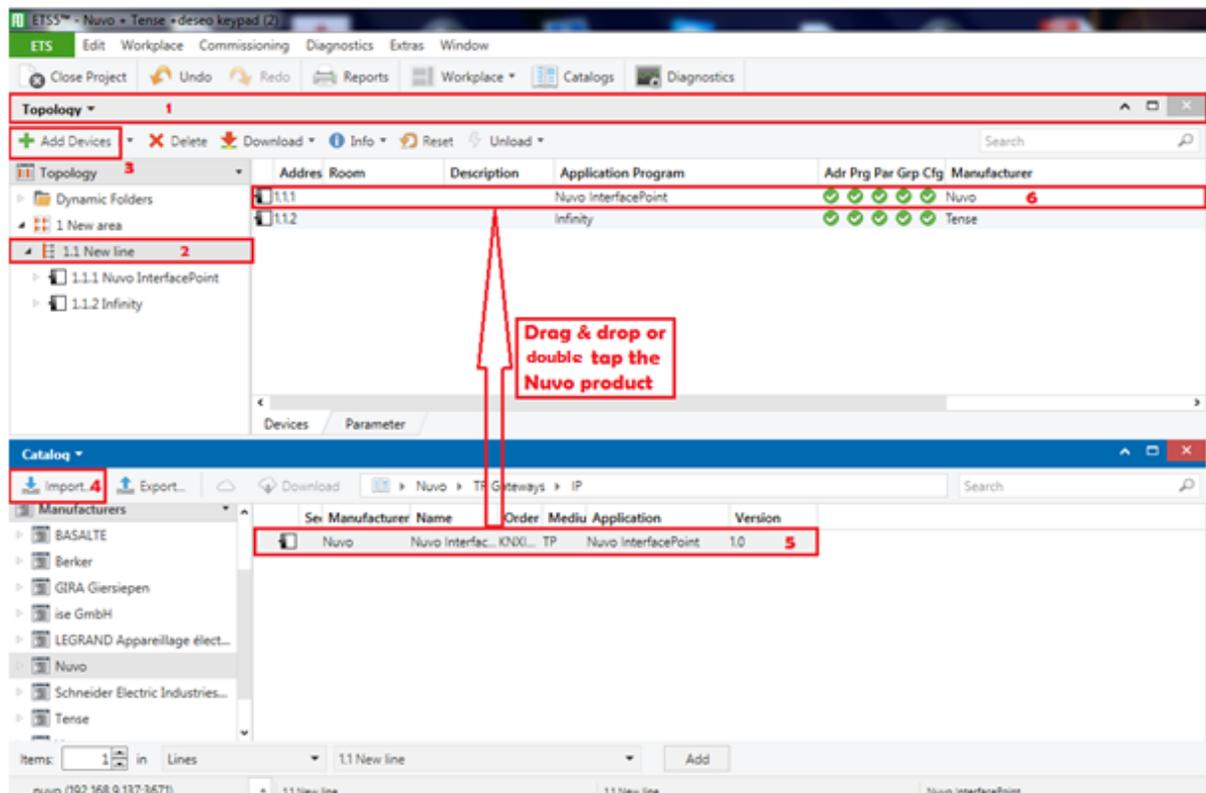
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1 Adding the Nuvo KNX InterfacePoint.

1.1 Insert The Nuvo/KNX Interface in ETS.

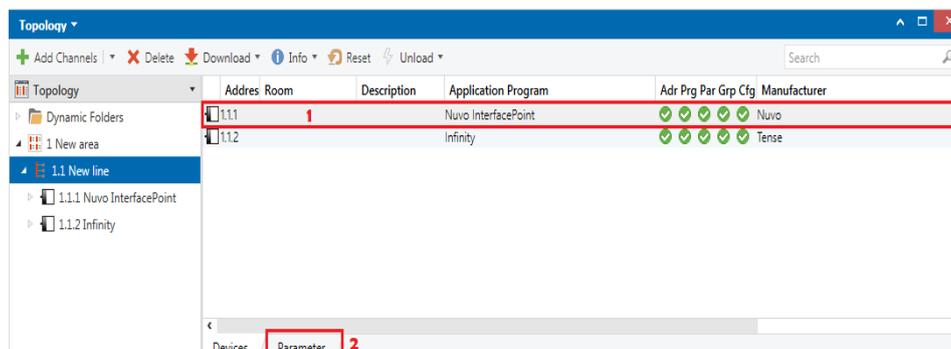
Start a new project in the ETS software. Go to Workspace --> Topology (1) and add a New Line(2) , open the New Line and click on Add Devices(3). Import the Nuvo interface into your Database (4). Select the Nuvo KNX InterfacePoint (5). The interface is now visible in the New Line (6).



2 Configure the Nuvo KNX InterfacePoint.

2.1 Parameters.

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

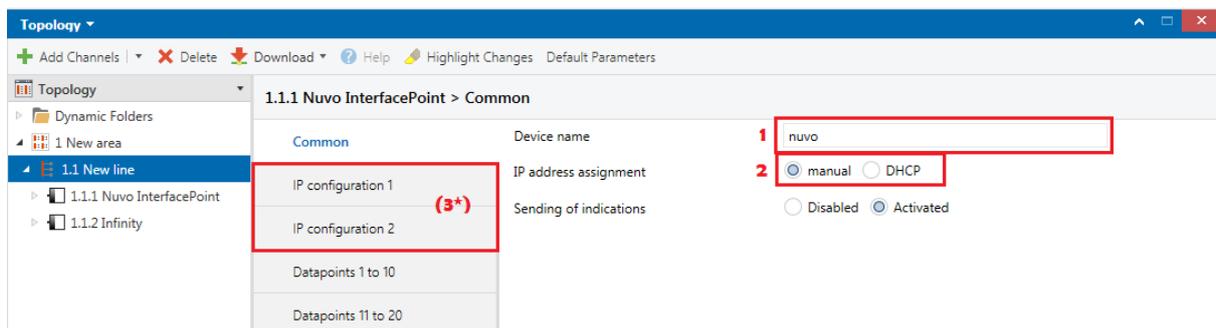


2.2 Naming and IP Settings.

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 data points 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](#). (Pg.4)

You will need to define the Nuvo's interface data point with a function like: mute, play, pause,...

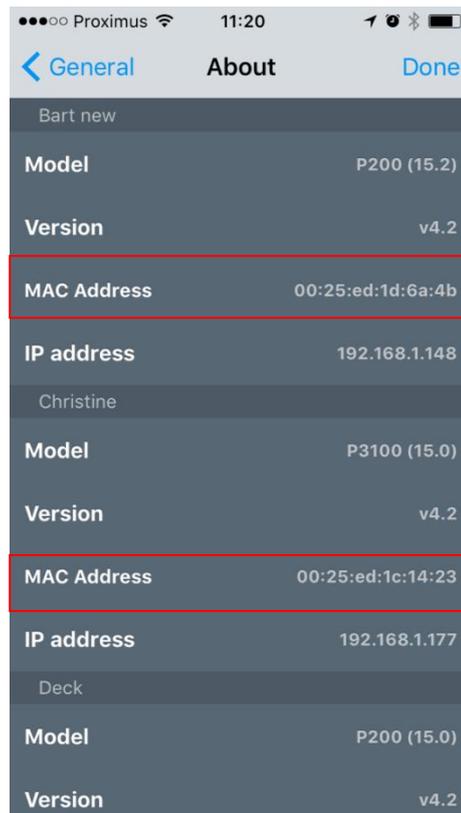
Define in the description of the Datapoint <Nuvo Device ID>:<option>

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.

The screenshot shows the ETS software interface for configuring a Nuvo InterfacePoint. The 'Datapoints 1 to 10' section is highlighted in the left sidebar. The main configuration area shows a table of datapoints with the following columns: 'Type of datapoint', 'Description of datapoint', and a numeric value. The first row is highlighted with a red box, and the 'Type of datapoint' and 'Description of datapoint' fields are also highlighted with red boxes. The 'Type of datapoint' is set to 'DPT 01 - Binary - 1 bit' and the 'Description of datapoint' is '0025ed1d8769:vol_switch'. The numeric value is '2'.

Type of datapoint	Description of datapoint	Value
DPT 01 - Binary - 1 bit	0025ed1d8769:vol_switch	2
DPT 06 - Signed value- 1 byte	0025ed1d8769:volume_level	
DPT 01 - Binary - 1 bit	0025ed1d8769:play_pause	
DPT 01 - Binary - 1 bit	0025ed1d8769:is_playing	
DPT 01 - Binary - 1 bit	0025ed1d8769:is_paused	
DPT 01 - Binary - 1 bit	0025ed1d8769:repeat	
DPT 01 - Binary - 1 bit	0025ed1d8769:is_repeat	
DPT 01 - Binary - 1 bit	0025ed1d8769:shuffle	

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:

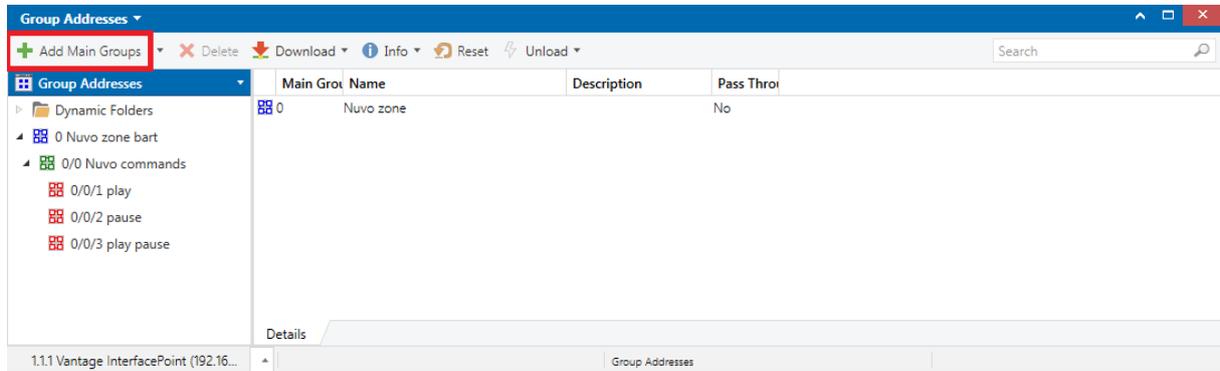
Option	Type	Action
title	14-char string	Metadata feedback
subtitle	14-char string	Metadata feedback
description	14-char string	Metadata feedback
is_playing	1-bit	High = playing, low = other
is_paused	1-bit	High = paused, low = other
is_shuffle	1-bit	High = on, low = off
is_repeat	1-bit	High = on, low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

Table 2: Feedback Datapoints

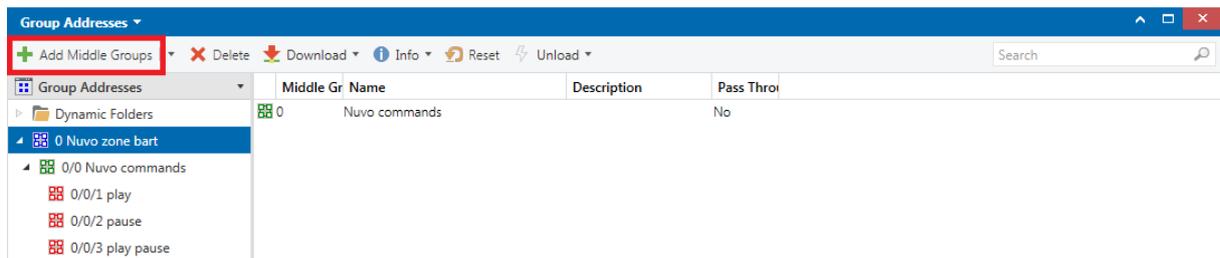
3 Configure Group Address

Go to the toolbar → Workplace → Open New Panel → Group Addresses

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

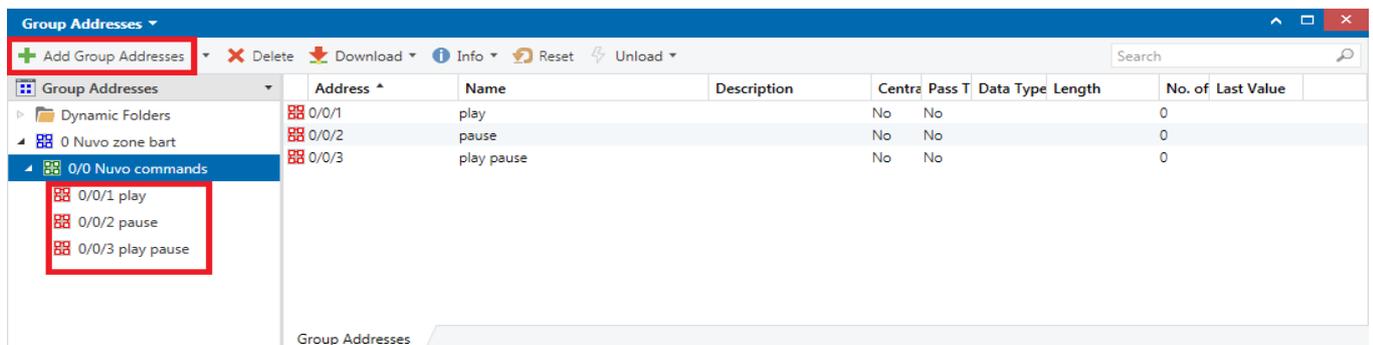


2. **Add a Middle Group** (green logo). Assign a logic name.



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,...

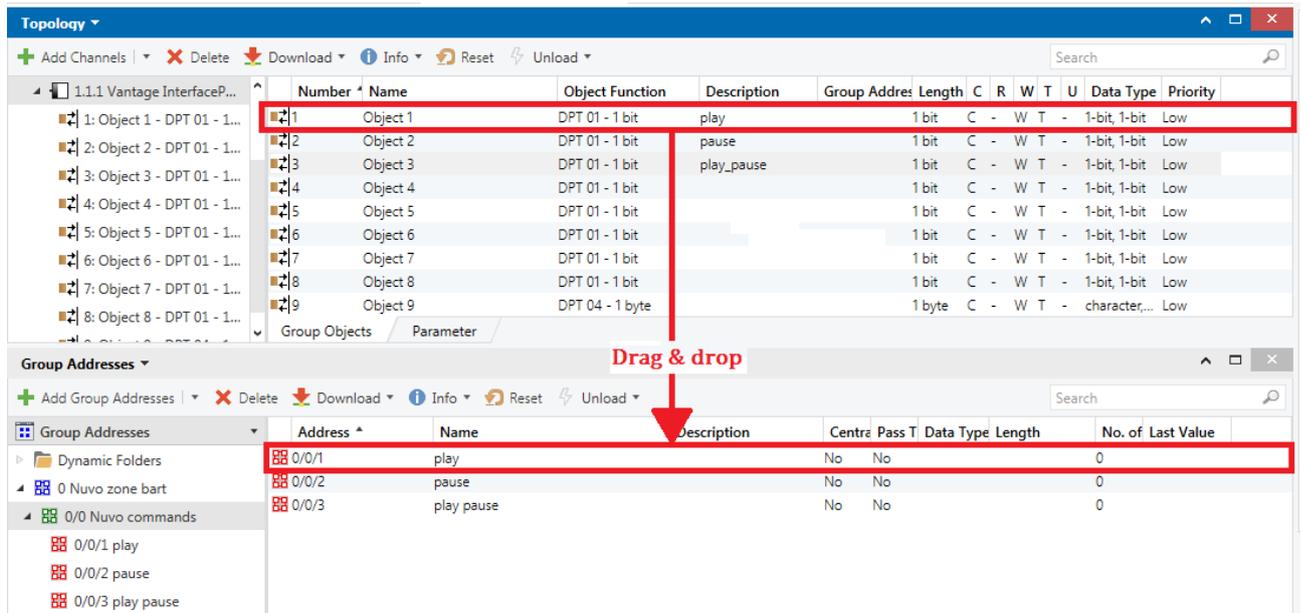
In the group addresses you link the group object of the button where you want to control the Nuvo player with.



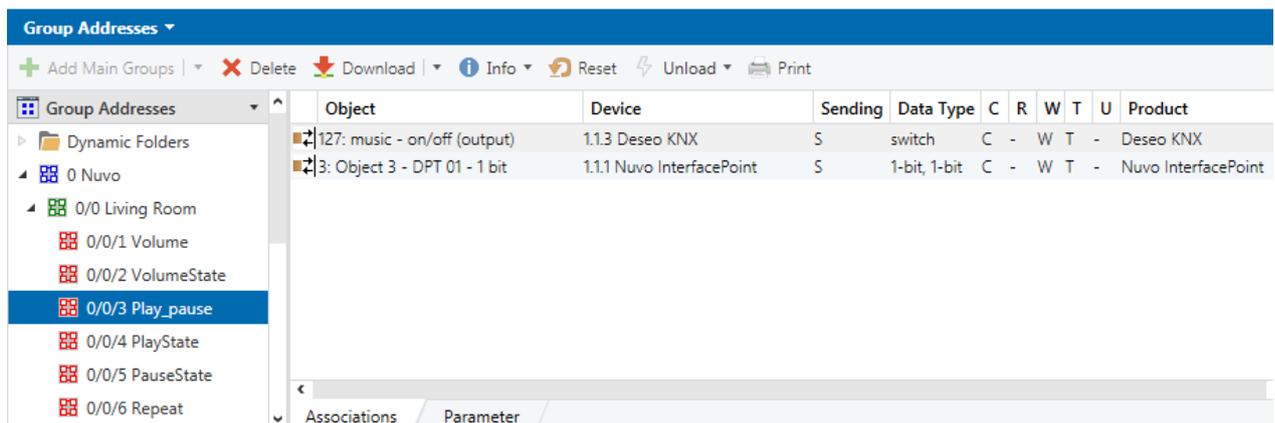
4. Add Group Objects.

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.



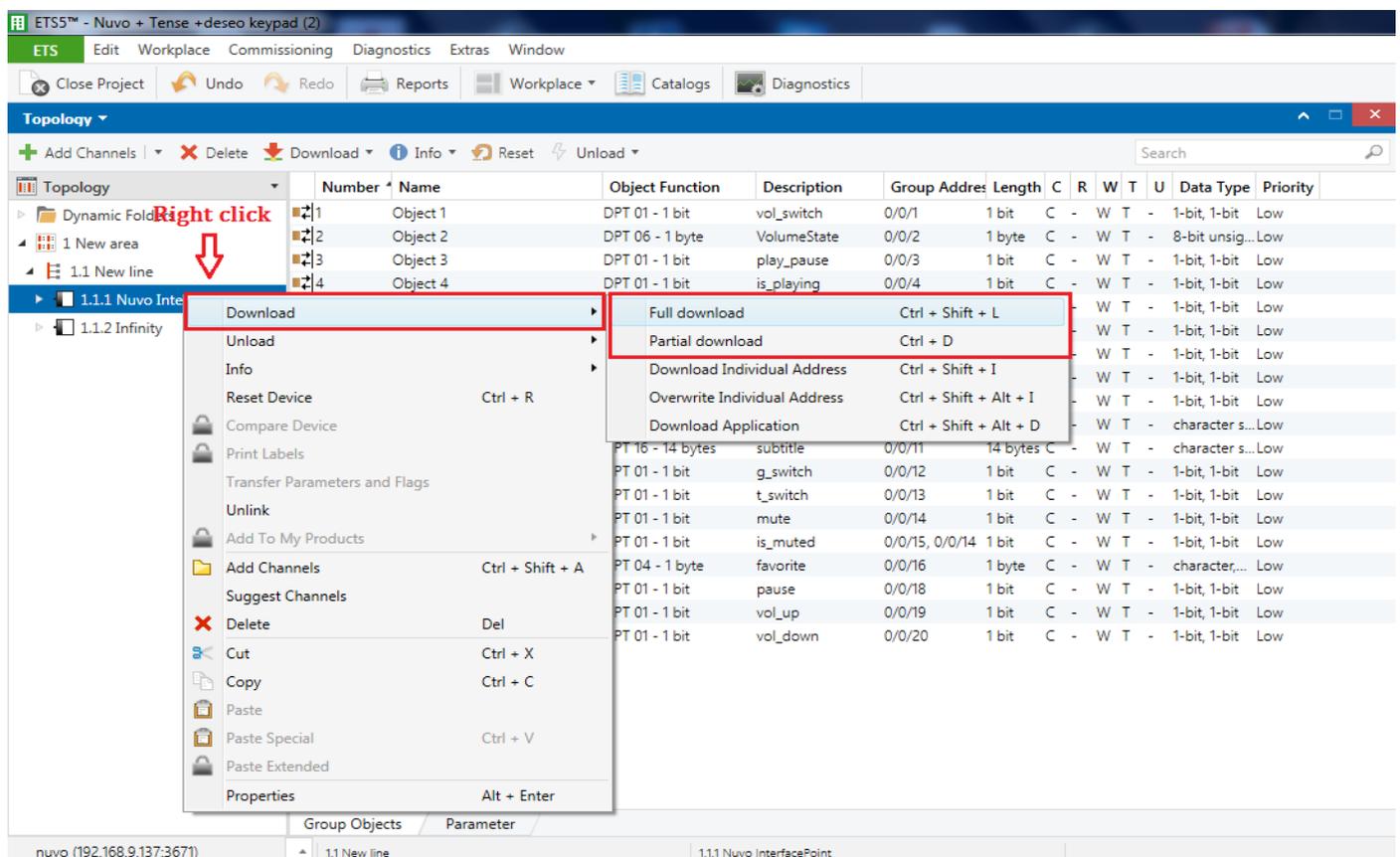
For example the next group address to play, use the Nuvo player:



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.

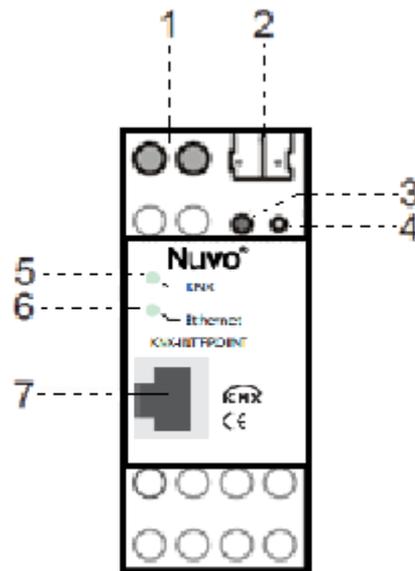


The screenshot shows the ETS software interface with the 'Topology' window open. A red arrow points to the 'Right click' action on the '1.1.1 Nuvo InterfacePoint' object. The context menu is open, showing the 'Download' option selected. The 'Download' submenu is also open, showing options like 'Full download', 'Partial download', 'Download Individual Address', 'Overwrite Individual Address', and 'Download Application'. The 'Full download' option is highlighted with a red box.

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type	Priority
1	Object 1	DPT 01 - 1 bit	vo_switch	0/0/1	1 bit	C	-	W	T	-	1-bit, 1-bit	Low
2	Object 2	DPT 06 - 1 byte	VolumeState	0/0/2	1 byte	C	-	W	T	-	8-bit unsig...	Low
3	Object 3	DPT 01 - 1 bit	play_pause	0/0/3	1 bit	C	-	W	T	-	1-bit, 1-bit	Low
4	Object 4	DPT 01 - 1 bit	is_playing	0/0/4	1 bit	C	-	W	T	-	1-bit, 1-bit	Low
PT 16	14 bytes	subtitle	0/0/11	14 bytes	C	-	W	T	-	-	character s...	Low
PT 01	1 bit	g_switch	0/0/12	1 bit	C	-	W	T	-	-	1-bit, 1-bit	Low
PT 01	1 bit	t_switch	0/0/13	1 bit	C	-	W	T	-	-	1-bit, 1-bit	Low
PT 01	1 bit	mute	0/0/14	1 bit	C	-	W	T	-	-	1-bit, 1-bit	Low
PT 01	1 bit	is_muted	0/0/15, 0/0/14	1 bit	C	-	W	T	-	-	1-bit, 1-bit	Low
PT 04	1 byte	favorite	0/0/16	1 byte	C	-	W	T	-	-	character,...	Low
PT 01	1 bit	pause	0/0/18	1 bit	C	-	W	T	-	-	1-bit, 1-bit	Low
PT 01	1 bit	vo_up	0/0/19	1 bit	C	-	W	T	-	-	1-bit, 1-bit	Low
PT 01	1 bit	vo_down	0/0/20	1 bit	C	-	W	T	-	-	1-bit, 1-bit	Low

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

