

# **First Steps**

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# 1 Starting a new project

Start a new NIT-Project by clicking on the appropriate toolbar button or select "New" from the file menu.

File Extras Help
Create new NIT-Project
Create new NIT-Project

Picture 1



### 2 Setup the global NIT parameters

Select the network type – Cable (DVB-C) or Terrestrial (DVB-T). Enter the version number of the NIT and the network name that should appear.



The version number should be increased after each modification and transmit to the device because some receivers / STBs only update their settings if the version of the NIT has changed!

The network ID can be of any value. Adding service list descriptors will add some extra information about all services contained. Normally you can always select this option. If you would like to have your services appearing in a special order you have to select "Add Logical Channel Descriptors". Of course your TV-Set or STB has to support this feature.

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Picture 2

#### 3 Channel parameters



Add a new Terrestrial or Cable Delivery Descriptor and the parameters corresponding to the ones in you Modulator.

If you selected to have individual sorting of services in the previous step, you now have to add information about the services contained in this channel.

First you have to select the sorting mechanism supported by your TV-Set or STB. In most countries like UK, France, Australia, Hong-Kong and many others you have to use EACEM.

The service name itself is only a hint for you to identify the entries, meaningless for the NIT and not contained in it. The type of service should match the one physically contained in the transport stream. The channel number is the one on which the service will be located, that means this is the number you have to select on your TV's/STB's remote control if you want to view this program.

TS-ID	Org ID   F	ipcors						
0.0222		Frequency	Bandwidth	Priority	TSI	MFI	Constellation	Hierarchy
0,0222	0x0111 4	480,000	8 MHz	HP (High Priority)	1	1	64 QAM	Non Hierarch
0x0444	0x0333 4	472,000	8 MHz	HP (High Priority)	1	1	64 QAM	Non Hierard
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Picture 3



Make sure the Transportstream ID (TS-ID) entered is corresponding to the one set in the Service Description Table of the stream!



#### 4 Adding further Channels

You can add as many channels as you like. In fact, the size of the NIT is limited but in practice you won't reach this even if you create a so called "Barker-NIT" that contains information about your whole network.

There are different strategies and approaches in creating a NIT:

- You can have a NIT containing only information for an individual carrier/channel.
   In this case you would have two different NITs for an OV75M's channel A and B
- You can have one NIT containing information for a complete multi-channel module.
   In this case you would have one NIT containing infos of both channels A and B of an OV75M module and this NIT would have to be transferred to both channels
- You can have a NIT containing information for the whole network.
   In this case you would have one NIT containing infos not only for an OV75M's channels
   A and B but also for e.g. other OV75M. The channel with the lowest frequency would
   than act as a "Barker-Channel". All other channels normally then have a NIT containing
   only information regarding this single channel. Depending on the search and scan
   method of your TV-Set or STB it would also be possible to insert the Barker-NIT into
   every channel.

0x0222 0x0444	0x0111 0x0333	480,000 472,000	8 MHz	HP (High I				Constellation	merarchy
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Picture 4

#### 5 HD Simulcast Numbering



Checking the option box "Add HD Simulcast LC Descriptors" (picture 2) enables support for numbering of simulcast services.

Picture 5 and picture 6 show an example where the TV service "Das Erste" is present in two transportstreams, one containing the standard resolution in SD and one in HD. For STBs not capable of decoding HD services the SD version of "Das Erste" will be on logical channel number 1 by default but HD-STBs with support of HD Simulcast Logical Channel Numbering will exchange the SD version to channel 30 and instead put the HD version (on channel 30 per default) to channel 1.

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0x0222 0x0111	480,000	8 MHz	HP (High Priority)	1	1	64 QAM	Non Hierarch
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Picture 5

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TS-ID	Ora ID	Frequency	Bandwidth	Priority	TSI	MFI	Constellation	Hierarchy
0×0222	0x0111	480,000	8 MHz	HP (High Priority)	1	1	64 OAM	Non Hierarch
0x0444 <	0x0333	472,000	8 MHz	HP (High Priority)	]	1	64 QAM	Non Hierarch
0x0444	0x0333	472,000	8 MHz	HP (High Priority)	1	1	64 QAM	Non Hierarch
0x0444	0x0333	472,000	8 MHz	HP (High Priority)	1	1 ig LCN V	64 QAM /ersion 2 HD Channel N	Non Hierarch
0x0444	0x0333	472,000	8 MHz	HP (High Priority)	1 NorDinnel Nu	ig LCN V	64 QAM /ersion 2 HD Channel N	Non Hierarch

Picture 6



# 6 Checking your NIT

Before transferring your NIT into the module you can check and verify it.

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Make sure your Desktop Firewall is not blocking the NIT transfer that is done via TFTP (Trivial-FTP) using UDP-Port 69!

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Descriptor Length 8 Bit     Specifier 32 Bit 0x0000002	
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- Descriptor Tag 8 Bit 0x8	3
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- Service ID 16 Bit 0x0D04	Α
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- Reserved 5 Bit 3	1
Logical Channel Number 10 Bit	1
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🖨 HD Simulcast Logical Channel De	
- Descriptor Tag 8 Bit 0x8	8
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<ul> <li>Visible Service Flag</li> <li>1 Bit</li> </ul>	1 Visible / Selectable
- Reserved 5 Bit 3	1
Logical Channel Number 10 Bit 3	0
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Picture 7

#### 7 OV 75M License Transfer



To enable the feature of inserting external created NIT in OV 75M (HW-version 2), you need to purchase a license. Please select the License Menu (picture 8) and write down your License-ID.





After you received your license file, you have to transfer it to the OV 75M:



P-Address:			
172 . 29	. 0 . 244	Transfer	

Picture 11

Picture 10



Picture 12

# WISI

#### 8 Tipps & Tricks

Getting channel line-up to work can be a bit tricky due to misbehaviour of receivers, not following the standard or just depending on their settings.

We found some issues while testing and will provide the solutions to get Channel Sorting working.

- Q: Menu entries for external NIT are missing in OV 75M
- A: Please make sure your OV 75M firmware is newer than V2.84.
- Q: Menu entries for external NIT are missing in OH 85/88(H)
- A: Please make sure your OH 85/88(H) firmware is newer than V1.46.
- Q: I need to use individual values for Transportstream-ID (TS-ID) and Original Network-ID (OrgNet-ID, Org-ID) and in SDT, PAT they do not correspond to the created NIT.
- A: Please do also set the Network Parameters (Netname, Net-ID, OrgNet-ID, TS-ID) in the menu of OV 75M or OH 85/88(H). Also make sure your firmware is newer than V2.84 (OV 75M) or V1.46 (OH 85/88(H))!
- Q: Channel Sorting in France is not working. I use the terrestrial Settop Box Philips DTR230 (designed by Pace)
- A: The STB definitely supports LCN but only activates it if you choose the following settings: The OSD language can be every one you like but the country has to be set to "France" and you have to enter a postal zip code that really exists in France, e.g. 75001 to 75020 for Paris.