Quick&Dirty - Basic Settings IGS-700 S2x for first contact novices:

Anyway, we recommend following setup-scenario and changing all static IP addresses accordingly like e.g.:

'Quick and Dirty' Setup for first install the IGS-700 DVB-S2x Gateway-Streamer and check the streams by Computer VLC. Maybe switch OFF your firewall- We assume, you are familiar with your Windows PC network settings to assign static ones.

192.168.2.136

192.168.0.136

192.168.0.137

192.168.2.137

Standard Switch 100/ 1000 Auto MX/MIX

LAYER 3 Switch with IGMP-Filtering

Management TCP

192.168.0.130

Multicasts UDP

192.168.2.130

If you want to check the streams by VLC on a Laptop or PC
A) use only the IGS-DATA-port for web and streaming or change the cables between setup-Web and stream-DATA-ports
B) switch off WIFI (only 1 Ethernet device activve) or manual change the METRIC for Ethernet to manual lower value than WLAN in WINDOWS Network IP settings:

Login 192.168.0.136 per module. admin/admin = default.
Important: If you will connect both **N**etwork**M**anagement**S** ethernet Ports to the same switch:
Please change the IP address **of at least one of the NMS Module** ports to avoid IP conflicts:

Set Tuner:

Set Tuner 2 Accordingly – or if you have 4 Tuners per module set all 4.
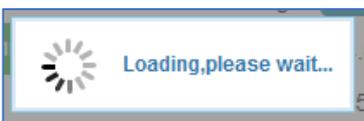
 please always use the right APPLY button in your browser.

If BER=0 and Power is better than -40dBm, than the signal input is sufficient.

Now change to Settings and PARSE the Tuner Inputs to get the DVB-Transportstream values:

Now you see the content of the transponders:

Some might be PAYTV encrypted.

You can check this with the Internet Transponder listings here www.satindex.de -> ASTRA, FreeToAir TVs showing only:

Sender (8) / HDTV / Status / Land / Kategorie				SID / Video PID / Audio PID / PCR PID / VT PID / Update					
ANIXE HD	HD		🇩🇪	Allgemein	21100	255	259 | deu	255	0	01.03.2011
Genius Plus			🇩🇪	Shopping	21113	3327	3328 | deu	3327	0	10.02.2015
HSE HD	HD		🇩🇪	Shopping	21104	1279	1283 | deu	1279	36	27.01.2022
Nicer Dicer TV			🇩🇪	Shopping	21112	3071	3072 | deu	3071	0	25.01.2022
QVC HD	HD		🇩🇪	Shopping	21103	1023	1027 | deu	1023	35	01.09.2011
ShopLC HD	HD		🇺🇸	Shopping	21107	511	512 | deu / 513 | eng	511	0	11.01.2022
WELT HD	HD	🔒	🇩🇪	Nachrichten	21108	767	771 | deu	767	34	19.01.2018
WELT HD	HD	🔒	🇦🇹	Nachrichten	21118	767	771 | deu	767	34	19.01.2018

» DVB-S2, 8PSK, Frequenz 10773 MHz, Polarisation H, Symbolrate 22000, FEC 3/4   Audio Infos | Crypt Infos

dieser Sender ist verschlüsselt

» DVB-S, QPSK, Frequenz 10788 MHz, Polarisation V, Symbolrate 22000, FEC 5/6   Audio Infos | Crypt Infos

So you see WELT HD in 2 Languages are encrypted. If you do not have the right CAM to insert into a corresponding CI-SLOT, you can skip these for passing to the Output.

Now we select them all to push them to the output section on the right:

First you can use CA-Filter = ON to filter out unnecessary TS-PIDs related to the encryption data streams and you almost do not need to do a PID remapping:
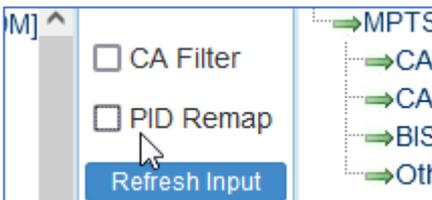
Select what you probably want to stream:

As you can see if opening the menu '+' button: Many CAS-Data are transported. You do not need them if you want only Free TVs/Radios to stream:

PUSH them to OTHER =➔

Proceed with the 2nd Tuner:

As you can see the 2nd Transponder does not contain any CAS- DataPIDs bwecasue all of the TVs and Radios are Free. 'hr1' is a radio and contains only an AAC MPEG4-Audio stream PID. Now we have:

A lot of TV and a Radio service we are ready to stream. Before you can manipulate their Names or some other parts:

Just to compare:

The unwanted CAS-PIDs are filtered out.

Open the Menu by clicking on the Service – here ANIXE HD – in red – that opens a popup window:

You should only manipulate what you really know it takes a particular effect on the Tables.

Example change the name:

Program From Input:	Tuner 1 [21100]		Service Name:	A_NixiT-HighDefinition
Service Name:	ANIXE HD		Program Number:	21100
Program Number:	21100		Logic Channel Number:	1
Logic Channel Number:	1		Service Type:	0x19
Service Type:	0x19		Service Provider:	BetaDigital
Service Provider:	BetaDigital		PMT Descriptor Tag:	☐ 0x00
PMT Descriptor Tag:	☐ 0x00		PMT Descriptor Data:	(Hex)
PMT Descriptor Data:	(Hex)		PMT PID:	0x0060
PMT PID:	0x0060		PCR PID:	0x00ff
PCR PID:	0x00ff		MPEG-4 Video PID:	0x00ff
MPEG-4 Video PID:	0x00ff		AC3 Audio PID:	0x0103
AC3 Audio PID:	0x0103		Private Sections PID:	0x0105
Private Sections PID:	0x0105		User defined PID:	0x0106
User defined PID:	0x0106		User defined PID:	0x0107
User defined PID:	0x0107			Apply Close

☑ CA Filter   →CAM-A (prog: 0)   [0.0M]
☐ PID Remap   →CAM-B (prog: 0)   [0.0M]
                 →BISS (prog: 0)   [0.0M]
[Refresh Input] ⊟ →Other (prog: 13)   [77.3M]
                 ⊞ 1: ☐ A_NixiT-HighDefinition <=Tuner 1 [21100]
[Refresh Output] ⊞ 2: ☐ QVC HD <=Tuner 1 [21103]
[===> CAM-A]   ⊞ 3: ☐ HSE HD <=Tuner 1 [21104]

That's it… it is a good time to safe your settings:

Now we want to stream and go to OUTPUT:
But First: Please avoid using the DATA-Output GbE Port at the same switch like the Network Management NMS-Port
Because if you send hundreds of megabit streams unfiltered to the NMS port it may not be accessible any more.
Hint: You can access the Web-Interface also via the DATA-Port:

But your computer needs to be in the same network range. We changed the Windows PC to support multiple static IP Addresses like:

->

You do not need a Gateway – for this… sometimes better w/o. Finally enter its IP:

And Voila you are in w/o the NMS-port.

Safe the config is important!!!

We want Output:

The MPTS is ON by default. If the databits exceed the 80Mb/s you can increase that:
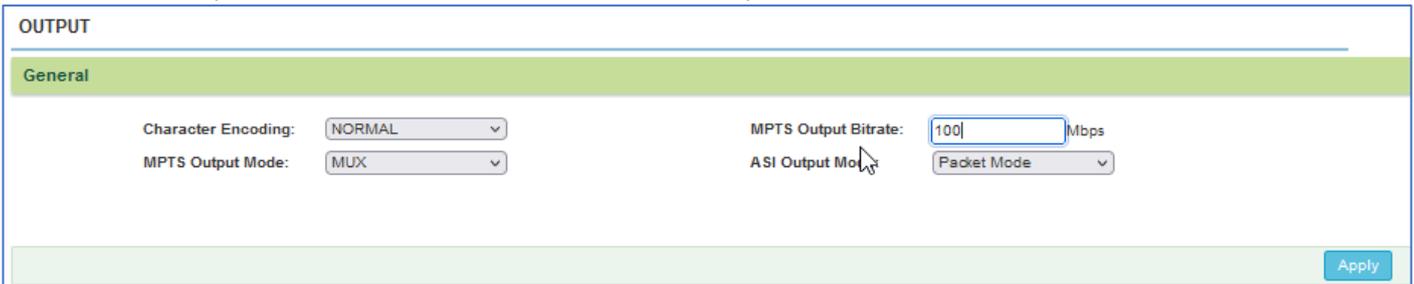
But MPTS is a remultiplexed TS now containing your selected streams from the Setting-Menu side: right.
We check that: Be sure your ethernet is connected to the DATA port(s) via a GbE switch and your Laptop has only one Ethernet ON (WIFI=OFF) or Metric for Ethernet is lower Value than WIFI.
Open VLC and enter the network – section:
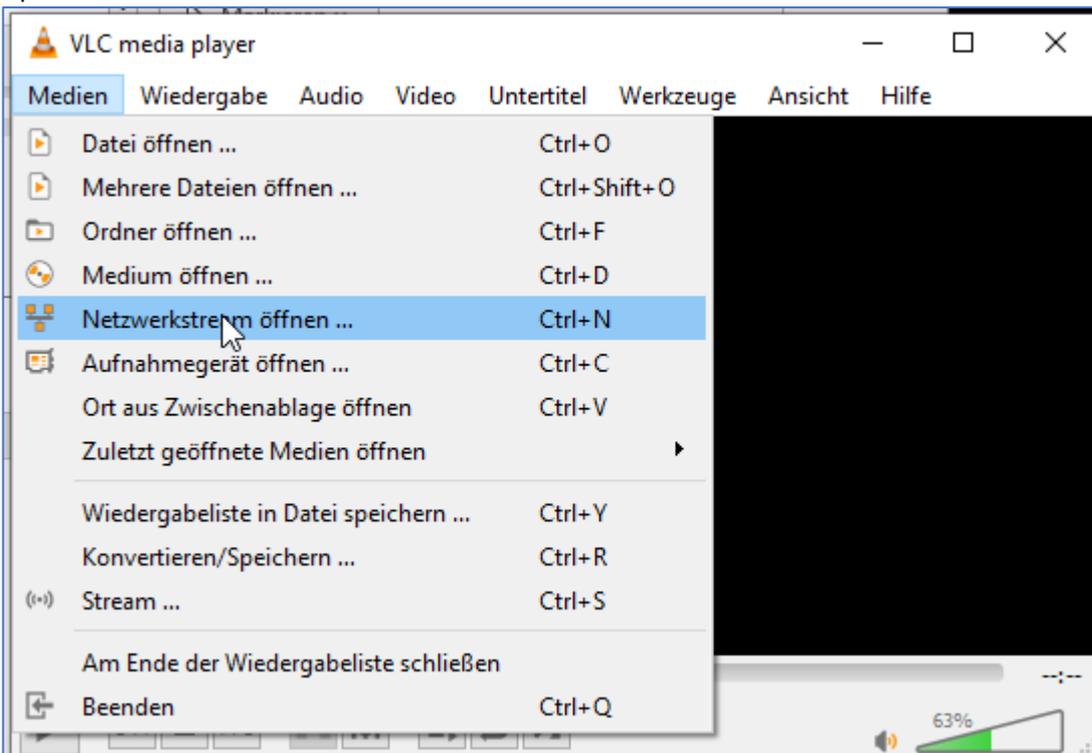
Enter the MPTS address as foillowing:
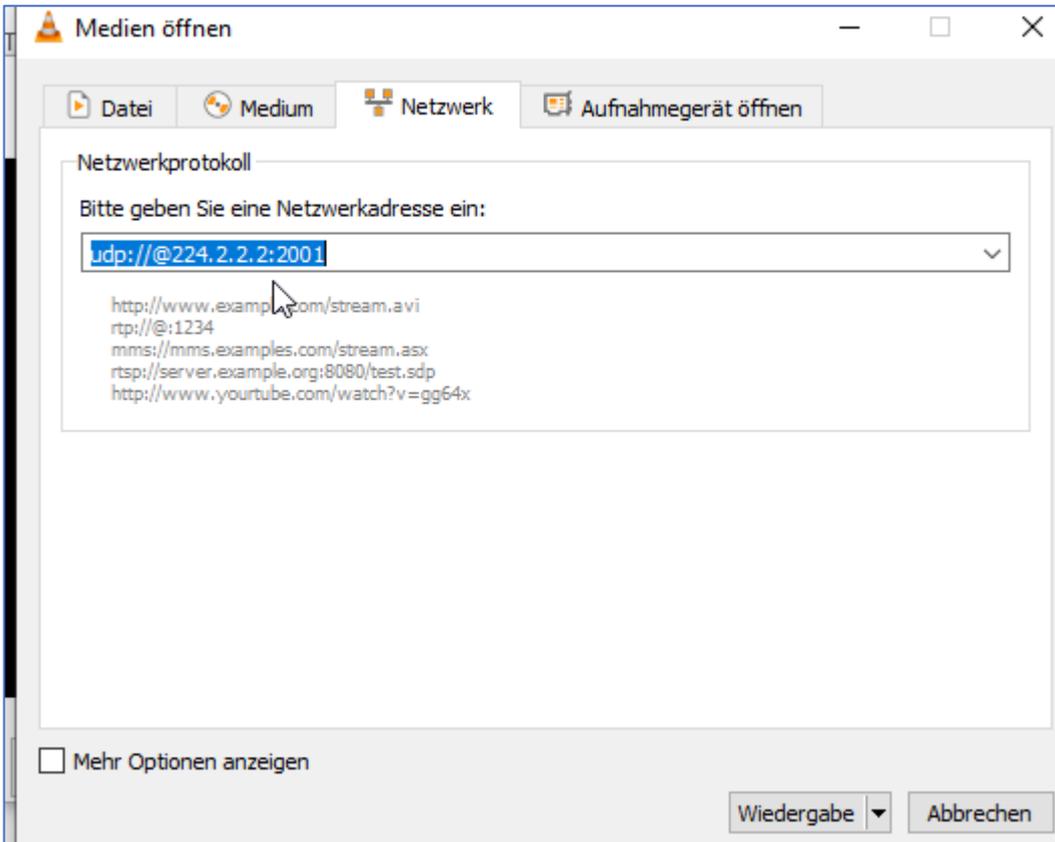
DO NOT forget the @ after the URL udp://@IP:port of the multicast. That's a silly thing in VLC only.
And you'll get:

You can check every TV service containing in this Multiplexed by:
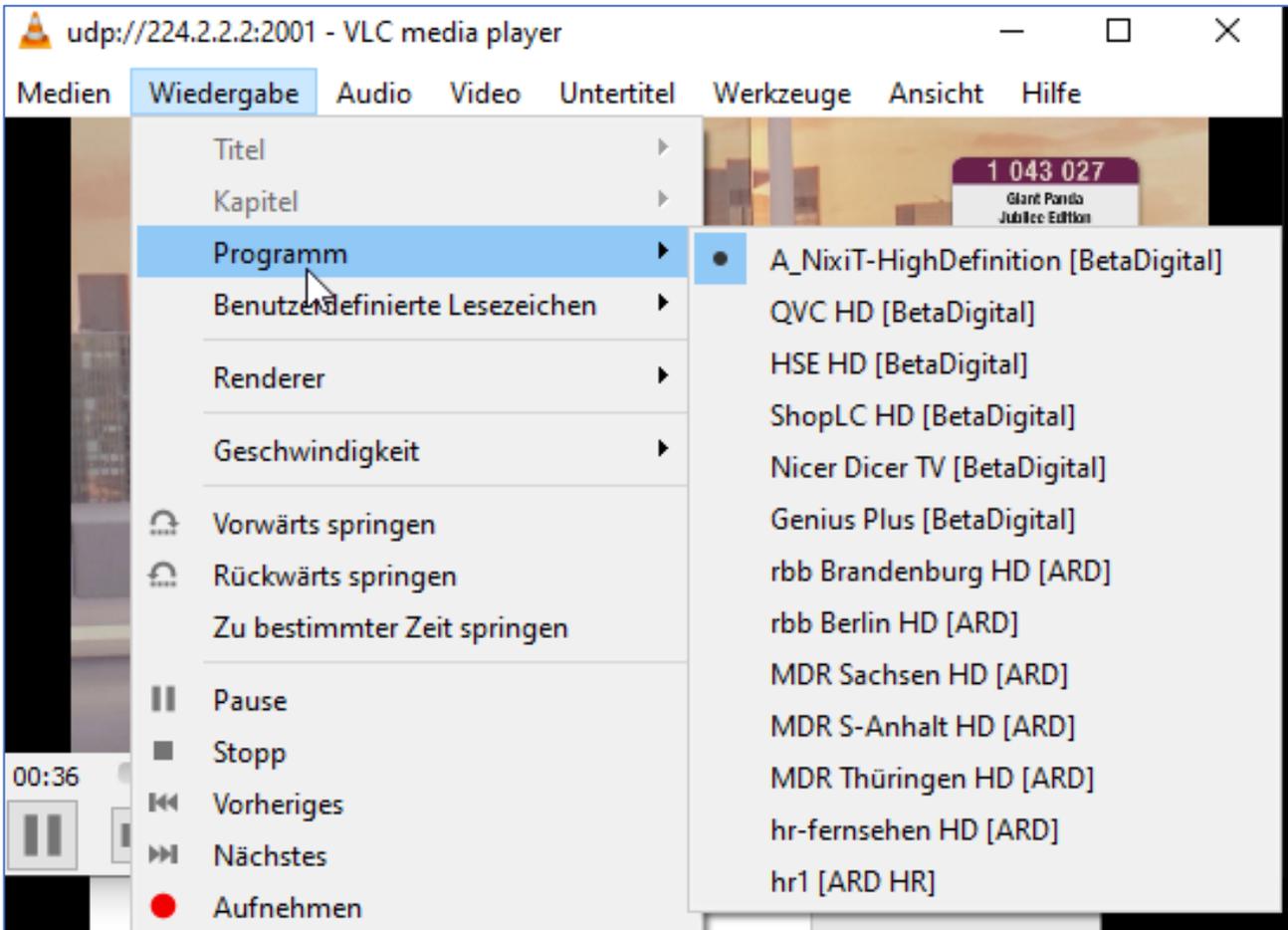
Select one and VLC changes:

Or just radio:
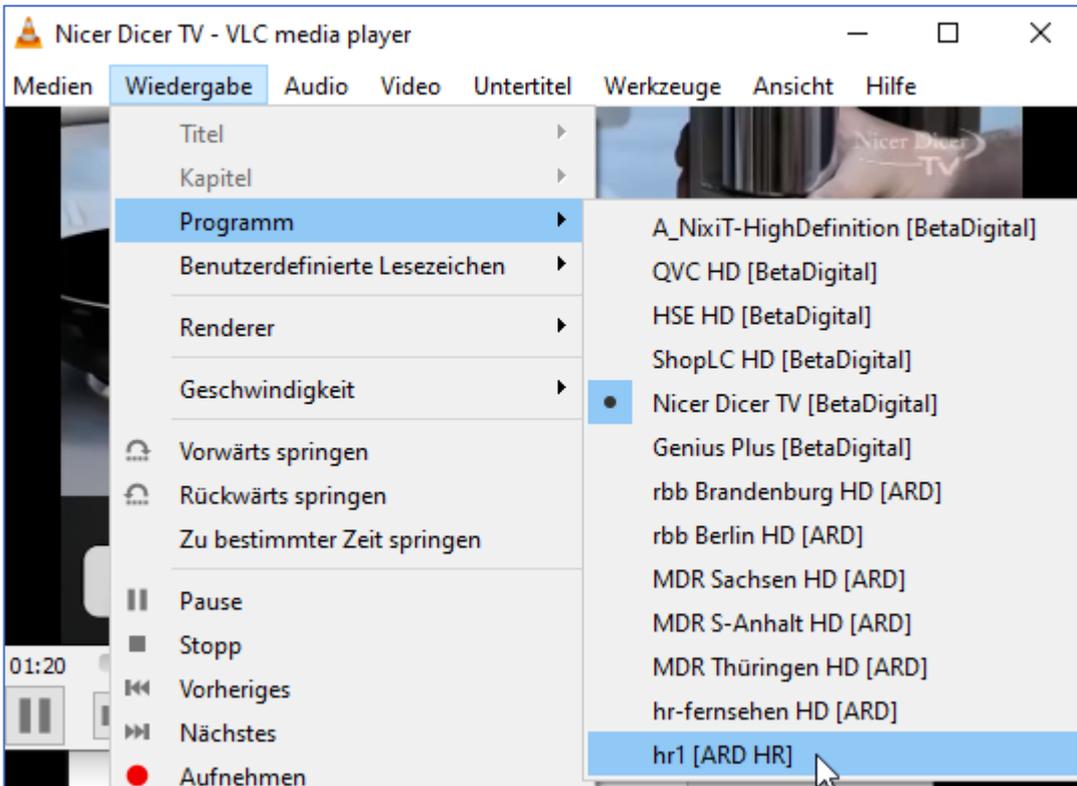
You can check the content here:
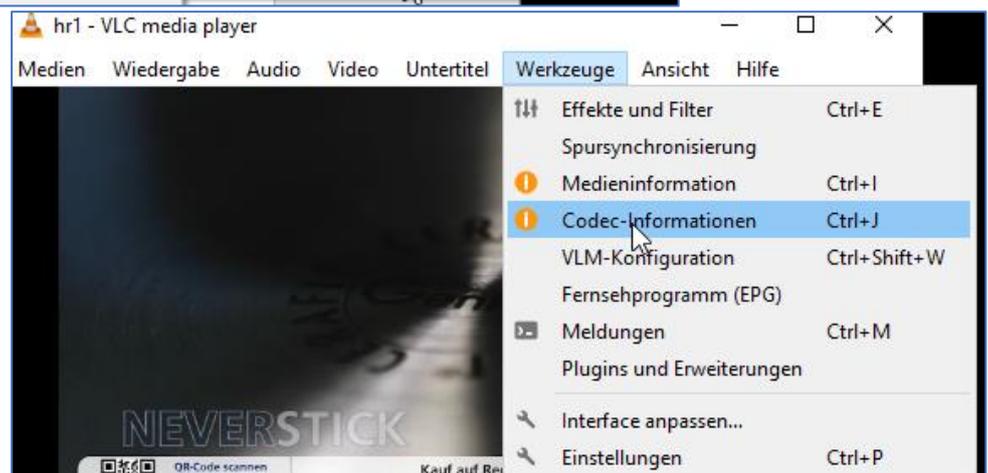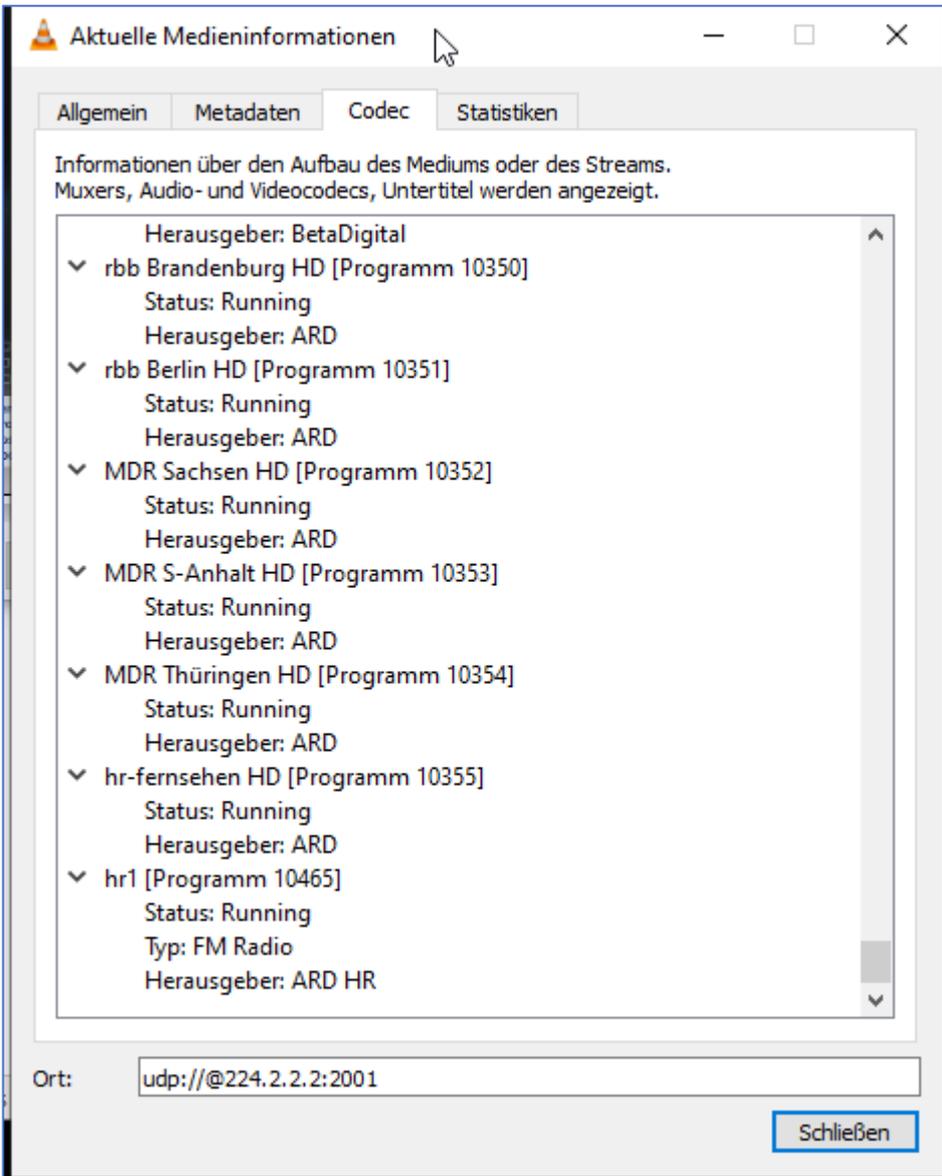
BTW: The stream contains full 100Mbit/s with not set the Nullpaket filter which is mostly too much for IPTV networks and in particular for SetTopBoxes which has only 100Mb/s RJ45 Ethernet ports.

IP Output

#	Output Enable	IP Address	Port	Protocol	Null_PKT Filter	Program	Output Bitrate	Status	Bit(Act/Max)
MPTS	☑	224.2.2.2	2001	UDP ⌄	☑			🟢	72.6/100.0 M
SPTS-1	☐	224.2.2.2	3001	UDP ⌄	☐	NULL ⌄	15	⚫	0.0/15.0 M

The APPLY Button for this menu is bottom right: So don't mess up with the GENERAL OUTPUT Apply Button top…

SPTS-11	☐	224.2.2.2	3011	UDP ⌄	☐	NULL ⌄	15	⚫	0.0/15.0 M
SPTS-12	☐	224.2.2.2	3012	UDP ⌄	☐	NULL ⌄	15	⚫	0.0/15.0 M
SPTS-13	☐	224.2.2.2	3013	UDP ⌄	☐	NULL ⌄	15	⚫	0.0/15.0 M
SPTS-14	☐	224.2.2.2	3014	UDP ⌄	☐	NULL ⌄	15	⚫	0.0/15.0 M
SPTS-15	☐	224.2.2.2	3015	UDP ⌄	☐	NULL ⌄	15	⚫	0.0/15.0 M
SPTS-16	☐	224.2.2.2	3016	UDP ⌄	☐	NULL ⌄	15	⚫	0.0/15.0 M

Apply

But we do not want null packets in SPTS so independent from the output bitrates:

Now we want to see an SPTS:

APPLY please: Scroll down and look on this page bottom right:

So you see the bitrates now:

If the LED becomes red, please increase the 15 to maybe 20:

   -> **APPLY and so it works:**

The HR-Fernsehen TV Service sends with higher bitrates so you must consider peaks.

BTW: We recommend to change the UDP IP addresses and the port-numbers but basically it works by keeping them and change only the ports (use numbers > 10000 please). RTP port number should be 'Even' and the Even+1 should be not used.

Check by VLC:

Bitte geben Sie eine Netzwerkadresse ein:

udp://@225.2.2.2:30012

http://www.example.com/stream.avi
rtp://@:1234

Check VLC- Content in:

Don't forget to save:

So, we check the Muxed MPTS first. In MPTS all are in we selected to the output.

Then HR-Fernseh SPTS stream with an analyser now:
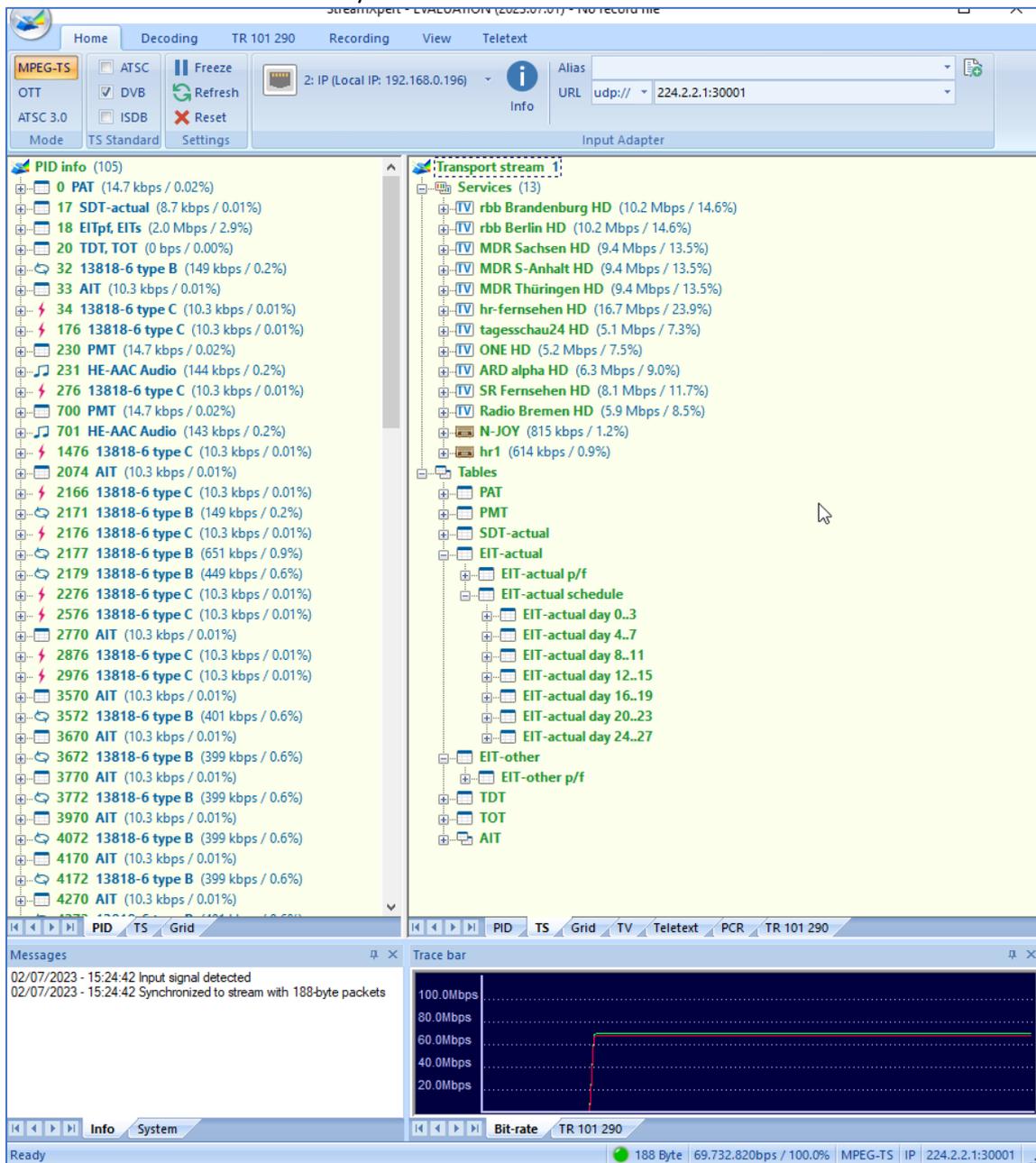
See the difference: Single against multiplexed streams…
HR is driving with very high bitrates even its just only 720p50:

but carries multiple Audios and Dolby AC3… and many AIT Data for HbbTV.

That was the Quick and Dirty…