

Did you ever thought about a simple to install and nearly Plug & Play setup of a BASIC Linear IPTV System to a reasonable price?
Upgradeable to grow with your demands...

Here we go:



2 SAT or 4 SAT Position Multiswitch with 32 Outputs (cascadable)



2 x 16 SAT Transponder Inputs to > 1000 Streaming Channels output



IGMP-Managed STB network1

Not included



IGMP-Managed STB network2



Media-Player

Not included



BLANKOM-ENCODER-STREAMER

Info-Channel



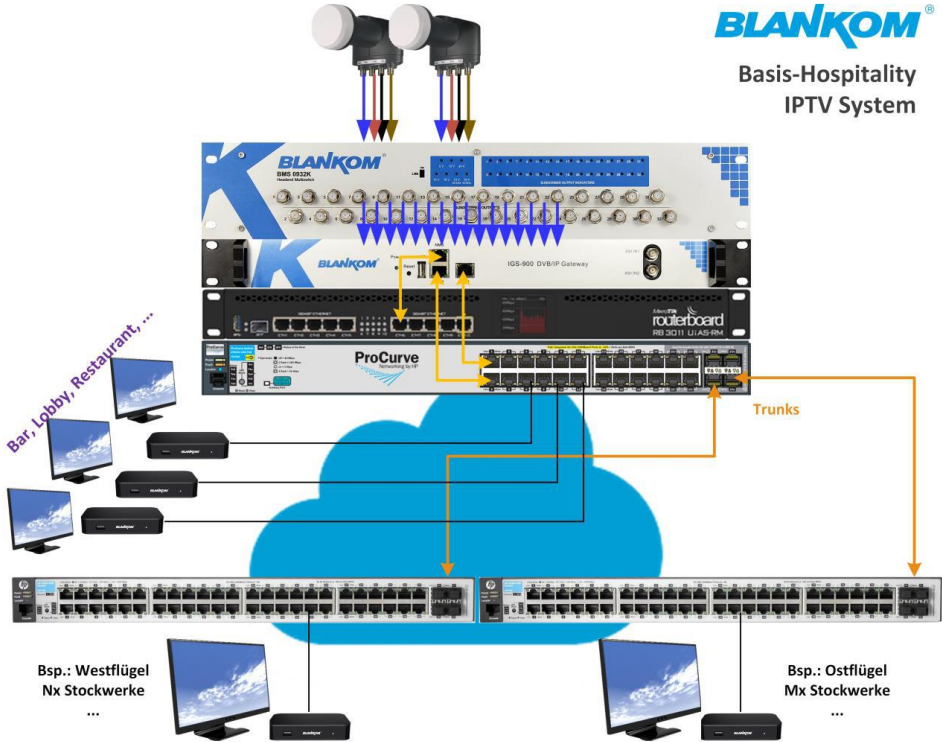
Not included

M15 IPTV-STB
Plug&Play
Multicast-Receiver
In Total: 2x 250
STB clients



Not included

wifi



Budgetary calculation basic system 100 rooms: *Preiskalkulation* (Listenpreis in EURO) Basis System, 100 STB / Rooms

1x	BMS-0932K SAT Multiswitch 19", 2x SAT positions in, 32 RF-outputs	790,00 €***
1x	IGS-924, 24 SAT Transponder -> max. 2x 512 Streaming multicast channels 2x GBic out	4990,00 €***
1x	IGS-700-8, 8 SAT Transponder -> max. 512 Streaming multicast channels 1x GBic out, 4x CI-CAM	3490,00 €***
1x	MicroTik Router RB 3011*	155,-€**
1x	ARUBA HP Procurve 2530 24G*	250,- - 500,- €**
2x	ARUBA HP Procurve 2530 48G* (can be w/o G for the STB's) per pcs.: 600-1000,-€	2000,-€**
100x	M15 STB	3990,-€***

Total***: 13260,- EURO Net (Netto)

*) Router and Switches are not delivered by IRENIS GmbH but from your Service supplier/installation company

**) Market prices may vary and are taken from end customer portals like Amazon

***) List price - please ask for the special bundle-discounts to info@blankom.de

- w/o cabling from SAT dishes (not included - so consider 2 80cm – 1.2m dishes and Quattro LNBs with masts and cables...)

- w/o Network cabling and wall outlets

- w/o TV Sets

- optional an Encoder – Streamer for an Info-Channel

The purpose of this P&P System is to get a customized Channel/Transponder List from the final customer fitting to 2...4 SAT-Positions to his international TV channel demand's to be provided depending on the Satellites in reach. BLANKOM or regional partners will prepare this setup upfront - if possible of receiving these Sat-Positions (depending on particular beam ranges). Both – the SAT streamer and the STB-Channels need to be harmonized and pre-stored. If after installation, changes should be made: See a description 'how-to' later on in this document.

STB = Set Top Box

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STB USER GUIDE – IPTV Digital Signage - Bedienungsanleitung



Please note: Bitte beachten

This STB has been specially modified to operate as a Digital Signage STB. It is pre- plug&play configured to work with a DHCP Ethernet connection and gets its IP address from this DHCP Server (or a Router) from your internal Network.

So please connect an Ethernet (100Mb/s) before plugging in the power. It will always start with the first Channel which can be configured by FTP-file exchange to this device. The IP-Address must be known for this purpose and the easiest way is to check your Router for the DHCP-assigned IP address of it.

Diese STB wurde speziell für den Betrieb als Digital Signage STB modifiziert. Sie ist für den Betrieb mit einer DHCP-Ethernet-Verbindung vorkonfiguriert und erhält ihre IP-Adresse von diesem DHCP-Server (oder einem Router) aus Ihrem internen Netzwerk. Schließen Sie also bitte eine Ethernet-Verbindung (100Mb/s) an, bevor Sie das Gerät an die Stromversorgung anschließen.

Die Box wird immer mit dem ersten Kanal starten. Die Kanal – und Sparten-Liste kann per FTP-Dateiaustausch zu diesem Gerät konfiguriert werden. Die IP-Adresse muß dazu bekannt sein, und der einfachste Weg ist, Ihren Router auf die ihm per DHCP zugewiesene IP-Adresse zu überprüfen -> Alles Weitere in den Folgeseiten...

Remark: The Box internal Linux based OS and Broadcom chipset support only Multicast streams with UDP like `udp://239.1.1.1:12345` and the decoder supports

A Video resolution of max. 1080p60 Full HD in h.264 AVC down to SD formats also in MPEG2. **(No HEVC h.265 support)**

*Das Box-interne Linux-basierte Betriebssystem und der Broadcom-Chipsatz unterstützen nur Multicast-Streams mit UDP wie `udp://239.1.1.1:12345` und der Decoder unterstützt eine Videoauflösung von max. 1920x 1080p60 Full HD in h.264 AVC bis hinunter zu SD-Formaten auch in MPEG2. **(Keine HEVC h.265-Unterstützung)***

CONTENT - INHALT

1. Safety Instructions / *Sicherheitshinweise*
2. Package Contents / *Inhalt des Pakets*
3. Placement / *Aufstellen*
4. Getting Started / *Schnellstart*
5. Remote Control / *Fernbedienung*
6. Pairing the remote control with your TV / *Programmierung der Fernbedienung zum TV-Model*
7. Television brand codes / *TV-Hersteller- Liste der Codes*

IMPORTANT SAFETY INSTRUCTIONS

It is imperative that you heed all the safety advice and warnings.

This helps to prevent accidents and bodily injuries as well as property damages.

Please read this chapter carefully and follow all instructions. This ensures the reliable operation and long lifespan of your SetTopBox. Retain the packaging and instruction manual.

TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

- Do not use the SetTopBox near water.
- Clean only with dry cloth.
- Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- The operating temperature of the SetTopBox is 0°C to +40°C and relative humidity of 10% to 80% (non-condensing).
- Protect the power cord from being walked on or pinched, particularly plugs, convenience receptacles, and the point where they exist the device.
- Unplug the SetTopBox during lightning storms or when not used for long periods of time.
- No naked flame sources, such as lighted candles, should be near the SetTopBox.
- Do not expose the SetTopBox to dripping or splashing and do not place objects filled with liquids, such as vases, on the power supply.

Batteries ... will not be delivered with the Remote-Control because of EU rules

- Do not expose batteries to excessive heat such as sunshine, fire or the like.
- Do not open or perforate the batteries.
- Remove the batteries if the remote control will remain unused over a longer period of time.
- Remove exhausted batteries immediately.
- Do not mix new and old batteries.

- Do not mix rechargeable and disposable batteries.
- Do not mix batteries of different manufacturers.
- Danger of an explosion exists during incorrect exchange of the batteries or insertion of the wrong type of batteries.
- Dispose of used batteries thoughtfully

WARRANTY WARNING: This STB is offered as described in the corresponding flyer for very low price or in bundle with other BLANKOM Products like encoder-streamer. Therefore we are not offering any warranty for these STB's. Anyway, if after delivery it would not work we will exchange it for free.

All repairs need to be carried out by a qualified technician. DO NOT try to repair or replace any part of your SetTopBox yourself. Not only it is dangerous, but any attempt to open, modify or dismantle your SetTopBox or its software will immediately void your warranty, subject to any other rights or remedies that are available to you under law, which cannot be excluded.

WICHTIGE SICHERHEITSHINWEISE

Es ist unbedingt erforderlich, daß Sie alle Sicherheitsratschläge und Warnungen beachten. Dies hilft, Unfälle und Verletzungen sowie Sachschäden zu vermeiden. Bitte lesen Sie dieses Kapitel sorgfältig durch und befolgen Sie alle Anweisungen. Dies gewährleistet den zuverlässigen Betrieb und die lange Lebensdauer Ihrer SetTopBox. Bewahren Sie die Verpackung und die Bedienungsanleitung auf.

ZUR VERRINGERUNG DER GEFAHR EINES BRANDES ODER ELEKTRISCHEN SCHOCKS, SETZEN SIE DIESER BOX KEINEM REGEN ODER FEUCHTIGKEIT AUS.

- Verwenden Sie die SetTopBox nicht in der Nähe von Wasser.
- Reinigen Sie sie nur mit einem trockenen Tuch.
- Installieren Sie die SetTopBox gemäß den Anweisungen des Herstellers.
- Installieren Sie die SetTopBox nicht in der Nähe von Wärmequellen wie Heizkörpern, Wärmespeichern, Öfen oder anderen Geräten (einschließlich Verstärkern), die Wärme erzeugen.
- Die Betriebstemperatur der SetTopBox beträgt 0°C bis +40°C und die relative Feuchtigkeit von 10% bis 80% (nicht kondensierend).
- Schützen Sie das Netzkabel vor dem Betreten oder Einklemmen, insbesondere Stecker, Komfortbuchsen und die Stelle, an der sich das Gerät befindet.
- Ziehen Sie den Stecker der SetTopBox bei Gewitter oder bei längerer Nichtbenutzung aus der Steckdose.
- In der Nähe der SetTopBox sollten sich keine offenen Flammenquellen, wie z.B. brennende Kerzen, befinden.
- Setzen Sie die SetTopBox nicht Tropfen oder Spritzern aus, und stellen Sie keine mit Flüssigkeiten gefüllten Gegenstände, wie z. B. Vasen, auf die Stromversorgung.

Batterien werden nicht mitgeliefert: EU-Entsorgung und Rücknahmeverpflichtungen stehen dem Aufwand gegenüber

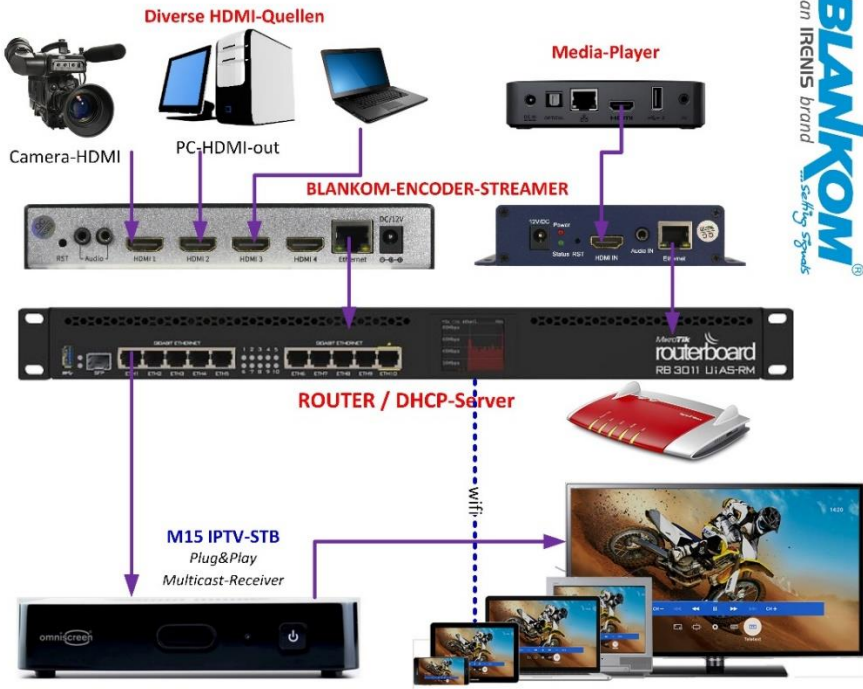
- Setzen Sie die Batterien nicht übermäßiger Hitze wie z.B. Sonneneinstrahlung, Feuer oder ähnlichem aus.
- Öffnen oder perforieren Sie die Batterien nicht.
- Entfernen Sie die Batterien, wenn die Fernbedienung über einen längeren Zeitraum nicht benutzt wird.
- Entfernen Sie verbrauchte Batterien sofort.
- Mischen Sie keine neuen und alten Batterien.
- Mischen Sie keine wieder-aufladbaren und Einweg-Batterien.
- Mischen Sie keine Batterien verschiedener Hersteller.
- Bei falschem Austausch der Batterien oder dem Einlegen des falschen Batterietyps besteht Explosionsgefahr.
- Entsorgen Sie gebrauchte Batterien sorgfältig.

GARANTIE-WARNUNG:

Diese STB wird als sogenanntes Spezial-Angebot zu einem sehr günstigen Preis oder im Bundle mit anderen BLANKOM Produkten wie z.B. Encoder-Streamer angeboten. Daher bieten wir für diese STB's keine normale Garantie an. Trotzdem: Falls zufällig eine nach dem Anschließen nicht funktioniert: Wir tauschen die aus. Natürlich sind wir gemäß der gelten Verordnungen verpflichtet ‚Altgeräte‘ entsprechend zu behandeln bsp.: WEEE, VERE, ...

Alle Reparaturen müssen von einem qualifizierten Techniker durchgeführt werden. Versuchen Sie NICHT, irgendein Teil Ihrer SetTopBox selbst zu reparieren oder zu ersetzen. Es ist nicht nur gefährlich, sondern jeder Versuch, Ihre SetTopBox oder ihre Software zu öffnen, zu modifizieren oder zu zerlegen, führt zum sofortigen Erlöschen Ihrer nicht vorhandenen Garantie, vorbehaltlich aller anderen Rechte oder Rechtsmittel, die Ihnen gesetzlich zustehen und die nicht ausgeschlossen werden können.

Application example / Applikationsbeispiel Digital Signage channels in a Mall



By automatic IP address assignment with DHCP in the same network, the system is practically Plug&Play. The separately available encoder streamers can also be set as Plug&Play in the in-house network via DHCP. Wireless WiFi clients such as tablets or smartphones can retrieve unicasts from the encoder stream in various formats (HTTP, RTSP, HLS, SRT, FLV, ...)

Durch automatische IP-Adressenvergabe mit DHCP im gleichen Netzwerk ist das System praktisch Plug&Play. Die separat erhältlichen Encoder –Streamers können ebenfalls per DHCP als Plug&Play im hauseigenen Netzwerk eingestellt werden. Wireless WiFi Klienten wie z.B. Tablets oder Smartphones können Unicasts von dem Encoder-Stream in diversen Formaten (HTTP, RTSP, HLS, SRT, FLV, ...) abrufen.

PACKAGE CONTENTS / *Verpackungs-Inhalt*

1. SetTopBox M15 Omniscreen Version
2. Remote control (with 2x AA-batteries* / *Fernbedienung incl. 2 Batterien**)
3. Ethernet cable (might be optional) / *optional evtl. T Ethernet RJ45 CAT Kabel*
4. Power adaptor with Chinese/Australian Power plug - > *For EU please use an adaptor like from Amazon or a travel unit or use another Power supply to 5V DC with 3.5mm DC Jack (+ 5V = middle)*
5. HDMI cable (might be optional) / *optional evtl. HDMI Kabel*
6. This User guide / *Dieses Manual*

*** Because of new EU-regulations and for Air-freights and other transports of goods containing Batteries, we cannot guarantee that the pair of batteries are in the package or in the remote control installed already. If these art missing, please equip the Remote Control by using your own fresh new pair 1,5V RG6 AA batteries.**

*** Wegen neuen EU-Vorschriften und für Luftfracht und anderen Transporten von Gütern, die Batterien enthalten, können wir nicht garantieren, daß sich das Paar Batterien in der Verpackung oder in der bereits installierten Fernbedienung befindet. Sollten diese fehlen, rüsten Sie die RC bitte mit Ihren eigenen frischen, neuen 1,5 Volt AA-Batterie- Paaren aus.**

PLACEMENT / *Aufstellung*

- Do not place anything on top of the SetTopBox.
- *Legen Sie nichts auf die SetTopBox.*
- Do not place anything within 10cm of the SetTopBox.
- *Platzieren Sie nichts innerhalb von 10 cm zum Abstand von der SetTopBox.*
- Do not obstruct the ventilation.
- *Behindern Sie nicht die Belüftung.*

When using the remote control, point it directly at the SetTopBox. Make sure there are no obstacles between the remote control and the SetTopBox.

Wenn Sie die Fernbedienung verwenden, richten Sie sie direkt auf die SetTopBox. Stellen Sie sicher, dass sich keine Hindernisse zwischen der Fernbedienung und der SetTopBox befinden.

GETTING STARTED / *Anschließen - Loslegen*

The initial installation of your SetTopBox is in this case of DS-box mode not directed by the start-up wizard.

Die Erstinstallation Ihrer SetTopBox wird in diesem Fall des DS-Box-Modus nicht vom Start-Assistenten geleitet.

1. IR receiver
2. LED indicator
3. RF IN* - for connection to digital TV antenna
4. LOOP OUT* - for loop through of the TV antenna signal to other devices
5. AV* - optional connection for analogue TV sets
6. HDMI - High Definition interface for connecting to digital TV sets
7. S/PDIF - for connection to digital audio equipment
8. USB* - for optional peripheral devices
9. LAN - Ethernet interface connection for broadband
10. DC IN - connector for external power pack supplied with the box

Pre- setup: S/PDIF and HDMI Audio = pass-through



*) : Attention / Achtung: The inbuilt Tuner is not supported by this special DS software OS and the STB cannot decode HEVC. USB is not supported and internal WIFI is not active.

Der eingebaute Tuner für DVB-T2 ist nicht aktiviert und der Chipsatz kann kein HEVC decodieren. USB ebenfalls nicht. Internes WIFI ist ausgeschaltet

Power adapter:

Because this devices were originally made for Australia, a Power connector Adapter or another 230VAC to 5V DC 2,5A with 2.5mm DC Jack can be used or we will add one to your packages:



Weil diese Boxen ursprünglich für Australien produziert worden, haben die Netzteile deren Netz-Stecker-Anschluß. Bitte benutzen Sie einen Adapter (z.B. von Amazon, Reiseadapter) oder ein alternatives 5V 2,5A Netzteil mit passendem 3,1mm DC-Jack mit +-Anschluß in der Mitte. (Evtl. liegt sogar ein Adapter dem Paket anbei).

REMOTE CONTROL

Make sure you remove the plastic tab in the battery compartment.

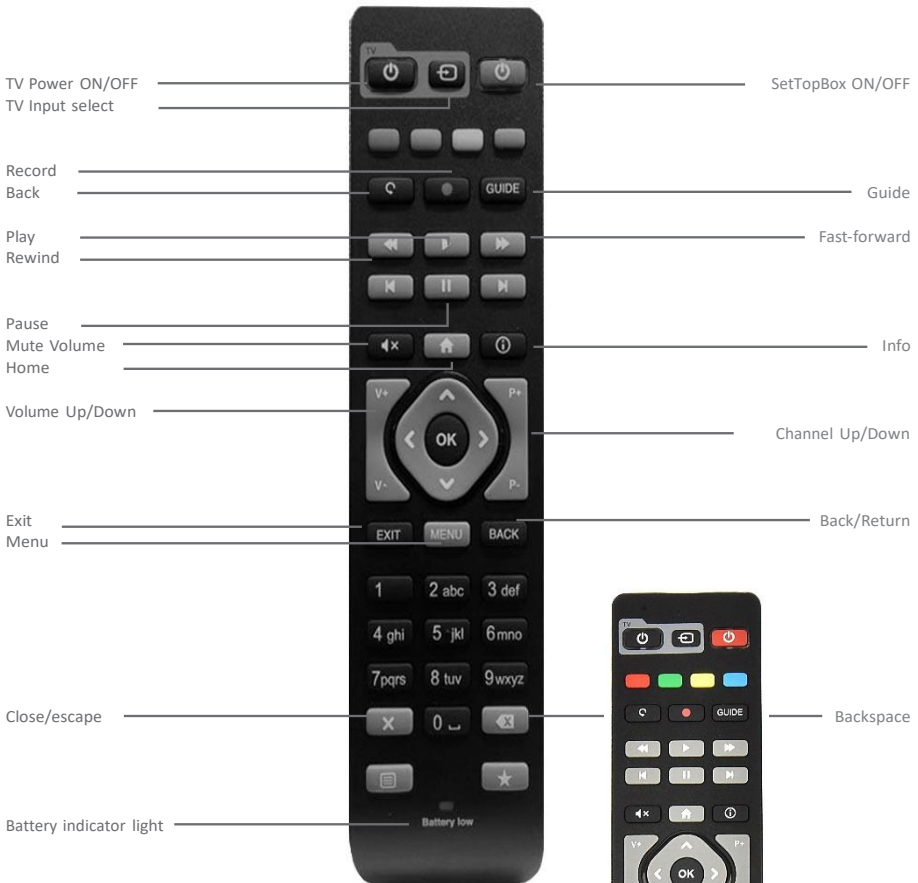


Based on new EU regulations from 1.1.2021 on, we might not deploy any Batteries.
Aufgrund der neuen EU-Vorschriften werden wahrscheinlich keine Batterien beigelegt.

Your remote is pre-programmed.

REMARK: The full operation of every key/button is not covered any more - so not all buttons will operate but: TV, ON/OFF, Ok, Arrow keys, Back... just try and error...

Layout of the RC / Beschreibung der Tasten auf der Fernbedienung



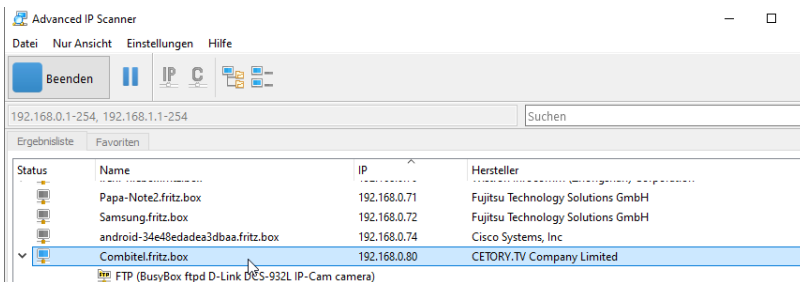
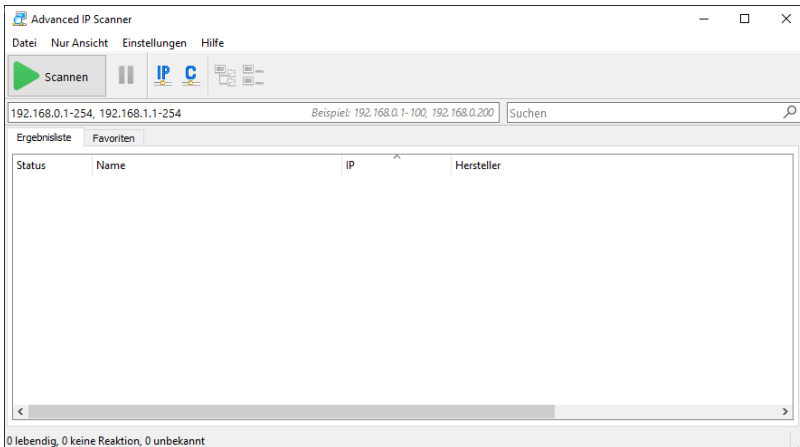
In this special EASY-operating mode many of the remote control buttons are not in use. Just try and you'll see that the basic ones are OK.

In dieser speziellen EASY-Betriebsart werden viele Tasten der Fernbedienung nicht benutzt. Versuchen Sie es einfach und Sie werden sehen, daß die grundlegenden Tasten ausreichend sind.



Looking for the IP address: *Suchen der IP Adresse:*

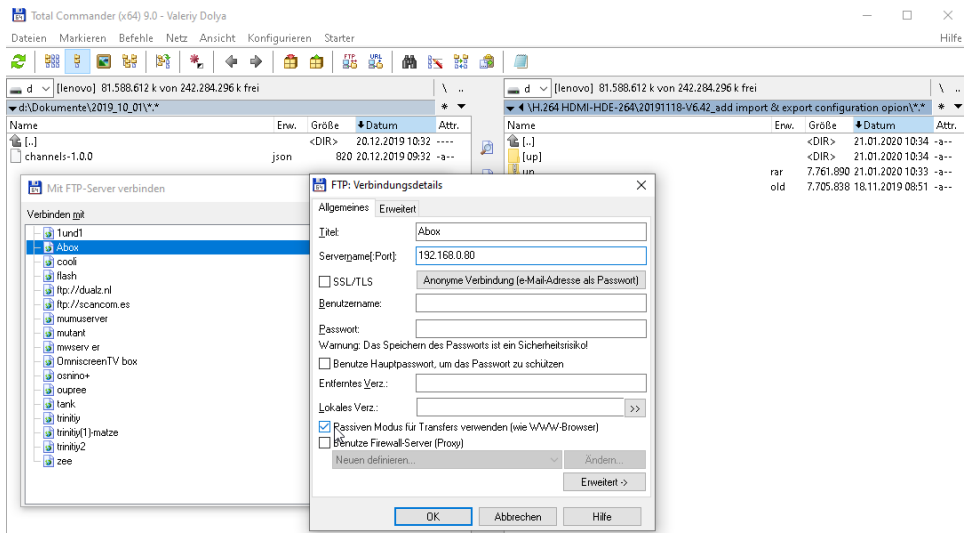
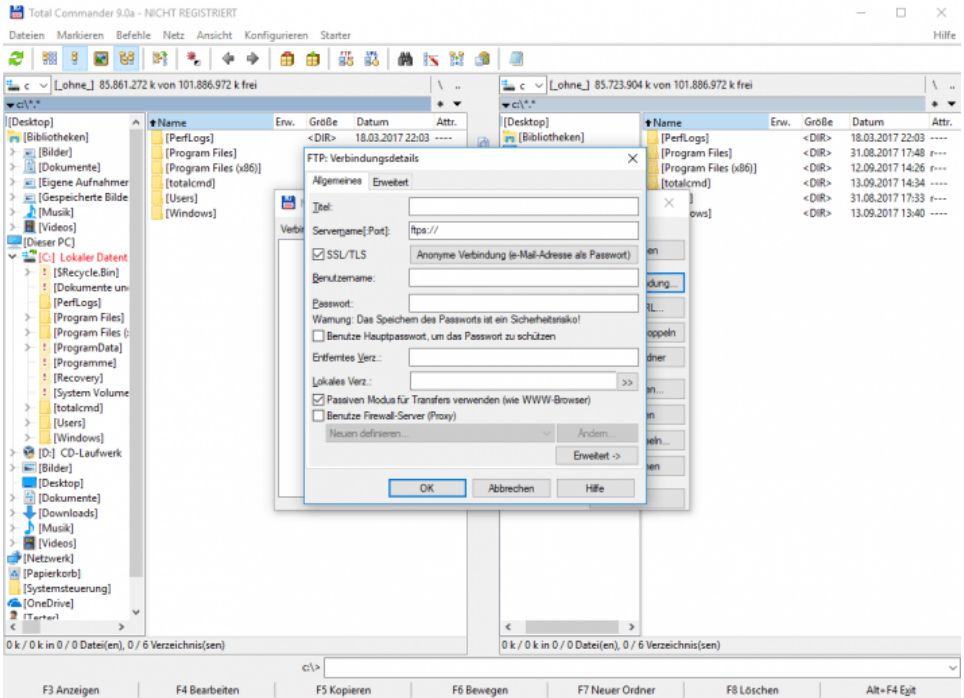
Using a tool like Advanced IP scanner:



IP Address found by an active DHCP: Combitel MAC assigned to 192.168.0.80 and it shows FTP is open now you can start to access the box by FTP.

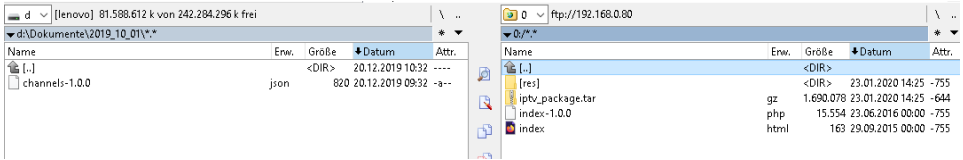
IP-Adresse, die von einem aktiven DHCP gefunden wurde: Der Combitel-MAC wurde 192.168.0.80 zugewiesen und zeigt an, dass FTP geöffnet ist. Jetzt können Sie mit dem FTP-Zugriff auf die Box beginnen.

Example with Total Commander: *Beispiel mit Total-Commander (Windows10)*



Username and password can be left empty...

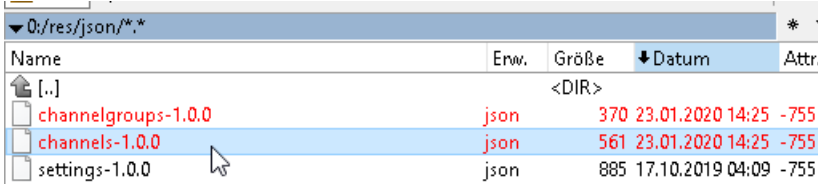
Autorisierung-Name und Paßwort können leer gelassen werden.



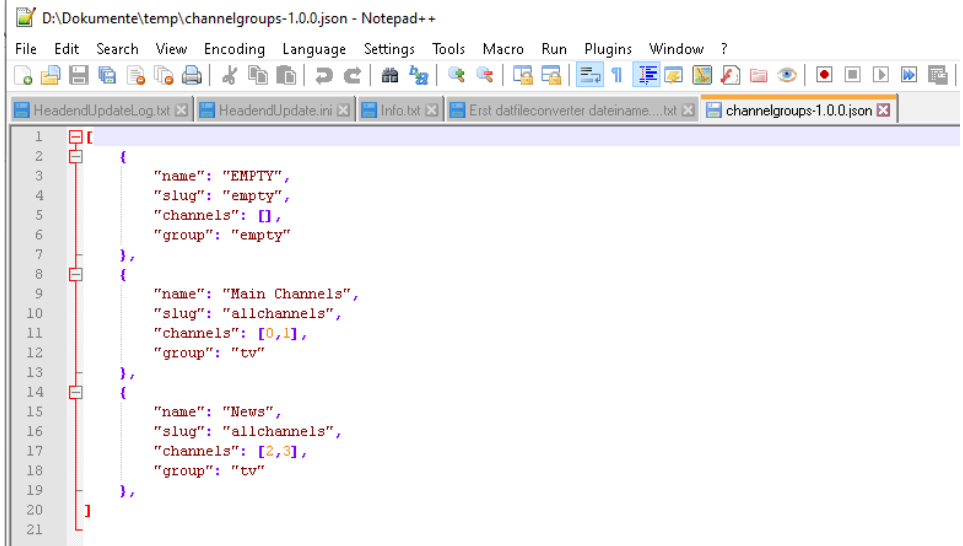
Got to res – folder: *Das Verzeichnis wechseln zu:*

Change to 0:/res/json/

Here you find 2 files:



You can download and edit them after opening with a linux conform editor like notepad++:



And channels-1.0.0.json:

```

1  [
2  [
3      {
4          "name": "BBC-FullHD",
5          "slug": "Nachrichten",
6          "streamurl": "udp://225.1.1.1:10001",
7          "language": ["de"],
8          "audio": "stereo",
9          "text": false,
10         "subtitle": false,
11         "group": "tv",
12         "loop": false
13     },
14     {
15         "name": "Vom-Encoder",
16         "slug": "encoded",
17         "streamurl": "udp://238.0.0.123:12345",
18         "language": ["de"],
19         "audio": "stereo",
20         "text": false,
21         "subtitle": false,
22         "group": "tv",
23         "loop": false
24     },
25 ]

```

You can copy the parts between { and } and paste into but make sure you add this after the ',' and before the]

```

{
    "name": "Vom-Encoder",
    "slug": "encoded",
    "streamurl": "udp://238.0.0.123:12345",
    "language": ["de"],
    "audio": "stereo",
    "text": false,
    "subtitle": false,
    "group": "tv",
    "loop": false
},

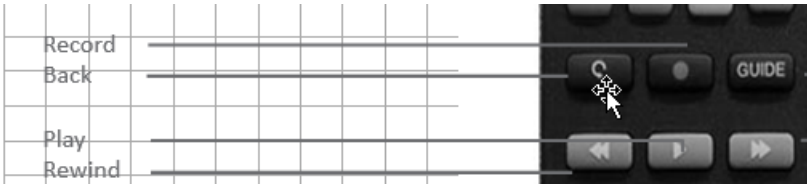
```

You can change them accordingly and add this to the channel-file as well can modify the Channelgroups and add some parts... if you like...

Sie können sie entsprechend ändern und der Channel-Datei hinzufügen. Sie können auch die Channel-Gruppen ändern und einige Teile hinzufügen... wenn Sie möchten...

Then safe it re-FTP-upload to the box, use the remote-control to reload by pressing the BACK-button:

Dann sicher wieder per FTP in die Box laden, mit der Fernbedienung durch Drücken der BACK-Taste neu laden:



Press OK button and you get your listing.

Example with our Encoder Multicast presetting's: **Beispiel** im Zusammenspiel mit unseren Encoder-Streamern:

In our HDMI/SDI encoder devices, you need to enable the Multicast UDP-Address in the Main and/or the Secondary chapters in its web-IF:

In unseren HDMI/SDI-Encoder-Geräten müssen Sie die Multicast-UDP-Adresse im Haupt- und/oder im Nebenkapitel in seinem Web-IF:

Main stream

Encoding type:	<input type="text" value="H.264"/>			
FPS:	<input type="text" value="50"/>			[5-60]
GOP:	<input type="text" value="25"/>			[5-300]
Bitrate (kbit):	<input type="text" value="6400"/>			[32-32000]
Encoded size:	<input type="text" value="same as the input"/>			
H.264 Level:	<input type="text" value="baseline profile"/>			
Bitrate control:	<input type="text" value="vbr"/>			
TS URL:	<input type="text" value="/0.ts"/>			Enable
HLS URL:	<input type="text" value="/0.m3u8"/>			Enable
FLV URL:	<input type="text" value="/0.flv"/>			Enable
RTSP URL:	<input type="text" value="/0"/>			Enable
RTMP URL:	<input type="text" value="/0"/>			Disable
RTMP (S)/RTSP PUSH URL:	<input type="text" value="rtmp://192.168.1.169/live/0"/>			Disable
Multicast IP:	<input type="text" value="238.0.0.1"/>			Enable
Multicast port:	<input type="text" value="1234"/>			[1-65535]
SRT URL Port:	<input type="text" value="9000"/>			Disable [1-65535]
SRT PUSH URL:	<input type="text" value="srt://192.168.1.169:9000"/>			Disable
SRT Encryption Password:	<input type="text" value="0123456789"/>			Disable

Set up

Same in the Substream page (can have a different downscaled resolution but make sure you select **h.264** encoding):

Substream1

Encoding type:	<input type="text" value="H.264"/>	
FPS:	<input type="text" value="25"/>	[5-60]
GOP:	<input type="text" value="25"/>	[5-300]
Bitrate (kbit):	<input type="text" value="3200"/>	[32-32000]
Encoded size:	<input type="text" value="1280x720"/>	
H.264 Level:	<input type="text" value="high profile"/>	
Bitrate control:	<input type="text" value="vbr"/>	
TS URL:	<input type="text" value="/1.ts"/>	<input type="checkbox"/> Enable
HLS URL:	<input type="text" value="/1.m3u8"/>	<input type="checkbox"/> Enable
FLV URL:	<input type="text" value="/1.flv"/>	<input type="checkbox"/> Enable
RTSP URL:	<input type="text" value="/1"/>	<input type="checkbox"/> Enable
RTMP URL:	<input type="text" value="/1"/>	<input type="checkbox"/> Disable
RTMP(S)/RTSP PUSH URL:	<input type="text" value="rtmp://192.168.1.169/live/1"/>	<input type="checkbox"/> Disable
Multicast IP:	<input type="text" value="238.0.0.1"/>	<input type="checkbox"/> Enable
Multicast port:	<input type="text" value="1235"/>	[1-65535]
SRT URL Port:	<input type="text" value="9001"/>	<input type="checkbox"/> Disable [1-65535]
SRT PUSH URL:	<input type="text" value="srt://192.168.1.169:9001"/>	<input type="checkbox"/> Disable
SRT Encryption Password:	<input type="text" value="0123456789"/>	<input type="checkbox"/> Disable

Set up

Check it in the STATUS page:

Main stream

Encode Type:H.264
Encoding Type:1920x1080@50
Bitrate(kbit):6400
TS URL:http://192.168.1.168/0.ts http://192.168.1.168:8086/0.
HLS URL:http://192.168.1.168/0.m3u8 http://192.168.1.168:8086/
FLV URL:http://192.168.1.168/0.flv http://192.168.1.168:8086/
RTSP URL:rtsp://192.168.1.168/0 rtsp://192.168.1.168:8554/0
RTMP URL: Disable
RTMP(S) PUSH URL: Disable
Multicast URL:udp://@238.0.0.1:1234
SRT URL:Disable
SRT PUSH URL:Disable
[Preview\(HTML5\)](#) [Preview\(FLASH\)](#)

Substream1

Encode Type:H.264
Encoding Type:1280x720@25
Bitrate(kbit):3200
TS URL:http://192.168.1.168/1.ts http://192.168.1.168:8086/1.
HLS URL:http://192.168.1.168/1.m3u8 http://192.168.1.168:8086/
FLV URL:http://192.168.1.168/1.flv http://192.168.1.168:8086/
RTSP URL:rtsp://192.168.1.168/1 rtsp://192.168.1.168:8554/1
RTMP URL: Disable
RTMP(S) PUSH URL: Disable
Multicast URL: udp://@238.0.0.1:1235

Status

Network

Main stream

Substream1

The corresponding Channel*.JSON files are looking like:

Groups: **channelgroups-1.0.0.json** (can be kept usually as it is)

```
[
  {
    "name": "EMPTY",
    "slug": "empty",
    "channels": [],
    "group": "empty"
  },
  {
    "name": "Main Channels",
    "slug": "allchannels",
    "channels": [0,1,2,3,4,5],
    "group": "tv"
  },
]
```

channels-1.0.0.json:

```
[
  {
    "name": "Multicast-Encoder-Main",
    "slug": "streams",
    "streamurl": "udp://238.0.0.1:1234",
    "language": ["de"],
    "audio": "stereo",
    "text": false,
    "subtitle": false,
    "group": "tv",
    "loop": false
  },
  {
    "name": "Multicast-Encoder-Second",
    "slug": "encoded",
    "streamurl": "udp://238.0.0.1:1235",
    "language": ["de"],
    "audio": "stereo",
    "text": false,
    "subtitle": false,
    "group": "tv",
    "loop": false
  },
]
```

Remember: These are linux-based text-files – not Microsoft Windows.

The Startscreen will come up in the box with the first channel. **Pressing OK**

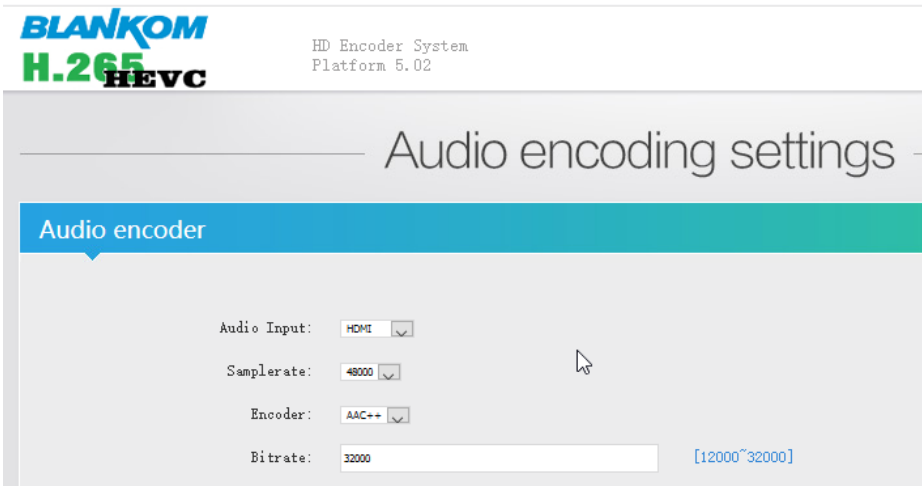
button on the Remote Control shows the channel list:



Groups are not configured but can be used. Remark: The settings are corresponding and the number of channels belonging to a group is important and starts with Channel 0:

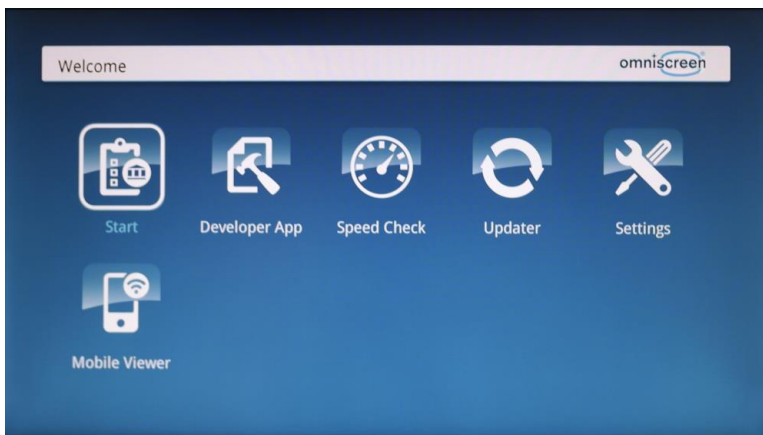
"channels": [0, 1, 2, 3, 4, 5, ...],

The SetTopBox do only support h.264 and MPEG2 Video codecs, Audios can be AAC (+/++), MP3 (only low sampling rates) MP2, AC3 stereo...



OmniscreenTV SetTopBox – patch it to an IPTV-Box by Linux-Script:

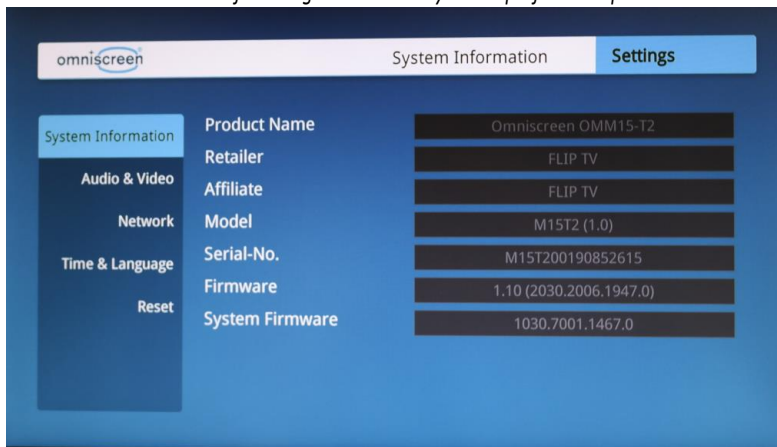
Falls die M15 STB's mit dem Basis-Firmware-Image ausgestattet sind erscheint dieses Menü nach dem Booten:



→ Settings

Hier die folgenden Menüs beachten, in denen man die Voreinstellungen durchführen kann:

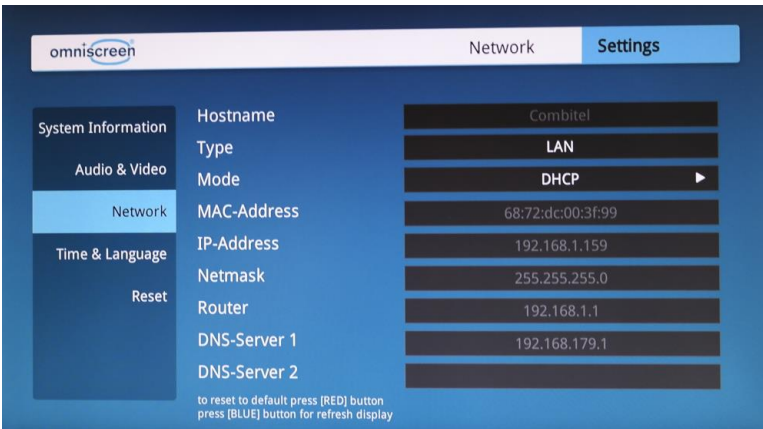
Here note the following menus where you can perform the presets:



See also Audio / Network / Time & Language ...

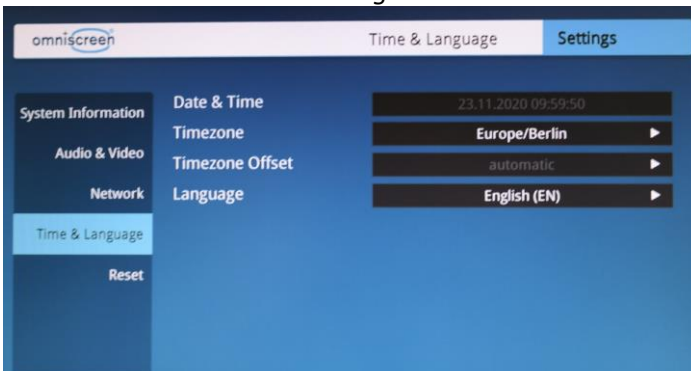


Or set to STEREO=PCM. In case of passthrough, the TV must do the Volume... but this will be reset in IPTV-patch



Hier sieht man die vom DHCP-Server bereitgestellte IP Adresse.

Shows actual DHCP given IP Address



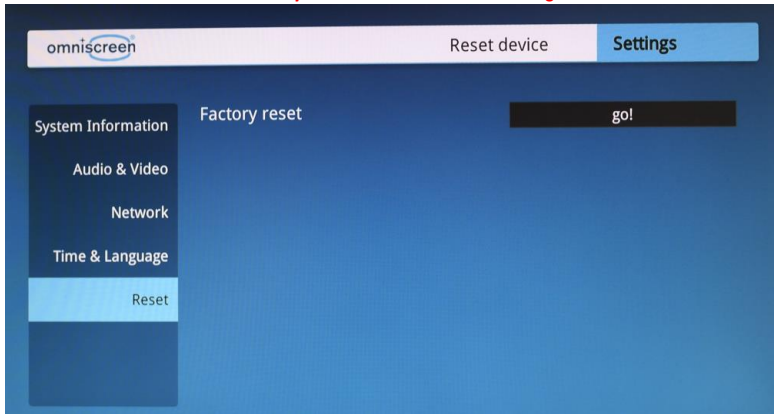
ACHTUNG:

Bitte nicht auf Factory zurück setzen!!!

Do not set back to factory!

Sonst muss man das Online ‚Be-tanken‘ komplett erneuern.

Otherwise you need to ONLINE flash it again.



Nun, nachdem man die IP Adresse kennt, (hier 192.168.1.159) benötigt man einen Linux-Rechner/Server oder z.B. einen Raspberry im gleichen Netz.

Now, after knowing the IP address (here 192.168.1.159) you need a Linux computer/server or e.g. a Raspberry in the same network.

If you need to switch back to this menu in an already IPTV-patched box, you need to change the hybridset.txt value 'key.portal' back to its former value

```
...  
[key]  
#key.portal=http://localhost/nanoapps/branded/brandeddashboard/index.html  
key.portal=http://localhost/developer/index.html  
key.info=http://  
# changes the startup of the Portal from the setup-portal to the simple IPTV-portal  
...
```

and reboot the box by Remote Control or enter into the box by SSH, than VI-Edit the hybridset.txt (which is a symlink in the root you are entering the box by SSH/Telnet:

Of course: user admin, password is O9kAdBQcTH7q3kNh (with an OOOHHH in front , not a Zero), accept the SSH-Key please

You will end up in /root folder:


```

login as: admin
admin@192.168.1.81's password:
execute ~/.profile ...
execute ~/.bashrc ...
# ls -la
drwxr-xr-x  11 root    root      1744 Jul 27  2015 .
drwxr-xr-x  20 client  1001     1472 Jul 27  2015 ..
-rwxr-xr-x   1 root    root      199 Sep 17  2014 .bash_profile
-rwxr-xr-x   1 root    root      101 Sep 17  2014 .bashrc
-rwxr-xr-x   1 root    root      170 Sep 17  2014 .profile
-rwxr-xr-x   1 root    root      112 Apr 21  2015 311336
-rwxr-xr-x   1 root    root      112 Apr 21  2015 311713
-rwxr-xr-x   1 root    root      112 Apr 21  2015 311715
drwxr-xr-x   4 root    root      320 Jul 27  2015 abox42
drwxr-xr-x   3 root    root      240 Jul 27  2015 branded-apps
-rwxr-xr-x   1 root    root      161 Apr 21  2015 fakentp.sh
drwxr-xr-x   3 root    root      224 Jul 27  2015 fonts
lrwxrwxrwx   1 root    root        40 Jul 27  2015 hybridset.txt -> /opt/d
ata/settings/tv2next/hybridset.txt
drwxr-xr-x   2 root    root      232 Jul 27  2015 iframe
-rwxr-xr-x   1 root    root     1412 Apr 21  2015 inputkey.txt
-rwxr-xr-x   1 root    root    5323780 Apr 21  2015 mipsel-linux-staticrcsp
receiver
drwxr-xr-x   2 root    root      376 Jul 27  2015 portalstack
-rwxr-xr-x   1 root    root      660 Jun 24  2015 rc.user
drwxr-xr-x   2 root    root      376 Jul 27  2015 tndlna
drwxr-xr-x   2 root    root      232 Jul 27  2015 tnllauncher
-rwxr-xr-x   1 root    root    150734 Jul 27  2015 tnnnetconnect.out
drwxr-xr-x   2 root    root      224 Jul 27  2015 tnodvb
drwxr-xr-x   2 root    root      232 Jul 27  2015 tnuupnp
-rwxr-xr-x   1 root    root     1631 Apr 21  2015 udhccp.sh
-rwxr-xr-x   1 root    root    2764854 Apr 21  2015 wl_logo.bmp

```

Do vi hybridset.txt : enter into insert mode by 'i'

```

[network]^M
network.prefdns=8.8.8.8^M
network.ntp=time.windows.com^M
#network.ntp=192.53.103.108^M
#network.ntp=time.abox42.com^M
#network.ntp=192.168.1.255^M
#example for local ntp from eg. raspi4 with ntp browsing^M
# modifiziert for test RR^M
^M
[key]^M
#key.portal=http://localhost/nanoapps/branded/brandeddashboard/index.html^M
key.portal=http://localhost/developer/index.html^M
key.info=http://^M
# startet das portal - hier auf simple PlugandplayIPTV umgebogen^M
^M
[apps]^M
# the app which will be activated when the box startup.^M

```

FirstRunApp=portalstack^M

...

Simply erase the # in front of the key.portal= (do not be irritated by the ^M, that's from the linux editor used before to do a Carriage Return ;-)

```
key.portal=http://localhost/nanoapps/branded/brandeddashboard/index.html^M
#key.portal=http://localhost/developer/index.html
```

Then leave the vi 'Insert-Mode' by ESC-key, enter ':' than w (like write), -> Enter, ':' again qith q



Now you must kill portalstack and reload it than: so you enter 'ps aux':

```
root 835 0.0 0.0 0 0 ? S 12:58 0:00 [CmdProcessor]
root 836 0.0 0.0 0 0 ? S 12:58 0:00 [StatusMonitor]
root 3654 0.7 0.2 1800 700 ? Ss 13:55 0:05 /usr/local/sbin/dropbear -E -r /tmp/dropbear_rsa_host_key
root 4268 0.0 0.4 2024 1096 pts/1 Ss 13:56 0:00 -sh
root 13580 2.4 18.9 537640 51188 ? Sl 13:37 0:46 /root/portalstack/portalstack.out
root 13581 0.0 0.1 1528 376 ? S 13:37 0:00 logger
root 14246 0.0 0.0 0 0 ? S 14:04 0:00 [flush-ubifs_1_0]
root 19688 0.0 0.2 1644 556 pts/1 R+ 14:08 0:00 ps aux
root 21001 0.2 0.2 1800 700 ? Ss 13:16 0:06 /usr/local/sbin/dropbear -E -r /tmp/dropbear_rsa_host_key
root 21609 0.0 0.4 2024 1104 pts/0 Ss+ 13:16 0:00 -sh
#
```

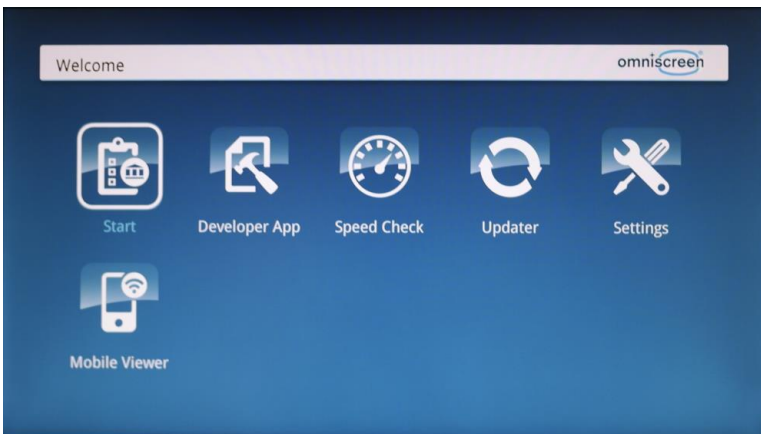
The PID of portalstack.out is 13580 in this case.

Just enter 'kill 13580'

The TV screen becomes black now and after a few seconds portalstack will come back (check ps aux in the box):

```
root 21609 0.0 0.4 2024 1104 pts/0 Ss+ 13:16 0:00 -sh
root 22303 23.7 27.2 564564 73604 ? Sl 14:11 0:14 /root/portalstack/portalstack.out
root 22304 0.0 0.1 1528 376 ? S 14:11 0:00 logger
root 22379 0.0 0.0 0 0 ? S 14:11 0:00 [flush-ubifs_2_0]
root 22380 0.0 0.0 0 0 ? S 14:11 0:00 [flush-ubifs_1_0]
root 23569 0.0 0.2 1644 556 pts/1 R+ 14:12 0:00 ps aux
#
```

The PID number has now been changed of course ;-) to 22303 now but loads the setup-portal:



Change your settings like Language or whatever... (see above).

To enable back the user-simple IPTV-Menu just do this again by vi and changing the '#' of both values in hybridset.txt and kill 'portalstack' again (will reload itself automatically each time).

And the IPTV start-screen will come back after a few seconds...:



Preliminaries / Voraussetzungen:

Preparing a workstation for further software installation and maintenance for the boxes

Note: Apple MacBook was used to prepare these instructions.

2.1. Accessing Terminal:

*the following commands should be performed on the command line, through 'terminal'. To access **terminal**: Applications -> Utilities -> Terminal

2.2. Checking the requirements:

You need to check whether you have the following requirements installed; if they are not present, you need to install them. To check whether they're installed, type in the command and if a version or a set of other commands is returned, proceed to the next manual. Otherwise, to the next step.

- bash
- curl
- expect
- ssh

2.3. If one of the requirements is not installed.

Make sure you download these requirements on the command line.

- Bash, curl and ssh should already be present within the (MAC) machine
- To download expect, run this in the command line:

\$ brew install expect

2.4. Once requirements are installed:

- If your outputs mirror those of the pictured command line display, you can proceed to the next manual.

```

[Victoria-MBP:~ sylvie$ bash
[bash-3.2$ exit
exit
[Victoria-MBP:~ sylvie$ curl
curl: try 'curl --help' or 'curl --manual' for more information
[Victoria-MBP:~ sylvie$ expect
expect1.1> exit
[Victoria-MBP:~ sylvie$ ssh
usage: ssh [-46AaCfGgKkMnQsTtVvXxYy] [-B bind_interface]
          [-b bind_address] [-c cipher_spec] [-D [bind_address:]port]
          [-E log_file] [-e escape_char] [-F configfile] [-I pkcs11]
          [-i identity_file] [-J [user@]host[:port]] [-L address]
          [-l login_name] [-m mac_spec] [-O ctl_cmd] [-o option] [-p port]
          [-Q query_option] [-R address] [-S ctl_path] [-W host:port]
          [-w local_tun[:remote_tun]] destination [command]
Victoria-MBP:~ sylvie$ █

```

Factory Reset. We do not recommend to do this after the 30th June 2022 because the Update server will be switched off and the box will get no firmware any more.

If required, you are able to reset the Abox42 to its factory settings.
 Power on STB by pressing the power button. Immediately press the power button again and hold for at least 20 sec.
 Sometimes manual factory reset won't work on first try. You may have to give it a few attempts.

SSH connectivity and commands.

User: **admin** Password: **O9kAdBQcTH7q3kNh**

'O' not '0' !!! so an OOhh, not a zero

Usefull ssh commands with php commandline but you need to know their variables...:

- **Factory reset:**
 php -r 'tnccommon_startfactoryreset(0, "AreYouSure");'
- Disable screensaver (ON by default):
 php -r 'tnccommon_enablescreensaver(0);'
- Print available php tnccommon api functions:
 php -r 'print_r(get_extension_funcs("tnccommon"));'

.....

you can create at least a listing in the box

For the FTP access to the Box:

abox ftp - pw

admin

O9kAdBQcTH7q3kNh

After it has been IPTV-patched, the FTP user/password can be left empty

The boxes NAND FS is used with UBI:

http://www.linux-mtd.infradead.org/doc/ubi.html#L_autoresize

IPTV open filesystem backup-ed to a USB-Pendrive which will be mounted when plugin as

/mnt/hdd_01

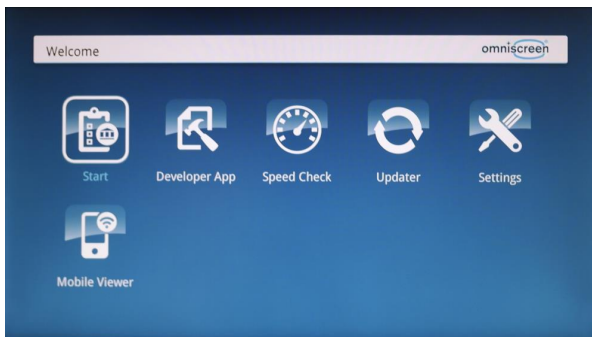
Supporting FAT and E2FS ext2/3/ 4(maybe).

For such action ext2 is OK.

Introduction

The Standalone IPTV package provides the ability to receive IPTV channels streamed over UDP/IP multicast directly through Omniscreen M15 Series STB. The steps below show you how to configure a STB to simply stream the input channels.

Please note, you must complete the Initial Setup and firmware download from the pre-programmed server prior to performing this procedure when using STB for the first time. See above, boot screen must be:



IRENIS can deliver them with this naked first start Firmware and you patch it by yourself to the needs like NTP server address etc. ... by modifying its hybridset.txt which will be transmitted with the IPTV script as well:



hybridset.txt

Parts of it:

```
[network]
#network.prefdns=208.67.222.222 # this is openDNS US
network.prefdns=9.9.9.9
#network.ntp=time.abox42.com
#network.ntp=192.53.103.108
network.ntp=time.windows.com
# hier sollten lokale Daten rein: DNS kann z.B. weltweit der Google sein
8.8.8.8 oder neutral 9.9.9.9, NTP Server sollte ein lokaler genommen
werden.
# Kommentarzeilen die vom linux ignoriert werden fangen mit der Raute an

[key]
#key.portal=http://localhost/nanoapps/branded/brandeddashboard/index.html
key.portal=http://localhost/developer/index.html
key.info=http://
# was das macht weiss ich nicht

[apps]
# the app which will be activated when the box startup.
FirstRunApp=portalstack
# the app which will be run
# for example: if we define RunPortal=portalstack, it means there is a
portalstack directory under rootfs/root, a portalstack.sh file under the
portalstack directory, support to start/stop/restart the subsystem.
# And the app name of portalstack is /dbus/portalstack, the dbus name of
portalstack is dbus.Portalstack, the path name of portalstack is
/dbus/Portalstack, the interface name of portalstack is dbus.App
RunPortal=portalstack

# im Folgenden sollte z.B. die Timezone gesetzt werden - was das im
einzelnen alles macht weiss ich nicht
[nano]
nano_enable=1
serviceprovider=abox42
hddsys_enabled=0
#nano_hdd=/mnt/HDDSYS
hddsys_encrypted=0
hddsys_install_app=0
#timezone=Australia/Canberra
timezone=Europe/Berlin
language=en
#language=de
currency=eur
developermode=0
bundle_list=m20-webkit
bundle=default-m20-webkit
```

```
welcomevideo.url=/nano-  
lamp/var/www/htdocs/nanoapps/abox42/apps/userhomedashboard/img/welcome.mp4  
app_auto_update=0  
app_hourly_updates=0  
# url which is used to check if box is online  
#online_check_url=http://check.abox42.com  
online_check_url=https://web.de  
# timeout for check_url request  
online_check_timeout=5  
# ttl for entry in apc cache - check interval is calculated from this  
value (50%)  
online_check_apc_ttl=30  
# configure timeout for ajax call for installing/updating nano apps  
(default 90 seconds)  
app_install_or_update_ajax_timeout=90  
# configure url of red button loop video  
loopvideo.stream=http://localhost/api/device/img/loop.mov  
# enable (1) or disable (0) auto_install  
app_auto_install_on_boot=1  
# enable (1) or disable (0) firmware version check (and update) on boot  
fw_version_check=0  
# enable (1) or disable (0) SSI version check (and update) on boot  
ssi_version_check=0  
# change language in expert - enabled(1) or disabled(0)  
language_chooser_is_enabled=1  
# get statistical informations via diagstat_module - 0=disabled 1=enabled  
statistics_enabled=0  
# enable facebook registration - 0=disabled 1=enabled  
#facebook_enabled=1  
#facebook_blue_button_enabled=1  
facebook_enabled=0  
facebook_blue_button_enabled=0  
...  
...
```


Preparing for installation.

1.1. Download the package into the same directory (folder):

[abox_42 IPTV setup.tar.gz](#)

Name	Größe	Gepackte Größe	Geändert am	Zugriffsrechte	Besitzer	Gruppe
abox_42 IPTV setup.sh	958	1 024	2019-11-01 01:00	-rwxr-xr-x	stilia	staff
channelgroups-1.0.0.json	248	512	2019-11-01 00:59	-rw-r--r--	stilia	staff
channels-1.0.0.json	540	1 024	2019-11-01 00:59	-rw-r--r--	stilia	staff
hybridset.txt	10 625	10 752	2019-11-01 01:54	-rw-r--r--	stilia	staff
iptv_package.tar.gz	1 690 078	1 690 112	2019-11-01 00:39	-rw-r--r--	stilia	staff

iptv_package.tar.gz contains: The new Scripts and start screen etc...

Name	Größe
res	2 542 864
..	212
._index-1.0.0.php	212
._index.html	212
._res	212
index-1.0.0.php	15 554
index.html	163
...	

The **hybridset.txt** should be manipulated to own needs:

Example: The first lines should be changed to own values:

```
[network]
network.prefdns=208.67.222.222
network.ntp=time.abox42.com
```

...

See also complete default hybridset.txt file content at the end of this document. Some values should be disabled and not used – we do not take any responsibilities for the modifications which cause errors or are wrong. Try and Error is the key.

1.2. Change directory into the same directory as the package. Example folder:

folder_with_files

```
[Victoria-MBP:~ sylvie$ cd folder_with_files
Victoria-MBP:folder_with_files sylvie$
```

1.3. Run command to un-tar the file:

```
$ tar -xzvf abox_42_iptv_setup.tar.gz
```

```
Victoria-MBP:~ sylvie$ tar -xzvf abox_42_iptv_setup.tar.gz
x ./
x ./hybridset.txt
x ./abox_42_iptv_setup.sh
x ./iptv_package.tar.gz
x ./channelgroups-1.0.0.json
x ./channels-1.0.0.json
```

1.4. Run the command to change permissions:

```
$ chmod 755 abox_42_iptv_setup.sh
```

Multicast IPTV Channel Configuration

The file channels-1.0.0.json can be modified to add/remove/edit multicast TV channels. Use a common Linux text editor to edit the file.

```
{
  "name": "World Movies",
  "slug": "World Movies",
  "streamurl": "udp://239.10.6.34:12345",
  "language": ["en"],
  "audio": "stereo",
  "text": false,
  "subtitle": false,
  "group": "tv",
  "loop": false
},
{
  "name": "7TWO",
  "slug": "7TWO",
  "streamurl": "udp://239.10.6.14:12345",
  "language": ["en"],
  "audio": "stereo",
  "text": false,
  "subtitle": false,
  "group": "tv",
  "loop": false
},
}
```

- To add a channel, copy the whole bracketed section (starting with ‘{’ bracket and ending ‘}’ bracket with everything in between. Following with a comma.
- Change the channel “name” and “slug” lines to the name of the channel you’re trying to create.
- Add the UDP stream address to the “streamurl” line between the quotation marks and followed with a comma.
- The rest of the details should only be altered per user preference. Subtitles can be added as an example.

The file channelgroups-1.0.0.json is used to add/remove/edit channel groups:

```
[
  {
    "name": "EMPTY",
    "slug": "empty",
    "channels": [],
    "group": "empty"
  },
  {
    "name": "Main Channels",
    "slug": "allchannels",
    "channels": [0],
    "group": "tv"
  },
]
```

- Change the “name” to the category name of your choosing.
- “channels” should be filled with numbers separated by a comma of the desired channels for that group. The numbers correlate to the order they are input into the “channels-1.0.0.json” file. Count starts at 0.

Configuring specific STB with the new channel list

Finally, run this script to configure and setup the ABOX with the IPTV package:

`$/abox_42_ipvtv_setup.sh <IP of the STB>`

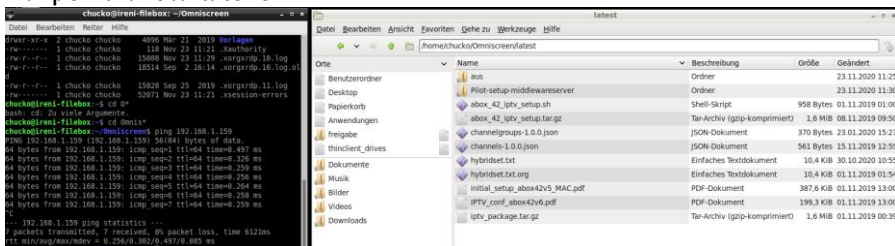
- Example IP: 172.16.3.163
- Example script: `$/abox_42_ipvtv_setup.sh 172.16.3.163`
- You should see this sequence follow those commands:

```

Victoria-MBP:~ sylvie$ ./abox_42_iptv_setup.sh 172.16.3.163
Uploading files...
Updating ABOX42 172.16.3.163...
Refreshing 172.16.3.163...
done

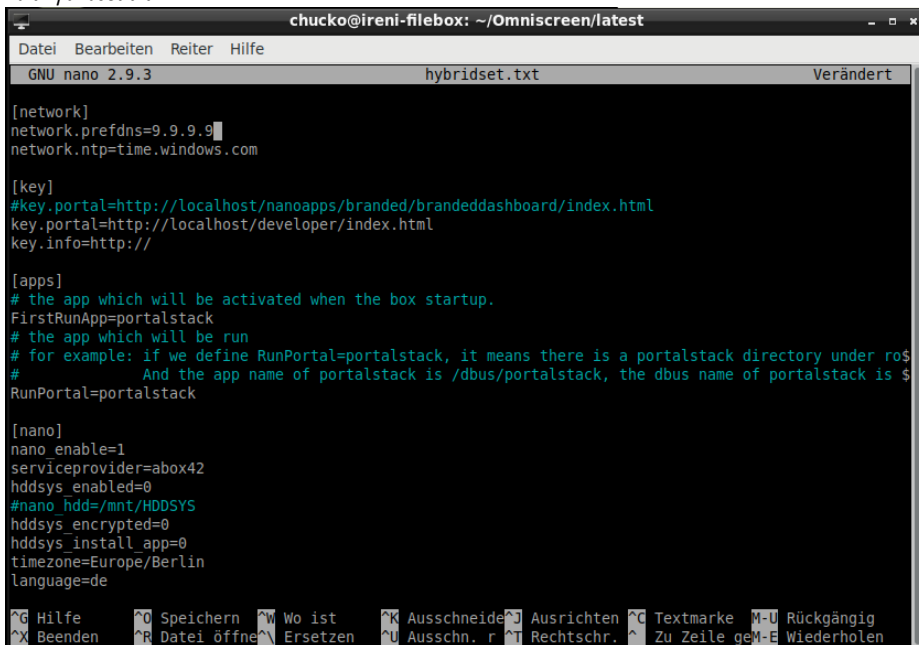
```

Example with an Ubuntu server:



Ping the box, if in reach we can use the script to make it an IPTV-Basic box:

Edit hybridset.txt:



Maybe change DNS address....

Whatever...

Now we can use the script:

```

chucko@ireni-filebox: ~/Omniscreeen/latest
Datei Bearbeiten Reiter Hilfe
64 bytes from 192.168.1.159: icmp_seq=5 ttl=64 time=0.264 ms
64 bytes from 192.168.1.159: icmp_seq=6 ttl=64 time=0.258 ms
64 bytes from 192.168.1.159: icmp_seq=7 ttl=64 time=0.259 ms
^C
--- 192.168.1.159 ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6121ms
rtt min/avg/max/mdev = 0.256/0.302/0.497/0.085 ms
chucko@ireni-filebox:~/Omniscreeen$ nano hybridset.txt
chucko@ireni-filebox:~/Omniscreeen$ ls -la
insgesamt 12
drwxrwxr-x 3 chucko chucko 4096 Nov 23 11:34 .
drwxr-xr-x 21 chucko chucko 4096 Nov 23 11:25 ..
drwxrwxr-x 4 chucko chucko 4096 Nov 23 11:30 latest
chucko@ireni-filebox:~/Omniscreeen$ cd latest
chucko@ireni-filebox:~/Omniscreeen/latest$ nano hybridset.txt
chucko@ireni-filebox:~/Omniscreeen/latest$ ls -la
insgesamt 3952
drwxrwxr-x 4 chucko chucko 4096 Nov 23 11:36 .
drwxrwxr-x 3 chucko chucko 4096 Nov 23 11:34 ..
-rwxr-xr-x 1 chucko chucko 958 Nov 1 2019 abox_42_ipvtv_setup.sh
-rwxr-r-- 1 chucko chucko 1696072 Nov 8 2019 abox_42_ipvtv_setup.tar.gz
drwxrwxr-x 2 chucko chucko 4096 Nov 23 11:25 aus
-rw-r--r-- 1 chucko chucko 370 Jan 23 2020 channelgroups-1.0.0.json
-rw-r--r-- 1 chucko chucko 561 Nov 15 2019 channels-1.0.0.json
-rw-r--r-- 1 chucko chucko 10649 Nov 23 11:36 hybridset.txt
-rw-r--r-- 1 chucko chucko 10625 Nov 1 2019 hybridset.txt.org
-rwxr-r-- 1 chucko chucko 396939 Nov 1 2019 initial_setup_abox42v5_MAC.pdf
-rwxr-r-- 1 chucko chucko 204128 Nov 1 2019 IPTV_conf_abox42v6.pdf
-rw-r--r-- 1 chucko chucko 1690078 Nov 1 2019 iptv_package.tar.gz
drwxrwxr-x 2 chucko chucko 4096 Nov 23 11:30 Pilot-setup-middlewareserver
chucko@ireni-filebox:~/Omniscreeen/latest$ ./abox_42_ipvtv_setup.sh 192.168.1.159

```

->

```

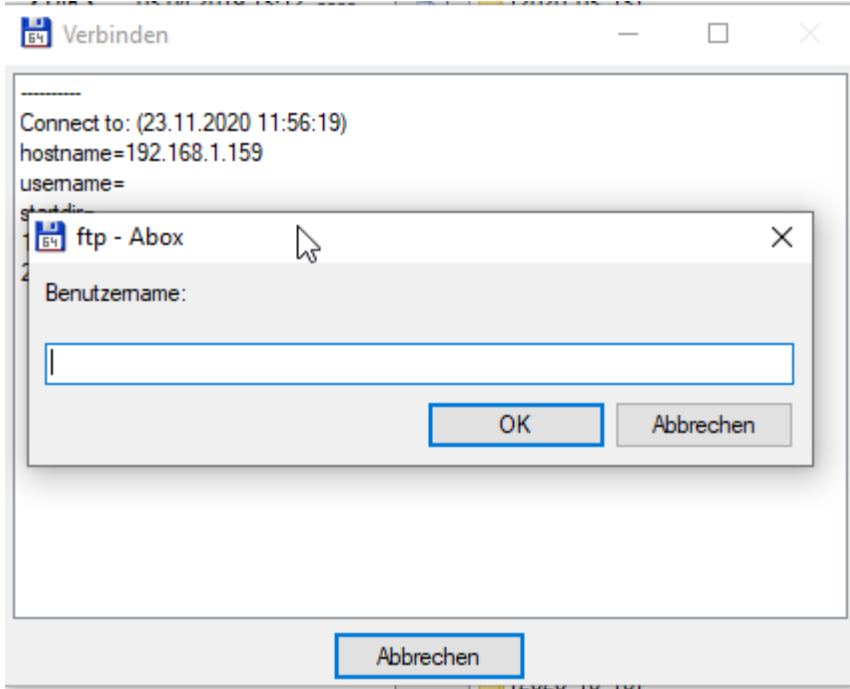
chucko@ireni-filebox:~/Omniscreeen/latest$ ./abox_42_ipvtv_setup.sh 192.168.1.159
Uploading files...
Updating ABOX42 192.168.1.159...
Refreshing 192.168.1.159...
done
chucko@ireni-filebox:~/Omniscreeen/latest$

```

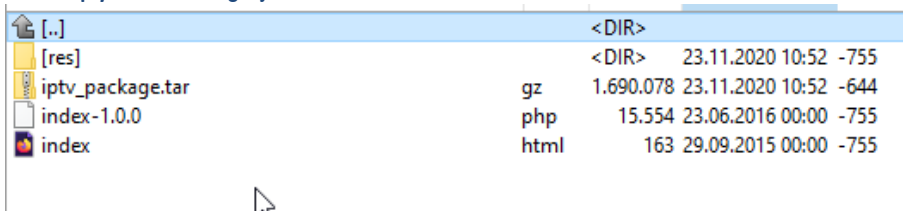
Box comes back with: Pressing the reload button on the remote control – reloads the channels –list and displays the intro.



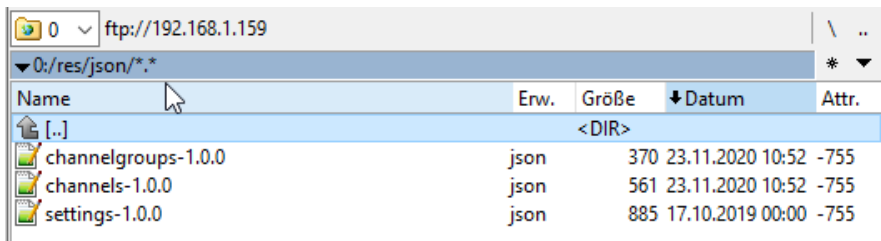
Now it can be accessed by FTP:



Just simply fill in nothing – just OK...



If you know what you are doing, you can change them to your needs...



Note all the *.json are Linux text files !!!

Note: Some Linux PC's (and also latest Rasbian PI) need a modified patch script to automatically store the SSH-key and accept it also automatically. -> See page 58 and 63

PAIRING THE REMOTE CONTROL WITH YOUR TELEVISION

Activating RF mode and pairing your remote and dongle:

The default setting of your remote control is in infrared mode (IR).

To activate the radio frequency (RF) mode, your remote control needs to be paired with the **dongle***. NOTE: For pairing, the remote must be within 1m of the SetTopBox.

1. Make sure your USB-Dongle* is NOT plugged into the SetTopBox.
2. Turn on the SetTopBox & TV Set.
3. Hold the MENU+OK buttons together for 3 seconds.
4. After 3 seconds the SetTopBox LED blinks 5 times.
5. Release the buttons and RF pairing will begin.
6. Plug in the RF dongle into the USB port on the rear of the SetTopBox.
7. Once the pairing is complete, you will receive a message that your remote is connected to the SetTopBox. The SetTopBox LED on the remote control will provide 3 confirmation flashes. The LEDs will switch off to indicate the remote is RF mode.
8. If the pairing was not successful, TV- LED will provide an error blink. All LEDs are off. RC goes back to previous state, either IR mode or paired to previous SetTopBox.
9. When the remote control is in pairing mode, holding the "Last/Back" key for 3 seconds will stop pairing. The TV LED will provide an error blink.
10. In the event of unsuccessful pairing, retry the above steps.

***) In this version the dongle is not part of the package.**

Programming the remote control for your TV

1. Make sure the TV is turned ON.
2. Press and hold the digit '1' and digit '3' keys together for at least 3 seconds. After 3 seconds the TV-Power LED will blink twice and remain on.
3. Release the keys.
4. Enter the brand code for your television or '9999' to begin auto-search. When the digits are pressed, the TV-Power LED gives a short inverse blink. After the fourth digit, the remote checks if the 4-digit code is valid.
 - a. If the TV-Power LED gives confirmation blink and remains on, the search will include all code-sets that are linked to the selected brand.
 - b. If the code was not valid, the remote will give an error-blink and return to use-mode.
5. Press the TV-Power or Mute key continuously; after 2 seconds a Power Toggle or Mute IR-command is transmitted for the next universal code-set in the code-set list. The LED will turn off during transmission of the IR-command.
6. Continue pressing the button if the TV does not turn off or mute. The remote will then try the next universal code-set in the list for the selected brand. This process can take a couple of minutes.
7. When the TV turns off/mutes, release the TV-Power or Mute key. Releasing the TV-Power/Mute key confirms the current code-set.
8. Test your remote by pressing buttons: TV-Power, TV-Input, Volume-keys, and Mute.
9. Finalized your set-up by pressing the "SetTopBox ON/OFF" button.

NOTE

Once the remote is in Setup-mode and no keys are pressed for around 30 seconds, the remote gives an error blink and returns to use-mode. If this 30 seconds time-out elapsed while in step 6 or 7, then the new universal code set is programmed to non-volatile memory.

After a 2 second long press, Brand-/Auto search starts.

At any time during setup-mode before step 4, the user can abort set-up by pressing the "set-top box ON/OFF" button. When this happens, a confirmation blink is given. The remote will return to use mode and cancel changes.

If the user restarts a brand search (not auto search or 9999), by entering the same brand-ID as is currently programmed, the brand search will continue where it left off before.

After step 6, you may press digit '1' and '3' for more than 3 seconds. The remote control returns to step 3. If '1' and '3' are pressed during digit code entering (step 4) it will be treated as an invalid code.

TV-Marken – Brands und die KeyCodes zur Programmierung der Fernbedienung:

Brand	#	Brand	#
888	0006	Atec	0230
A.R. Systems	0012	Atlantic	0233
Accent	0019	Atori	0237
ACE	0026	Atoro	4518
Acer	0028	Auchan	0240
Acme	3521	Audiosonic	0264
Acoustech	5094	Audioton	0266
Acoustic Solutions	0032	Audiovox	0268
Action	0033	Audioworld	0269
Acura	0036	Ausind	0276
ADA	0038	Autovox	0280
ADC	0040	Aventura	0287
Addison	0043	Awa	0296
ADL	0045	Axxent	0302
Admiral	0046	Axxon	0303
Advent	0054	Ayomi	3525
Adyson	0058	B&D	3609
AEG	0059	Baier	0308
Afron	3470	Baihe	0309
Agashi	0063	Baihehua	4091
Agazi	3522	Baihua	4092
AGB	0064	Baile	0310
Agfaphoto	4766	Baird	0311
Aiko	0069	Bang & Olufsen	0314
Aim	0070	Baohuashi	0316
Airis	0071	Baosheng	0318
Aiwa	0072	Barco	0319
Akai	0074	BARON	3959
Akashi	0075	Base	0322
Akiba	0078	Basic Line	0325
Akira	0079	Bastide	0327
Akito	0082	Bauer	0329
Akura	0083	Baur	0331
Alaron	0085	Baysonic	0333
Alba	0086	Bazin	0335
ALBIRAL	3775	Beaumark	0340
Alcyon	0093	Beijing	0345
		Beko	0346
		Belson	0355
Belstar	0357	Cabletime	0457
BenQ	0359	Caihong	0462
Bensten	3559	Cailing	0463
Beon	0361	Caishi	0465
Berthen	0363	Caixing	4093
Best	0364	Cameron	4032
Bestar	0368	Camper	3911
Bestar-Daewoo	0369	Canal Digital	0476
Bestavision	0370	Capsonic	0486
Bestwell	3560	Carad	0488
Bigston	4519	Carena	0489
Binatone	0378	Carrefour	0492
Black Diamond	0384	Cascade	0496
Black Star	0386	Casio	0499
Blacktron	3526	Cat	0500
Blackway	0388	Catha	4094
Blaupunkt	0390	Cathay	0501
Blue Media	3378	Caton	4095
Blue Sky	0395	CCE	0504
Blue Star	0396	Celebrity	0509
Boca	0399	Celestial	0511
Boman	0402	cello	0514
		Centrex	0516
		Centrum	0519

Bondstec	0403	Centurion	0520
Boots	0405	Century	0521
Bork	3615	CGE	0523
BPL	0413	CGM	3449
Brandt	0416	Champion	0525
Brilliant	0422	Changcheng	0526
Brimax	3797	Changfei	0527
Brinkmann	0423	Changfeng	0528
Brionvega	0424	Changhai	0529
Britannia	0425	Changhong	0530
Broksonic	0432	Chaparral	0533
Brother	0433	Chengdu	0535
Bruns	0435	Chimei	3563
BskyB	0436	Ching Tai	0541
BSR	0437	Chuangjia	4096
BTC	0439		
Bush	0445		
Chun Yun	0545	Dainichi	0694
Chunfeng	0546	Dansai	0699
Chung Hsin	0547	Dansette	0701
Chungfeng	0548	Dantax	0702
Chunlan	4097	Datong	4991
Chunsun	0549	Datron	4201
CIE	4520	Datsura	0703
Cimline	0552	Dawa	0707
Cinex	0563	Daytek	0708
City	0569	Dayton	0709
Clarivox	0576	Daytron	0710
Clatronic	0581	Dayu	0711
Clayton	0582	De Graaf	0716
CMS	0590	DEC	0717
CMS Hightec	0591	Decca	0718
Coby	0597	Deitron	0722
Commercial Solutions	0615	Denko	0730
Concorde	0626	Denver	0733
Condor	0627	Desmet	0738
Conia	0628	Diamant	0746
Conrac	0632	Diamond	0747
Conrowa	0634	Dick Smith Electronics	0750
Contec	0635	Digatron	0751
Continental Edison	0637	Digihome	0758
Cosmel	0647	Digiline	0759
Crosley	0655	DigiMax	3808
Crown	0658	Digital Device	0770
CS Electronics	0663	Digital Life	0772
CTC	0664	Digitek	0779
CTC Clatronic	3527	Digitex	0780
C-Tech	0449	Digitor	0781
CTX	0665	Digix	3520
Curtis	0666	Dikom	3391
Curtis Mathes	0667	Dixi	0807
CWN	0668	DL	0810
CWR-Tech	4778	DMTech	0813
Cybertron	0675	Domeos	0817
Cytronix	0681	DongBao	4098
Daewoo	0692	Dongda	0820
Donghai	0821	Elmak	0907
DongHua	4099	Elonex	4019
Donglin	4100	Elta	0910
Drean	0832	Emerson	0917
DSE	0833	e-motion	3496
DTS	0837	Emperor	0921
Dual	0838	Energy Sistem	0926
Dual-Tec	3528	Envision	0933
Dumont	0840	Enzer	0934

Duongjie	4101	Epson	0937
Durabrand	0842	Erison	4057
Dux	0843	Erres	0942
D-Vision	0684	ESA	0943
DVX	0847	ESC	0945
DX Antenna	0849	Ether	0948
Dynatron	0855	Etron	0949
Dynex	3476	Eurofeel	0954
Dyon	4769	EuroLine	0955
E:max	0856	Euroman	0956
Easy Living	0860	Europa	0957
Ecco	0864	Europhon	0959
ECE	0865	Evelux	4783
Elbe	0880	Evesham	0972
Elbe-Sharp	3529	Evolution	0973
Elcit	0883	Excello	0975
Electa	3530	Expert	0976
Electrion	4787	Exquisite	0978
ELECTRO TECH	3531	Fagor Life	4102
Electroband	0888	Feilang	0990
Electrograph	0889	Feilu	0991
Electrohome	0890	Feiyan	0992
Electronic	4521	Feiyue	0993
Elekta	0895	Fenmenti	4103
Elektra	0896	Fenner	0994
Element	3477	Ferguson	0996
Elfunk	0899	Fidelis	4522
ELG	0900	Fidelity	0998
Elin	0902	Filmnet	0999
Elite	0903	Filsai	1000
Finlandia	1003	General Technic	1095
Finlux	1004	Genesis	1096
Fintec	1006	Genexxa	1097
Firstar	1007	Gericom	1103
Firstline	1008	GFM	3820
Fisher	1009	G-Hanz	3397
Flint	1014	Giant	1113
FNR	1016	GM	4523
Formenti	1023	GMG	4524
Formenti-Phoenix	1024	Gold	3823
Fortress	1027	Goldfunk	1135
Fraba	1030	GoldHand	1136
France Telecom	1033	Goldline	1138
Friac	1040	GoldStar	1140
Frontech	1042	Goodmans	1142
Fuchsware	3915	Gorenje	1144
Fujicom	1048	GP	1147
Fujitsu	1052	GPM	1149
Fujitsu General	1053	Gradiente	1151
Fujitsu Siemens	1054	Graetz	1152
Funai	1056	Granada	1154
Furi	1057	Grandin	1156
Furichi	1058	Great Wall	4105
FUTEK	3960	Gronic	1160
Futronic	1061	Grundig	1162
Gaba	4059	Grunkel	1164
Galaxi	1068	GVA	3510
Galaxis	1069	H & B	1171
Galeria	3633	Haaz	1172
Gangtai	4104	Haier	1175
Ganxin	1072	Haihong	1176
Gateway	1076	Haile	4106
GBC	1078	Haiyan	1177
GE	1081	Halcro	1178
Geant Casino	1082	Halifax	1179

GEC	1083	Hallmark	1180
Geloso	1087	Hammerstein	3636
General	1090	Hampton	1183
General Electric	1091	Hankook	1188
Hanns.G	3478	Huafa	1287
Hannspree	1189	Huanghaimei	1288
Hanseatic	1190	Huanghe	1289
Hantarex	1192	Huanglong	1290
Hantor	1193	Huangshan	1291
Harwa	1203	Huanyu	1292
Harwood	1204	Huaqiang	1293
Hauppauge	1206	Huari	1294
Havermy	1208	Hugoson	1297
HCM	1210	Huijiaban	4108
Hema	1222	Humax	1298
Hemmermann	1223	Huodateji	1302
Heran	3828	Hygashi	1308
Hewlett Packard	1229	Hyper	1309
HHB	1230	Hypson	1312
Hicon	1232	Hyundai	1315
Hifivox	1233	Iberia	1320
Higashi	1234	ICE	1324
Highlander	3829	ICE/ITS	4526
Highline	1236	ICeS	1325
Hikona	1237	ICT	1328
HiLine	3533	iDEAL	3641
Hinari	1243	ISonic	1334
Hisawa	1247	Iiyama	1335
Hisense	1249	Imperial	1346
Hisonix	4525	Imperial Crown	1347
Hitachi	1251	Indesit	1349
Hitachi Fujian	1252	Indiana	1350
Hitec	1253	Ingelen	1354
Hitsu	1257	Ingersol	1355
Hoehner	1262	Ingersoll	3642
Homita	4843	Inno Hit	1358
Hongmei	1272	Innova	1359
Hongyan	1274	Innovation	1360
Hornophon	1277	Innowert	1362
Hoshai	1278	Inotech	1364
Hotel TV	4107	Insignia	1368
HP	1283	Inspira	4296
Hua Tun	1286	INTER	4109
Interactive	3534	Kaisui	1471
Interbuy	1376	Kambrook	1473
Interfunk	1377	Kamosonic	3535
Internal	1379	Kamp	1475
International	1380	Kangchong	1476
Intervision	1386	Kanghua	1477
IR	4110	Kangli	1478
Irradio	1396	Kangwei	4115
IRT	1397	Kangyi	1479
Isukai	1402	Kansas Technologies	1481
IT	4111	Kapsch	1483
ITC	1404	Karcher	1484
ITS	1405	Kathrein	1486
ITT	1406	Kawa	1487
ITT Nokia	1407	Kawasho	1489
ITV	1408	Ken Brown	1499
JCB	1421	Kendo	1500
JDV	1423	Kennedy	1504
Jean	1424	Kennex	1505
JEC	1426	Kenstar	3756
JGC	1434	Keymat	3499
Jiahua	1435	Khind	1511

JiaLiCai	1436	KIC	1512
Jian Sheng	4112	Kingsley	1520
Jinfeng	1438	Kiota	1522
Jinhai	1439	Kioto	1523
Jinlipu	4113	Kiton	1525
Jinque	1440	Klarmax	4527
Jinta	1441	KLL	1531
Jinxing	1442	Kneissel	1535
Jinxingban	4114	Kobra	1537
JMB	1445	Kolin	1541
JNC	1446	Kolster	1543
Jocel	1448	Kongque	1545
JTV	3645	Konichi	1546
Jubilee	1460	Konig	1547
Juhua	1461	Konka	1548
JVC	1464	Korpel	1552
Kalge	1470	Korting	1554
Kosmos	1557	Lodos	1659
Kotron	1560	Loewe	1660
Koyoda	1561	Loewe Opta	3540
Kross	1571	Logik	1661
KTV	1572	Logix	1663
Kuaile	1573	Longjiang	1664
Kulun	1577	Luker	1673
Kunlun	1578	Luma	1674
Kuro	1579	Lumatron	1676
Kyoshu	1583	Lux May	1680
Kyoto	1585	Luxor	1683
L&S Electronic	1588	LXI	1686
LaSAT	1597	M Electronic	1688
Lavis	1602	Maaz	4529
Layco	4117	Madison	1698
Leader	1604	Magnadyne	1702
Lecson	1606	Magnafon	1703
Legend	1609	Magnavox	1706
Lenco	1615	Magnum	1709
Lenoir	1617	Mandor	1717
Lentec	3405	Manesth	1718
Lerico	4528	Manhattan	1719
Lesa	1622	Maqma	1722
Lexsor	1626	Marantz	1724
Leyco	1627	Marelli	1729
LG	1628	Mark	1731
LG/Goldstar	3536	Marks and Spencer	3585
Liesenk	3537	Mascom	1738
Liesenk & Tter	1630	Master's	1742
Liesenkotter	1631	Mastro	1743
Life	3538	Masuda	1744
Lifetec	1633	Matsui	1750
Lihua	1636	Matsushita	1751
Lloyds	3539	Maxam	3651
Lloyd's	1648	Maxdorf	1756
Local Calcutta TV	1651	Maxell	4477
Local Chennai TV	1652	Maxent	1757
Local India TV	1653	Maxim	1759
Local Malaysia TV	1656	Maxwell	1763
MCE	1766	Monix	4298
McMichael	1768	Moree	4565
Meck	1775	Morgans	3970
Mediator	1784	Morgan's	1875
Mediencom	1786	Motion	1877
Medion	1787	Motorola	1878
Medison	1788	MTC	1889
Megas	1792	MTEC	1890
Megatron	1795	MTlogic	1892

MEI	1796	Mudan	1896
Meile	1797	Multistandard	1904
MeiShi	4118	Multisystem	4121
Meletronic	3654	Multitec	1906
Melvox	1799	Multitech	1907
Memorex	1800	Murphy	1911
Memory	1801	Musikland	1915
Memphis	1802	Mx Onda	1919
Mengmei	4119	Myryad	1922
Mercury	1804	NAD	1926
Mermaid	1806	Naiko	1930
Merritt	3655	Nakimura	1933
Metronic	1809	Nanbao	1934
Metz	1810	Nansheng	1935
MGA	1811	Naonis	1936
Micromaxx	1822	Narita	1939
Microspot	3849	NAT	1941
Microstar	1827	National	1942
MicroTEK	1829	NEC	1950
Mikomi	1833	Neckermann	1951
Minato	1835	NEI	1952
Minerva	1838	NEO	3947
Ministry Of Sound	4247	Nesco	1960
Minoka	1840	Netsat	1966
Mirai	1849	NetTV	1967
Mitsai	3851	Network	1968
Mitsubishi	1855	Neufunk	1970
Mivar	1857	New Tech	1979
MoDeng	4120	New World	1980
Monaco	1868	Newave	1981
Nicamagic	1994	Optimus	2095
Nikai	4566	Optonica	2099
Nikkai	1998	Orava/OTF	4530
Nikkei	1999	Orbit	2103
Nikko	2000	Orion	2111
Nimbro	4065	Orline	2113
Nintaus	2006	Ormond	2114
Noblex	2013	Orsowe	2116
Nobliko	2014	Osaki	2118
Nogamatic	2016	Oscar	2120
Nokia	2017	Osio	2121
Norcent	2020	Oso	2122
Nordic	2021	Osume	2123
Nordmende	2022	Otake	2124
Nordvision	3543	Otic	2125
Normerel	2024	Otto Versand	2126
Nortek	3862	Oulin	4123
Novatronic	2035	Pacific	2135
Novex	4567	Packard Bell	2138
Novita	2037	Pael	2140
Nu-Tec	2048	Palladium	2145
O.K.Line	4301	Palsonic	2147
Oceanic	2061	Panache	4069
Odeon	2064	Panama	2149
Odys	4066	Panasonic	2153
Okana	4122	Panavision	2154
Okano	2065	Panda	2155
OKI	4067	PARK	3951
Olevia	2067	Pathe Cinema	2168
Omega	2072	Pathe Marconi	2169
Omni	2074	Pausa	2171
ONCEAS	3544	Peng Sheng	2181
Onei	4302	Penney	2182
Onida	2081	Pensonic	3778
Onimax	2082	Perdio	2185

Onn	3663	Perfekt	2186
Onwa	2087	Pershin	2188
Onyx	3864	Petters	2189
Opera	2090	Philco	2192
Philharmonic	2194	Proscro	2280
Philips	2195	Prosonic	2282
Phocus	2198	Protech	2284
Phoenix	2199	Proton	2288
Phonola	2201	Protron	2289
Phonotrend	2202	ProVision	2291
Pilot	2207	Pvision	2300
Pioneer	2212	Pye	2302
Pionier	2213	Pymi	2304
Plantron	2219	Qingdao	2308
Playsonic	2224	Quadro	4071
Polaroid	2230	Quandra Vision	3546
Polestar	4124	Quasar	2320
Policom	2231	Quelle	2322
Polyvision	4304	Questa	2324
Poppy	2236	Radialva	2329
Portland	2238	Radio	4128
Powerpoint	2241	Radiola	2330
Prandoni	4531	Radiomarelli	2331
Prandoni Prince	4125	Radionette	2332
Prandoni-Prince	2242	RadioShack	2333
Praxis	2243	Radiotone	2334
Precision	2244	Rank	2345
Premier	2248	Rank Arena	2346
President	2250	RBM	2350
Prima	2253	RCA	2351
PrimeView	3513	Realistic	2354
Princess	3514	Recco	2358
Pringston	2259	Recor	2359
Prinz	2260	Rectiligne	2362
Profekt	4126	Rediffusion	2364
Profex	2269	Redstar	2366
Profi	2270	Reflex	2368
Profilo	2272	Relisys	2374
Profitronic	2273	Remotec	2377
Proline	2274	Reoc	2379
Promac	3779	Revox	2383
Promax	2275	Rex	2385
Proscan	2279	RFT	2386
Rhapsody	2387	Sei-Sinudyne	2525
Rinex	2392	Seitech	3433
Risheng	4129	Seleco	2528
Rizhi	4130	Semivox	2529
R-Line	2327	Semp	2530
Roadstar	2398	Sencora	2531
Robotron	2401	Sentra	2534
Rolson	2410	Serie Dorada	2538
Rowa	2416	Serino	2539
Royal	2419	Seye	4131
Royal Lux	2420	Shancha	2546
RTF	3548	Shangguangdian	4132
Ruyi	2425	Shanghai	2547
Saba	2429	Shanshui	4133
Sagem	2434	Shaofeng	2549
Saige	2435	Sharp	2550
Saisho	2437	Shen Ying	2552
Saivod	2439	Shencai	2553
Salora	2443	Sheng Chai	3922
Sambers	2445	Sheng Chia	2554
Sampo	2446	ShengCai	4217
Samsung	2448	Shengli	4134

Sandra	2454	Shenyang	2555
Sanjian	2455	Sherwood	2557
Sansui	2458	Shinelco	4074
Santon	2459	Shintoshi	2564
Sanyo	2462	Shivaki	2567
Sanyuan	2464	Shiwan	4532
SBR	2492	Shorai	2569
Sceptre	2498	Show	2570
Schaub Lorenz	2500	Shuyuan	4135
Schneider	2501	Siam	2572
Scotch	2506	Siarem	2573
Scott	2508	Siemens	2574
Sears	2514	Siera	2576
Seaway	2515	Siesta	2577
Seelver	2520	Silva	2591
SEG	2522	Silva Schneider	2592
SEI	2524	Silver	2594
SilverCrest	2595	Squareview	2703
Singer	2599	Srypton	4138
Sinotec	2600	Ssangyong	2706
Sinudyne	2601	Stag	2711
Skantic	2605	Staksonic	2712
SKY	2610	Standard	2713
SKY Brasil	3923	Starlite	2728
Skysonic	2627	Starlux	4533
Skyworth	2631	Stenway	2739
Sliding	2635	Stern	2741
SLX	2638	Stevison	2742
S-Media	3515	Strato	2745
Soemtron	2647	Strong	2748
Sogera	2649	Stylandia	2752
Sogo	2650	Sunkai	2762
Solavox	2654	Sunny	2764
Sonawa	2663	Sunstar	2768
Songba	2665	Sunstech	2769
Songbai	4322	Sunwood	2772
Songdian	4136	Superla	2782
SongRi	4137	Superscan	2786
Soniko	2669	Supersonic	2787
Soniq	2670	SuperTech	2789
Sonitron	2671	Supervision	2791
Sonneclair	2673	Supra	2792
Sonoko	2675	Supratech	2793
Sonolor	2676	Supreme	2795
Sontec	2677	Susumu	2797
Sontech	3435	Sutron	2798
Sony	2679	SVA	2800
Sound & Vision	2680	Svasa	2801
Soundesign	2684	Sven	3886
Soundmaster	2685	Swedx	2803
Soundwave	2689	Swisstec	2806
Sova	2690	SWP	2807
Sowa	2691	Sydney	2808
Soyea	2692	Sylvania	2809
Soyo	2693	Symphonic	2810
Spectra	2697	Synco	2811
Sysline	2815	Tek	2892
Sytong	2820	Teknant	4534
T+A	2821	Teknika	2895
Tacico	2823	Tele+1	2900
Tactus	2825	Teleavia	2901
Tai Wah	4139	Telecor	2910
Tai Yi	2833	Telefunken	2914
Taishan	2835	Telefusion	2915
Talent	2838	Telegazi	2917

Tandberg	2842	Telemeister	2924
Tandy	2843	Teleopta	4535
Tantec	2845	Teleservice	2929
Targa	2847	Telesonic	2930
Tashiko	2850	Telestar	2931
Tatung	2852	Teletech	2934
TCL	2856	Teleton	2935
TCM	2857	Televideon	2938
Teac	2860	Televiow	2939
Teachimagen	4140	Televiso	2941
Tec	2861	Temco	2946
Tech Line	2863	Tempest	2948
Techica	2865	Tennessee	2952
Technema	2866	Tensai	2954
Technica	2868	Tenson	2955
Technics	2869	Tesla	3680
Technika	2870	Tesmet	3550
TechniSat	2873	Tevion	2962
Technisson	2874	Textet	2963
Techno	4076	Texla	2964
Technol Ace	2875	Thomson	2972
Technosonic	2878	Thorn	2974
Technotrend	2879	Thorn-Ferguson	2976
Technovision	4141	Tiane	2980
Techvision	4307	Tiankeban	4142
Techwood	2884	Tiny Digital	2987
Tecnimagen	2885	TMK	2994
Teco	2886	TML	2995
Tedelex	2889	Tobo	2999
Teiron	2891	Tokai	3001
Tokaido	3002	Venturer	3143
Tokyo	3004	Venus	4308
Tomashi	3006	Vestel	3148
Tongguang	3008	Vexa	3149
Tongtel	3010	Vibrant	3154
Top Show	3681	Victor	3155
Topline	3016	Videocon	3163
Toshiba	3021	Videologic	3165
Tosumi	3023	Videologique	3166
Towada	3028	Videosat	3170
Toyoda	3030	VideoSystem	3172
Trakton	3036	Videotechnic	3173
Trans Continens	3037	Videoton	3174
TRANS-continent	3039	Vidion	4498
Transfec	4143	Vidtech	3179
Transonic	3041	Viewsonic	3186
Transtec	3042	Viore	3192
Trevi	3682	Visa	3194
Triad	3049	Visiola	3197
Trident	3054	Vision	3198
Tristar	3057	Visorex	3206
Triumph	3058	Vistar	3207
Tuntex	3069	Vistron	3773
TVS	3081	Visual Innovations	4773
TVTEXT 95	3082	Vito	4310
Uher	3089	Vivax	3601
Ultra	3093	Vivo	4353
Ultravox	3095	Vizio	3211
UMC	3099	Vortec	3217
Unic Line	3100	Voxson	3220
Union	3781	VU	4078
United	3106	Vue	3225
Universal	3113	Walker	4311
Universum	3115	Waltham	3230
Univox	3116	Wards	3231

Urania	4536	Warumaia	3232
V7 Videoseven	3130	Watson	3233
VANGUARD	3450	Watt Radio	3234
Vegavox	4145	Waycon	3237
Wega	3238	Ytawai	3344
Wega Color	4146	Yuhang	3345
Wegavox	3239	YU-MA-TU	3603
Weipai	3241	Yüsmart	4777
Welltech	3244	Zanussi	3349
Weltblick	3245	Zenith	3356
Weltstar	3247	Zepto	4081
Westinghouse	3249	ZhuHai	3364
Weston	3251	Ziggo	4007
Wharfedale	3255	Zinwell	3365
White Westinghouse	3258	Zonda	3369
Wilson	3260		
Winco	3263		
Windsor	3265		
Windstar	3266		
Windy Sam	3267		
Winston	4537		
Wintel	3271		
Winternitz	4538		
World-of-Vision	3282		
Woxter	3286		
Wyse	3288		
Xenius	3297		
Xiahua	3299		
Xianghai	3300		
Xiangyang	3301		
Xiangyu	3302		
Xihu	3303		
Xinaghai	3304		
Xingfu	3305		
Xinghai	3306		
Xingmenban	4147		
Xingyu	3926		
Xinrisong	3308		
Xinsida	3309		
Xiron	4079		
XLogic	3310		
Xomax	3905		
Xoro	3315		
Xrypton	3317		
Xuelian	3320		
Yakumo	3324		
Yamaha	3326		
Yamishi	3328		
Yingge	3334		
Yokan	3335		
Yoko	3336		
Yonggu	3339		
Yorx	3340		
Youlanasi	3342		
Yousida	3343		

Content of the hybridset.txt-file for the IPTV patch script / Inhalt der hybridset.txt – Datei: (Achtung Zeilenumbrüche beachten (Linux) / Attention: CR/LF are here automatically set by Windows word processor)

```
[network]
#network.prefdns=208.67.222.222
network.prefdns=9.9.9.9
#network.ntp=time.abox42.com
#network.ntp=192.53.103.108
network.ntp=time.windows.com
# hier sollten lokale Daten rein: DNS kann z.B. weltweit der Google sein 8.8.8.8 oder neutral
9.9.9.9, NTP Server sollte ein lokaler genommen werden.
# Kommentarzeilen die vom linux ignoriert werden fangen mit der raute an

[key]
#key.portal=http://localhost/nanoapps/branded/brandeddashboard/index.html
key.portal=http://localhost/developer/index.html
key.info=http://
# was das macht weiss ich nicht

[apps]
# the app which will be activated when the box startup.
FirstRunApp=portalstack
# the app which will be run
# for example: if we define RunPortal=portalstack, it means there is a portalstack directory
under rootfs/root, a portalstack.sh file under the portalstack directory, support to
start/stop/restart the subsystem.
#
# And the app name of portalstack is /dbus/portalstack, the dbus name of
portalstack is dbus.Portalstack, the path name of portalstack is /dbus/Portalstack, the
interface name of portalstack is dbus.App
RunPortal=portalstack

# im Folgenden sollte z.B. die Timezone gesetzt werden - was das im einzelnen alles macht
weiss ich auch noch nicht
[nano]
nano_enable=1
serviceprovider=abox42
hdsys_enabled=0
#nano_hdd=/mnt/HDDSYS
hdsys_encrypted=0
hdsys_install_app=0
#timezone=Australia/Canberra
timezone=Europe/Berlin
language=en
#language=de
currency=eur
developermode=0
bundle_list=m20-webkit
bundle=default-m20-webkit
welcomevideo.url=/nano-
lamp/var/www/htdocs/nanoapps/abox42/apps/userhomedashboard/img/welcome.mp4
app_auto_update=0
app_hourly_updates=0
# url which is used to check if box is online
#online_check_url=http://check.abox42.com
online_check_url=https://web.de
# timeout for check url request
online_check_timeout=5
# ttl for entry in apc cache - check interval is calculated from this value (50%)
online_check_apc_ttl=30
# configure timeout for ajax call for installing/updating nano apps (default 90 seconds)
app_install_or_update_ajax_timeout=90
# configure url of red button loop video
loopvideo.stream=http://localhost/api/device/img/loop.mov
# enable (1) or disable (0) auto_install
app_auto_install_on_boot=1
# enable (1) or disable (0) firmware version check (and update) on boot
fw_version_check=0
# enable (1) or disable (0) SSI version check (and update) on boot
ssi_version_check=0
# change language in expert - enabled(1) or disabled(0)
language_chooser_is_enabled=1
# get statistical informations via diagstat_module - 0=disabled 1=enabled
statistics_enabled=0
# enable facebook registration - 0=disabled 1=enabled
```

```

#facebook_enabled=1
#facebook_blue_button_enabled=1
facebook_enabled=0
facebook_blue_button_enabled=0

## developer app:
## 1 == disable usage of external USB Stick for local apps (default is 0 == USB Stick is
required)
developer_without_usbstick=1

[saas]
## used for nano apps ---Software as a service???
#saas.lcm.url=https://m15.lifecycleabox42app.com/provisioning/
#saas.lcm.secret=abox42-m15prod-89be579233bba59c5324afed7d677331
#saas.signature.url=https://m15.signatureabox42app.com/api2/
#saas.signature.secret=abox42-m15prod-7a4aa6f2d119b38e10db5b8acb6fdc069
# saas.cm.url=https://m15.customersabox42app.com/api/
# saas.cm.secret=m15prod_a5850a50ff73c21c305247b59c326579
# saas.tvs.url=https://m15.tvservicesabox42app.com/api/
# saas.tvs.secret=m15prod_caf3fb45cb3a487a611e966d6d90c28b
# saas.reporting.url=https://m15.collectorabox42app.com/inbox

[Device]
# "none" is also valid value here
productname=Omniscreen OMM15-T2
marketing_version=1.10
retailer=BLANKOM
affiliate=BLANKOM
brand_key=COMB0017
brand_description=Combitel Branded

[system]
screensaver.timeout=300
screensaver.enable=0
screensaver.style=1
## standby.timeout is only used for some debug version
standby.timeout=0
## this will enable log printouts to syslog, normally locate in /var/log/messages
#enablelogs=1
enablelogs=0
## this will enable HDCP authentication
hdcpc.enable=1
system.defaultTimezone=Europe/Berlin
#system.defaultTimezone=Australia/Canberra

[user-agent]
## special useragent for certain hosts, they will be grouped by ^, different u separated by ^
will be used open url with hosts separated by ^, for example, url with host ce.radiotime.com in
second group will use the useragent in second group of specialuseragentvalue
## character & will be replaced by ; since content after ; will be discarded
## browser.useragent will be used as default useragent, priority of special useragent is higher
than default useragent
#browser.specialuseragenthosts=hbbtv.ardmediathek.de,itv.ard.de,*.hbbtv-
connect.de,*.rovicorp.com,hbbtv.swisstxt.ch,tv.iview.abc.net.au,tv.tenplay.com.au,hbbtv.switchm
edia.asia,hbbtv.freeviewplus.net.au^ce.radiotime.com,tv.tunein.com,hbbtv.prosieben.de,hbbtv.sat
1.de,hbbtv.kabeleins.de^*.maxdome.de,82.79.128.163^*.weepee.tv,*.my-stream.eu
#browser.specialuseragentvalue=Mozilla/5.0 (Embedded& Linux) AppleWebKit/534.34 (KHTML, like
Gecko& HbbTV/1.1.1 (stv2next&ABox42-M15&1.0.0&1.0.0)& en) Safari/534.34^Opera/9.80 (Linux& U&
HbbTV/1.1.1 (stv2n&videoweb&1.0.0&1.0.0)& en) Presto/2.8.115 Version/11.10^Mozilla/5.0
(Embedded& Linux) AppleWebKit/534.34 (KHTML, like Gecko& (stv2next&ABox42 m-series&1.0.0&1.0.0)&
en) Safari/534.34^Weebox (M12-1.0& 1.10 2030.2006.1947.0)/Browser Webkit 535.22
#browser.defaultuseragent=Mozilla/5.0 (Embedded& Linux) AppleWebKit/534.34 (KHTML, like Gecko&
(stv2next&ABox42-M15&1.0.0&1.0.0)& en) Safari/534.34
#player.specialuseragenthosts=*.weepee.tv,*.my-stream.eu
#player.specialuseragentvalue=Weebox (M12-1.0& 1.10 2030.2006.1947.0)/Player 1.0
#player.defaultuseragent=HbbTV/1.1.1 (stv2n&ABox42-M15&0.0.0&1.0.0) TV2PLAYER/0.0.0.1

[browser]
## 0: default value, disable going to brandedapp.url on startup.
## 1: enable going to brandedapp.url on startup.
startpage_enable=0
## only work when startpage_enable is 1.
#brandedapp.url=
## 0: default value, this parameter does not take effect and will be ignored.
## 1: go to url in /opt/data/settings/nano-htdocs/developer/STARTURL.TXT or brandedapp.url if
valid on startup.

```

```

## 2: go to index.html or index.php or deploy.php in /opt/data/settings/nano-htdocs/developer
if valid on startup.
check_starturl=0
## only valid when branded app url works.
## 0: default value, this parameter does not take effect and will be ignored.
## 1: will always go to branded app url on HOME key pressed.
browser.alwaysopenbrandedappurl=0
## only valid when branded app url works.
## 0: default value, will check network is valid or not before go to branded app url on
startup, if not valid then go to dashboard.
## 1: will not check network is valid or not, just go to branded app url on startup, if not
valid then go to network error page.
browser.disablenetworkvalidcheck=0
browser.pageLoadtimeout=30000
browser.errorpageurl=file:///webkit/webui/networkerror/index.html
browser.tabcontrolbarurl=file:///webkit/webui/tabcontrolbar/index.html
browser.stbprotocolsupport=1
browser.enable remotedebug=1
## 0: default value, all keys will be handled by default behavior in browser first, if browser
does not handle it then webpage will get keyinput.
## 1: all keys will be send to webpage first, if webpage handle it, default behavior in browser
will be prevented.
## 2: only back/reload/portal/mute/vol+/- will be send to webpage first, if webpage handle it,
default behavior in browser will be prevented.
## 3: only mute/vol+/-/power/back/teletext/reload will be send to webpage first, if webpage
handle it, default behavior in browser will be prevented.
browser.sentkeytopagefirst=1
## only valid when browser.sentkeytopagefirst is not 0.
## default behavior will be prevented in these hosts so disable sentkeytopagefirst feature to
make default behavior like HOME key work.
browser.keytopagefirstexhosts=*.maxdome.de
## back key will always be send to page in these hosts since it is required in certain apps
like kabelkiosk.
browser.alwaysssendbacktopagehosts=*ce.nowtilus.tv
browser.spatialnavdisabledhosts=*.youtube.com
## 0: disabled, browser validate certificates
## 1: default value, enabled, browser don't validate certificates
browser.insecure=0
## All HTTPS Certificates for all Hosts/Domains listed here (comma separated list, * wildcard
allowed) will not be validated.
browser.insecurehosts=localhost,json.bild.de
## used to set in which host webpage resource with following mimetypes will parsed as
"text/html".
## {"application/ce-html+xml", "application/vnd.hbbtv.xhtml+xml"}
browser.parsechtmlashtmlhosts=json.bild.de,hbbtv.wetter.com
## used to set in which host application manager plugin will be enabled.
browser.enableappmgrpluginhosts=www.tagesschau.de
## used to set in which host "keypress" event will be converted to "keydown" event to handle
key input correctly.
browser.converkeypresstokeydown=*.maxdome.de,*.kinderkino.de,*.mytvscout.de
## used to set in which application url the application will be blocked.
browser.blockedapplicationurls=http://hbbtv.free
## 1: use stream url from zattoo as channel bound in video/broadcast plugin
## 0: will not request stream url from zattoo
browser.bindbroadcastchannelviazattoo=0
## used to set which exclusive hosts should be set highlighted.
intelliHighlightedExHosts=localhost,*.tagesschau.de
## used to set in which hosts script inject is allowed.
scriptInjectedHosts=localhost,127.0.0.1

[proxy]
#proxy.server=192.168.2.100
#proxy.port=8888
#proxy.username=usr
#proxy.password=pwd
#proxy.excludedhosts=localhost,127.0.0.1

[vm]
#add verimatrix server IP and port here
#vm.server=74.62.179.31
#vm.port=12686

#server and port for vmx viewright web/ott
#vmweb.server=74.62.179.10
#vmweb.port=80

```

Beispiel der Channels- und Channel-groups-Dateien:

channelgroups-1.0.0.json *(see at the end, 3 embedded files)*

```
[
  {
    "name": "EMPTY",
    "slug": "empty",
    "channels": [1],
    "group": "empty"
  },
  {
    "name": "GER| Allgemein",
    "slug": "Deutsche, allgemeine Kanäle",
    "channels": [0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,50],
    "group": "galg"
  },
  {
    "name": "GER| Doku",
    "slug": "Deutsche Doku Kanäle",
    "channels": [29,30],
    "group": "gdok"
  },
  {
    "name": "GER| Entertainment",
    "slug": "Deutsche Unterhaltungs Kanäle",
    "channels": [31,32,33,34,35,36,37,38,39,40,41,42],
    "group": "gent"
  },
  {
    "name": "GER| Kinder",
    "slug": "Deutsche Kinder Kanäle",
    "channels": [43,44,45],
    "group": "gkid"
  },
  {
    "name": "GER| News",
    "slug": "Deutsche Nachrichten Kanäle",
    "channels": [46,47,48,49],
    "group": "gnew"
  },
  {
    "name": "GER| Radio",
    "slug": "Deutsche Radio Kanäle",
    "channels": [51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112],
    "group": "grad"
  },
  {
    "name": "WW| Docu",
    "slug": "Foreign Documentaries",
    "channels": [113,114,],
    "group": "wwdoc"
  },
  {
    "name": "WW| Entertainment",
    "slug": "Foreign Entertainment Channels",
    "channels": [115,116,117],
    "group": "wwent"
  },
  {
    "name": "WW| General",
    "slug": "Foreign General Channels",
    "channels": [127,128,129,130,131,132,133],
    "group": "wwgen"
  },
  {
    "name": "WW| News",
    "slug": "Foreign News Channels",
    "channels": [118,119,120,121,122,123,124,125,126],
    "group": "wwnew"
  }
]
```

Look a like on the box group selection menu / Das sieht dann auf dem Box-Menü so aus:
Menu-Change-Group (on Remote control: OK button than right arrow)

January 06, 2021 | 12:47 a.m.

Group

- ALL Channels
- GER | Allgemein
- GER | Doku
- GER | Entertainment
- GER | Kinder**
- GER | News
- GER | Radio
- WW | Docu
- WW | Entertainment
- WW | General
- WW | News



UN PEACEKEEPERS WERE DEPLOYED ACROSS THE CAPITAL BANGUI TO PREVENT DISRUPTION TO VOTING

ALJAZEERA

ASS 1.8 MILLION WITH MORE THAN 86 MILLION CASES - U.S. STATE OF CALIFORNIA REPORTS NEW RECO

CHANNELS / Die Kanalisten:

January 06, 2021 | 12:48 a.m.

Channel

GER | Allgemein

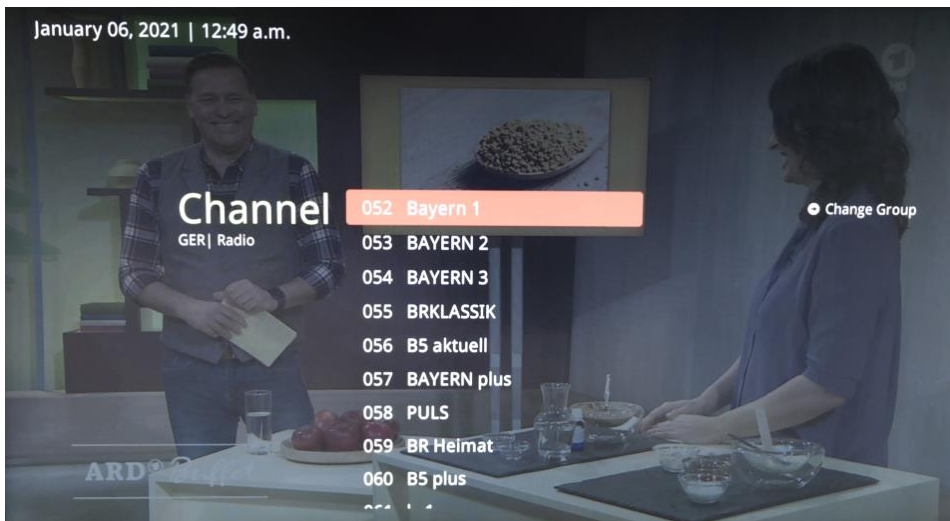
- 001 Das Erste HD**
- 002 ZDF HD
- 003 ZDFInfo HD
- 004 zdf_neo HD
- 005 arte HD
- 006 3sat HD
- 007 NITRO
- 008 ARDalpha HD
- 009 ONE HD

Change Group

ARD

Radio's:

January 06, 2021 | 12:49 a.m.



Background: The transparent current running channel

Example for a small > 100 Channel Setup from ASTRA 19,2°E and 13°E Hotbird with Radios and FreeToAir (FTA) channels) / Beispiel für ein kleines > 100 Kanäle Satelliten-Kanallistensetup (ASTRA/Hotbird) mit freien Kanälen und Radios:

channels-1.0.0.json

```
[
  {
    "name": "Das Erste HD",
    "slug": "ftv",
    "streamurl": "udp://230.1.1.1:10001",
    "language": ["de"],
    "audio": "stereo",
    "text": false,
    "subtitle": false,
    "group": "galg",
    "loop": false
  },
  {
    "name": "ZDF HD",
    "slug": "ftv",
    "streamurl": "udp://230.1.1.2:10002",
    "language": ["de"],
    "audio": "stereo",
    "text": false,
    "subtitle": false,
    "group": "galg",
    "loop": false
  },
  {
    "name": "ZDFinfo HD",
    "slug": "ftv",
    "streamurl": "udp://230.1.1.3:10003",
    "language": ["de"],
    "audio": "stereo",
    "text": false,
    "subtitle": false,
    "group": "galg",
    "loop": false
  },
  {
    "name": "zdf_neo HD",
    "slug": "ftv",
    "streamurl": "udp://230.1.1.4:10004",
    "language": ["de"],
    "audio": "stereo",
    "text": false,
    "subtitle": false,
    "group": "galg",
    "loop": false
  },
  {
    "name": "arte HD",
    "slug": "ftv",
    "streamurl": "udp://230.1.1.5:10005",
    "language": ["de"],
    "audio": "stereo",
    "text": false,
    "subtitle": false,
    "group": "galg",
    "loop": false
  },
  {
    "name": "3sat HD",
    "slug": "ftv",
    "streamurl": "udp://230.1.1.:10006",
    "language": ["de"],
    "audio": "stereo",
    "text": false,
    "subtitle": false,
    "group": "galg",
    "loop": false
  },
  {
    "name": "NITRO",
    "slug": "ftv",
    "streamurl": "udp://230.1.1.7:10007",
    "language": ["de"],
    "audio": "stereo",
    "text": false,
    "subtitle": false,
    "group": "galg",
    "loop": false
  },
  { ... und noch weitere knapp 100 Abschnitte ...
  },
]
```



channels-1.0.0.json

-> Click it -> please use *notepad++* or any Linux compatible editor



channelgroups-1.0.
0.json



hybridset.txt

This extracting of the embedded files do not work with PDF files!

Complete hybridset.txt content (the hybridset.txt can be exchanged in the box by simply using the script to IPTV again to the box... or using the curl...)

curl -s -T ./hybridset.txt [ftp://\\${ABOX42_IP}](ftp://${ABOX42_IP})

The script itself has to be initiated as executable with `chmod +x abox_42 iptv_setup.sh`

```
#!/bin/bash
ABOX42_IP=$1
echo "Uploading files..."
curl -s -T ./iptv_package.tar.gz "ftp://${ABOX42_IP}"
curl -s -T ./hybridset.txt "ftp://${ABOX42_IP}"
echo "Updating ABOX42 $ABOX42_IP..."
/usr/bin/expect <<EOD
log_user 0
spawn ssh -oStrictHostKeyChecking=no -oUserKnownHostsFile=/dev/null
admin@$ABOX42_IP
expect "password"
send "O9kAdBQcTH7q3kNh\r"
expect "# "
send "cat /opt/data/settings/nano-htdocs/developer/hybridset.txt > /root/hybridset.txt\r"
expect "# "
send "rm /opt/data/settings/nano-htdocs/developer/hybridset.txt\r"
expect "# "
send "cd /opt/data/settings/nano-htdocs/developer/ && tar xzf ./iptv_package.tar.gz\r"
expect "# "
send "exit\r"
EOD
curl -s -T ./channels-1.0.0.json "ftp://${ABOX42_IP}/res/json/"
curl -s -T ./channelgroups-1.0.0.json "ftp://${ABOX42_IP}/res/json/"
echo "Refreshing $ABOX42_IP..."
curl -d "url=http://localhost/developer/index.html" -X POST "http://$ABOX42_IP/api/dev-client/index.php/open"
echo "done"
```

The settings: The box can be accessed by SSH and FTP (FTP only to the basic IPTV

/res/folders):

SSH connectivity and commands.

User: admin

Password: O9kAdBQcTH7q3kNh

Changed settings are stored in a Flash part ubi1_0 linked to /opt/data/settings

```
# cd settings
# ls -la
drwxr-xr-x  9 root  root  2440 Feb 12 12:54 .
drwxr-xr-x  4 root  root  296 Jul 27 2015 ..
-rw-r--r--  1 root  root    1 Feb 12 12:49 Audio,HdmiMode
-rw-r--r--  1 root  root    1 Feb 12 12:49 Audio,SPDIFMode
-rw-r--r--  1 root  root    1 Feb 12 12:54 Network,DHCP
-rw-r--r--  1 root  root   13 Feb 12 12:53 Network,DNS1
-rw-r--r--  1 root  root    7 Feb 12 12:53 Network,DNS2
-rw-r--r--  1 root  root   28 Jan  1 1970 Network,Device
-rw-r--r--  1 root  root    1 Feb 12 12:53 Network,Encryption
-rw-r--r--  1 root  root   11 Feb 12 12:53 Network,Gateway
-rw-r--r--  1 root  root   13 Feb 12 12:53 Network,IP
-rw-r--r--  1 root  root   13 Feb 12 12:53 Network,NetMask
-rw-r--r--  1 root  root    1 Jan  1 1970 Network,NetworkStatus
-rw-r--r--  1 root  root    1 Jan  1 1970 Network,NetworkType
-rw-r--r--  1 root  root   13 Feb 12 14:47 Time,CountryCity
-rw-r--r--  1 root  root    5 Feb 12 12:54 Time,ForEnv
-rw-r--r--  1 root  root    9 Feb 12 14:47 Time,Zone
-rw-r--r--  1 root  root    1 Feb 12 12:49 Video,AspectRatio
-rw-r--r--  1 root  root    1 Feb 12 14:47 Video,Resolution
drwxr-xr-x  2 root  root  368 Feb 12 12:29 browser
-rw-r--r--  1 root  root    2 Feb 12 12:54 device,lang
-rw-r--r--  1 root  root   427 Jan  1 1970 dropbear_rsa_host_key
drwxr-xr-x  2 root  root  160 Jan  1 1970 lic
drwxr-xr-x  9 client 1001  632 Feb 12 12:28 nano-htdocs
drwxr-xr-x  3 client 1001  304 Feb 12 12:28 nano-lamp
-rw-r--r--  1 root  root    1 Feb 12 12:49 screensaver,enable
-rw-r--r--  1 root  root    3 Feb 12 12:49 screensaver,timeout
-rw-r--r--  1 root  root    3 Mar 19 2015 ssi,Marketversion
-rw-r--r--  1 root  root   16 Mar 19 2015 ssi,version
drwxr-xr-x  2 root  root  304 Feb 12 12:29 tnodvb
drwxr-xr-x  2 root  root  360 Jan  1 1970 tv2next
-rw-r--r--  1 root  root    1 Feb 12 12:28 update,available
drwxr-xr-x  3 root  root  736 Jan  1 1970 xml
# df -h
Filesystem      Size      Used Available Use% Mounted on
rootfs          114,1M    114,1M      0 100% /
ubi0_0          114,1M    114,1M      0 100% /
devtmpfs        64,0K      0      64,0K  0% /dev
tmpfs           64,0K      0      64,0K  0% /dev
tmpfs           131,7M     2,5M    129,1M  2% /tmp
tmpfs           64,0K      0      64,0K  0% /mnt
tmpfs           4,0M      36,0K   4,0M  1% /var
ubi1_0          111,1M    15,8M    90,6M  15% /opt/data/settings
ubi2_0          53,5M     60,0K   50,7M  0% /mnt/tnfs
#
```

Access to the box by SSH is possible even w/o the patched IPTV part.

Use Putty or Kitty as client:

SSH connectivity and commands.

User: admin

Password: O9kAdBQcTH7q3kNh

Usefull ssh commands with PHP can help you manage the box:

- Factory reset: `php -r 'tncommon_startfactoryreset(0, "AreYouSure");'`
- Disable screensaver (ON by default): `php -r 'tncommon_enablescreensaver(0);'`
- Print available php tncommon api functions:

`php -r 'print_r(get_extension_funcs("tncommon"));'` results in:

Array

(

```
[0] => tncommon_getdevicemodel
[1] => tncommon_gethwversion
[2] => tncommon_getswversion
[3] => tncommon_getserialnumber
[4] => tncommon_cleancookie
[5] => tncommon_capturescreen
[6] => tncommon_reboot
[7] => tncommon_debug
[8] => tncommon_setfsiupdateimageinfo
[9] => tncommon_startfsiupdate
[10] => tncommon_getfsiupdaterserverurl
[11] => tncommon_getupdateinfo
[12] => tncommon_getupdateleasenoteurl
[13] => tncommon_setssiupdateimageinfo
[14] => tncommon_startssiupdate
[15] => tncommon_getssiupdaterserverurl
[16] => tncommon_getssiversion
[17] => tncommon_getssiupdatestatus
[18] => tncommon_issvalid
[19] => tncommon_getnetworkinterfacecount
[20] => tncommon_getnetworkinterfacetype
[21] => tncommon_getnetworkinterfaceid
[22] => tncommon_getnetworkinterfacename
[23] => tncommon_getnetworkinterfaceconnectedstatus
[24] => tncommon_getnetworkinterfaceactive
[25] => tncommon_activatenetworkinterface
[26] => tncommon_startnetworkinterfaceactivate
[27] => tncommon_stopnetworkinterfaceactivate
[28] => tncommon_getnetworkinterfaceactivatestatus
[29] => tncommon_getnetworkinterfacedhcpstatus
[30] => tncommon_getnetworkinterfaceip
[31] => tncommon_getnetworkinterfacenetmask
[32] => tncommon_getnetworkinterfacegateway
[33] => tncommon_getnetworkinterfacemacaddress
```

[34] => tncommon_getnetworkinterfacedns1
[35] => tncommon_getnetworkinterfacedns2
[36] => tncommon_getnetworkinterfacedsid
[37] => tncommon_getnetworkinterfacepassword
[38] => tncommon_getnetworkinterfaceencryptiontype
[39] => tncommon_setnetworkinterfacedhcpstatus
[40] => tncommon_setnetworkinterfaceip
[41] => tncommon_setnetworkinterfacenetmask
[42] => tncommon_setnetworkinterfacegateway
[43] => tncommon_setnetworkinterfacemacaddress
[44] => tncommon_setnetworkinterfacedns1
[45] => tncommon_setnetworkinterfacedns2
[46] => tncommon_setnetworkinterfacedsid
[47] => tncommon_setnetworkinterfacepassword
[48] => tncommon_startapplynetworkconfiguration
[49] => tncommon_stopapplynetworkconfiguration
[50] => tncommon_getnetworkconfigurationapplystatus
[51] => tncommon_startnetworkwirelessscan
[52] => tncommon_stopnetworkwirelessscan
[53] => tncommon_getnetworkwirelessscanstatus
[54] => tncommon_getnetworkwirelessscancount
[55] => tncommon_getnetworkwirelessscanitemssid
[56] => tncommon_getnetworkwirelessscanitemsignalstrength
[57] => tncommon_getnetworkwirelessscanitemencryptiontype
[58] => tncommon_getnetworkwirelessscanitemwpsmodes
[59] => tncommon_startnetworkwpssearch
[60] => tncommon_stopnetworkwpssearch
[61] => tncommon_getnetworkwpssearchstatus
[62] => tncommon_getnetworkwpssearchconnectednetworkname
[63] => tncommon_getnetworkwpssearchnetworkpsk
[64] => tncommon_startfactoryreset
[65] => tncommon_getfactoryresetstatus
[66] => tncommon_disableonscreenkeyboard
[67] => tncommon_enableonscreenkeyboard
[68] => tncommon_setscreensavertimeout
[69] => tncommon_getscreensaverstatus
[70] => tncommon_enablescreensaver
[71] => tncommon_getscreensavertimeout
[72] => tncommon_cleanbrowserprivatedata
[73] => tncommon_capturescreenex
[74] => tncommon_getintellireferkey
[75] => tncommon_setintellireferkey
[76] => tncommon_getintellihosts
[77] => tncommon_setintellihosts
[78] => tncommon_getintellibackwardurl
[79] => tncommon_setintellibackwardurl
[80] => tncommon_getdevicelanguage

[81] => tncommon_setdevicelanguage
[82] => tncommon_set_http_accept_language
[83] => tncommon_getbootversion
[84] => tncommon_getnetworkwirelessitemdbflag
[85] => tncommon_getnetworkwirelessitempw
[86] => tncommon_delnetworkwirelessitemdbflag
[87] => tncommon_iscurrentwifihotspot
[88] => tncommon_get_native_tabs_count
[89] => tncommon_create_native_tab
[90] => tncommon_delete_native_tab
[91] => tncommon_show_native_tab_by_id
[92] => tncommon_hide_native_tab_by_id
[93] => tncommon_get_active_native_tab
[94] => tncommon_open_url_native_tab_by_id
[95] => tncommon_stop_native_tab_by_id
[96] => tncommon_reload_native_tab_by_id
[97] => tncommon_get_url_native_tab_by_id
[98] => tncommon_set_alias_native_tab_by_id
[99] => tncommon_get_alias_native_tab_by_id
[100] => tncommon_get_id_native_tab_by_alias
[101] => tncommon_getbrandkey
[102] => tncommon_hidemouse
[103] => tncommon_showmouse
[104] => tncommon_getmousestate
[105] => tncommon_getupdatepackagelist
[106] => tncommon_startupdate
[107] => tncommon_stopupdate
[108] => tncommon_getdownloadstatusfile
[109] => tncommon_enterstandby
[110] => tncommon_entersuspend
[111] => tncommon_leavesuspend
[112] => tncommon_getsuspendmodestate
[113] => tncommon_setstandbytimeout
[114] => tncommon_getstandbytimeout
[115] => tncommon_getinjectscript
[116] => tncommon_setinjectscript
[117] => tncommon_setfocusbyframeid
[118] => tncommon_isscreentransparent
[119] => tncommon_settimezone
[120] => tncommon_settimezone1
[121] => tncommon_gettimezone
[122] => tncommon_gettimezoneoffset
[123] => tncommon_getsupportedtimezone
[124] => tncommon_getdeviceinfobytype
[125] => tncommon_getntpserver
[126] => tncommon_setntpserver
[127] => tncommon_setcurrentchannelbytriplet

```
[128] => swig_tnCommon_alter_newobject
[129] => swig_tnCommon_get_newobject
)
#
```

Addendum for Linux servers where you can 'expect' problems with ssh login might not work because the shell script has to save the SSH key from the box by itself: filename: abox_42_iptv_setup.sh

```
#!/bin/bash
ABOX42_IP=$1
echo "Uploading files..."
curl -s -T ./iptv_package.tar.gz "ftp://${ABOX42_IP}"
curl -s -T ./hybridset.txt "ftp://${ABOX42_IP}"
echo "Updating ABOX42 $ABOX42_IP..."
/usr/bin/expect -d <<EOD
log_user 0
set timeout -1
# set ssh_options "-oKexAlgorithms+=diffie-hellman-group1-sha1"
spawn ssh -oKexAlgorithms+=diffie-hellman-group1-sha1 admin@$ABOX42_IP
sleep 2
# sleep is just for slowing down the process
expect "*"
send "y\r"
sleep 1
expect "fingerprint"
send "yes\r"
sleep 1
expect "password"
sleep 1
send "O9kAdBQcTH7q3kNh\r"
expect "# "
sleep 1
send "cat /opt/data/settings/nano-htdocs/developer/hybridset.txt >
/root/hybridset.txt\r"
expect "# "
send "rm /opt/data/settings/nano-htdocs/developer/hybridset.txt\r"
sleep 1
expect "# "
send "cd /opt/data/settings/nano-htdocs/developer/ && tar xzf
./iptv_package.tar.gz\r"
expect "# "
send "exit\r"
EOD
sleep 1
curl -s -T ./channels-1.0.0.json "ftp://${ABOX42_IP}/res/json/"
sleep 1
curl -s -T ./channelgroups-1.0.0.json "ftp://${ABOX42_IP}/res/json/"

echo "Refreshing $ABOX42_IP..."
sleep 1
curl -d "url=http://localhost/developer/index.html" -X POST
"http://$ABOX42_IP/api/dev-client/index.php/open"
echo "done"
-----
```

Example: Rasbian PI OS (Debian Buster) needs this modification to accept the fingerprint and stores it in the user sub-folder:

/home/pi/.ssh/

With a

config file

contains

```
Host 192.168.1.0/24
```

```
KexAlgorithms + diffie-hellman-group1-sha1
```

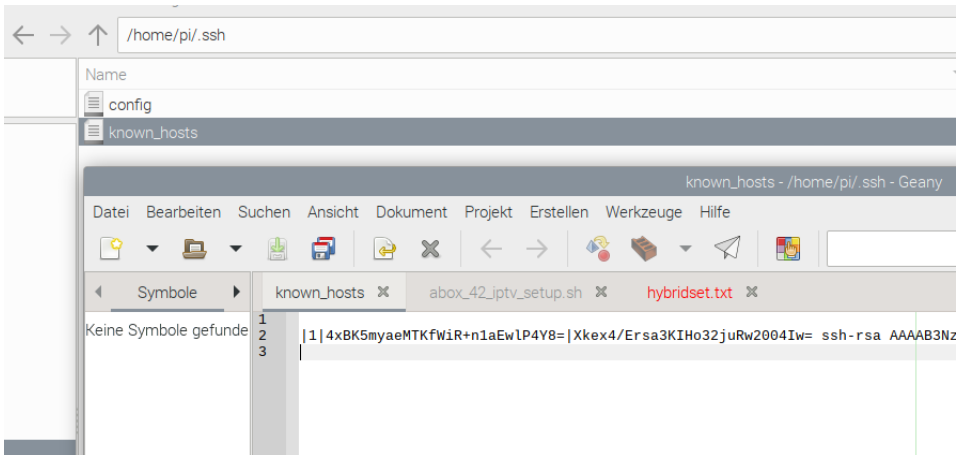
and

a file named

known_hosts

contains the already used and stored keys which is increasing patching box by box.

If you need to patch the same box a second time, you should erase its already here stored key from the list or simply erase all text content from it.



You can use STRG a and del than save the empty file ...

That assures that you can ssh again to the box and/or use the

Patch-script again to do the modification of a box from after firmware loading to the simple IPTV portal with your linux patch PC/machine:

```
./abox_42_iptv_setup.sh <IP-address of the box>
```