DVBControl

DVBMosaic



User Manual July 2019

Contents

General

-

1	DVBMosaic	6
1.1	Introduction	6
1.2	Example screenshots	8
1.3	Overview	. 10
1.4	Licensing	. 11
1.5	Requirements	. 12
1.5.1	Graphics card	. 12
1.5.2	Network card	. 12
1.6	Benchmark	. 12
1.7	Multiple outputs	. 13
2	User Interface	. 14
2.1	File	. 15
2.2	Window	. 15
2.3	Tools	. 16
2.4	Inputs	. 16
2.5	Acknowledge	. 16
2.6	Privilege	. 17
2.7	Style	. 17
2.8	Help	. 17
2.9	Status Bar	. 20
2.10	General Preferences	. 21
2.10.1	Application Preferences	. 22
2.10.2	Lavout Preferences	. 29
2.10.3	Measurements Preferences	. 40
2.10.4	ETR 290 Level 1/2 Options	. 46
2.10.5	Round Robin Preferences	. 48
2.10.6	DVBMonitor Support	. 50
2.10.7	Remote Web Interface	. 52
2.10.8	Penalty Box	. 56
2.10.9	Audio Preferences	. 58
2.10.10	SNMP Preferences	. 60
2.10.11	L Email Preferences	. 63
2.10.12	2 SMS	. 68
2.10.13	3 Syslog	. 71
2.10.14	4 Script	. 74
2.10.15	5 Prowl (iPhone/iPad)	. 78
2.10.16	5 NMA (Notify my Android)	. 81
2.10.17	7 HTTP Push	. 84

Configuration

87

3	Inputs	88
3.1	Input Bar	88
3.2	Configure Input	91

4	Log View	
5	Wall	
5.1	Introduction	
5.2	Menu Bar	
5.3	Configure Wall	
5.3.1	Clock	101
5.3.2	Image	105
5.3.3	Video	107
5.3.4	Subtitle	120
5.3.5	Teletext	122
5.3.6	Audio	125
5.3.7	Service	128
5.3.8	Text	134
5.3.9	ETR290 Level 1	136
5.3.10	PID Monitor	138
5.3.11	Penalty Box	140
5.3.12	Chart	142
5.4	Configuration Details	150
5.5	Config directory	151
5.6	Service focusing	151
5.7	Changing Wall	151

Appendices

152

A	Hotkeys & Shortcuts	153
A.1	Introduction	153
A.2	Home	154
A.3	Help	154
A.4	Wall Changing	154
A.5	Wall Editor	155
В	Installation	156
C	License	162
C.1	License details	162
C.2	Dongle Updater	162
D	Troubleshooting	164
D.1	License	164
D.2	Windows Firewall	165
D.3	Administrator rights	165
D.4	Input problems	166
D.5	No smooth video or audio bars	166
D.6	Windows Server	166
D.7	Auto Start	166
E	Input adapters	168
E.1	Overview	168
E.2	Network card	168
E.3	Overview	169
E.4	Input Selector	170
E.5	File Input	171
E.6	UDP/Multicast Input.	172

E.7	Streaming Input	
E.8	HTTP-TS Input	
E.9	RTMP Тар	
E.10	DVB-ASI Input	
E.11	DVB-S Input	
E.12	DVB-C Input	
E.13	DVB-T Input	
F	Legal Notes	
F.1	Trademarks	
F.2	Copyright	
F.3	Disclaimer	
G	Contact	

General

- **DVBMosaic**
- User Interface

1 DVBMosaic

1.1 Introduction

DVBMosaic is part of the DVBControl software toolset which enables a powerful mosaic overview for multiple services coming from multiple Transport Streams.



Different Service components can be used:

- Video (SD/HD)
- Audio
- DVB-Subtitles (SD/HD)
- Teletext (Subtitles, Newsflash, Interrupted, Subpages)
- Images
- Clocks

Besides visualisation of all Services, different measurements can be enabled:

- Freeze detection
- Black detection
- Silence detection
- Concurrent Silence + Freeze detection
- Input lost detection
- PID lost detection
- Service lost detection
- Encryption detection
- Aspect Ratio Detection
- ETR-290 Level 1 Detection

All of these measurements can be customized for different parameters on different levels:

- Application preferences
- Input configuration
- Channel configuration
- Audio configuration

All measurements errors and clearing will be logged, but can also be signalled via multiple communication routes:

- Border visualisation
- Audio alerts
- SNMP traps
- Email sending
- SMS sending
- Syslog
- iPhone and Android notification
- DVBMonitor integration

When working in "Acknowledgement mode", user acknowledgement is necessary to acknowledge the last detected errors. Until acknowledged, error signalling will be repeated by blinking borders and audio alerts.

Multiple Wall layout configurations (size, clock, positions) can be used in parallel.

1.2 Example screenshots

60





1.3 Overview

Any combination of Transport Stream sources can be used to decode multiple TV, Radio, Teletext or Subtitle services.



Both pre-recorded and live broadcasted DVB Transport Streams (TS) can be used when provided as:

- File
- DVB-ASI (input via ASI input board)
- DVB-S (input via Satellite receiver board)
- DVB-T (input via Terrestrial receiver board)
- DVB-C (input via Cable receiver board)
- UDP/Multicast
- Streaming, RTMP, RTMP Tap
- Streaming, Smooth Streaming / Silverlight
- MPEG-DASH

See appendix B for all Input possibilities.

1.4 Licensing

Type no.	Description				
Software Base:					
DC-Base	DVBMosaic base software license, including 10 License Points				
DCL-Base	DVBMosaic Light base software license, including 10 Light License Points *				
Software Options:					
DC+10	10 extra License Points				
DCL+10	10 extra Light License Points (Can only be used with DCL-10 Base license)				
DC+DD5	DD5 5 Dolby [®] Digital Plus decoders				
DC+DD20	20 Dolby [®] Digital Plus decoders				
DC+DD50	50 Dolby [®] Digital Plus decoders				
DC+DE5	5 Dolby [®] -E decoders				
DC+RR	Automatic Round Robin cycling between different Wall configurations				
* (light' maans no ch	advs anabled				

For each DVBMosaic agent a valid license is needed.

* 'Light' means no checks enabled.

License point calculation

1 SD TV Service = 1 License Point 1 HD TV Service = 2 License Points

1 UHD TV Service = 4 License Points 1 LD TV Service = 0,5 License Point LD: Video resolution <= (720x576)/2 pixels SD: (Horizontal resolution <= 1024) & (Vertical resolution <= 576) HD: (Horizontal resolution <= 1920) & (Vertical resolution <= 1088)

UHD: all resolutions above HD resolution

Every TV service has 1 Video and 1 Audio component Video: MPEG-2, AVC, HEVC Audio: MPEG, AAC For Dolby decoding, also extra Dolby licenses are needed

1 Teletext or DVB-Subtitle = 0,5 License Point 1 Audio = 0,2 License Point 1 PID Monitoring = 0,2 License Point ETR-290 Level 1 (MPTS) = 1 License Point ETR-290 Level 1 (SPTS) = 0,2 License Point

Software Maintenance Support (SMS)

When purchasing the DVBMosaic base license, 1 year SMS (Software Maintenance Support) is included.

1.5 Requirements

DVBMosaic runs under the Microsoft Windows operating systems and has been verified on:

- Windows 10 (Professional and Ultimate)
- Windows Server 2016 or 2019.
- Windows Server is needed, when more than 64 IP inputs are used

All Windows updates needs to be installed, including platform updates.

Best performance can be guaranteed by working on modern PC systems such as:

- Processor: Intel Quad Core or better
- Processor speed >= 2,6 GHz
- Memory at least 16 GB RAM (please consult the Intel website for configuration per CPU!)
- Screen resolution 1920x1080
- Hard-disk: Only needed for OS and logging, so SSD 128GB or bigger is advised.

1.5.1 Graphics card

DVBMosaic requires a NVidia graphics adapter that supports at least **DirectX 10.1 (11 recommended) and has 1024 MB memory**.

1.5.2 Network card

We recommend to use the Intel Pro/1000 PT Server Adapter network card.

1.6 Benchmark

Amount of TV services which can be decoded real-time:

CPU	MPEG-2		AVC / H264		HEVC / H265		
	SD	HD	SD	HD	SD	HD	UHD / 4K
i7-930	40	10	25	5	-	-	-
i7-980	70	20	50	9	-	-	-
Dual X5550	75	22	55	10	-	-	-
Dual X5675	110	30	75	15	-	-	-
E5-2620v3	95	24	60	12	-	-	-
Dual E5-2620v3	120*	36	90	18	-	-	-
Dual E5-2687v3	120*	60	120*	30	-	-	-
Dual E5-2630v4	120*	60	120*	30	70	21	3
Dual E5-2640v4	120*	65	120*	32	90	30	4

* Limited by transfer speed, not by CPU.

Audio, Teletext and DVB-subtitle decoding does not require a lot of CPU power.

Default: Pre-scaling is on.

1.7 Multiple outputs

The standard output of DVBMosaic is the display connected to the computer (HDMI).

Different methods are possible for multi-output kind of situations:

Multiple displays in the same environment, showing the same wall

When using a multi-output graphical board, DVBMosaic can duplicate or the wall to multiple display outputs.

Multiple displays in the same environment, showing different tiles

When using a multi-output graphical board, DVBMosaic can spread the wall over multiple display outputs (eq. 2 displays, or 2x2 displays)

In this case the Wall editor will show a line, for the position where the display border is.

The view quality is still high. So in case of 2 HD (1920 x 1080) displays, the wall will have a 3640 x 1080 pixel output resolution.

Web-interface, for viewing in a remote location

DVBMosaic has a built-in web interface. Besides the possibility to manage all properties, it is also possible to show the wall. When showing the wall in the web interface, all information including overlay is shown real-time. The video tiles are updates each second. Multiple web-interfaces can be used in parallel.

Output streaming, for viewing in a remote location

When the live DVBMosaic output has to be shown (including audio) in a remote location, a cheap HDMIencoder-streamer can be used.

We prefer a external hardware encoder, instead of a built-in software encoder. This because a built-in encoder can influence the real-time behavior of all decoders used in DVBMosaic.

2 User Interface



All windows can be configured depending on the chosen Application Look:



- Floating, Docking, Auto Hide or Hide
- Change sizes
- Change positions

				DVE	Control.com: DVBMosaic			- 0 ×
Home							S	tyle ~ Help ~ 🕜
Inputs	# X							
	Log	D			5			X DE 2C DD
	Date/Time	ID Input	PID	Service	Marcana	_		
	Date Time	io input	FID	Service	wessige			DE
					OFF: imusic	DE V	i i i i i i i i i i i i i i i i i i i	e en fr it sp po
		N	OFF: KiKa		OFF: HSE24 e	ktra	OFF: EuroNews	
CPU A	ctive Inputs: 0/5 Active	Services: 0/11 Licer	nses Used: 0.0/100		Selected Service: None			

By clicking with the left-mouse button on a window and dragging it to another position, the various possible positions are shown.

2.1 File

External edited Wall configuration changes or Exit of the DVBMosaic application can be done via File.

File menu	Hot key	Principal functions	
Make Backup		Backup all configuration settings	
Restore Backup Restore all configuration settings			
Load Wall Configuration Load Wall.xml configuration file			
Save Wall Configuration		Save Wall.xml configuration file	
Reload Wall Configuration		Reload Wall.xml configuration file	
Exit	Alt + F4	This option exits DVBMosaic	

2.2 Window

The basic windows are:

- Inputs
- Log View



Also the Selected Wall Number is shown.

2.3 Tools

DVBMosaic has different tools to measure Loudness.

W Fullscreen	💥 Preferences
	Wall Configuration
	Configuration Report
	Tools

Tools menu	Hot key	Principal functions
Fullscreen F5 Toggle the Mosaic in Fullscreen/Edit mo		Toggle the Mosaic in Fullscreen/Edit mode
Preferences Ctr I +P Open Preferences edit window		Open Preferences edit window
Wall Configuration	Ctrl + W	Open the Wall Configuration window
Configuration Report	Ctrl + R	Open the Configuration Report

2.4 Inputs

All Input related actions.



Inputs menu	Hot key	Principal functions/sub-options
Add Input		Add a new input to the Inputs Bar
Delete Input		Delete a input from the Inputs Bar
Configure Input		Configure the input settings
Start Mosaic	F3	Start all Inputs
Stop Mosaic	F4	Stop all Inputs

Details of the Input Bar are explained in chapter 3.

2.5 Acknowledge

In "Use Acknowledge System" mode, this key acknowledges the messages.



Acknowledge menu	Hot key	Principal functions
Acknowledge	Esc	Acknowledges new messages

2.6 Privilege

If the Password Protection option is enabled, Login is needed to be able to configure Preferences, Inputs or Wall configurations.



When pressing the Login button, the correct password needs to be entered in the following dialog:

Login	×
Login	
Enter Password:	
••••	
(False attempts will be logged!)	
	OK Cancel

2.7 Style

Different layout styles (font, colour) can be chosen.



2.8 Help

All Help related subjects can be selected via the Help menu option.



Help menu	Hot key	Principal functions
Manual	F1	Open the DVBAnalyzer Manual
License Manger	F2	Administers the application licenses
Dolby [®] Trademarks		Display Dolby [®] Trademarks
About		Displays the application version number information

Manual

Opens the DVBMosaic manual (PDF)

License Manager

Administers the application licenses.

Dolby[®] Trademarks

Displays the Dolby® Trademarks.

Trademarks	—
	DOLBY. E
Confidential unpublished works. Copyright 2003–2005 Dolby Laboratories. All rights reserved.	Confidential unpublished works. Copyright 1998–2007 Dolby Laboratories. All rights reserved.
Dolby and the double-D symbol are regist	ered trademarks of Dolby Laboratories.
ОК	

About DVBMosaic

Displays the application version number information.



2.9 Status Bar

CPU 53% Active Inputs: 9/9 Active Sen

Active Services: 41/41 Licenses Used: 30.0/100 (20x SD, 1x HD, 30x Audio, 2x DVBSubtitles, 2x Teletext)

Selected Service: EuroNews-GE

The Status Bar gives information about:

- CPU load
- Active Inputs
- Active Services
- Licenses Used, with detailed information about license sub components
- License Available
- Selected Service, including selected audio component

When not enough licenses are available in the dongle, a WARNING text will be shown. In the example below the setup is done for 1 Dolby-E component, although no Dolby-E licenses are available.

=> WARNING: Licenses Used: 9.6/80 (6x SD-MPEG2, 1x HD-MPEG2, 8x Audio), 2/5 DD Licenses, 1/0 DE Licenses

With the right mouse button, showing information can be enabled/disabled.

Stat	us Bar Configuration	
\checkmark	CPU	CPU
\checkmark	CPU Percentage	10%
v	Active Running Inputs	Active Inputs: 1/1
V	Current Services Measurements	Active Services: 9/9
v	Current Licenses in use	Licenses Used: 7.8/80 (6x SD-MPEG2, 9x Audio), 2/
v	Current Selected Service	Selected Service: None

2.10 General Preferences

Customized preferences have impact on behaviour and are categorized in different tabs:

General:

- Application
- Layout
- Measurements
- ETR 290 Options
- Round Robin
- DVBMonitor Support
- Remote Web Interface
- Penalty Box

Notifications:

- Audio Error Alerts
- SNMP Service
- Email
- SMS
- Syslog
- Script
- Prowl (iPhone/iPad)
- NMA (Notify my Android)

2.10.1 Application Preferences

Application settings for:

- General preferences
- Multi monitor
- Password protection
- Multicast Output
- Bitrate Lock/Order Control
- Log
- TCP/IP Interface
- Advanced Options

Geneal Application Layout Messurements ETR 20 Options Dashoy FLOS in Hexadecimal Data Fulloceen DVBMonitor Support Dasho Escensaver/Power Management Dasho Supports DVBMonitor Support Dasho Escensaver/Power Management Dasho Supports DVBMonitor Support Dot hide mouse in Fulloceen mode Ado Sat/ Stop inputs based on Actual Wal Nutifications Audio Error Alerts Multicast Output: Output selected service to Multicast: No Output SMMP Service Multicast Output: Multicast Output: Image: State more Syslog Script Multicast Output: Image: State more Pasword : Multicast Addees: 123:10:10:12 Multicast Output: Image: State more Image: State more Syslog Script Multicast Addees: 123:10:10:12 Image: State more Image: State more Prove (ifPhone/Pad) Multicast Chipt: Image: State more Pasword : Image: State more Syslog Script Multicast Addees: Display PLOS in the state more Pasword : Image: State more Into Deleving Deleving Deleving Deleving Deleving Deleving Deleving Deleving Deleving Deleving De	Greed Application Layout Layout Layout Despine 200 prints Remote Web Interface Despine 200 prints Remote Web Interface Despine 200 prints Number of the mouse in Fullaceen mode Ado Start/Stop inputs based on Actual Wal Output Number of Television Standard: PAL Output Seevice Television Standard: Shift Pservice Multicatt Output: Output selected service to Multicat: Iso Output: Systeg Script Provid (Phone (Pad) Multicatt Output: Interface: Output Select Commol UPS Interface: Output Select Commol Interface: Output Select Commol Interface: Output Select Commol Interface: Multicatt Output: Interface: Despine Select Commol Interface: Despine Select Commol Iter: Interface: Despine Select Commol Iter: Interface: Despine Select Commol Iter:	references	
 Loyout Measurements ETR 200 Options Round Robin Dubble Screensaver/Power Management Auto start Fulscreen Television Standard: PAL ▼ Pale ▼ Dubble Screensaver/Power Management Auto start Fulscreen Start Fulscreen Auto Maace Start Fulscreen Start Fulscreen Start	 Layout Masurements ETR 280 Options Round Robin Dubble Screensaver/Power Management Bash Fullscreen Caudio Error Alerts Subfications Autionation for Preferences/Inputs/Wall Configuration Password (bhone/iPad) NMA (Notify my Android) HTTP Push Bashe TCP/IP Interface Corpus Field Preferences/Inputs/Wall Configuration Password (Poster) Auto Start/Sop inputs based on Actual Wall Malicast Output: Output selected rence to Mulicast: No Output: Wattownk Interface: Automatic Syslag Script Provid (Phone/IPad) NMA (Notify my Android) HTTP Push Prefet Lock/Order Cambin Use password protection for Preferences/Inputs/Wall Configuration Pression Standard: Pression Standard: Pression Standard: Pression Standard: Malicast Output: Use password protection for Preferences/Inputs/Wall Configuration Pression Alerts Pression Standard: Malicast Output: Use password protection for Preferences/Inputs/Wall Configuration Pression Standard: Pression Standard: Pression Standard: Malicast Output: Mulicast Pression Standard: Mulicast Address: Dot 1 Information (Preferences/Inputs/Wall Configuration Pression Standard: Pression Standard: Pression Standard: Mulicast Configuration Pression Standard: Mulicast Pression Standard: Mulicast Configuration Pression Standard: Pression	- General	Application
Recording Notifications Output Support Multicast Output: Output Support Output Support Output Support Output Support Support Support Multicast Output: Output Support Output Support	Recording Notifications Audio Error Alerts SMMP Service Email SMMP Service Email Stript Provi (IPhone/IPad) NMA (Notify my Android) HTTP Push HTTP / HTTP/ HTTPS / SOCKS Provy Server Provy URL / Port Gear Log Files after: 0 Seconds (ID-Disabled) Use manne: Password: Audio Clear TXT/Subtiles after: 0 Seconds (ID-Disabled) Use manne: Password: Advanced Options: Provy URL / Port: Provy URL /	Layout Measurements ETR 290 Options Round Robin DVBMonitor Support Remote Web Interface	 Display PID'S in Hexadecimal Start Fullscreen Television Standard: PAL Disable Screensaver/Power Management Auto start Inputs Video Quality: Good Good Don't hide mouse in Fullscreen mode Auto Start/Stop inputs based on Actual Wall
Audio Error Alerts SMMP Service Use password protection for Preferences' inputs/ Wall Camputation Password: Use password protection for Preferences' inputs/ Wall Camputation Password: Use password protection for Preferences' inputs/ Wall Camputation SMS Systog Script Prowl ([Phone/iPad] NMA (Notify my Android) HTTP Push Bitrate Lock/Order Control: Hardware ([f Available) HTTP / Sock Porgram Fles/DVBControl/DVBMosaic/Logs Log Control Path: C:\Program Fles/DVBControl/DVBMosaic/Logs Log Control Path: C:\Program Fles/DVBControl/DVBMosaic/Logs Log Control Path: Destect Cannel after: Destect Ca	Audio Error Alerts SMMP Service Email SMS Systog Script Provid (Phone/Pad) NMA (Notify my Android) HTTP Push Audio Error Alerts Subscript Provid (Phone/Pad) NMA (Notify my Android) HTTP Push Audio Error Alerts Audio Error Alerts Audio Error Alerts Multicast Control: Provid (Phone/Pad) NMA (Notify my Android) HTTP Push Audio Error Alerts Multicast Componential Development Provide Control: Provid (Phone/Pad) NMA (Notify my Android) Log: Log: Log: Log Output Path: Ci-Propare Files/DVBControl/DVBMosalc/Logs Cear Log Files after: Days (0 = Never) Enable TCP/IP Interface Autonced Options: Pre-	Recording	V Multi Monitor Support
Log: Log Output Path: C:\Program Files\DVBControl\DVBMosaic\Logs Save log to disk Vew log file evenyday Clear log on Restat Clear Log Files after: 0 Days (0 = Never) Enable TCP/IP Interface Auto Clear TXT/Subtitles after: 0 Seconds (0=disabled) Use HTTP / HTTPS / SOCKS Proxy Server Proxy URL/Port: Username: Password: Advanced Options: Pre-Scale Video on CPU (Picture Quality will be less, performance will be better on High CPU Machines) Maximum internal video buffers: 90 (Default 48, warning!, this could increase used system memory!) Only increase this value if you notice a problem with the video not being displayed. Normally this indicates a large delay in PCR and PTS/DTS, which also results that end-customers viewing the stream have a long delay before the will see Video!. Service Startup Delay: 0 (ms, default 0 ms)	Log: Log Output Path: C:\Program Files\DVBControl\DVBMosaic\Logs		Multicast Output: Output selected service to Multicast: No Output Network Interface: Automatic ✓ Multicast Address: 239, 10, 10, 12 Multicast Port: 1234 Bitrate Lock/Order Control: ✓ Audio Mouse Selection: ✓ MIT Delivery Descriptor Up Left: Digital Audio (S/PDIF) (High Definition AL ✓ MIP (DVB-H/T) Down Deselect Channel after: 0 Seconds (0=Disabled)
Lister Cl'rin interace Adds Clear TXT/Sublities after. Use HTTP / HTTPS / SOCKS Proxy Server Proxy URL/Port: Usemame: Password: Advanced Options: Pre-Scale Video on CPU (Picture Quality will be less, performance will be better on High CPU Machines) Maximum internal video buffers: 90 (Default 48, warning!, this could increase used system memory!) Only increase this value if you notice a problem with the video not being displayed. Normaly this indicates a large delay in PCR and PTS/DTS, which also results that end-customers viewing the stream have a long delay before the will see Video!. Service Startup Delay: 0 (ms, default 0 ms)	Control of the interface of Auto Clear TAT/Sublities after. Use HTTP / HTTPS / SOCKS Proxy Server Proxy URL/Port: Usemame: Password: Advanced Options: Pre-Scale Video on CPU (Picture Quality will be less, performance will be better on High CPU Machines) Maximum internal video buffers: 90 (Default 48, warning!, this could increase used system memory!) Only increase this value if you notice a problem with the video not being displayed. Normally this indicates a large delay in PCR and PTS/DTS, which also results that end-customers viewing the stream have a long delay before the will see Video!. Service Startup Delay: 0 (ms, default 0 ms)		Log: Log Output Path: C:\Program Files\DVBControl\DVBMosaic\Logs Image: Comparison of the state of the s
Ose HTTP / HTTP3 / SOCKS Hoxy Server Proxy URL/Port: (Example: 10.0.0.1:8080) Type: HTTP v Usemame: Password: Advanced Options: Pre-Scale Video on CPU (Picture Quality will be less, performance will be better on High CPU Machines) Maximum internal video buffers: 90 (Default 48, warning!, this could increase used system memory!) Only increase this value if you notice a problem with the video not being displayed. Normaly this indicates a large delay in PCR and PTS/DTS, which also results that end-customers viewing the stream have a long delay before the will see Video!. Service Startup Delay: 0 (ms, default 0 ms)	Image: International sources how server Image:		
Advanced Options: Pre-Scale Video on CPU (Picture Quality will be less, performance will be better on High CPU Machines) Maximum internal video buffers: 90 (Default 48, warning!, this could increase used system memory!) Only increase this value if you notice a problem with the video not being displayed. Normaly this indicates a large delay in PCR and PTS/DTS, which also results that end-customers viewing the stream have a long delay before the will see Video!. Service Startup Delay: 0 (ms, default 0 ms)	Advanced Options: Pre-Scale Video on CPU (Picture Quality will be less, performance will be better on High CPU Machines) Maximum internal video buffers: 90 (Default 48, warning!, this could increase used system memory!) Only increase this value if you notice a problem with the video not being displayed. Normaly this indicates a large delay in PCR and PTS/DTS, which also results that end-customers viewing the stream have a long delay before the will see Video!. Service Startup Delay: 0 (ms, default 0 ms)		Proxy URL/Port: (Example: 10.0.0.1:8080) Type: HTTP Username: Password:
			Advanced Options: Pre-Scale Video on CPU (Picture Quality will be less, performance will be better on High CPU Machines) Maximum internal video buffers: 90 (Default 48, warning!, this could increase used system memory!) Only increase this value if you notice a problem with the video not being displayed. Normaly this indicates a large delay in PCR and PTS/DTS, which also results that end-customers viewing the stream have a long delay before the will see Video!. Service Startup Delay: 0 (ms, default 0 ms)

General preferences

Display PID'S in Hexadecimal	Start Fullscreen	Television Standard:	PAL	\sim	١
Disable Screensaver/Power Management	Auto start Inputs	Video Quelitur	Card		I
📝 Teletext, Update Time-Header	Suppress Inputs Start errors	video Quality.	G000	~	I
Don't hide mouse in Fullscreen mode	Auto Start/Stop inputs based or	Actual Wall			I

Show PID's in Hexadecimal

If enabled, all PID values are shown hexadecimal. Otherwise PID values are shown decimal.

Disable Screensaver/Power Management

If enabled, the PC will not go into Screensaver mode or Power Management mode.

Teletext, Update Time-Header

If enabled, the Teletext header "row 0" will be updated constantly although the selected Teletext page is not transmitted. If not enabled only the time of the update moment will be shown.

Don't hide mouse in Fullscreen mode

If enabled, the mouse tooltip will not be hided in Fullscreen mode.

Start Fullscreen

After application start, the application will be shown directly in Fullscreen mode.

Auto start Inputs

After application start, the input devices will be start directly.

Suppress input start errors

After start of Mosaic, the input start errors will be suppressed

Auto Start/Stop inputs based on Actual Wall

After a wall is launched, only the needed inputs are enabled. All not used inputs are disabled.

Television Standard

The following Broadcast norms can be selected:

- PAL
- NTSC

Video Quality

Decoding be done in better quality, but then also takes needs more CPU power:

- Good (default)
- Best

Multi Monitor

Possibility to use multiple monitor screens, connected to 1 DVBMosaic machine.

Multi Monitor Support

Multi Monitor Support

If enabled, the Mosaic output is spread across multiple displays which are connected to the DVBMosaic machine.

Password protection

Possibility to 'password' protect the Preferences, Inputs and Wall configuration windows, for unwanted usage.

Use password protection for Preferences/Inputs/Wall Configuration Password: •••••

Use password protection

If enabled, you have to login before Preferences, Inputs and Walls can be configured.

Password

Use your own Password. Used password is not visible.

Multicast Output

Possibility to multicast output a Service. Therefor the Service has to have focus.

Multicast Output: ——		h
Output selected se	rvice to Multicast	l
Network Interface:	Automatic 🔹	l
Multicast Address:	239.10.10.12 Multicast Port: 1234	

Output selected service to Multicast

If enabled, the Service with focus will be multicast out.

Network Interface

Selection of network interface, used for multicast output.

Multicast Address

IP address used for the multicast output.

Multicast Port

Port number used for the multicast output.

Bitrate Lock/Order Control

Bitrate Lock/Order Control:	
Hardware (If Available)	Up
NIT Delivery Descriptor MIP (DVB-H/T)	Down
First PCR	

Selection in which priority (via Up/Down) the Transport stream bitrates method is used:

- Hardware (If Available)
- First PCR-PID found (Specially for File input)
- MIP (DVB-H/T)
- NIT Delivery Descriptor

Audio Mouse Selection

Audio Mouse Selection:		
Left:	Speakers (High Definition Audio 🔹	
Right:	Digital Audio (HDMI) (High Defi 🛛 🗸	
Deselect	Channel after: 0 Seconds (0=Disabled)	

Focus on a service can be done, using the left or right mouse button. The corresponding audio device will be used for audio listening.

After Selecting a service (by Mouse selection), it can also be deselected automatically after X seconds. 0 Seconds means that no automatically de-selection is chosen.

Log

1

Log lines can be saved on hard disk.

Log.]	
Log Output Path:	C: \Program Files \DVBControl \DVBMosaic \Logs					
	Save log to disk 🛛 New log file everyday 📄 Clear log on Restart					
	Display Errors at the bottom in Error Tab					
	Clear Log Files after:	5	Days (0 = Never)			

If "Save log to disk" is enabled, all log data will be saved to file.

When no "Log Output Path" is given, log files will be saved in the application log directory.

If "New log file everyday" is enabled, a new log file is created for every day.

If "Clear log on Restart" is enabled, the current application log will be cleared when the mosaic is started.

If "Display Errors at the bottom in Error Tab" is enabled, the log is sorted with the 'resolved' messages at the top, and the open/current errors at the bottom.

Log files can be cleared, by setting an amount of days by "Clear Log Files After". O Days means that no log files will be cleared.

TCP/IP Interface

Enable TCP/IP Interface

If enabled, external control via TCP/IP is possible.

In the Help/RemoteTCP folder, example documentation is available.

TXT/Subtitle

Default (= 0) the presentation of a TXT/Subtitle is only cleared by a Clear-Screen TXT/Subtitle message. The user can auto clear any TXT/Subtitle also by setting a time-out period.

HTTP / HTTPS / SOCKS Proxy Server

Use HTTP / HT	TPS / SOCKS Proxy Server	
Proxy URL/Port:	(Example: 10.0.0.1:8080) Type: HTTP ~	
Usemame:	Password:	

Use HTTP / HTTPS / SOCKS Proxy Server

If enabled, will enable the use of the HPPT / HTTPS / SOCKS Proxy Server.

Proxy URL/Port

URL and Port of Proxy Server.

Туре

Selection of Proxy Server type:

- HTTP
- Socks 4
- Socks 5

Username Proxy Login Username.

Password Proxy Login Password.

Advanced Options

Advanced Options:							
Pre-Scale Video on CPU (Picture Quality	will be less, performance will be better on High CPU Machines)						
Maximum internal video buffers: 48	(Default 48, warning!, this could increase used system memory!)						
Only increase this value if you notice a problem with the video not being displayed. Normaly this indicates a large delay in PCR and PTS/DTS, which also results that end-customers viewing the stream have a long delay before the will see Video!.							
Service Startup Delay: 0	(ms, default 0 ms)						

Pre-Scale Video on CPU

If enabled, will enable pre-scaling video processing. Picture Quality will be less, but performance will be better on High CPU Machines

Default, Pre-scaling is enabled.

If there are many video services to be monitored, this could cause a problem sending all the video frames to the graphics adapter (GPU). By using pre-scaling of source video before sending these video frames to the GPU, the video pipeline will be ¼ of the bandwidth.

'Auto' scaling factors are:

- For SD resolution, scaling factor: 2
- For HD resolution, scaling factor: 4
- For 4K resolution, scaling factor: 8

Maximum internal video buffers

The maximum amount of used video buffers (per video decoder) to buffer the video image frames before their PTS (Presentation Time Stamp) moment. Default is 48 and maximum is 280.

Service Startup Delay

If the CPU load gets to high when starting multiple Services, it is recommended to use a Service start-up Delay between each start-up of a Service.

2.10.2 Layout Preferences

Layout settings for:

- General preferences
- Text Overlay
- Logo Position
- Teletext Overlay
- DVB Character Code Table
- Clock
- Overlay Icons
- Audio / Peakmeter configuration
- LogBar

Preferences	×
General	Layout
Layout Measurements ETR 290 Options	Display Peak Meters: Right ✓ I Show Channel Border I Show Regions Border Cropping: 0.0 (%) I Overlay Peak Meters
DVBMonitor Support Remote Web Interface	Display Input_ID in UMD: Format: #, @ (#=Input_ID, \$=Input_Name, @=Channel Name)
	Aspect Border Color: Fullscreen Channelname Overlay Wall Background: Default Aspect Ratio: Auto Position: Left brush_gray.bmp Mask Mode: Black Clock Size: Normal Error Overlay Mode: UMD Size: Normal UMD Mode: Mode 1 Normal Blink EIT Info Mode: Off ETR Mode: All Levels System Font: EIT Size: Normal C
NMA (Notify my Android) HTTP Push	EIT Display: Present+Following (With Tim V EIT Language: eng - English V Foreign 4755 CC + #CC
	Text Overlay: When Selected Video: #VCODEC - #VBITRATE - #VRES
	Text Position: Top ~ Text Size: +1 ~
	Logo Position: Bottom Right V XOffs: 20 YOffs: 20
	Display Teletext Overlay with Background
	DVB Character Code Table (EN 300-468): Auto Detect ~
	Clock Clock Logo Logo Position: Bottom VOffs: 0 YOffs: -20
	Overlay Icons Position: Bottom Left Image: Weight of the bottom left Image: B
	Audio / Peakmeter configuration: MPEG/AAC Dolby Digital/Plus Dolby-E Use 3 Digit Language Names Peak Peak Peak Error Color High Range High Range High Range Bar Height: 6 Mid Mid Decay: Normal Image: Color Low Low Low Normal Image: Color Background Background Background Background Background
	OK Cancel

General preferences

Display Peak Meters:	Right ~	Show Channel Border	Show Regions	Border Cropping:	0.0	(%)	Ì
		Verlay Peak Meters					ļ

Display Peak Meters

Select position of audio peak meters:

- Right
- Left
- Off

Show Channel Border

If enabled, shows a white border around each channel.

Overlay Peak Meters

If enabled, will show Piek Meters overlayed.

Show Regions

If enabled, shows an video overlay for the region which is used for Freeze/Black detection.

Border Cropping

Set percentage of wanted border cropping

Display Input_ID in UMD: Format:	#. @	(#=Input_ID, \$=Input_Name, @=Channel Name)
----------------------------------	------	---------------------------------------------

Display Input_ID in UMD

If enabled, the UMD (Under Monitor Display) text of each service will be shown in the format style chosen:

- # = Input_ID
- \$ = Input_Name
- @ = Channel name

If the Channel Name is made empty (in Channel Configuration) also the other format style components will not be shown.

Aspect Border Color:		Fullscreen Channelname Overlay	Wall Background:
Default Aspect Ratio:	Off 🖃	Position: Left 🔹	brush_gray.bmp 🔻
Mask Mode:	Black 🔹	Clock Size: Normal 💌	Error Overlay Mode:
UMD Size:	Normal 👻	UMD Mode: Normal 💌	Disabled 💌

Aspect Border Color

Pick color which should be used around the aspect ratio border.

Default Aspect Ratio

Select the default Aspect Ratio, which will be used default for the Channel Configuration in the Wall setup.

• Off

- Auto
- 4:3
- 16:9

Mask Mode

Preference mask mode which can be used to mask video images

- Mosaic
- Black
- Darken

UMD Size

The shown UMD (Under Monitor Display) text size can be chosen:

- Normal
- +1
- +2
- ..
- +12

Fullscreen Channelname overlay

If enabled, the service name will be overlayed in fullscreen mode.

Position

In fullscreen mode, the service name can be overlaid on different positions

- Left
- Center
- Right

Clock Size

The shown Clock size can be chosen:

- Normal
- +1
- +2
- ..
- +7

UMD Mode

The UMD background can be chosen:

- Mode 1 (Square)
- Mode 2 (Corners)
- Off

Wall Background

The wall background can be selected. Background files are located in the application/backgrounds directory and can be extended with user defined bmp files.

Error Overlay mode

The Error Overlay mode can be chosen:

- Disabled
- Normal Blink
- Acknowledge Blink
- Normal Blink + Error Duration
- Acknowledge Blink + Error Duration



EIT Info Mode:	Off ~	ETR Mode:	All Levels 🗸 🗸	System Font:	
EIT Size:	Normal \checkmark			Tahoma	~
EIT Display:	Actual+Other (No	o Time) 🛛 🗸 🗸	Text Overlay Text:		
EIT Language:	eth - Ethiopic	~	Service #SBITRATE, CO	C:#CC	~

EIT Info Mode

The EIT Info mode can be chosen:

- Off
- Top
- Bottom

EIT Size

The shown EIT text size can be chosen:

- Normal
- +1
- +2
- ..
- +12

EIT Display

The EIT Display mode can be chosen:

- Actual (No Time)
- Actual (With Time)
- Actual + Other (No Time)
- Actual + Other (With Time)

EIT Language

Selection of EIT language. Default is eng (English)

ETR Mode

The ETR (ETR290 Level 1) Info mode can be chosen:

- All Levels
- Errors only

System Font Default: Tahoma

Text Overlay

EIT Display:	Actual+Other (With Time)	\sim	Text Overlav Text	
EIT Language:	eng - English	\sim	Service #SBITRATE, CC : #CC	~
Text Overlay:	When Selected	\sim	Source: #INAME - SID: #SID - PMT: #PMTPID - PCR: #PMTPID Video: #VPID, #VCODEC - #VBITRATE - #VRES	
Text Position:	Top \checkmark		Audio: #AUDIOINFO	
Text Size:	+1 ~			\sim

Possibility to overlay text

Text Overlay

The Text Overlay mode can be chosen:

- Never
- Always
- When selected
- When Fullscreen

Text Position

The Text Overlay Position can be chosen:

- Тор
- Bottom

Text Size

The Text Overlay text size can be chosen:

- Normal
- +1
- +2
- ..
- +12

Text Overlay Text

The following tags can be used: #SBITRATE = Service Bitrate (6.32 Mbps) #CC = Total CC Errors (xx) #INAME = Input Name #SID = PMT program number #VCODEC = Video Codec (MPEG-2/AVC/HEVC) #VVBITRATE = Video Bitrate (4.89 Mbps) #VPID = Video PID #VRES = Video Resolution (720x576) #VFORMAT = Video Format (1080i/50) #AUDIOINFO = Display information of the Audio PID's #PMT_PID = PMT PID #PCR_PID = PCR PID #EITSTAT = EIT actual running status



Logo Position

Each Video service can have an extra logo overlay, which is selected in the Wall Configurator.

Logo Position: Bottom Right
VOffs: 20 YOffs: 20

Logo position

Selection of Position of Service logo:

- Top Left
- Top Center
- Top Right
- Middle Left
- Middle Centre
- Middle Right
- Bottom Left
- Bottom Centre
- Bottom Right

XOffs

X-axis offset of logo position

YOffs

Y-axis offset of logo position

Teletext Overlay

Display Teletext Overlay with Background

Display Teletext Overlay with Background

If enabled, Overlay of Teletext will be shown with using the Teletext background color.

DVB Character Code

DVB Character Code Table (EN 300-468): Auto Detect

DVB Character Code Table Selection of default Character Code Table.

Clock



Analog clocks can enhancement using graphics and day display.



Enable Logo

If enabled, the graphic will be overlayed in the analog clock.



Logo position

Selection of Position of Service logo:

- Top
- Bottom
- Left
- Right

XOffs X-axis offset of logo position

YOffs Y-axis offset of logo position

Enable Day display

If enabled, the Day display will be overlayed in the analog clock.



Overlay Icons

Overlay of status indication for:

- 4:3 or 16:9 or 2.21:1 = Aspect ratio
- SUB = Subtitles
- TXT = Teletext
- NN = Now/Next
- EL1 = ETR290 Level 1
- AIT = HbbTV
- S35 = SCTE-35

16:9 SUB	ТХТ	NN	AIT	<u>\$85</u>)
4:3	X	X	EL1	X	S35

 Overlay Icons 						
Position:	Bottom Left 🛛 🗸 🗸	📝 Aspect	V Subtitles	V Teletext	Now/Next	V EL1
		📝 HbbTV / AIT	V SCTE-35			
	Display Icon when Not available		🔽 Display SC	TE-35 Active a	s Overlay	

Position

Selection of Position of Overlay Icons:

- Top Left
- Top Right
- Left
- Right
- Bottom Left
- Bottom Right

Aspect

If enabled, will show the Aspect Ratio as indicated in the MPEG header

Subtitles

If enabled, will show existence of Subtitles

Teletext

If enabled, will show existence of Teletext

Now/Next

If enabled, will show existence of Now/Next EPG information

EL1

If enabled, will show existence of ETR290 Level 1 problems

HbbTV / AIT

If enabled, will show existence of HbbtTV / AIT

SCTE-35

If enabled, will show SCTE-35 (Cue tone) if the PMT table has a SCTE-35 referenced PID
Display Icon when Not available

If enabled, will show also the Display Icon (with a Red Cross) when the component is not available

Display SCTE-35 Active as Overlay

If enabled, will show the SCTE-35 Active as an overlay on the video



Audio / Peakmeter configuration

Different colors can be chosen for MPEG/AAC, Dolby[®] Digital Plus and Dolby[®]-E audio.



Colors can be changed by clicking on the color, for

- Background
- Low Range
- Mid Range
- High Range
- Peak

Use 3 Digit Language Names

If enabled, will show 3 Digit Language Names

Bar Height

The Audio bar height can be changed in different units

- 6
- 8
- 10
- 12
- Full

Decay

The audio bar decay can be chosen:

- Normal
- Slower
- Very slow

Bar Width

The Audio bar height can be changed in different units

- 8
- 10
- 12
- 14
- 16
- 20
- 22
- 24
- 26
- 28
- 30

Logbar

Different colors can be chosen for different severity log lines.



Colors can be changed for

- Error color
- Clear color
- ETR-290 level 1 color

Last Error on TOP

If enabled, the last error will be shown on Top of the Logbar. Otherwise, the last error will be shown at the bottom of the Logbar.

2.10.3 Measurements Preferences

Measurements settings for:

- Checks
- Acknowledgement
- System Measurements
- Input/PID Lost
- Colors

Preferences			×	
General				
Application	Measurements			
Layout	-	- ·		
ETR 290 Options		limeout:		
- Round Robin	Enable Freeze Detection	10 (Seconds) Threshold: 10 (%)		
DVBMonitor Support	Enable Black Detection	5 (Seconds) Black Level: 90 (%)		
Remote Web Interface	Skip First Video Lines (VITC/WSS)			
- Notifications	E Fachla Silanan Datastian			
Audio Error Alerts		60 (Seconds) Silence Level: -50 (dB)		
Email	E Fachla Silanan AND France Datastica	Channels: All V		
SMS		S (Seconds)		
Syslog	Enable PID Lost Detection	3 (Seconds)		
···· Script	Enable Service Lost Detection			
Prowl (iPhone/iPad)	Enable Input Lost Detection	0 (Seconds. 0 = direct (default)		
···· NMA (Notify my Android)	Enable Encryption Detection	Off $$		
····· HTTP Push	Enable Aspect Ratio Detection	Off ~		
	Enable ETR290 Level 1 Detection	60 (Seconds display time)		
	Enable EIT Now mising Detection	3 (Seconds missing)		
	Enable Teletext Page Timeout 40 (Seconds missing)			
	Use Acknowledge System (Escape)	Blink Speed: Normal V		
	Auto Acknowledge			
	System Measurements:	(Errors will be overlayed on top of Mosaic output)		
	CPULUsage 00			
	GPU Usage			
	O Disk Usage O			
	Solution of the solution of th			
	Display Black Frame on Input/PID Lost			
		ок	Cancel	

Checks

Different measurements can be used:

	Timeout:				
Enable Freeze Detection	10	(Seconds)	Threshold:	10	(%)
Enable Black Detection	5	(Seconds)	Black Level:	90	(%)
Skip First Video Lines (VITC/WSS)					
Enable Silence Detection	60	(Seconds)	Silence Level:	-50	(dB)
			Channels:	All	-
Enable Silence AND Freeze Detection	0	(Seconds)			
Enable PID Lost Detection	0	(Seconds)			
Enable Service Lost Detection					
Enable Input Lost Detection	0	(Seconds. 0	= direct (default)		
Enable Encryption Detection	Off 🔻	(Off (default)	is PIDs should n	ot be encrypt	ed)
Enable Aspect Ratio Detecti	Off 🔻				
Enable ETR290 Level 1 Detection	60	(Seconds dis	splay time)		
Enable EIT Now mising Detection	3	(Seconds mi	ssing)		
Enable Teletext Page Timeout	40	(Seconds mi	ssing)		

Enable Freeze Detection / Timeout / Threshold

If enabled, Freeze Detection signalling will be given after xx Seconds of freeze using yy % threshold.

The % threshold means how many percentage of the image is allowed to be moving before an alarm will be raised. So, when using a high threshold percentage, an error will be activated quicker, than when using a low threshold percentage.

Signalling in the wall is given default by a brown border color.

Freeze Detection settings can be overruled for a specific channel, in the Wall Configurator.

Enable Black Detection / Timeout / Black Level

If enabled, Black Detection signalling will be given after xx Seconds of freeze using yy % black level. The % black level sets the measured black level of an average image. So, when using a low percentage black level, an error will be activated more quickly, then when using a high percentage black level. Signalling in the wall is given default by a brown border color.

Black Detection settings can be overruled for a specific channel, in the Wall Configurator.

Skip First Video Lines (VITC/WSS)

If enabled, the first 10 video lines are not interpreted for freeze detection.

Enable Silence Detection / Timeout / Silence Level

If enabled, Silence Detection signalling will be given after xx Seconds of Silence using yy dB as Silence level. When using Dolby[®] Digital Plus audio, only the Left/Right track are used.

Signalling in the wall is given default by a purple border color.

Silence Detection settings can be overruled for a specific Audio PID, in the Audio PID Configurator.

Enable Silence + Freeze Detection / Timeout

If enabled, simultaneously detection of Silence and Freeze after xx Seconds. The threshold value of Freeze detection and the silence level of Silence detection are used.

Signalling in the wall is given default by an orange border color.

Silence + Freeze Detection settings can be overruled for a specific channel, in the Wall Configurator.

Enable PID Lost Detection

If enabled, loss of a single service component PID will be detected. Signalling in the wall is given default by a red border color. Video PID Lost detection settings can be overruled for a specific Video PID, in the Wall Configurator. Audio PID Lost detection settings can be overruled for a specific Audio PID, in the Audio PID Configurator.

Enable Service Lost Detection

If enabled, loss of all service component PIDs (video, audio) will be detected. Also the existence of the Service ID in the PAT is checked. Signalling in the wall is given default by a red border color. Service Lost Detection settings can be overruled for a specific channel, in the Wall Configurator.

Enable Input Lost Detection

If enabled, los of input will be detected after 2 seconds. Signalling in the wall is given default by a red border color.

Enable Encryption Detection

If enabled, will detect encryption. When selected 'Off', the PID should not be encrypted. When selected 'On', the PID should be encrypted. Signalling in the wall is given default by a light blue border color. Encryption Detection settings can be overruled for a specific channel, in the Wall Configurator.

Enable Aspect Ratio Detection

If enabled, will detect faulty Aspect Ratio video services.

The detected video Aspect Radio, coming from the MPEG header, is compared with the selected Aspect Ratio:

- Off (follow the MPEG header)
- 4:3
- 16:9
- 2,21:1

Signalling in the wall is given default by a dark blue border color.

Aspect Ratio Detection settings can be overruled for a specific channel, in the Wall Configurator.

Enable ETR-290 Level 1 Detection

If enabled, will detect ETR-290 Level 1 faulty situations. Signalling in the wall is given default by a blue border color.

The 'ET1' overlay time can be changed for 'Seconds display time'

Enable EIT Now missing Detection

If enabled, will detect EIT Now missing situations. Signalling in the wall is given default by a dark blue border color.

Enable Teletext Page Timeout

If enabled, will detect a Page Timeout for the selected Teletext Page.

Acknowledgement

User acknowledgement to acknowledge that errors are noticed.



Use Acknowledge System (Escape)

If enabled, user acknowledgement is necessary to acknowledge the last detected errors.

Visually the border of the related service is blinking between the error color and the acknowledgement color.

If audio is enabled, the selected audio track will be repeated until acknowledgement is realised.

Acknowledgement signalling in the wall is given default by a yellow border color.

Pushing the escape button will trigger the Acknowledgement.

Acknowledgement mode settings can be overruled for a specific channel, in the Wall Configurator.

Auto Acknowledge

If enabled, resolved errors will be automatically acknowledged.

Blink Speed

The blinking speed can be chosen out of 3 different frequencies:

- Normal (once a second)
- Faster (twice a second)
- Fasters (five times a second)

Using the right mouse button, a separate channel can be acknowledged.

Acknowledge Channel

System Measurements

Different system measurements can be used.

System Measurements:	
	Threshold (%)
CPU Usage	90
🔽 CPU Kemel Usage	90
🔽 GPU Usage	90
🔽 Disk Usage	90

CPU Usage

Total CPU load If enabled, an alarm will be raised when the total CPU load is higher than the specified Threshold.

CPU Kernel Usage

Each CPU core is checked independently.

If enabled, an alarm will be raised when one of the CPU core's kernel load is higher than the specified Threshold.

GPU Usage

If enabled, an alarm will be raised when the GPU load is higher than the specified Threshold.

Disk Usage

If enabled, an alarm will be raised when the Disk Usage of the 'C' directory is higher than the specified Threshold.

If one (or multiple) of the above error alarm rise, the main output of the mosaic display is covered with a dark overlay and a red message box will display the problem(s)

CPU Usage to High ! Kernel CPU Usage to High ! GPU Usage to High ! Harddisk Usage to High !

Input/PID Lost

Display Black Frame on Input/PID Lost

If enabled, displays a Black Frame on Input/PID Lost.

Colors

All colors can be changed by clicking on the color square.

Colors	—
Standard Custom	ОК
Colors:	Cancel
	Select
	New
	Current

Check overlay/border priority

In case of multiple faults, the shown priority for the overlay text and border color are:

- Input Lost
- Encryption Error
- Service Lost
- PID Lost / Teletext
- Freeze+Silence
- Freeze Error
- Black Error
- Silence Error
- SCTE35 Timeout
- Aspect Error
- EIT Error
- ETR290 Error

2.10.4 ETR 290 Level 1/2 Options

ETR 290 Level 1/2 compliancy checks.



ETR-290 level 1

Level 1:
<pre>b11_TS_sync_loss</pre>
<pre>b12_Sync_byte_error</pre>
b13a_PAT_error_2_Repetition
<pre> b13a_PAT_error_2_Table </pre>
b13a_PAT_error_2_Scrambling
<pre>b14_Continuity_count_error</pre>
b15a_PMT_error_2_Repetition
b15a_PMT_error_2_Table
b15a_PMT_error_2_Scrambling
<pre> b16_PID_error </pre>

If enabled, ETR290 level 1 faulty situations are signalled.

The ETR 290 1.6 PID Error check will be skipped for SCTE-35 PIDs.

ETR-290 level 2

Level 2: Enabled	
Level 2: Enabled	pr

If enabled, ETR290 level 2 faulty situations are signalled.

2.10.5 Round Robin Preferences

Automatically changing of walls can be realized using the Round Robin option.

Preferences		×
General Application Layout Measurements ETR 290 Options Round Robin DVBMonitor Support Remote Web Interface Notifications Audio Error Alerts SNMP Service Email SMS Syslog Script Prowl (iPhone/iPad) NMA (Notify my Android) HTTP Push	Image: Normal State Image:	
	ОК	Cancel

Web view



Enable Round Robin Support

If enabled, Round Robin will be executed

Cycle Time

Time used for displaying each enabled wall in the Round Robin cycle.

Walls

Enable walls which should be used in the Round Robin cycle.

Enable TCP/IP switch interface

If enabled, Wall switching commands can be giving using XML over TCP/IP. In the folder '/Help/RemoteTCP' example software can be found.

2.10.6 DVBMonitor Support

Multiple DVBMosaic agents can seamlessly be integrated with the DVBMonitor Server and Clients. This will enable remote monitoring of all connected DVBMosaic Agents, from all over the globe.

Preferences			×
⊡- General	DVBMonitor		
Application			
Measurements	Enabled		
ETR 290 Options	Server: localhost		
	emame: DVBMonitorAgent		
Remote Web Interface Pa		Test Connection	
Notifications			
- Audio Error Alerts			
SNMP Service			
Email			
SMS			
Script			
MMA (Notify my Android)			
HTTP Push			
			OK Cancel

Enable DVBMonitor Support

If enabled, messages will be forwarded to the DVBMonitor database.

Server

DVBMonitor database server name.

Username

DVBMonitor Login Username.

Password DVBMonitor Login Password.

Test Connection

Possibility to test the connection with DVBMonitor.

2.10.7 Remote Web Interface

The Remote Web Interface enables viewing the Video thumbs and audio bars, via Web, on remote locations. Including selection, fullscreen and error display.

Preferences					×
<u></u> General	Web Inte	rface			
- Application	web inte	Indee			
	Enabled				
	Address: 0.0	.0.0	(Default: 0.0.0.0)		
	HTTP Port: 157	70		Reset Admin Password	
Remote Web Interface	HTTPS Port: 443	3 (Leave en	npty for no secure webserver)		
⊨ Notifications					
Audio Error Alerts					
SMS					
Syslog					
Script					
NIMA (Notify my Android)					
HTTP Push					
				ſ	
				l	OK Cancel

Enable Web Interface

If enabled, the Web Interface will be active.

Address

Web Interface IP address. With 0.0.0.0 the binding is with all network adapters. Otherwise the binding can only be realized with the adapter of the corresponding IP address. HTTP Port HTTP Web Interface Port number.

HTTPS Port

HTTPS Web Interface Port number.

Reset Admin Password

Pushing this bottom will reset the Web-Interface admin password.

Web Interface examples

If the browser is on the same machine (chrome) you need to type http://127.0.0.1:1570

For a remote machine, make sure the firewall of the DVBMosaic machine is disabled If the management IP address of this DVBMosaic machine is 192.168.1.29 then you need to type (in Chrome) http://192.168.1.29:1570











2.10.8 Penalty Box

Possibility to enable error messages on a 'remote' Penalty Box engine.

Preferences		×
- General		
Application	Penalty Box	
Layout	\mathbf{v}	
Measurements	🕼 Enabled	
ETR 290 Options		
Round Robin	Remote Address: 1/2.16.0.163	
DVBMonitor Support	Port: 1570	
Remote Web Interface	Protocol: HTTP V	
Penalty Box		
Recording	* Make sure that on the Remote side the Webserver is enabled.	
Notifications		
Audio Error Alerts		
SNMP Service		
Email		
SMS		
Syslog		
Script		
Prowl (iPhone/iPad)		
NMA (Notify my Android)		
IIIII HTTP Push		
	OK Cancel	
	Cancer	

Make sure that on the Remote side the Webserver is enabled. You might need to whitelist the IP Address of this machine.

The Remote side DVBMosaic has to have a 'Penalty Box' item on his wall to show all the error items. (See also 5.3.11)

Enable Penalty Box

If enabled, error messages will be forwarded to the 'remote' Penalty Box machine.

Remote Address

The IP number of the 'remote' DVBMosaic machine.

Port

The Port number of the 'remote' DVBMosaic machine.

Protocol

The protocol chosen:

- HTTP
- HTTPS

Test Connection

Possibility to test the connection with 'remote' Penalty Box machine. A dummy message will pop up on the 'remote' Penalty Box window.

2.10.9 Audio Preferences

Audio signalling makes use of Detection and Resolved wav files for each kind of Error detection.

The wav files are located in the application/audio directory and can be changed to user defined audio tracks.

Preferences						×	
- General							
Application							
Measurements	Carbled						
ETR 290 Options		Repeat Delay(Sec					
Round Robin	Freeze Detection	FreezeDetection.wav	\sim	÷		10	
DVBMonitor Support Remote Web Interface	Resolved:	Solved.wav	~	÷			
	Black Detection	BlackDetection.wav	~	÷		10	
Audio Error Alerts	Resolved:	Solved.wav	\sim	÷			
Email	Silence Detection	SilenceDetection.wav	~	÷		10	
SMS	Resolved:	Solved.wav	~	÷			
Syslog Script	Silence AND Freeze Detection	SilenceAndFreezeDetection.wav	~	÷		10	
Prowl (iPhone/iPad)	Resolved:	Solved.wav	~	÷			
MMA (Notify my Android)	✓ Input Lost Detection	InputLost.wav	~	÷		10	
	Resolved:	Solved.wav	\sim	÷			
	PID Lost Detection	PIDLostDetection.wav	~	÷		10	
	Resolved:	Resolved: Solved.wav	\sim	÷			
	Service Lost Detection	Service Lost Detection ServiceLostDetection.wav	÷		10		
	Resolved:	Solved.wav					
	Encryption Problem Detecti Resolved:	EncryptionProblem.wav	~	÷		10	
		Solved.wav	\sim	÷			
	Aspect Ratio Problem Detection	AspectProblem.wav	~	÷		10	
	Resolved:	Solved.wav	~	÷			
	ETR290 L1 Problem Detection	ETR290Problem.wav	~	÷		10	
	Resolved:	Solved.wav	~	÷			
	EIT Missing Detection	EITProblem.wav	~	÷		10	
	Resolved:	Solved.wav	~	÷			
	Acknowledge Confirmation	Acknowledge.wav	~	÷		1	
	Resolved:	Solved.wav	\sim	÷			
				OK		Cancel	

Audio Support

Enable Audio Support

If enabled, audio will be used for giving alarms.

Alerts

Freeze Detection

If enabled, freeze detection will generate an Audio alert.

Black Detection

If enabled, black detection will generate an Audio alert.

Silence Detection If enabled, silence detection will generate an Audio alert.

"Silence AND Freeze" Detection If enabled, "Silence and Freeze" detection will generate an Audio alert.

Input Lost Detection

If enabled, loss of a Transport Stream input will generate an Audio alert.

PID Lost Detection

If enabled, loss of a single service component PID will generate an Audio alert.

Service Lost Detection

If enabled, loss of all service component PIDs (video, audio) will generate an Audio alert.

Encryption Problem Detection

If enabled, Encryption of a PID will generate an Audio alert.

Aspect Ratio Problem Detection

If enabled, Encryption fault situations will generate an Audio alert.

ETR290 Level 1 Problem Detection

If enabled, ETR290 errors will generate an Audio alert.

Acknowledge Confirmation

If enabled, an acknowledgment confirmation will generate an Audio alert.

The button gives the possibility to test and hear the selected audio track.

Audio tracks are default sent only once. When selecting 'Repeat', the audio track will be sent every xx Delay seconds.



2.10.10 SNMP Preferences

SNMP (Simple Network Management Protocol) can be used to inform network-attached devices for the condition of DVBMosaic.

The DVB-DCSYSTEM-MIB.mib file can be found in the Program Files\DVBControl\DVBMosaic directory.

Preferences				×
🖃 General				
- Application	SNMP			
Preferences General Application Layout Measurements ETR 290 Options Round Robin DVBMonitor Support Remote Web Interface Notifications Audio Error Alerts SNMP Service Email SMS Syslog Script Prowl (iPhone/iPad) NMA (Notify my Android) HTTP Push	SNMP	27.0.0.1 mma separated, for example: 127.0.0.1:161,192.168.0.100,192.168.1.100:162 blic		×
1	1		ок	Cancel

SNMP Service

Enabled	
Listen Addresses/Port:	127.0.0.1
	(comma separated, for example: 127.0.0.1:161,192.168.0.100,192.168.1.100:162)
Community Name:	public

Enable SNMP Service

If enabled, SNMP will be used for giving alarms.

Listen Addresses/Port

Address/Port settings of the SNMP server.

Community Name

Set up of the SMNP Community Name.

Traps

Traps:		h
Destination Address/Port:	127.0.0.1	l
	(comma separated, for example: 127.0.0.1:162,192.168.0.100,192)	
Freeze Detection		l
Black Detection		l
Silence Detection		I
Silence AND Freeze Det	ection	l
Input Lost Detection		l
PID Lost Detection		l
Service Lost Detection		l
Encryption Problem Dete	ction	l
Ratio Problem De	etection	l
ETR290 Level 1 Problem	n Detection	
Acknowledge Pushed		

Destination Addresses/Port

IP Address/Port settings for sending SNMP Traps.

Freeze Detection

If enabled, freeze detection will generate an SNMP trap.

Black Detection

If enabled, black detection will generate an SNMP trap.

Silence Detection

If enabled, silence detection will generate an SNMP trap.

"Silence AND Freeze" Detection

If enabled, "Silence and Freeze" detection will generate an SNMP trap.

Input Lost Detection

If enabled, loss of a Transport Stream input will generate an SNMP trap.

PID Lost Detection

If enabled, loss of a single service component PID will generate an SNMP trap.

Service Lost Detection

If enabled, loss of all service component PIDs (video, audio) will generate an SNMP trap.

Encryption Problem Detection

If enabled, Encryption of a PID will generate an SNMP Trap.

Aspect Ratio Problem Detection

If enabled, Encryption fault situations will generate an SNMP Trap.

ETR290 Level 1 Problem Detection

If enabled, ETR290 errors will generate an SNMP Trap.

Acknowledge pushed

If enabled, using acknowledgements will also generate an SNMP Trap.

2.10.11 Email Preferences

Alerts can be send via Email with the following settings.

Preferences				×
📮 General				
Application		IAIL		
Layout				
Measurements	📝 Enabled		Send in plain-text format 📃 Use UTC Time in reports 🥅	
ETR 290 Options Round Robin	Recipients:	noc@dvbcontrol.com		
DVBMonitor Support		(dot-comma separated, for exampl	e: support@dvbcontrol.com;support@microsoft.com)	
Remote Web Interface	From:	DVBMosaic@Company.com	(DVBMosaic@Company.com)	
Recording	Server:	mail.dvbcontrol.com	(smtp.company.com)	
Notifications	Port:	587 (Default=25, GMail=587)	
- Audio Error Alerts		Use Authentication	Send Test Message	
Email	Usemame:	noc@dybcontrol.com		
SMS	Pageword		Send Delay: 30 (Seconds)	
Syslog	Fassword.			
Script	Name:	DVBMosaic	(Subject Prefix)	
Prowl (iPhone/iPad)	Alerts:			
MMA (Notify my Android)	Freeze D	Detection		
HTTP Push	Black De	etection		
		AND Freeze Detection		
	Input Los	st Detection		
	PID Lost	Detection		
	Service	Lost Detection		
	Encryptic	on Problem Detection		
	Aspect F	Ratio Problem Detection		
	ETR290	Level 1 Problem Detection		
	EITNOW	Problem Detection		
			ОК	Cancel

Email Support

🔽 Enabled		Send in plain-text format 🔲 Use UTC Time in reports 📃	
Recipients:	noc@dvbcontrol.com		
	(dot-comma separated, for example	e: support@dvbcontrol.com;support@microsoft.com)	
From:	DVBMosaic@Company.com	(DVBMosaic@Company.com)	
Server:	mail.dvbcontrol.com	(smtp.company.com)	
Port:	587 (Default=25, GMail=587)		
	Vise Authentication	Send Test Message	
Usemame:	noc@dvbcontrol.com		
Password:	•••••	Send Delay: 30 (Seconds)	
Name:	DVBMosaic	(Subject Prefix)	

Enable Email Support

If enabled, Email will be used for giving alarms.

Send in plain-test format

If enabled, the Email will be send in plain-text format.

Use UTC Time in reports

If enabled, UTC Time will be used in reports.

Recipients

Email addresses used for Email alarm signalling.

From

Email address used for sender.

Server

Email server.

Port Email server, outgoing port number.

Use Authentication

This should be enabled when your mail server requires authentication.

Username

Username needed for authentication.

Password

Password needed for authentication.

Name

Option, to add a subject prefix.

Send Test Message

Email can only work when a working Email client/account is available on the machine. To test if your Email client is fully functional, please use this button to send a test message.

Alerts

	Send Delay: 30 (Seconds)
Alerts:	
Freeze Detection	
Black Detection	
Silence Detection	
Silence AND Freeze Detection	
Input Lost Detection	
PID Lost Detection	
Service Lost Detection	
Encryption Problem Detection	
Aspect Ratio Problem Detection	
ETR290 Level 1 Problem Detection	
EIT Now Problem Detection	

Send Delay Delay before email is sent

Freeze Detection

If enabled, freeze detection will generate an Email.

Black Detection

If enabled, black detection will generate an Email.

Silence Detection

If enabled, silence detection will generate an Email.

"Silence AND Freeze" Detection

If enabled, "Silence and Freeze" detection will generate an Email.

Input Lost Detection

If enabled, loss of a Transport Stream input will generate an Email.

PID Lost Detection

If enabled, loss of a single service component PID will generate an Email.

Service Lost Detection

If enabled, loss of all service component PIDs (video, audio) will generate an Email.

Encryption Problem Detection

If enabled, Encryption of a PID will generate an Email.

Aspect Ratio Problem Detection

If enabled, Encryption fault situations will generate an Email.

ETR290 Level 1 Problem Detection

If enabled, ETR290 errors will generate an Email.

EIT Now Problem Detection

If enabled, EIT Now Problem errors will generate an Email.

When using the 64 bit version of DVBMosaic, also a 64-bit mail client should be used.

2.10.12 SMS

Alerts can be send via SMS with the following settings.

Preferences		×
Preferences General Application Layout Measurements ETR 290 Options Round Robin DVBMonitor Support Remote Web Interface Notifications Audio Error Alerts SNMP Service Email SMS Syslog Script Prowl (iPhone/iPad)	SMS Cickatell Homepage To: +310000000 (dot-comma separated, for example: +310000000);+4400000000) From: +310000000 (Phone number of registration, or registered CallerID) API Key: 123456789 Usemame: myuser@company.com Password: Send Test Message Send Delay: 30 Alerts: Send Delay: Image: Preeze Detection Black Detection	×
- NMA (Notify my Android) - HTTP Push	Back Detection Stence AND Freeze Detection Imput Lost Detection PID Lost Detection Service Lost Detection Proportion Problem Detection Aspect Ratio Problem Detection ETR290 Level 1 Problem Detection EIT Now Problem Detection	

SMS Support

Enable SMS Support (www.clickatell.com, XML connection) Clickatell Homepage		
To:	+9912345678	
	(dot-comma separated, for example: +3100000000;	+440000000)
From:	+998765432 (Phone number of regist	ation, or registered CallerID)
API Key:	123456789	
Usemame:	myuser@company.com	0.17.14
Password:	•••••	Send Lest Message

Enable SMS Support

If enabled, SMS will be used for giving alarms.

Clickatell Homepage

Homepage for the Clickatell SMS gateway

То

Destination SMS number. Can be for multiple recipients.

From

Phone number of registration, or registered CallerID.

API Key

Application Programmable Interface Key.

Username

Username needed for authentication.

Password

Password needed for authentication.

Send Test Message

SMS can only work when SMS communication is available on the machine. To test if your SMS service is fully functional, please use this button to send a test message.

Alerts

	Send Delay: 30	(Seconds)
- Alerts:		
Freeze Detection		
Black Detection		
Silence Detection		
Silence AND Freeze Detection		
V Input Lost Detection		
V PID Lost Detection		
Service Lost Detection		
Encryption Problem Detection		
Aspect Ratio Problem Detection		
ETR290 Level 1 Problem Detection		
EIT Now Problem Detection		

Send Delay

Delay before SMS is sent

Freeze Detection

If enabled, freeze detection will generate an SMS message.

Black Detection

If enabled, black detection will generate an SMS message.

Silence Detection

If enabled, silence detection will generate an SMS message.

"Silence AND Freeze" Detection

If enabled, "Silence and Freeze" detection will generate an SMS message.

Input Lost Detection

If enabled, loss of a Transport Stream input will generate an SMS message.

PID Lost Detection

If enabled, loss of a single service component PID will generate an SMS message.

Service Lost Detection

If enabled, loss of all service component PIDs (video, audio) will generate an SMS message.

Encryption Problem Detection

If enabled, Encryption of a PID will generate an SMS message.

Aspect Ratio Problem Detection

If enabled, Encryption fault situations will generate an SMS message.

ETR290 Level 1 Problem Detection

If enabled, ETR290 errors will generate an SMS message.

EIT Now Problem Detection

If enabled, EIT Now Problem errors will generate an SMS message.

2.10.13 Syslog

Alerts can be send via Syslog (Unix system logging daemon) with the following settings.

Preferences		×
eneral	Surlar	
Application	Sysiog	
Layout	•	
Measurements	The second secon	
ETR 290 Options	Address: 127.0.0.1	
Round Robin	Send Test Message	
DVBMonitor Support	Port: 514	
Remote Web Interface	Facility: System daemons 🗸 🗸	
- Notifications	Severity: Frror	
Audio Error Alerts	Jevenky. Liter	
Email	Name: DVBMosaic	
- Email	C Alerts:	
Sular	Freeze Detection	
Script	Black Detection	
Prowl (iPhone/iPad)	Silence Detection	
NMA (Notify my Android)	Silence AND Freeze Detection	
	V Input Lost Detection	
	V PID Lost Detection	
	Service Loss Detection	
	Aspect Ratio Problem Detection	
	ETR290 Level 1 Problem Detection	
	EIT Now Problem Detection	
	OK Cancel	

Syslog Support

☑ Enable Syslog Support			
Address:	127.0.0.1 Send Test Message		
Port:	514		
Facility:	System daemons		
Severity:	Error		
Name:	DVBMosaic		

Enable Syslog Support

If enabled, Syslog will be used for giving alarms.

Address

Syslog IP address.

Port Syslog Port number.

Send Test Message

Syslog can only work when a working Syslog communication is available on the machine. To test if your Syslog is fully functional, please use this button to send a test message.

Facility

Selection of Syslog facility.

Severity

Selection of used Syslog severity level.

Name

Name used in the Syslog.
Alerts

Alerts:	h
V Freeze Detection	I
Black Detection	I
Silence Detection	I
Silence AND Freeze Detection	I
Input Lost Detection	I
V PID Lost Detection	I
Service Lost Detection	I
Encryption Problem Detection	I
Aspect Ratio Problem Detection	I
ETR290 Level 1 Problem Detection	I
EIT Now Problem Detection	

Freeze Detection

If enabled, freeze detection will generate a Syslog.

Black Detection

If enabled, black detection will generate a Syslog.

Silence Detection

If enabled, silence detection will generate an Email. a Syslog.

"Silence AND Freeze" Detection

If enabled, "Silence and Freeze" detection will generate a Syslog.

Input Lost Detection

If enabled, loss of a Transport Stream input will generate a Syslog.

PID Lost Detection

If enabled, loss of a single service component PID will generate a Syslog.

Service Lost Detection

If enabled, loss of all service component PIDs (video, audio) will generate a Syslog.

Encryption Problem Detection

If enabled, Encryption of a PID will generate a Syslog.

Aspect Ratio Problem Detection

If enabled, Encryption fault situations will generate a Syslog.

ETR290 Level 1 Problem Detection

If enabled, ETR290 errors will generate a Syslog.

EIT Now Problem Detection

If enabled, EIT Now Problem errors will generate a Syslog.

2.10.14 Script

The script system can be used to create custom actions related to errors/resolves.

Preferences		×
⊡ General	Script	
Application	Subr	
- Layout Measurements		
ETR 290 Options		
- Round Robin	Alerts:	
DVBMonitor Support	V Freeze Detection	
Remote Web Interface	Silence Detection	
- Notifications	Silence AND Freeze Detection	
- Audio Error Alerts	V Input Lost Detection	
Empil	V PID Lost Detection	
SMS	Service Lost Detection Problem Detection	
	Aspect Ratio Problem Detection	
Script	ETR290 Level 1 Problem Detection	
Prowl (iPhone/iPad)	EIT Now Problem Detection	
NMA (Notify my Android)		
HTTP Push		
		Cancel

Enable Script

If enabled, the scripts system will be active.

Alerts

The execution of scripts can be activated for:

Alerts:
Freeze Detection
Black Detection
Silence Detection
Silence AND Freeze Detection
Input Lost Detection
PID Lost Detection
Service Lost Detection
Encryption Problem Detection
Aspect Ratio Problem Detection
ETR290 Level 1 Problem Detection
EIT Now Problem Detection

Freeze Detection

If enabled, freeze detection will generate a Script action.

Black Detection

If enabled, black detection will generate a Script action.

Silence Detection

If enabled, silence detection will generate a Script action.

"Silence AND Freeze" Detection

If enabled, "Silence and Freeze" detection will generate a Script action.

Input Lost Detection

If enabled, loss of a Transport Stream input will generate a Script action.

PID Lost Detection

If enabled, loss of a single service component PID will generate a Script action.

Service Lost Detection

If enabled, loss of all service component PIDs (video, audio) will generate a Script action.

Encryption Problem Detection

If enabled, Encryption of a PID will generate a Script action.

Aspect Ratio Problem Detection

If enabled, Encryption fault situations will generate a Script action.

ETR290 Level 1 Problem Detection

If enabled, ETR290 errors will generate a Script action.

EIT Now Problem Detection

If enabled, EIT Now Problem errors will generate a Script action.

Script execution

The main script that is called is located in the Scripts folder and named global.bat. You have to copy the provided _global.bat to global.bat.

Script Parameters

When the main script is called, the following parameters are passed through:

#1 - event_type (integer)

Where event_type can have the following meaning:

- 0 InputFail
- 1 Freeze
- 2 Black
- 3 Silence
- 4 FreezeAndSilence
- 5 ServiceLost
- 6 PIDLost
- 7 EncryptionProblem
- 8 AspectProblem
- 9 EITProblem
- 10 ETR290Problem
- 11 Acknoledge

#2 - status (integer)

Where status has the following meaning:

- 0 ERROR
- 1 UPDATE
- 2 RESOLVED

#3- severity_id (integer)

When status indicated ERROR or UPDATE, the severity level of the error is provided.

Where severity_id has the following meaning:

- 0 NA
- 1 Info
- 2 Warning
- 3 QoS
- 4 TNC
- 5 CM
- 6 POA
- 7 TOA
- 8 User 1
- 9 User 2
- 10 User 3
- 11 User 4

#4 - input_id (integer)

The unique ID of the input, or -1 when not applicable.

#5 - wallitem_name (string)

When a script is triggered related to a wall item, the name will be given. If it is not related to a wall item (for instance Input Lost) this value is NULL.

#6 - pid (integer)

When a script is triggered related to a PID (For instance PID Lost), the pid number will be given, else this value is -1.

#7 - service_id (integer)

When a script is triggered related to a PID (For instance PID Lost), and this pid was referenced in a PMT, the service number (PMT program number) will be given, else this value is -1.

#8 - message (string)

A short description of the event.

2.10.15 Prowl (iPhone/iPad)

Prowl can be used to send IPhone alerts.

Preferences		×
General General Application Layout Measurements ETR 290 Options Round Robin	Prowl Image: Enabled Use UTC Time in reports API_Keys: 123456789	
DVBMonitor Support Remote Web Interface Notifications Audio Error Alerts SNMP Service Email SMS	(dot-comma separated, max. 5 users) Severity: Normal Name: DVBMosaic Prowl Homepage	
SMS Syslog Script Prowl (iPhone/iPad) NMA (Notify my Android) HTTP Push	Alerts: Image: Send Delay: 30 (Seconds) Image: Black Detection Black Detection Image: Service Lost Detection PID Lost Detection Service Lost Detection Service Lost Detection Aspect Ratio Problem Detection Aspect Ratio Problem Detection ETR290 Level 1 Problem Detection EIT Now Problem Detection	
	OK	

Prowl Support

V Enable Prov	vl Support		Use UTC Time in	reports
API_Keys:	123456789			
(dot-comma separated, max. 5 users)			
Severity:	Moderate 🔻	•	Sand Tast Managan	
Name:	DVBMosaic		Jehu Test Message	
	Pro	wl Homepad	<u>16</u>	

Enable Prowl Support

If enabled, prowl will be used for giving alarms.

Use UTC Time in reports

If enabled, UTC Time will be used in reports.

API keys

Prowl API key.

Send Test Message

Prowl can only work when a working Prowl communication is available on the machine. To test if your Prowl is fully functional, please use this button to send a test message.

Severity

Selection of used Prowl severity level.

Name

Name used in the Prowl message.

Prowl Homepage

Homepage for the Prowl gateway.

Alerts

	Send Delay: 30	(Seconds)
- Alerts:		
Freeze Detection		
Black Detection		
Silence Detection		
Silence AND Freeze Detection		
Input Lost Detection		
PID Lost Detection		
Service Lost Detection		
Encryption Problem Detection		
Aspect Ratio Problem Detection		
ETR290 Level 1 Problem Detection		
EIT Now Problem Detection		

Send Delay

Delay before message is sent

Freeze Detection

If enabled, freeze detection will generate a Prowl request.

Black Detection

If enabled, black detection will generate a Prowl request.

Silence Detection

If enabled, silence detection will generate a Prowl request.

"Silence AND Freeze" Detection

If enabled, "Silence and Freeze" detection will generate a Prowl request.

Input Lost Detection

If enabled, loss of a Transport Stream input will generate a Prowl request.

PID Lost Detection

If enabled, loss of a single service component PID will generate a Prowl request.

Service Lost Detection

If enabled, loss of all service component PIDs (video, audio) will generate a Prowl request.

Encryption Problem Detection

If enabled, Encryption of a PID will generate a Prowl request.

Aspect Ratio Problem Detection

If enabled, Encryption fault situations will generate a Prowl request.

ETR290 Level 1 Problem Detection

If enabled, ETR290 errors will generate a Prowl request.

EIT Now Problem Detection

If enabled, EIT Now Problem errors will generate a Prowl request.

2.10.16 NMA (Notify my Android)

NMA (Notify My Android) can be used to send alerts to any android device.

Preferences		×
	Notify My Android	
Application		
	☑ Enabled	Use UTC Time in reports
Round Robin	API_Keys: 123456789	
DVBMonitor Support	(dot-comma separated, ma	x. 5 users)
Remote Web Interface	Severity: Normal	✓
- Notifications	Name: DVRMosaic	Send Test Message
Audio Error Alerts	Name. Dybriosaic	
Email		NMA Homepage
Svslog		
Script		Send Delay: 30 (Seconds)
Prowl (iPhone/iPad)	Alerts:	
···· NMA (Notify my Android)	Freeze Detection	
IIII HITP Push	Silence Detection	
	Silence AND Freeze Detection	
	✓ Input Lost Detection	
	Service Lost Detection	
	Encryption Problem Detection	
	Aspect Ratio Problem Detection	
	ETR290 Level 1 Problem Detection	
	EIT Now Problem Detection	
		OK Cancel

NMA Support

Enable NMA Support	Use UTC Time in reports
API_Keys: 123456789	
(dot-comma separated, max. 5 us	(21
Severity: Normal	Sand Test Managan
Name: DVBMosaic	Jenu rest message
	MMA Homepage

Enable NMA Support

If enabled, NMA will be used for giving alarms.

Use UTC Time in reports

If enabled, UTC Time will be used in reports.

API keys

NMA API key.

Send Test Message

NMA can only work when a working NMA communication is available on the machine. To test if your NMA is fully functional, please use this button to send a test message.

Severity

Selection of used NMA severity level.

NMA Homepage

Homepage for the NMA gateway.

Alerts

	Send Delay: 30 (Seconds)
- Alerts:	
Freeze Detection	
Black Detection	
Silence Detection	
Silence AND Freeze Detection	
Input Lost Detection	
PID Lost Detection	
Service Lost Detection	
Encryption Problem Detection	
Aspect Ratio Problem Detection	
ETR290 Level 1 Problem Detection	
EIT Now Problem Detection	

Send Delay

Delay before message is sent

Freeze Detection

If enabled, freeze detection will generate a NMA request.

Black Detection

If enabled, black detection will generate a NMA request.

Silence Detection

If enabled, silence detection will generate a NMA request.

"Silence AND Freeze" Detection

If enabled, "Silence and Freeze" detection will generate a NMA request.

Input Lost Detection

If enabled, loss of a Transport Stream input will generate a NMA request.

PID Lost Detection

If enabled, loss of a single service component PID will generate a NMA request.

Service Lost Detection

If enabled, loss of all service component PIDs (video, audio) will generate a NMA request.

Encryption Problem Detection

If enabled, Encryption of a PID will generate a NMA request.

Aspect Ratio Problem Detection

If enabled, Encryption fault situations will generate a NMA request.

ETR290 Level 1 Problem Detection

If enabled, ETR290 errors will generate a NMA request.

EIT Now Problem Detection

If enabled, EIT Now Problem errors will generate a NMA request.

2.10.17 HTTP Push

HTTP Push can be used to send alerts.

Preferences					2	×
eneral						
Application		ary My Android				
Layout	~					
Measurements	Enabled			Use UTC T	ìme in reports 📃	
ETR 290 Options	API Kewa	122456790				
Round Robin	Art_Neys.	125450705				
DVBMonitor Support		dot-comma separated, max. 5	users)			
Remote Web Interface	Severity:	Normal	\sim	Court Tool Marries		
Notifications	Name:	DVBMosaic		Send Test Message		
Audio Error Alerts	Hamo.					
- SNMP Service						
Email			NMA Homepag	<u>e</u>		
SMS						
System				Send Delaw 20	(Seconds)	
Browd (iDb and (iDad)	⊂ Alerts:			Send Delay. 50	(Jeconus)	
NIMA (Netify my Android)	Freeze D	etection				
HTTD Duch	Black De	tection				
····· FITTP Push	Silence D	etection				
	Silence A	ND Freeze Detection				
	V Input Los	t Detection				
	PID Lost	Detection				
	Service L	ost Detection				
		n Froblem Detection				
	ETB290	Level 1 Problem Detection				
	FIT Now	Problem Detection				
					OK Cancel	

HTTP Push Support

Enabled		Send Delay: 30 (Seconds)
Push URL:	https://api.smsapi.com/sms.do? username=your@emaill.com&password=MD5Pass SSAGE	word&to=31612345678&message=#ME
(#MESSAGE w	ill be replaced by the real message)	Send Test Message

Enable HTTP Push Support

If enabled, HTTP Push will be used for giving alarms.

Send Delay Delay before message is sent

Push URL The URL which is pushed.

Send Test Message

NMA can only work when a working NMA communication is available on the machine. To test if your NMA is fully functional, please use this button to send a test message.

Alerts

- Alerts:
V Freeze Detection
Black Detection
Silence Detection
Silence AND Freeze Detection
Input Lost Detection
PID Lost Detection
Service Lost Detection
Encryption Problem Detection
Aspect Ratio Problem Detection
ETR290 Level 1 Problem Detection
EIT Now Problem Detection

Freeze Detection

If enabled, freeze detection will generate a NMA request.

Black Detection

If enabled, black detection will generate a NMA request.

Silence Detection

If enabled, silence detection will generate a NMA request.

"Silence AND Freeze" Detection

If enabled, "Silence and Freeze" detection will generate a NMA request.

Input Lost Detection

If enabled, loss of a Transport Stream input will generate a NMA request.

PID Lost Detection

If enabled, loss of a single service component PID will generate a NMA request.

Service Lost Detection

If enabled, loss of all service component PIDs (video, audio) will generate a NMA request.

Encryption Problem Detection

If enabled, Encryption of a PID will generate a NMA request.

Aspect Ratio Problem Detection

If enabled, Encryption fault situations will generate a NMA request.

ETR290 Level 1 Problem Detection

If enabled, ETR290 errors will generate a NMA request.

EIT Now Problem Detection

If enabled, EIT Now Problem errors will generate a NMA request.

Configuration

- Inputs
- Log View
- Wall

3 Inputs

3.1 Input Bar

The Input Bar lists all configured input Transport Streams and components.

Inputs 7	×
🕀 🙆 🛧 🕹	
Inputs (8)	
🖶 🗝 🔣 Program 28006 - ZDF	
🖶 🗝 🔣 Program 28007 - 3sat	
🖶 🗝 🔣 Program 28008 - KiKa	
🕀 🗝 🔣 Program 28011 - ZDFinfokanal	
🖶 🗝 🍕 Program 28012 - DKULTUR	
🗄 🗝 🍕 Program 28013 - DLF	
🖶 🗝 🔣 Program 28014 - zdf_neo	
🗄 🗝 Korgram 28016 - ZDFtheaterkar	
E Q: Program 28017 - DRadio Wissen	
□ 0102 IP_239_10_10_102	
Brogram 00171 domradia	
Program 00171 - gonradio	
Brogram 00172 - Egorim	
Program 00175 - HOPE Channel	
Barre & Program 00177 - JAM FM	
Program 00658 - Davstar Televis	
Program 00659 - tv.gusto	
🕀 🐨 🛛 🛃 Program 00662 - 1-2-3.tv	
🗄 🗝 🔣 Program 00764 - ANIXE SD	
🖽 🗝 🔣 Program 00772 - imusic TV	
🖶 🗝 🔣 Program 01793 - DAS VIERTE	
🖶 🗝 🔣 Program 01794 - JAMBA! TV	
\$101 Program 04004	
8101 Program 04032	
\$1131 Program 04033	
ini Program 04035	
Program 28800 - RTL Austria	
Program 28805 - VOX Austria	
Program 28810 - RTI 2 Austria	
Program 28815 - Super RTL A	
Program 31200 - Eurosport	
0101 Program 31201 - Guide Plus+	
🖶 🗝 🔣 Program 31210 - HSE24 extra	
🛓 🗝 🛃 Program 31220 - EuroNews	
• 0104 IP_239_10_10_104	
🖶 🔍 0111 IP_239_10_10_111	
⊕ 0112 IP_239_10_10_112	
• 0113 IP_239_10_10_113	-
4 III >	

Different actions can be taken to change the inputs.

lcon	Description
Đ	Add Input
8	Delete Input
1	Move Input up
♣	Move Input down

Add Input

A new input is configured. Chapter 3.2 will give all details about configuring inputs.

Delete Input

When selecting an input in the Input Bar, it can be deleted.

Move Input up

Moves a selected Input one position up in the Input tree.

Move Input down

Moves a selected Input one position down in the Input tree.

All actions are also available, by using the right mouse key.

Configure Duplicate
Add Input Delete Input
Move Input Up Move Input Down
Expand All Inputs Collapse All Inputs

Every entry in the Inputs Bar has an icon and a string concatenation of the Input ID and Input Name.

• 1005 239.10.10.5

Different signalling is used for the input status:

Signalling		Description		
	Green	No Error: Input activated		
	Red	Error: Input not valid (TS timeout)		
	Gray	Input not activated		
	Blue	Error: Input not valid (TS timeout) anymore		

ES Info

Opening PID entries, will show more ES info details.

```
🗄 🗝 🔣 Program 28006 - ZDF
  PID: 0110 Type: 02 - Video MPEG-2
     🗄 🗉 🗉 ES Info
         horizontal_size: 720
         vertical_size: 576
  🗄 🐗 PID: 0120 Type: 03 - Audio MPEG-1
     🚊 🗉 🗉 ES Info
          ..... ID: MPEG-1
          📖 🗉 layer: Layer II
          ---- protection_bit: Redundancy
          bitrate: 256 kBit/s
          ---- sampling_frequency: 48.0 kHz
          - padding_bit: No Padding
          📖 🗉 private_bit: 0
          ..... 🗉 mode: stereo
          ---- = copyright: No copyright
          🔤 🗉 original_copy: Original
          💷 🗉 emphasis: None
          frame_duration: 24.0 ms
         frame_size: 768 bytes
  . PID: 0121 Type: 03 - Audio MPEG-1
  🚊 🍕 PID: 0125 Type: 06 - Private PES, Audio AC3
     🚊 🗉 🗉 ES Info
         bsid: 6 (Alternate Bit Stream Syntax)
          📖 🗉 bitrate: 448 kbps
          ---- sampling_frequency: 48.0 kHz
          frame_duration: 32.0 ms
          bsmod: main audio service: complete main (CM)
          ---- a acmod: 2/0 - L,R
          ---- a dsurmod: Not indicated
          Ifeon: Subwoofer Off
          dialnorm: -27 dB below digital 100 percent
         🖮 🔶 compre: Compression Control Word exists
            ..... compr: -2.87
          🛶 🖗 langcode: Language Code does not Exists
           ---- copyrightb: Information is not indicated as protected
           - origbs: Copy of another bit stream
         🖮 🚸 xbsi1e: Extra Bitstream Information #1 Exists
              ---- a dmixmod: Not indicated
             .... Itrtcmixlev: 1.414 (+3.0 dB)
             Itrtsurmixlev: reserved (0.841 (-1.5 dB))
              Iorocmixlev: 1.414 (+3.0 dB)
             Iorosurmixlev: reserved (0.841 (-1.5 dB))
         🖮 🔶 xbsi2e: Extra Bitstream Information #2 Exists
             ---- a dsurexmod: Not indicated
              ---- a dheadphonmod: Not indicated
             ---- adconvtyp: Standard
              .... = xbsi2: 0 Reserved for future assignment
             encinfo: 0 Reserved for use by the encoder
      PID: 0130 Type: 06 - Private PES, Teletext
      PID: 0131 Type: 06 - Private PES, Subtitle
```

3.2 Configure Input

In 2 situations, the Configure Input window is used:

- Create a new Input
- Change an existing Input

Create a new input

Via 3 ways a new input can be created:

- Select 🔍 in the Inputs Bar
- Select 🕒 Add Input in the Toolbar
- Select Add Input via the right mouse key

Change an existing input

Via 3 ways a existing input can be changed:

- Double clik on the Input entry
- Select 💸 Configure Input in the Tool Bar
- Select Configure via the right mouse key

Configure Input parameters

The Configure Input window gives the possibility to select an Input Transport Stream.

Configure Input	
Input Name:	IP 239.10.10.101 ID: 27
Input Device:	UDP/Multicast Source Configure
Audio Options:	
Input Lost Detection:	Application Default
Resolved:	Application Default
PID Lost Detection:	Application Default
Resolved:	Application Default
Input Lost Detection:	Application
ETR290 L1 Detection:	Application
Cancel	ОК

Input Name

Descriptive Input Name

ID

Input identifier

Input Device

The Input selector

Source	Description
File	Transport Stream File
DVB-ASI	Input via ASI input board
DVB-S	Input via Satellite receiver board
DVB-C	Input via Cable receiver board
DVB-T	Input via Terrestrial receiver board
UDP/Multicast	Input via UDP Multicast packets

Configure

After selecting Configure, the Tuner window corresponding with the selected Input Device will pop-up. See appendix B for all Input possibilities.

The button gives the possibility to ignore PIDs on an Input.

Ignore PIDs	×
Ignore the following	PIDs:
PID: 0098	
PID: 0099	
V PID: 0100	
V PID: 0101	
PID: 0102	
PID: 0103	
PID: 0104	
PID: 0105	
PID: 0106	
PID: 0107	
PID: 0108	
PID: 0109	
PID: 0110	
PID: 0111	
PID: 0112	
PID: 0113	
PID: 0114	
PID: 0115	
PID: 0116	
PID: 0117	
PID: 0118	
PID: 0119	
PID: 0120	
PID: 0121	-
P10: 0122	
OK	

If no PIDs are excluded the button will be shown as



Audio options

Default the Preference Application settings are used as described in chapter 2.8 "General Preferences – Audio Preferences".

For each Input, specific audio signaling can be used for:

- Input Lost Detection •
- PID Lost Detection

The button gives the possibility to test and hear the selected audio track.

4 Log View

All DVBMosaic log information is displayed in the Log View window.

Log						
😯 3/4 Errors 🕥 24 Messages 🕥 All						
Date/Time	ID	Input	PID	Service	Message	Cleared
124/01/2010 20:55:03	0101	IP_239_10_10_101			Using MGB1 profile for bitrate calculation	
124/01/2010 20:55:03	0114	IP_239_10_10_114			Using MGB1 profile for bitrate calculation	
24/01/2010 20:55:05	0104	IP_239_10_10_104	2540	NM-TV	PID Lost Detected	
3 24/01/2010 20:55:05	0104	IP_239_10_10_104	2541	NM-TV	PID Lost Detected	
3 24/01/2010 20:55:14	0104	IP_239_10_10_104	2540	NM-TV	Service Lost Detected	
24/01/2010 20:58:23	0103	IP_239_10_10_103	0401	RTL2 Austria	Freeze Detected	24/01/2010 20:58:26 (3 secs)

Different log types are used:

Signalling		Description
8	Error	Error log line
•	Warning	Warning log line
1	Info	Information log line

All new Error messages are shown with a red background.

When an Error message is cleared the type changes from Error to Warning type, with a purple background.

In different columns detailed information is given

Filter	Description
Date/time	The date and time the log information was generated
ID	Input Identifier
Input	Input Name
PID	Optional: The PID to which the log information was related
Service	Optional: The audio service name, corresponding with to the PID
Message	The log message
Cleared	The date and time when the error was cleared.

When hovering the mouse over a Log entry, a Tooltip will be displayed with all details.

	Date/Time: 24/01/2010 22:48:2	5
IVIE	Input: 0104 - IP_239_10_10_104	
Fre	PID: 1040	
Fre	Service: LT1-OOE	
Fre	Message: Freeze Detected	
Fre	Cleared: 24/01/2010 22:48:27 (2 secs)	
Free		-
Free	zeDetected	24

Different tabs can be used to filter the log types:

- Errors
- Messages
- All

Then number of entries is given in the tab name. For Errors the number of open and solved errors are given.

Log							
😮 3/10 Errors 🚯 24 Messages 🍚 All							
Date/Time	ID	Input	PID	Service	Message	Cleared	
24/01/2010 20:58:23	0103	IP_239_10_10_103	0401	RTL2 Austria	Freeze Detected	24/01/2010 20:58:26 (3 secs)	
Q 24/01/2010 20:59:03	0103	IP_239_10_10_103	0512	HSE24 extra	Freeze Detected	24/01/2010 20:59:05 (2 secs)	
4/01/2010 20:59:40	0103	IP_239_10_10_103	0512	HSE24 extra	Freeze Detected	24/01/2010 21:00:04 (24 secs)	
24/01/2010 21:00:35	0103	IP_239_10_10_103	0512	HSE24 extra	Freeze Detected	24/01/2010 21:01:16 (41 secs)	
25/01/2010 09:05:15	0103	IP_239_10_10_103	0512	HSE24 extra	Freeze Detected	25/01/2010 09:05:24 (9 secs)	
4 25/01/2010 09:08:39	0104	IP_239_10_10_104	1010	TW1	Freeze Detected	25/01/2010 09:08:51 (12 secs)	
40 25/01/2010 09:09:40	0104	IP_239_10_10_104	1010	TW1	Freeze Detected	25/01/2010 09:09:50 (10 secs)	
25/01/2010 09:10:09	0104	IP_239_10_10_104	1010	TW1	Freeze Detected	25/01/2010 09:10:15 (6 secs)	
4 25/01/2010 09:10:31	0104	IP_239_10_10_104	1010	TW1	Freeze Detected	25/01/2010 09:10:36 (5 secs)	
4 25/01/2010 09:12:25	0104	IP_239_10_10_104	1010	TW1	Freeze Detected	25/01/2010 09:12:26 (1 secs)	
324/01/2010 20:55:05	0104	IP_239_10_10_104	2540	NM-TV	PID Lost Detected		
324/01/2010 20:55:05	0104	IP_239_10_10_104	2541	NM-TV	PID Lost Detected		
24/01/2010 20:55:14	0104	IP_239_10_10_104	2540	NM-TV	Service Lost Detected		

By using the right mouse key, extra actions can be taken:

Copy to Clipboard	
Clear Window	

5 Wall

5.1 Introduction

The Wall configuration creates the layout of the presented walls. 10 Walls can be used.

Configuration of the wall is done via the "Wall Configuration" button.

5.2 Menu Bar

The sub-menu options available in the Menu Bar selection are File and Options.

File

File menu	Principal functions
Load Wall	Load a Wall configuration from Hard Disk
Save Wall	Save the Wall configuration to Hard Disk
Exit	Exits the Configuration Wall window

Options

Options menu	Principal functions
Configuration Report	Display configuration details (see also paragraph 5.11)
Auto Populate Wall from	Fill all Services from the selected Inputs, starting from the channel
Selected Input	position which was selected.
Auto Populate Wall from	Clears the total Wall (except Clock and Images). Then fills all
All Inputs	channels left, with available Services from all Inputs.
Clear Wall	Clears the Wall configuration

5.3 Configure Wall

First the appropriate Wall has to be selected.

```
      Wall 1
      Wall 2
      Wall 3
      Wall 4
      Wall 5
      Wall 6
      Wall 7
      Wall 8
      Wall 9
      Wall 10
      Wall 11
      Wall 12
      Wall 13
      Wall 14
      Wall 14
```

In each Wall, by using the pull-down, it also possible to:

- Copy wall, to another wall
- Load wall
- Save wall

Secondly, the Global wall parameters have to be set. This way the general grid and optional a clock is chosen and can be seen at the Wall Preview.

Third, each Channel has to be configured.

Configure Wall		×
Wall: Wall 1 Wall 2 Wall 3 Wall 4 Wall 5	Wall 6 Wall 7 Wall 8	
Channel Configuration:	Default Channel Size:	c
Type: Video 🔹 ID: 1	Size X: 1 Size Y: 1	
Name: Al Masriya Position: 0		
Color: Size X: 2 Size Y: 4	Global Wall Parameters:	
Background: Aspect Ratio: Application 🔻	Grid X: 12 Grid T: 24 V Keep Channel positions while resizing wall	Vall Preview:
Mask Content Display Collapsed	1 23 CLK 3 23 4 23 CLK 6 V:163 Las Vegas V:161 V:289 Amsterdam V:	23 :166
Input: 0023 UDP 101 Select Service	Al Masnya K1P1 KAL1 I	v/
Video PID: 163	9 23	23
Overlay: None Display Active Region	V:58 TVEi 18 24 7 23 2 23 12 23 Al.3	155 azeera
© Subtitle PID:	V:518 V:167 V:164 V:139 TV Oost ARTE TV5MONDE 2M Monde	
Teletext PID: TT Page: 100 (Hex)	42 22	12
Mode: Timeout: Level: (%)	13 V:712 131 23 32 26 33 25 34 25 35 25 44 26 45 26 46 26 V	:167
Freeze Detection: Custom V 15 10	N: INT International V:289 V:1010 V:513 V:515 V:301 V:1010 V:1020 V:2110 All RAT 1 TV/1 CK AUSTRINO AUSTRINO V Austria TV/1 Carty Carty	KIE -
Black Detection: Application	39 24 40 24 41 23 42 23 43 23 47 25 48 25 49 25 14 V(520 V(521 V(528 V(566 V(5	24
Silence AND Freeze Detection: Application 5 5	5 23 Toolond Brokent PATI TV7 All Incore DTL Austria/OY Austria Europent 16 V:168 ro 24 ro	24
PID Lost Detection: Application	CANAL ALGERIE 20 24 51 24 53 24 53 24 54 24 55 24 56 24 57 24 19 V:512 V:513 V:514 V:515 V:516 V:517 V:518 V:519 20	24
Service Lost Detection: Application 💌	58 26 59 26 60 26 61 26 62 26 63 26 64 26 65 26 21	24
Acknowledge Mode: Application 🔻	22 25 36 23 37 23 38 23 23 V(147 V(712 V(139	24
🚺 Custom Audio Alerts 🛛 👼 Measurement Scheduling	EuroNews ARTE TRT International 2M Monde	24
	25	24
Audio PIDs: PID Name Detection Mode Prg Edit	29 23 30 24 17 24 27	26
104 ara All 1 Delete	T:291 (100) T:44 (100) T:34 (100) RAI 1 TV Oost TV Rijnmond 28	26
		hage
Add		
Add Delete		

Default Channel Size

Settings which have to be chosen once, for each wall

Default Channel Size:				
Size X: 1 Size Y: 1				

Size X

The default number of cells used horizontal for a new channel.

Size Y

The default number of cells used vertical for a new channel.

Global Wall Parameters

-Global Wall Paramete	s:	
Grid X: 4 G	id Y: 20 Keep Channel positions while res	sizing wall Resize

Grid X

The number of cells used horizontal for a Wall.

Grid Y

The number of cells used vertical for a Wall.

Keep Channel positions while resizing wall

If enabled, the channels will be using the same position after resizing the wall.

Resize

By pressing the Resize button, it is also possible to larger the grid, while all object stay in in 'relative' place.

Resize Wall X	<
Actual Size: Grid X: 4 Grid Y: 20 New Size:]
Grid X: 20 Grid Y: 200]
(New grid size should be a multiply of the old grid size!)	
Cancel OK	

In the 'Resize Wall' the new Grid X and Y size can be given. Of course the new size has to be a multiple of the original size.

After setting the X and Y grid, a new Wall preview will be shown. Each channel position number is shown in the centre of each channel grid.

Selecting an existing Channel configuration, can be done by mouse clicking a specific cell in the Preview Wall.

				Wall Preview:
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

A empty wall be show as:

Channel Configuration

Selecting an existing Channel configuration, can be done by mouse clicking a specific cell in the Preview Wall. The focused Channel will be coloured brawn.

Channels can be deleted, copied and paste, using the right mouse button menu, or shortcuts.

Right mouse menu	Short key	Principal functions	
Сору	Ctrl+C	Copy the selected channel	
Paste	Ctrl+P	Paste the selected channel	
Delete	<delete></delete>	Delete the selected channel	



If an input is deleted, the related wall components will be coloured red.

0	23 V:110 ZDF	1	23 V:210 3sat	2
			_	

For different types of input, a channel can be configured:

- Clock
- Image
- Video
- Subtitle
- Teletext
- Audio
- Service
- Text
- ETR290 Level 1
- PID Monitor
- Penalty Box
- Chart

By selecting the Type pull down, the required channel type can be configured.

Channel configuration

Ad	d Delete

Add

After the channel configuration, the new Channel configuration will be added to the Wall.

Delete

Delete the selected Channel configuration out of the Wall.

Multi Monitor support

When using multiple displays connected to one machine, the grid has to be adjusted so shown services will not be split over different displays. It is also handy to choose a grid which can be divided over the multiple displays.

Wall exit



OK Leave the Configure Wall window.

5.3.1 Clock

A real-time clock can be added to the wall by selecting the Clock type.



The clock uses the computer time.

Channel Configuration:				
Type:	Clock			ID: 11
Name:	Amsterdam	Position:	9	
Color:	•	Size X:	1	Size Y: 1
Background:	As	pect Ratio:	Applica	ation 🔻
	Mask Content		Disp	lay Collapsed
Input:	None	•	Select	Service
Clock Type:	Analog 👻			
TimeZone:	(UTC+01:00) Amsterda	m, Berlin, Be	ern, Ror	me, Stockholr 🔻
Notation:	24 Hour 🔻			
Sync:	System 🔻			
Clock Theme:	Modern 👻			

Туре

Select Clock

ID

Unique Identifier per Wall, which is used for external communication (e.q. SNMP, DVBMonitor).

Name

Clock name, presented above the clock.

Color

The color which could be used to highlight the Channel name.

Background

For a standard clock style, the background color can be selected.

Position

The position number of the clock.

Size X

The horizontal size of the clock.

Size Y

The vertical size of the clock.

Clock Type

Selection of clock mode:

- Off
- Analog
- Digital
- Both (Analog and Digital)
- Broadcast

When using the 'Broadcast' clock type, also the colours for the inner and outer can be chosen:



TimeZone

UTC Offset can be used.

(UTC+01:00) Amsterdam, Berlin, Bern, Ron	-
(UTC+01:00) Amsterdam, Berlin, Bern, Rom	
(UTC+02:00) Minsk	
(UTC+02:00) Cairo	
(UTC+02:00) Helsinki, Kyiv, Riga, Sofia, Tall	
(UTC+02:00) Athens, Bucharest, Istanbul	
(UTC+02:00) Jerusalem	
(UTC+02:00) Amman	
(UTC+02:00) Beirut	
(UTC+02:00) Windhoek	
(UTC+02:00) Harare, Pretoria	
(UTC+03:00) Kuwait, Riyadh	
(UTC+03:00) Baghdad	
(UTC+03:00) Nairobi	
(UTC+03:00) Moscow, St. Petersburg, Volg	
(UTC+03:30) Tehran	
(UTC+04:00) Abu Dhabi, Muscat	
(UTC+04:00) Baku	-
(UTC+04:00) Yerevan	=
(UTC+04:00) Tbilisi	
(UTC+04:00) Port Louis	
(UTC+04:30) Kabul	
(UTC+05:00) Ekaterinburg	
(UTC+05:00) Islamabad, Karachi	
(UTC+05:00) Tashkent	
(UTC+05:30) Chennai, Kolkata, Mumbai, Ne	
(UTC+05:30) Sri Jayawardenepura	
(UTC+05:45) Kathmandu	
(UTC+06:00) Dhaka	
(UTC+06:00) Astana	
UTC+06:00) Novosibirsk	T

Notation

Selection of time notation:

- 24 Hour
- AM/PM

Sync

Selection of the clock synchronization source:

- System time
- Input (TDT/TOT/SIT) time

Clock Style

Selection of clock style:

- Standard
- Modern

5.3.2 Image

An Image can be added to the wall by selecting the Image type.

Channel Configuration:									
Type:	Image 🔹	ID: 2							
Name:	Position:	1							
Color:	Size X:	1 Size Y: 1							
Background:	Aspect Ratio:	Application 🔻							
	Mask Content	Display Collapsed							
Input:	0001 Input 🔹	Select Service							
Type: Disk/File HTTP/URL									
Image:	Picture 1. jpg	•							
http://									
	Auto Refresh 10 min 💌								

Туре

Select Image

Name

Image name (only used for reporting).

Position

The position number of the image.

Size X

The horizontal size of the image.

Size Y

The vertical size of the image.

Aspect Ratio

A preferred Aspect Ratio can be chosen.

- Application (default)
- Off (stretch image)
- 4:3
- 16:9

Туре

An image can be selected from different source types:

- Disk/File
- HTTP/URL

Image

Selection of the image file. Image files are stored in the /image directory.

http://

URL of the webpage

Auto refresh

If enabled, the webpage can be refreshed automatically, using a selected interval:

- 1 min
- 5 min
- 10 min (default)
- 15 min
- 30 min
- 1 hour
- 12 hour
- 24 hour

5.3.3 Video

Video can be added to the wall by selecting the Video type.

Channel Configuration:									
Type:	Video			\sim	I	D: 1			
Name:	ZDF		Posi	tion:	0				
Text Color:	Size X: 1 Size Y:								
Background:	nd: Aspect Ratio: Application ~								
Mask Content Display Collapsed									
Input: 0001 239.120.121.1 V Select Service									
Video PID:	110		o:		~ 1				
	Osubiida PID: Hide Overlav								
	Orc	Type	e: CC1 V						
	000		Mode:		Timeout				
F	reeze De	tection:	Application	~	5	10			
	Dia de Da	testion	Application	-	5	00			
Black Detection:		Application		5	50				
Silence AND Freeze Detection: Application ~					5				
PID Lost Detection: Application 🗸				\sim	3				
Service Lost Detection: Application \checkmark									
Encryption Detection: Application									
Aspect Ratio Detection: Application \checkmark									
EIT Now Detection: Application			~	3					
ETR290 Detection: Application ~									
Pre-Scale Mode: Application V				~					
Ack	nowledg	e Mode:	Application	~					
Custom Audio Alerts Scheduling / Region									
Audio PIDs:	PID	Name	Channel M	lode	Prg	Edit			
	120	deu	Applicati	ion	1				
	121	mis	Applicati	on	1	Delete			
	122	mul	Applicati	on	1	Add			
	125	deu	Applicati	on	1				

Туре

Select Video

ID

Unique Identifier per Wall, which is used for external communication (e.q. SNMP, DVBMonitor).

Name

The Channel name, which will be displayed with the video.

Color

The color which is used to highlight the Channel name.

Background

The channel name background color.

Mask Content

If enabled, the video image will be masked according the preferred mask mode which is chosen in Preferences – Application (Mosaic, Black or Darken).

Position

The position number of the channel.

Size X

The horizontal size of the channel, which can also be changed by using the handles at the border of the channel.

Size Y

The vertical size of the channel, which can also be changed by using the handles at the border of the channel.

Aspect Ratio

A preferred Aspect Ratio can be chosen.

- Application (default)
- Off (stretch)
- Auto (following the MPEG header aspect ratio)
- 4:3
- 16:9

Display Collapsed

If enabled, the active video will not be shown. Only the UMD is shown.

Input

Pull down list of all available Transport Stream inputs.

Select Service

Instead of typing the appropriate Service and PID numbers, via Select Service the service and its components can directly be selected. Select Service will give all services which are found in the selected input Transport Stream, after have been in running mode.
Select Service	x
E 2 Program 28006 - 7DE	
9 PID: 0110 Type: 02 - Video MPEG-2	
4: PID: 0120 Type: 02 - Audio MPEG-1	
4: PID: 0121 Type: 03 - Audio MPEG-1	
4: PID: 0125 Type: 06 - Private PES, Audio AC3	
PID: 0130 Type: 06 - Private PES, Teletext	
PID: 0131 Type: 06 - Private PES, Subtitle	
□ ·· ■ K Program 28007 - 3sat	
PID: 0210 Type: 02 - Video MPEG-2	
PID: 0220 Type: 03 - Audio MPEG-1	
PID: 0221 Type: 03 - Audio MPEG-1	
PID: 0225 Type: 06 - Private PES, Audio AC3	
PID: 0230 Type: 06 - Private PES, Teletext	
🖃 📲 🔣 Program 28008 - KiKa	
PID: 0310 Type: 02 - Video MPEG-2	
4: PID: 0320 Type: 03 - Audio MPEG-1	
PID: 0330 Type: 06 - Private PES, Teletext	
🗄 📲 🛃 Program 28011 - ZDFinfokanal	
🕀 📲 🍕 Program 28012 - DKULTUR	
🕀 📲 🍕 Program 28013 - DLF	
🕀 📲 🔣 Program 28014 - zdf_neo	
🗄 🕛 🔣 Program 28016 - ZDFtheaterkanal	
🗄 🕛 🍕 Program 28017 - DRadio Wissen	
Cancel	ОК

Also multiple Services can be selected at once. Therefore, first a not used channel position in the Wall has to be selected.

Select Service	×
7	
Program 28007 - 3sat	
Program 28011 - ZDFinfokanal	
🕀 📲 🐗 Program 28012 - DKULTUR	
🖅 📲 🍕 Program 28013 - DLF	
🗄 📲 🔣 Program 28014 - zdf_neo	
🗉 🔹 🚺 Program 28016 - ZDFtheaterkanal	
🗄 📲 🍕 Program 28017 - DRadio Wissen	
	01
Cancel	ОК

Video PID

Selected Video PID.

Logo

If enabled, a service logo can be selected which will be overlaid over the video signal.

No PCR!

Enable this option, if the PCR is not accurate or does not exist for this service

Overlay

Overlay: 🔘 None			Display Active Region 🗹
Subtitle	PID:	125	Hide Overlay
◯ Teletext	PID:		TT Page: 100
⊖cc	Type:	CC1	✓ Hide Icons ☑

Different types of overlay are possible:

- None
- DVB-Subtitle
- Teletext
- CC (Closed Captioning)

For DVB-Subtitle overlay, the DVB-Subtitle PID must be selected. For Teletext overlay, the Teletext PID and Teletext page must be selected.

For CC (Closed Captioning) we support: CC1, CC2, CC3, CC4 and 708.

Display Active Region

If enabled, scales the active region to full display.

Hide Overlay

If enabled, the Subtitle or Teletext overlay will not be shown. But the PID lost check and the Teletext Page Time-out check are still monitoring.

Hide Icons

If enabled, for this wall component no icons will be overlaid for:

- Aspect ratio
- Subtitles
- Teletext
- Now/Next
- ETR290 Level 1
- HbbTV
- SCTE-35

Measurements

	Mode:		Timeout:	Level: (%)	
Freeze Detection:	Application	\sim	10	10	
Black Detection:	Application	\sim	5	90	
Silence AND Freeze Detection:	Application	\sim	5		
PID Lost Detection:	Application	\sim	3		
Service Lost Detection:	Application	\sim			
Encryption Detection:	Application	\sim			
Aspect Ratio Detection:	Application	\sim			
EIT Now Detection:	Application	\sim	3		
ETR290 Detection:	Application	\sim			
Pre-Scale Mode:	Application	\sim			
Acknowledge Mode:	Application	\sim			
Ocustom Audio Alerts	s Scheduling / Region 💿				

Default for each Channel the Preference Application settings are used as described in chapter 2.8 "General Preferences – Measurements".

For each Channel, the settings can be overruled for:

- Freeze Detection
- Black Detection
- Freeze/Silence Detection
- PID Lost Detection
- Service Lost Detection
- Encryption Detection
- Aspect Ratio Detection
- EIT Now Detection
- ETR290 Detection
- Pre-Scale Mode
- Acknowledge Mode

For Pre-scale mode, different scaling selections can be made



Custom Audio alerts

Default for each Channel the Preference Application settings are used as described in chapter 2.8 "General Preferences – Audio Preferences".

Channel Custom Audio Alerts		X
Alerts:		
Freeze Detection:	FreezeDetection.wav	- @
Resolved:	Application Default	-
Black Detection:	BlackDetection.wav	-
Resolved:	Application Default	-
Silence AND Freeze Detection:	Application Default	-
Resolved:	Acknowledge.wav	-
PID Lost Detection:	Application Default	-
Resolved:	Application Default	-
Service Lost Detection:	Application Default	-
Resolved:	Application Default	-
Cancel		ОК

For each Channel, specific audio signaling can be used for:

- Freeze Detection
- Black Detection
- Silence/Freeze Detection
- PID Lost Detection
- Service Lost Detection

The button gives the possibility to test and hear the selected audio track.

Measurement scheduling and Region

With the scheduling option you can specify which check is active on specific days between specific times. Multiple measurement schedules can be configured for a channel.

Scheduler	Scheduler X						×					
Schedules	:											
Start	Stop	Enabled	Days		Freeze	Black	Silence	Silence AND Freeze	PID	Service	Encryption	Aspect
16:00	23:30	Yes	Mon/Tue/We	d/Thu/Fri	*	*	*		*			*
18:00	23:30	Yes	Tue/Sat/Sun		*	*	*		*			*
		In data	Delete									Class.
Add		Jpoate	Delete									Clear
☑ Enabled ☑ Check Freeze Detection ☑ Check Black Detection ☑ Check Silence Detection ☑ Check Silence Detection ☑ Check Silence AND Freeze Detection ☑ Check Struce Lost Detection ☑ Check Service Lost Detection ☑ Check Aspect Ratio Detection												
Off-Air Slid	de: None				✓ Measure	ments ar	e disabled	during detection of this	s Slide.			
Regi	on: Left:	20.0 R	light: 40.0	Top: 60.0	Bottom:	80.0	(Defau	lt 0,0,0,0) Used for Fre	eeze/B	lack detection	n region	
OK												

If a test is not used in the 'Configure Wall' setup, it will be shown grey in the Schedules overview list.

A small 'clock' icon on the right of the wall item indicates the use of Measurement Scheduling for this channel.



Slide Detection Setup

It is also possible to let the system detect a 'Slide' to ignore all errors. This can be used for channels that do not broadcast 24/7, or only during night times.

Off-Air Slide:	Pauze_Slide_M3 ~	Measurements are disabled during detection of this Slide.	h

The first step is to make a snapshot/screenshot of the Slide. For this it is recommended to make a recording of the slide and use this as FILE input. When you see the slide, press CONTROL-SHIFT keys, and click with the LEFT mouse button on the channel. DVBMosaic will ask you where to store the slide on disk.

Next, start the 'Slide Editor' that you can find in the installation folder of DVBMosaic. Open the JPEG file, zoom in, and add unique/stable pixels by pressing the CONTROL + LEFT mouse button on the pixels.

Make sure there is enough space around the pixels, do not take for example a black pixel next to a white one (or via versa), but make sure there is enough black pixels around it 10 Slide points is a good amount.

Save this in the 'Slides' folder inside the DVBMosaic installation folder.

Open the wall configurator, select the Channel that should be checked against this slide, press the 'Measurement' button, and select the slide and press OK

A small icon "square with a cross" on the right of the wall item indicates the Slide Detection is active for this channel.



Next start the normal monitoring. When the slide is detected you will see a 'Pause' icon on top of the video, and the measurements will be stopped/solved.



Active Region

You can specify a region where the checks are active for black/freeze.

For instance, if you have a Tell-Sell channel with a border on the right, you only want to active the active content (the left part).

Or a music channel with a ticket tape (two different playout systems), you might want to measure only the active video. You can enable the display of the active Region in the Layout settings

Region: Left: 20.0 Right: 40.0 Top: 60.0 Bottom: 80.0 (Default 0,0,0,0) Used for Freeze/Black determined by the second d	ion region
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------

The values are set in %.

A small icon "square" on the right of the wall item indicates the Active Region filter is active for this channel.



In the Mosaic view the region is shown in green.

Please be aware you have to enable the 'Show Region' preference.



If Scheduling, Slide Detection and Active Region are enabled, all three icons will be shown.



Audio PID configuration

Audio PIDs:	PID	Name	Channel Mode	Prg	Edit
	120	de	Application	1	
	121	mi	Application	1	Delete
	122	mu	Application	1	
	125	de	Application	1	Add

Maximal of 20 audio components can be used:



If an audio problem occurs (Silence, PID Lost, Input Lost) and no audio name is used, a red E* will be shown:



If an audio problem occurs (Silence, PID Lost, Input Lost) and an audio name is used, the audio name will be shown in red:



Audio PID's: Edit / Delete / Add

Editing (multiple) Audio PID's .

Configure Audio PID	
PID:	2433 Name: GE Program: 1
Silence Detection Mode:	Application PID Lost Detection Mode: Application
Timeout:	60 (Seconds) Timeout: 3 (Seconds)
Silence Level:	-50 (dB)
Max Audio Channels:	All Channel Detection Mode: All
Audio Options:	
Silence Detection:	Application Default
Resolved:	Application Default
PID Lost Detection:	Application Default
Resolved:	Application Default
Cancel	ОК

PID

Audio PID coming out of the Input Transport Stream.

If no Audio PID is given, there will not be shown any audio. If Audio PID 0 is given, automatically the first Audio PID number coming from the PMT will be used.

Name

If the name of the audio component is used together with video, only the 2 first characters are shown. If no name is used, also no name background will be shown.



When used without a Video PID, the audio components are interpreted as Radio services and the full name will be presented.

TTTTT		
******	┢╋╋╋╋╋╋╋	

Program

Program selection, used for Dolby-E

Silence Detection Mode

Select the appropriate Silence Detection mode settings:

- Off (no silence detection)
- Application (use application settings)
- Custom (use custom settings)

Silence Level / Timeout

If custom Silence Detection enabled, Silence Detection signalling will be given after xx Seconds of Silence using yy dB as Silence level.

Max Audio Channels

Select the maximum number of audio components which should be shown.

- All
- 1
- 2
- 3
- 4
- 5
- 6

Channel Detection Mode

Select the appropriate Silence detection Channel mode (Now possible to check individual channels, ignored for PID's with more than two channels):

- All
- Separate

Use this option if you have two languages that share the same stereo audio.

(For example Left = Spanish and Right = English)

When enabled, silence detection is performed for each individual language (left/right)

Audio options

Default the Preference Application settings are used as described in chapter 2.8 "General Preferences – Audio Preferences". For each Audio PID, specific audio signaling can be used for:

- Silence Detection
- PID Lost Detection

The button gives the possibility to test and hear the selected audio track.

5.3.4 Subtitle

Channel Configuration: ID: 7 Type: Subtitle • Name: ZDF Position: 3 Size X: Size Y: 1 Color: 1 Ŧ Aspect Ratio: Application 👻 Background: Ŧ Mask Content Display Collapsed Select Service Input: 0002 Input Ŧ Subtitle PID: 131 No PCR! Mode: Timeout: 3 PID Lost Detection: Application • Service Lost Detection: Application Ŧ Encryption Detection: Application • Acknowledge Mode: Application Ŧ Custom Audio Alerts Measurement Scheduling Display Active Region

A DVB-Subtitle can be added to the wall by selecting the Subtitle type.

Туре

Select Subtitle

ID

Unique Identifier per Wall, which is used for external communication (e.q. SNMP, DVBMonitor).

Name

The Channel name, which will be displayed with the subtitle.

Color

The color which is used to highlight the Channel name.

Background

The channel name background color.

Position

The position number of the channel.

Size X

The horizontal size of the channel, which can also be changed by using the handles at the border of the channel.

Size Y

The vertical size of the channel, which can also be changed by using the handles at the border of the channel.

Aspect Ratio

A preferred Aspect Ratio can be chosen.

- Application (default)
- Off (stretch)
- Auto (following the MPEG header aspect ratio)
- 4:3
- 16:9

Display Collapsed

If enabled, the active video will not be shown. Only the UMD is shown.

Input

Pull down list of all available Transport Stream inputs.

Select Service

Instead of typing the appropriate Service and PID numbers, via Select Service the service and its components can directly be selected. Select Service will give all services which are found in the selected input Transport Stream, after have been in running mode.

For each Channel the settings can be overruled for:

- PID Lost Detection
- Service Lost Detection
- Acknowledge Mode

Subtitle PID

Selected Subtitle PID.

No PCR!

Enable this option, if the PCR is not accurate or does not exist for this service.

Custom Audio Alerts

Specific audio signaling can be used for:

- PID Lost Detection
- Service Lost Detection

The

button gives the possibility to test and hear the selected audio track.

Measurement Scheduling

Multiple measurement schedules can be configured for:

- PID Lost Detection
- Service Lost Detection

Display Active Region

If enabled, scales the active region to full display.

5.3.5 Teletext

Channel Configuration:
Type: Teletext ID: 3
Name: RTL Austria Position: 6
Color: Size X: 1 Size Y: 1
Background: Aspect Ratio: Application 🔻
Mask Content Display Collapsed
Input: 0001 Input Select Service
Teletext PID: 203 TT Page: 100 (Hex) No PCR!
Mode: Timeout:
PID Lost Detection: Application
Service Lost Detection: Application 🔻
Encryption Detection: Application
Acknowledge Mode: Application
🚺 Custom Audio Alerts 🛛 💽 Measurement Scheduling 🔘
Display Selective Lines
✓ 1 ✓ 6 11 16 21
▼ 5 □ 10 □ 15 □ 20 □ 25

Teletext can be added to the wall by selecting the Teletext type.

Туре

Select Teletext

ID

Unique Identifier per Wall, which is used for external communication (e.q. SNMP, DVBMonitor).

Name

The Channel name, which will be displayed with the teletext.

Color

The color which is used to highlight the Channel name.

Background

The channel name background color.

Position

The position number of the channel.

Size X

The horizontal size of the channel, which can also be changed by using the handles at the border of the channel.

Size Y

The vertical size of the channel, which can also be changed by using the handles at the border of the channel.

Aspect Ratio

A preferred Aspect Ratio can be chosen.

- Application (default)
- Off (stretch)
- Auto (following the MPEG header aspect ratio)
- 4:3
- 16:9

Display Collapsed

If enabled, the active video will not be shown. Only the UMD is shown.

Input

Pull down list of all available Transport Stream inputs.

Select Service

Instead of typing the appropriate Service and PID numbers, via Select Service the service and its components can directly be selected. Select Service will give all services which are found in the selected input Transport Stream, after have been in running mode.

For each Channel the settings can be overruled for:

- PID Lost Detection
- Service Lost Detection
- Acknowledge Mode

Teletext PID Selected Teletext PID.

TT Page Selected Teletext Page.

No PCR!

Enable this option, if the PCR is not accurate or does not exist for this service.

Custom Audio Alerts

Specific audio signaling can be used for:

- PID Lost Detection
- Service Lost Detection

The button gives the possibility to test and hear the selected audio track.

Measurement Scheduling

Multiple measurement schedules can be configured for:

- PID Lost Detection
- Service Lost Detection

Display Selective Lines

If enabled, only the selected Teletext lines will be presented.

5.3.6 Audio

Audio can be added to the wall by selecting the Audio type.

Channel Confi	iguration	:				
Type:	Audio		•		ID:	2
Name:	DKULTU	IR	Position:	1		
Color:		-	Size X:	1	Size	Y: 1
Background:		-	Aspect Ratio:	Applicat	ion	_
	Mask	Content		Displa	ay Co	ollapsed
Input:	0001 In	put	•	Select S	Servi	ce
		I	Mode:	Timeout	:	
Service	e Lost De	tection:	Application 🔹			
Encry	ption De	tection:	Application 🔹]		
EIT	Now De	tection:	Application 🔹	3		
ET	R290 De	tection:	Application 🔹]		
Ack	nowledg	e Mode:	Application 🔹]		
	Display	y Mode:	Horizontal 🔹]		
🚺 Cus	tom Audi	o Alerts	🧖 Measuren	ent Sche	edulir	g
Audio PIDs:	DTD	Name	Detection Made	Dra	_	
/100/07/2007	710	Name	Detection Mode	Prg		
	710	de	Application	1		Delete
	/11	uc	Application	-		
						Add
						_

Туре

Select Audio

ID

Unique Identifier per Wall, which is used for external communication (e.q. SNMP, DVBMonitor).

Name

The Channel name, which will be displayed with the audio.

Color

The color which is used to highlight the Channel name.

Background

The channel name background color.

Position

The position number of the channel.

Size X

The horizontal size of the channel, which can also be changed by using the handles at the border of the channel.

Size Y

The vertical size of the channel, which can also be changed by using the handles at the border of the channel.

Display Collapsed

If enabled, the active video will not be shown. Only the UMD is shown.

Input

Pull down list of all available Transport Stream inputs.

Select Service

Instead of typing the appropriate Service and PID numbers, via Select Service the service and its components can directly be selected. Select Service will give all services which are found in the selected input Transport Stream, after have been in running mode.

For each Channel the settings can be overruled for:

- Service Lost Detection
- Encryption Detection
- EIT Now Detection
- ETR290 Detection
- Acknowledge Mode
- Display Mode

Display Mode

Audio bars can be shown in different orientations:

- Horizontal
- Vertical

Custom Audio Alerts

Specific audio signaling can be used for:

- PID Lost Detection
- Service Lost Detection

The button gives the possibility to test and hear the selected audio track.

Measurement Scheduling

Multiple measurement schedules can be configured for:

- PID Lost Detection
- Service Lost Detection

Audio PID's: Edit / Delete / Add

Editing (multiple) Audio PID's .

If an audio problem occurs (Silence, PID Lost, Input Lost) and no audio name is used, a red E* will be shown:



If an audio problem occurs (Silence, PID Lost, Input Lost) and an audio name is used, the audio name will be shown in red:



5.3.7 Service

A Service can be added to the wall by selecting the Service type.

Selecting a Service instead of a Video type, means that the PMT (Program Map Table) components are used, instead of using selected component PIDs. When the Service is using different PIDs the wall will follow.

Please be aware that the amount of used license points is dependent on the amount of separate decoded components. If a component is used more than once, but only has to be decoded once, also the needed points are only calculated once.

Channel Configuration:		
Type: Service	✓ ID: 6	
Name: KiKA	Position: 80	
Text Color: 🗸 🗸	Size X: 4 Size Y: 4	
Background:	Aspect Ratio: Application \checkmark	
Mask Content	t Display Collapsed	
Input: 0002 Input	✓ Select Service	
ServiceID:	go: dock.png v No PCR!	
Overlay: None	Display Active Region	
◯ Subtitle	Index: SUB1 V Hide	
⊖ Teletext TT	Page: 100	
Occ	Type: CC1 \checkmark Hide Icons	
	Mode: Timeout: Level: (%)	
Freeze Detection:	Application V 5 10	
Black Detection:	Application V 5 90	
Silence AND Freeze Detection:	Application \checkmark 5	
PID Lost Detection:	Application \checkmark 3	
Service Lost Detection:	Application ~	
Encryption Detection:	Application \checkmark	
Aspect Ratio Detection:	Application \checkmark	
EIT Now Detection:	Application \checkmark 3	
ETR 290 Detection:	Application \checkmark	
Pre-Scale Mode:	Application \checkmark	
Acknowledge Mode:	Application ~	
🚺 Custom Audio Alerts	Scheduling / Region	

Туре

Select Service

ID

Unique Identifier per Wall, which is used for external communication (e.q. SNMP, DVBMonitor).

Name

The Channel name, which will be displayed with the service. [SDT_NAME] can be used to automatically show the SDT Service Name.

Color

The color which is used to highlight the Channel name.

Background

The channel name background color.

Position

The position number of the channel.

Size X

The horizontal size of the channel, which can also be changed by using the handles at the border of the channel.

Size Y

The vertical size of the channel, which can also be changed by using the handles at the border of the channel.

Aspect Ratio

A preferred Aspect Ratio can be chosen.

- Application (default)
- Off (stretch)
- Auto (following the MPEG header aspect ratio)
- 4:3
- 16:9

Display Collapsed

If enabled, the active video will not be shown. Only the UMD is shown.

Input

Pull down list of all available Transport Stream inputs.

Select Service

Instead of typing the appropriate Service and PID numbers, via Select Service the service and its components can directly be selected. Select Service will give all services which are found in the selected input Transport Stream, after have been in running mode.

ServiceID

Selected Service PID.

Logo

If enabled, a service logo can be selected which will be overlaid over the video signal.

No PCR!

Enable this option, if the PCR is not accurate or does not exist for this service

Overlay

Overlay: 🔘 None			Display Active Region 🗹
Subtitle	PID:	125	Hide Overlay
◯ Teletext	PID:		TT Page: 100
⊖cc	Type:	CC1	✓ Hide Icons ☑

Different types of overlay are possible:

- None
- DVB-Subtitle
- Teletext
- CC (Closed Captioning)

For DVB-Subtitle overlay, the DVB-Subtitle PID must be selected. For Teletext overlay, the Teletext PID and Teletext page must be selected.

For CC (Closed Captioning) we support: CC1, CC2, CC3, CC4 and 708.

Display Active Region

If enabled, scales the active region to full display.

Hide Overlay

If enabled, the Subtitle or Teletext overlay will not be shown. But the PID lost check and the Teletext Page Time-out check are still monitoring.

Hide Icons

If enabled, for this wall component no icons will be overlaid for:

- Aspect ratio
- Subtitles
- Teletext
- Now/Next
- ETR290 Level 1
- HbbTV
- SCTE-35

	Mode:	Timeout:	Level: (%)	
Freeze Detection:	Application 👻	10	10	
Black Detection:	Application 🔻	5	90	
Silence AND Freeze Detection:	Application 🔻	0		
PID Lost Detection:	Application 🔹	0		
Service Lost Detection:	Application 🔹			
Encryption Detection:	Application 🔹]		
Aspect Ratio Detection:	Application 👻			
EIT Now Detection:	Application 🔻	3		
ETR290 Detection:	Application 🔹]		
Pre-Scale Mode:	Application 🔹]		
Acknowledge Mode:	Application 🔻			
Custom Audio Alerts Measurement Scheduling				

Measurements

Default for each Channel the Preference Application settings are used as described in chapter 2.8 "General Preferences – Measurements".

For each Channel the settings can be overruled for:

- Freeze Detection
- Black Detection
- Freeze/Silence Detection
- PID Lost Detection
- Service Lost Detection
- Encryption Detection
- Aspect Ratio Detection
- EIT Now Detection
- ETR290 Detection
- Pre-Scale Mode
- Acknowledge Mode

Also multiple Services can be selected at once. Therefore, first a not used channel position in the Wall has to be selected.

Custom Audio Alert

Default for each Channel the Preference Application settings are used as described in chapter 2.8 "General Preferences – Audio Preferences".

Channel Custom Audio Alerts		X
Alerts:		
Freeze Detection:	FreezeDetection.wav	- (•)
Resolved:	Application Default	▼ ■
Black Detection:	BlackDetection.wav	-
Resolved:	Application Default	→
Silence AND Freeze Detection:	Application Default	- @
Resolved:	Acknowledge.wav	▼ (4)
PID Lost Detection:	Application Default	- @
Resolved:	Application Default	→
Service Lost Detection:	Application Default	-
Resolved:	Application Default	→
Cancel		ОК

For each Channel, specific audio signaling can be used for:

- Freeze Detection
- Black Detection
- Silence/Freeze Detection
- PID Lost Detection
- Service Lost Detection

The button gives the possibility to test and hear the selected audio track.

Measurement Scheduling

cheduler 📃 🔀										
Start	Stop	Enabled	Days		Freeze	Black	Silence	Silence AND Freeze	PID	Service
00:00	03:00	Yes	All		*	*	*	*	*	*
00:00	24:00	Yes	All						*	*
21:00	24:00	Yes	All		*	*	*	*	*	*
Add Update Delete Clear										
Enabled Check Freeze Detection										
Check Silence AND Freeze Detection										
Check PID Lost Detection										
Check Service Lost Detection										
OK					ОК					

Multiple measurement schedules can be configured for a channel.

If a test is not used in the 'Configure Wall' setup, it will be shown grey in the Schedules overview list.

A little clock image on the right upper corner of a channel, indicates the use of Measurement Scheduling for this channel.



5.3.8 Text

A Text Object can be added to the wall by selecting the Text type.

- Channel Conf	iguration:		
Type:	Text	~	ID: 1
Name:		Position:	1
Text Color:	\sim	Size X:	1 Size Y: 1
Background:	\sim	Aspect Ratio:	Application \sim
	Mask Content		Display Collapsed
Input:	None	\sim	Select Service
Text:	Very imported text for the Mosaic Wall		
Size: Align:	+10 ~ Center ~		

Туре

Select Text

Name

The Channel name, which will be displayed with the service.

Color

The color which is used to highlight the Channel name.

Background

The channel name background color.

Position

The position number of the channel.

Size

The horizontal size of the channel, which can also be changed by using the handles at the border of the channel.

Size Y

The vertical size of the channel, which can also be changed by using the handles at the border of the channel.

Text

The text string which should be shown

Size

The Text size can be chosen:

- Normal
- +1
- +2
- ..
- +12

Align

The alignment of the Text:

- Left
- Right
- Center



5.3.9 ETR290 Level 1

 1.1 TS_sync_loss 1.2 Sync_byte_error 1.3 PAT_error 1.4 Continuity_count_error 1.5 PMT_error 1.6 PID_error
- 📕 1.6 PID_error

An 'ETR290 Level 1' Object can be added to the wall by selecting the 'ETR290 Level 1' type.

Channel Confi	guration:			
Type:	ETR290 Level 1	•		ID: 10
Name:	Input 3	Position:	10	
Color:	•	Size X:	1	Size Y: 1
Background:		Aspect Ratio:	Applica	ation 👻
	Mask Content		Disp	lay Collapsed
Input:	0003 Input 3	-	Select	Service
Size:	Normal 🔻			

Туре

Select 'ETR290 Level 1'

Name

The UMD name, which will be displayed under the 'ETR290 Level 1' object.

Color

The color which is used to highlight the UMD name.

Background

The UMD name background color.

Input

Pull down list of all available Transport Stream inputs. When instead of an input selection 'None' is selected, all inputs are measured.

Size

The Text size can be chosen:

- Normal
- +1
- +2
- ..
- +12

Using the right mouse button, the ETR290 log can be cleared.

Clear ETR290 Errors

Clear ETR290 Errors for All Inputs

ETR290 measurements are off-course only valid for original TS-inputs, not for OTT inputs.

HLS is using a Transport-Stream layer, but often not ETR290 compliant. For example, in HLS inputs the Continuity Counter (CC) for PAT/PMT tables mostly start with 0 (zere) for each new chunk. Therefore it is advised not to use ETR290 measurements for any OTT inputs

5.3.10 PID Monitor

A 'PID Monitor' Object can be added to the wall by selecting the 'PID Monitor' type.

The PID Monitor function will check if a PID available. This can be handy for eq. checking if the EIT and/or ECM PIDs are working okay.

The used time-out for PID monitoring can be set in Preferences (PID Lost Detection Timeout).

Channel Conf	iguration:				
Type:	PID Monitor	•		ID: 20	
Name:	EIT PID	Position:	16		
Color:	•	Size X:	1	Size Y: 1	
Background:	•	Aspect Ratio:	Applica	ation 🔻	
	Mask Content		Disp	lay Collapsed	
Input:	0001 Mux out	•	Select	Service	
Monitor PID:	2012				
		Mode:	Timeou	it:	
PI	D Lost Detection:	Application 🔹	3		
Encry	ption Detection:	Application 🔹			
Acknowledge Mode: Application 🔻					
🚺 Cus	Custom Audio Alerts Measurement Scheduling				

Туре

Select 'PID Monitor'

Name

The UMD name, which will be displayed under the 'ETR290 Level 1' object.

Color

The color which is used to highlight the UMD name.

Background

The UMD name background color.

Position

The position number of the channel.

Size X

The horizontal size of the channel, which can also be changed by using the handles at the border of the channel.

Size Y

The vertical size of the channel, which can also be changed by using the handles at the border of the channel.

Input

Pull down list of all available Transport Stream inputs. When instead of an input selection 'None' is selected, all inputs are measured.

Monitor PID

PID which should be monitored.

For each PID monitored the settings can be overruled for:

- PID Lost Detection
- Encryption Detection
- Acknowledge Mode

5.3.11 Penalty Box

A Penalty Box object can be added to the wall by selecting the 'Penalty Box' type.

Therefor each DVBMosaic which will generate errors will have to enable the Penalty Box function in their General Preferences (Please see also 2.10.8).

The Penalty Box will show:

- All the latest error messages, from this DVBMosaic engine
- If enabled, also the latest error messages from other DVBMosaic engines.

P BOX					
ZDF (deu)	Dlf Kultur	Dlf			
Input Lost	Silence Error	Silence Error			
01:07	01:08	01:08			
Dif Nova	zdf_neo	ZDF			
Silence Error	Silence Error	Silence Error			
35	01:08	01:08			
3sat	ZDFinfo	КіКА			
Silence Error	Silence Error	Silence Error			
01:08	01:08	01:08			
Man Color States Color States					

In the Wall configuration the 'Penalty Box' chart object can be customized:

- Channel Conf	iguration:		
Type:	Penalty Box	~	ID: 81
Name:	P BOX	Position:	63
Text Color:	\sim	Size X:	2 Size Y: 8
Background:	\sim	Aspect Ratio:	Application \sim
	Mask Content		Display Collapsed
Input:	None	\sim	Select Service
Caption Size:	Normal \checkmark		Display Border 🗹
Align:	Center 🗸 🗸		
Grid-X:	3		
Grid-Y:	4		
Layout:	Horizontal \sim		

Туре

Select 'Penalty Box'

Name

The UMD name, which will be displayed above the 'Penalty Box' object.

Position

The position number of the channel.

Size X

The horizontal size of the channel, which can also be changed by using the handles at the border of the channel.

Size Y

The vertical size of the channel, which can also be changed by using the handles at the border of the channel.

Text Color

The color which is used to highlight the Penalty Box name.

Background

The Penalty Box background color.

Caption Size

The Text size can be chosen:

- Normal
- +1
- +2
- ..
- +12

Align

The alignment of the Text:

- Left
- Right
- Center

Display Border

If enabled, shows a white border around the Penalty Box.

Grid-X

The number of shown errors vertically.

Grid-Y

The number of shown errors horizontal.

Layout

Selection how the errors are added to the Penalty Box list:

- Horizontal
- Vertical

5.3.12 Chart

A Bitrate or Spectrum Chart object can be added to the wall by selecting the 'Chart' type.

Charts are available for:

- Input Bitrate
- Service Bitrate
- PID Bitrate
- Spectrum

Input Bitrate



In the Wall configuration the 'Input Bitrate' chart object can be customized:

Channel Configuration:				
Type:	Chart	~	ID: 1	
Name:	TS 3 - Bitrate	Position:	0	
Text Color:	\sim	Size X:	25 Size Y: 3	
Background:	Aspe	ect Ratio:	Application \sim	
	Mask Content		Display Collapsed	
Input:	0001 239.120.121.1	\sim	Select Service	
Chart Type:	Input ~			
Theme:	Blue 🗸			

Туре

Select 'Chart'

Name

The UMD name, which will be displayed above the 'Chart' object.

Position

The position number of the channel.

Size X

The horizontal size of the channel, which can also be changed by using the handles at the border of the channel.

Size Y

The vertical size of the channel, which can also be changed by using the handles at the border of the channel.

Input

Pull down list of all available Transport Stream inputs.

Chart Type

Select 'Input'

Theme

Selection of the color which is used for the chart:

- Red
- Green
- Blue
- Gray

Service Bitrate



In the Wall configuration the 'Service Bitrate' chart object can be customized:

Channel Configuration:				
Type:	Chart V ID: 2			
Name:	ZDF - Bitrate Position: 26			
Text Color:	Size X: 25 Size Y: 3			
Background:	Aspect Ratio: Application \checkmark			
	Mask Content Display Collapsed			
Input:	0001 239.120.121.1 V Select Service			
Chart Type:	Service \checkmark			
Theme:	Red 🗸			
Service:	28006			

Chart Type

Select 'Service'

Service

The Service ID, for which the service bitrate should be measured.
PID Bitrate



In the Wall configuration the 'PID Bitrate' chart object can be customized:

Channel Conf	iguration:
Type:	Chart V ID: 3
Name:	PID 110 - Bitrate Position: 52
Text Color:	Size X: 25 Size Y: 3
Background:	Aspect Ratio: Application V
	Mask Content Display Collapsed
Input:	0001 239.120.121.1 V Select Service
Chart Type:	PID ~
Theme:	Green ~
PID:	110

Chart Type

Select 'Service'

PID

The PID, for which the bitrate should be measured.



Spectrum

For real-time Frequency Spectrum measurements, a very cheap Spectrum measurement probe can be connected via USB.

There are 2 different Spectrum measurement probes available: 35MHZ – 4.4 GHz https://bit.ly/2NSpWeV 138MHZ – 4.4 GHz https://bit.ly/2wlsxAr If you are using DVB-S, you need to be behind a loop-though of a tuner, and it is best to use a DC-Block filter on the Input of the probe. You need to subtract the LNB LOF from the frequency

In the Wall configuration the 'Spectrum' chart object can be customized:

Chart Type Select 'Chart'

USB Port The COM port on which the probe communicates

Start Freq The start frequency

Stop Freq The Stop frequency

- Channel Conf	iguration:
Type:	Chart ~ ID: 1
Name:	DVB-C Frequency Spec Position: 0
Text Color:	Size X: 1 Size Y: 1
Background:	Aspect Ratio: Application \checkmark
	Mask Content Display Collapsed
Input:	None V Select Service
Chart Type:	Spectrum ~
Theme:	Blue ~
	0
USB Port:	COM5 ~
Start Freq:	450 (MHz, for example 430.125)
Stop Freq:	900 (MHz)
Samples:	1000 ~
Y-Axis:	Dynamic \vee
Top Value:	-55
Bottom Value:	-90
Digits:	Auto 🗸

Samples

The number of samples which are used for the spectrum measurements can be chosen:

- 100
- 200
- 250
- 500
- 1000

Example with 500 samples:





Example with 1000 samples:

Y-Axis

The Y-axis can be:

- Dynamic
- Fixed

When using 'Dynamic' the axis are chosen automatically and rounded to nice values.

When using 'Fixed' also the Top and Bottom Value can be chosen.



Digits

The number of digits (decimals) on the X-axis can be chosen:

- Auto
- 1
- 2
- 3



When Fixed Y-Axis is chosen and the measured values are out-of-range, a yellow line wile indicate Clipping.

5.4 Configuration Details

A detailed overview of all configuration details used in DVBMosaic.

	losaic_Repor	t.html	ر	0 - G X	OVBMosaic Configuration	×	- □ ×
DVBMosaic Configuration Report Date: 2011-10-13 12:54:52, Version: 1.1.29.1 (c) 2010 RTSS B.V.							
APPLICATION SE	TTINGS	WALL 1 V	WALL 2 V	VALL 3 WA	ALL 4 WALL 5 WALL 6	WALL 7 WALL	8
Application Settin Global Settings	ngs						
Key	Value						
Television Standard	PAL						
Aspect Ratio	Off						
License Points	80						
CustomerID	1798226	88					
Hardware Serial	4B06655	F					
Messurement Settings							
Key		Value	Timeout	Level(%)			
Enable Freeze Detec	tion	Enabled	10	10			
Enable Black Detect	Enable Black Detection Di		5	90			
Enable Silence Detection Dis		Disabled	60	-50 dB			
Silence And Freeze Detection Ena		Enabled	5				
PID Lost Detection Enab		Enabled	3				
Service Lost Detection	on	Disabled					
** * * * * *							•

5.5 Config directory

In the directory named 'config' different configuration files are saved:

- Inputs.xml
- Wall_1 .xml .. Wal_10.xml

Inputs.xml

All Input settings are saved and can be changed manually.

Wall_1.xml .. Wall_10.xml

All 8 Wall settings are saved and can be changed manually.

If the Wall settings are manually changed while the DVBMosaic application is running, an updated Wall.xml settings can be reloaded using the Reload Wall Configuration button (see paragraph 2.1)

5.6 Service focusing

Toggling the TAB key will overlay the mouse when using Full Screen mode.

- Selecting a service with the mouse will focus this service and generate:
 - The green focus border around the service
 - Corresponding preview audio can be listened to via the computer speakers.
 - If enabled, the corresponding input Transportstream will be streamed via multicast for analyzing purposes.
 - The selected service name is shown at the status bar.

When a service has multiple audio components, a specific audio component can be focused by clicking on the specific audio bars.

When configured, focus can be chosen by using the left or right mouse button. The corresponding audio hardware device will be used for audio listening.

Double click on a service will show the video full screen, instead of showing multiple videos.

In Round Robin mode, cycling will stop when a service is shown full screen.

5.7 Changing Wall

Changing Wall's can be done using:

- the Ctrl-key in combination with the number keys 1..9.
 Wall 10 is selected by the combination of <Ctrl> + 0
- The web interface

Appendices

- Hotkeys & Shortcuts
- Installation
- License
- Troubleshooting
- Input adapters
- Legal Notes
- Contact

A Hotkeys & Shortcuts

A.1 Introduction

This appendix gives some overview information on hotkeys and keyboard shortcuts and lists all the hotkeys available.

What is a Hotkey?

A hotkey, also called a keyboard shortcut, shortcut key, or keystroke combination, is a key or set of keys that perform a defined function in a software application or computer operating system. Reducing application tasks and processes to a hotkey often saves the user time and makes software usage easier for those with disabilities.

Windows Sticky Keys

When a keyboard shortcut includes the Shift, Ctrl, Alt keys, or the Windows key, the Windows Sticky Keys feature lets you press that key and it remains active until another key is pressed.

This is especially useful for those who might have a difficult time holding down two or more keys at one time.

For example, the keyboard shortcut for Copy is to press and hold the Ctrl key and then press the C key. When Sticky Keys is turned on, press the Ctrl key, and then press the C key.

To **Turn On** Windows Sticky Keys:

- 1. Press the keyboard's Shift key five times. You will hear a beep.
- 2. A dialog box appears with instructions on how to set up the Sticky Keys feature.

To Turn Off Windows Sticky Keys:

Press both of the keyboard's Shift keys simultaneously.

Windows Application Mnemonics/Accelerators

A mnemonic or accelerator is an underlined character found in an application's title bar, menu item, text of a button, and more.

To activate the mnemonic command:

- Press Alt and the first letter of the menu command. For example, press Alt+F to open the File menu. The accelerator letters appear.
- 2. While still holding the Alt key, Press the underlined letter on the keyboard.



A.2 Home

File menu	Hot key	Principal functions
Exit	Alt + F4	This option exits DVBMosaic

Tools menu	Hot key	Principal functions
Fullscreen	F5	Toggle the Mosaic in Fullscreen/Edit mode
Preferences	Ctrl + P	Open Preferences edit window
Wall Configuration	Ctrl + W	Open the Wall Configuration window
Configuration Report	Ctrl + R	Open the Configuration Report

Inputs menu	Hot key	Principal functions/sub-options
Start Mosaic	F3	Start all Inputs
Stop Mosaic	F4	Stop all Inputs

Acknowledge menu	Hot key	Principal functions
Acknowledge	Esc	Acknowledges new messages

A.3 Help

Help menu	Hot key	Principal functions
Manual	F1	Open the DVBMosaic Manual
License Manager	F2	Open the License Manager

A.4 Wall Changing

Display Mode	Hot key	Principal functions
Run Wall 1	Ctrl + 1	Run Wall 1
Run Wall 2	Ctrl + 2	Run Wall 2
Run Wall 3	Ctrl + 3	Run Wall 3
Run Wall 4	Ctrl + 4	Run Wall 4
Run Wall 5	Ctrl + 5	Run Wall 5
Run Wall 6	Ctrl + 6	Run Wall 6
Run Wall 7	Ctrl + 7	Run Wall 7
Run Wall 8	Ctrl + 8	Run Wall 8
Run Wall 9	Ctrl + 9	Run Wall 9
Run Wall 10	Ctrl + 0	Run Wall 10
Run Wall 11	Ctrl + Shift + 1	Run Wall 11
Run Wall 12	Ctrl + Shift + 2	Run Wall 12
Run Wall 13	Ctrl + Shift + 3	Run Wall 13
Run Wall 14	Ctrl + Shift + 4	Run Wall 14

A.5 Wall Editor

Right mouse menu	Hot key	Principal functions
Сору	Ctrl + C	Copy the selected channel
Paste	Ctrl + P	Paste the selected channel
Delete	<delete></delete>	Delete the selected channel

B Installation

For installation of DVBMosaic the 64-bit or 32-bit installer application should be used.



License agreement

💮 Setup - DVBMosaic —	×
License Agreement Please read the following important information before continuing.	R
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.	
END-USER LICENSE AGREEMENT FOR RTSS SOFTWARE	^
IMPORTANT-READ CAREFULLY:	
This End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and RTSS B.V. for the RTSS B.V. software that accompanies this EULA, which includes computer software and may include associated media, printed materials, "on line" or electronic documentation, and Internet-based services ("Software"). An amendment or addendum to this EULA may accompany the Software.	¥
 I accept the agreement I do not accept the agreement 	
< <u>B</u> ack <u>N</u> ext >	Cancel

Installation can only be proceeded, when the EULA is accepted.

Select Destination Location

💮 Setup - DVBMosaic	_		X
Select Destination Location Where should DVBMosaic be installed?			R
Setup will install DVBMosaic into the following folder.			
To continue, click Next. If you would like to select a different folder, o	click E	Browse.	
C:\Program Files\DVBControl\DVBMosaic		Browse	····
At least 111,2 MB of free disk space is required.			
< <u>B</u> ack <u>N</u> ext	>		Cancel

Select Components

💮 Setup - DVBMosaic	_		Х
Select Components Which components should be installed?			R.
Select the components you want to install; clear the components you install. Click Next when you are ready to continue.	ı do not w	ant to	_
Full installation		`	/
Program Files	115,	0 MB 🔺	
Additional Input Plugins	27,	5 MB	
	2,8	8 MB	
	5,	3 MB	
··· 🗹 НТТР-ТS	2,6	6 MB	
	4,	7 MB	
	2,	5 MB	
··· 🔽 Directshow Capture	2,	5 MB	
Dektec SDI	4.	5 МВ 🗡	·
Current selection requires at least 143,1 MB of disk space.			
< <u>B</u> ack <u>N</u> ext	:>	Car	ncel

There are 3 levels of installation possible:

- Compact installation
- Full installation
- Custom installation

Plugins are available for:

- Enigma
- Streaming: RTP, RTSP, RTMP, HTTP-Live (Cupertino HLS)
- HTTP-TS: TS over HTTP
- Silverlight/Smooth Streaming Monitoring
- Blackmagic SDI
- Directshow Caputure

Select Start Menu Folder

💮 Setup - DVBMosaic	_	[×
Select Start Menu Folder Where should Setup place the program's shortcuts?			Ę	
Setup will create the program's shortcuts in the following St	art M	enu fo	lder.	
To continue, click Next. If you would like to select a different folder,	click I	Browse	.	
DVBControl\DVBMosaic		Brows	e	
< <u>B</u> ack <u>N</u> ext	>		Cano	:el

Option, to create a Start Menu Folder

Select Additional Tasks

💮 Setup - DVBMosaic	_		×
Select Additional Tasks Which additional tasks should be performed?		S	
Select the additional tasks you would like Setup to perform while then click Next.	installing DV	/BMosaic,	
Additional icons:			
< <u>B</u> ack	<u>N</u> ext >	Cancel	

Ready to Install



Installing

💮 Setup - DVBMosaic	—	
Installing Please wait while Setup installs DVBMosaic on your computer.		R
Extracting files C:\Program Files\DVBControl\DVBMosaic\DVBMosaic.exe		
		Cancel

Finished Installing

💮 Setup - DVBMosaic	- 🗆 ×
	Completing the DVBMosaic Setup Wizard
	Setup has finished installing DVBMosaic on your computer. The application may be launched by selecting the installed icons.
	Click Finish to exit Setup.
	Launch DVBMosaic
	Einish

UDP / Multicast source

Windows Security Alert			×
Windo app	ws Defende	er Firewall has blocked some features of this	
Windows Defender private networks.	Firewall has bloo	ked some features of dvbanalyzer.exe on all public and	
DVB	Name:	dvbanalyzer.exe	
Analyzer	Publisher:	Unknown	
	Path:	C:\program files (x86)\dvbcontrol\dvbanalyzer \dvbanalyzer.exe	
Allow dvbanalyzer.	exe to communic	ate on these networks:	
Private networks, such as my home or work network			
because the	se networks ofte	en have little or no security)	
What are the risks of	of allowing an ap	op through a firewall?	
		Allow access Cancel	

C License

C.1 License details

The License Manager will give information about:

- Name of the user
- Purchase Date
- Expiration Date (when the application stops running)
- Update Expiration (until which date new versions can be installed)
- Dongle Hardware Serial
- Available license options

C.2 Dongle Updater

Remotely a license update can be realised. Via the DongleUpdater application the new license file can be selected.

The DongleUpdater application can be found on this weblink: http://www.dvbcontrol.com/download/DongleUpdater.zip

💰 DongleUpdater V1.1.100.1 ©20	10-2019 RTSS	- ×
Please select the d	longle update file provided by RTSS B.V.	
Dongle File: E:\dongle_update_201	90108.ctb	
6C1EE0DA	Update Dongle	

After pressing "Update Dongle" instructions are given.

DongleUp	dater
	Make sure the correct dongle is inserted. DO NOT REMOVE THE DONGLE UNTIL THE UPDATE PROCESS IS FINISHED! Are you sure to continue?
	<u>Y</u> es <u>N</u> o

A successful dongle upgrade will give the following pop-up window:



A faulty dongle upgrade will give the following pop-up window:

DongleUpdater	
Erro Plez	r: This update was not designed for this dongle ! se insert the correct dongle and try again.
	ОК

D Troubleshooting

D.1 License

Each application will only operate having a valid correct license/dongle.

DVBMosaic will only run, if a dongle with a valid DVBMosaic license in the machine.

No Dongle Present



No Valid licens

DVBMosa	ic ×
\otimes	You license has expired. Please renew your license if you wish to continue!
	ОК

License Shortage

When not enough licenses are available in the dongle, a WARNING text will be shown. In the example below the setup is done for 1 Dolby-E component, although no Dolby-E licenses are available.

=> WARNING: Licenses Used: 9.6/80 (6x SD-MPEG2, 1x HD-MPEG2, 8x Audio), 2/5 DD Licenses, 1/0 DE Licenses

D.2 Windows Firewall

When using a UDP/Multicast source and no signals are received, please check the Windows Firewall rules for DVBMosaic. Both for the private and public network for DVBMosaic should be enabled.

P Allowed apps	- 0	×
← → ✓ ↑ 🔗 « Windows Defender Firewall > Allowed apps ∨ ♂	Search Control Panel	,c
Allow apps to communicate through Windows Defender Firev To add, change, or remove allowed apps and ports, click Change settings. What are the risks of allowing an app to communicate? Allowed apps and features: Name DIAL protocol server	Wall Change settings Private Public	
 □ Distributed transaction Coordinator ☑ Drawboard PDF ☑ dvbanalyzer ☑ dvbmonitor ☑ DVBMonitorScheduler ☑ dvbmosaic ☑ dvbprocessor 		
 Email and accounts Facebook Feedback Hub File and Printer Sharing 	Image: Constraint of the second se	
	OK Cancel	

D.3 Administrator rights

Please be aware that DVBMosaic needs administrator access rights to communicate with the hardware dongle.

D.4 Input problems

No Lock

When an input is not good enough we will display 'NO lock' for this input.



This means:

- The locking in DVBMosaic is disabled (main preferences page)
- There are to many errors in the input stream to lock (faulty input, or problems with the network adapter)

Dektec not working/visible after upgrade

If, after an upgrade, the Dektec adapters are not visible anymore, this means that you need to upgrade the Dektec drivers to the latest version.

Drivers can be downloaded from the Dektec website

D.5 No smooth video or audio bars

When video or audio bars are not running smooth, this indicates that the video/audio services have a large delay between the Program clock (PCR) and the Presentation clock (PTS).

Because of this, DVBMosaic needs to buffer more video and therefore the 'Internal Video Buffers' have to be increased to solve this problem.

This is also a bad situation for end-customers, as this means the time between changing to this channel, and the first decoded video/audio frame could take a long time.

D.6 Windows Server

Please note, when using windows server, you need to install the 'Desktop Experience' feature. The 'desktop experience' feature, is something you have to install via the Microsoft Windows Server Administrator tool.

D.7 Auto Start

To automatically login to Windows, press the key's 'Windows + R' and type 'control userpasswords2'

- Uncheck 'Users must enter a user name and password for this computer'
- Press 'OK'
- You will be asked to enter the password

To automatically start an application on Windows 7 or higher (including Windows Server), you need to perform the following tasks:

Add a new task:

- Control Panel -> System and Security -> Administrative Tools -> Task Scheduler
- Create Basic Task
- Enter a Name (DVBMonitor/DVBMosaic/DVBMonitorScheduler/...)
- Press 'Next'
- As 'Trigger' select 'When the computer starts'
- Press 'Next'
- Select 'Start a program'
- Select the program with the 'Browse' button
- As 'Start In' specify '5' seconds
- Press 'Next'
- Select 'Open the Properties dialog for this task when I click Finish'
- Press 'Finish'
- Go to the tab 'General' and select the option 'Run whether user is logged on or not'
- Go to the tab 'Settings' and make sure that the checkbox is DISABLED for 'Stop the task if it runs longer than'
- Press 'OK'.
- It could be that it will ask the users password

E Input adapters

E.1 Overview

DVBControl applications

- DVBAnalyzer
- DVBMonitor
- DVBMosaic

can use different kind of inputs:

Source	Description
File	Transport Stream File
UDP/Multicast	Input via UDP/Multicast packets
Streaming	RTP, RTSP, RTMP, HTTP Live (Cupertino), MPEG-DASH
HTTP-TS	TS over HTTP
DVB-ASI	Input via ASI input board
DVB-S	Input via Satellite receiver board
DVB-C	Input via Cable receiver board
DVB-T	Input via Terrestrial receiver board
SD/HD SDI	SD/HD SDI input via an SD/HD SDI receiver board
Analog	Analog input via an analogue receiver board

E.2 Network card

UDP and UDP Multicast sources are received via the network connection.

We recommend to use the Intel Pro/1000 PT Server Adapter network card.

E.3 Overview

For usage of ASI, DVB-S, DVB-S2, DVB-C and DVB-T front-ends	s we support the following input adapters:
-------------------------------------------------------------	--------------------------------------------

Manufacturer	Description	URL	
Blackmagic	SD/HD SDI, HDMI, Analog	www.blackmagic- design.com	Blackmagicdesign
Dektec	ASI/IP/DVB-C/T/S/S2	www.Dektec.com	Derlec
Deltacast	ASI (PCI)	www.Deltacast.com	DELTCAST
Digital Devices	DVB-C, DVB-S, DVB-S2, DVB-T	www.DigitalDevices.de	Digital Devices
DVEO	ASI (PCI/PIC-E)	www.DVEO.com	DVEO
Lumantek	ASI	www.Lumantek.com	
Stream Labs	ASI, SD/HD SDI, Analog	www.Stream-Labs.com	Stream Labs
TBS	DVB-S, DVB-C, DVB-T, ISDB-T, ATSC (USB2.0/PCI/PCI-E)	www.TBSdtv.com	TES
Technisat	DVB-S, DVB-C, DVB-T (PCI) DVB-S2	www.Technisat.com	TechniSat
Technotrend	DVB-S (CI/USB2.0), DVB-S2 (CI/USB2.0), DVB-C (CI/USB2.0), DVB-T (CI/USB2.0)	www.Technotrend.eu	TechnoTrend
Digital Devices TBS DVBCsky Hauppauge	Microsoft BDA DVB-C/T/S/S2	www.digitaldevices.de www.TBSdtv.com www.dvbsky.net www.hauppauge.com	

E.4 Input Selector

The Input Selector enables selection of the source.

Enigma2 Source 👻	l
Enigma2 Source	1
File Source	H
HttpTS Source	l
Streaming Source	1
UDP/Multicast Source	
	Enigma2 Source Enigma2 Source File Source HttpTS Source Streaming Source UDP/Multicast Source

The requested input type can be selected via a pull-down menu.

Sources can be:

- BDA
- Dektec
- File
- Enigma
- HttpTS
- Streaming
- UDP/Multicast

BDA (Broadcast Driver Architecture) is a Microsoft standard, which is supported by multiple manufacturers (e.q. TBS, Technisat, Technotrend).

E.5 File Input

After selecting "File Source" in the Input Selector, the Set Tuner window appears. Besides being able to select a Transport Stream file, it is also possible to play the Transport Stream in a continuous loop.

When the TS- Bitrate cannot be calculated from PCR timestamps, a NIT Delivery Descriptor or the MIP packages, a maximum TS-Bitrate can be given.

Set Tuner - File

Set Tuner	;		
Input file:	E:\Streams_2009\TS_2	6_ASTRA.ts	•
	Lock TS-Bitrate to:	1000000	(bit/sec)
Cancel			ОК

Selecting a file can be done via browsing the directories, or start typing the path in the "Input file" box. Suggestions about possible directories/files are presented directly.

Set Tuner:		×
Input file: [[E:\Streams\zdf E:\Streams\ZDF_20070316_PCRPID710_door0 E:\Streams\zdf_20081002.ts	v
Cancel		ок

Tuning parameters

Parameter	Description
Input File	Transport Stream (TS) Filename
Looped	Option to continuous loop the Transport Stream file
Lock TS-Bitrate to	Option to lock TS-Bitrate

E.6 UDP/Multicast Input

After selecting "UDP/Multicast Source" in the Input Selector, the Set Tuner window appears.

Set Tuner – UDP/Multicast

Tuner								×
Service File: New Service:	/List.mul					 Edit 	ОК	
Main								
	🗹 Enal	bled						
Network Interface	192,16	58.20.106 - IPTV (Inte	(R) Etherr	net Connect	ion (2) 12	219-I M)	~	
	1.72110							-
Bind Address	239.12	20.123.4 (Coul	d be empty	/ for Unicast	t Streams	5)		
Port	: 1234							
Server Address	:	(for I	CMPv3)					
Server Pert			GINEVUJ					
Server Port	•							
Automatic discov	ered TS UI	DP traffic. You can clic	k on a mul	ticast line to	take ove	er it's settings:	Take Sourc	e 🗌
Destination	DPort	Source	SPort	= RTP	ΠL	= Multicast	~ Bitrate	
239.120.121.1	1234	192.168.20.121	59162	Yes	2	Yes	38.0 Mbps	
239.120.122.1	1234	192.168.20.122	10010	Yes	2	Yes	52.1 Mbps	
239.120.122.2	1234	192.168.20.122	10012	Yes	2	Yes	34.1 Mbps	
239.120.122.3	1234	192.168.20.122	10014	Yes	2	Yes	46.7 Mbps	
239.120.122.4	1234	192.168.20.122	10016	Yes	2	Yes	44.4 Mbps	
239.120.123.1	1234	192.168.20.123	10002	Yes	2	Yes	41.6 Mbps	
239.120.123.2	1234	192.168.20.123	10004	Yes	2	Yes	40.9 Mbps	
239.120.123.3	1234	192.168.20.123	10006	Yes	2	Yes	42.1 Mbps	
239.120.123.4	1234	192.168.20.123	10008	Yes	2	Yes	47.3 Mbps	

There are three ways to set the tuner parameters.

- Service File input
- Manual input
- Manual input via selecting from automatic discovered UPD traffic

Tuning parameters

Parameter	Description
Network Interface	Selection of UDP Multicast interface
Bind address	UDP Multicast Bind address (Could be empty for Unicast Streams)
Port	UDP Multicast port number
Server address	UDP Server address (for IGMPv3)
Server port	UDP Server port number (for IGMPv3)

Multicast Backup

For DVBMosaic and DVBMonitor, a multicast backup input can be configured.

When the Main input is Lost, the tuner will use the Backup input.

🔳 Tuner								×
Service File:						 Edit 	ОК	
Main Backup								
	🗹 Enat	bled						1
Network Interface:	192.16	58.20.106 - IPTV (Inte	l(R) Ether	net Connecti	ion (2) I2	19-LM)	~	
Bind Address:	239.12	20 123 4 (Could	d be empty	v for Unicast	Streams	9		
Port:	1234		a be empt	, 101 0111000	. o a came	,		
	1201							
Server Address:		(for I	GMPv3)					
Server Port:	0							
Automatic discove	red TS UI	OP traffic. You can clic	k on a mul	ticast line to	take ove	er it's settings:	Take Source	
Destination	DPort	Source	SPort	- DTD	TTI	- Multicast	o: Bitrate	H
220 120 121 1	1024	102 168 20 121	50162	- KIF	2	- Mulucast	22 1 Mbos	
239,120,121,1	1234	192,168,20,121	10010	Vec	2	Ves	52.1 Mbps	_
239, 120, 122, 2	1234	192, 168, 20, 122	10012	Yes	2	Yes	29.7 Mbps	
239, 120, 122, 3	1234	192, 168, 20, 122	10014	Yes	2	Yes	48.6 Mbps	
239, 120, 122, 4	1234	192, 168, 20, 122	10016	Yes	2	Yes	46.4 Mbps	
239.120.123.1	1234	192.168.20.123	10002	Yes	2	Yes	40.5 Mbps	
239.120.123.2	1234	192.168.20.123	10004	Yes	2	Yes	41.1 Mbps	
239.120.123.3	1234	192.168.20.123	10006	Yes	2	Yes	38.8 Mbps	
239.120.123.4	1234	192.168.20.123	10008	Yes	2	Yes	45.2 Mbps	

To be able to use the Multicast Backup feature, you need to set in Windows Register, the TotalBackups key (REG_DWORD) with value 2.

Regedit path: Computer\HKEY_CURRENT_USER\Software\DVBControl\DVBAnalyzer\Sources\UDPMulticast Default Value: 1 (No backup)

Service File

A Service File can be made instead of manually typing the tuner parameters. In the Set Tuner window click Edit.

Edit Channellist	
<u>F</u> ile	
Service File: [IPTV.m	ul New Remove
Service: Bon Vis	on 2
Network Interface:	192.168.0.70 - Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller 🔹
Name:	Bon Vision 2
Bind Address:	239.10.20.2
Port:	1024
Server Address:	(for IGMPv3)
Server Port:	
	Add Delete Update
	ОК

The Edit ChannelLists Window enables the creation of a new Service File. By selecting New, a new Service File can be created. Multiple Channel Name/Port entries can be added to the Service File.

The Saved Service File gets the extension .mul and should be placed in:

"C:\Program Files\Common Files\DVBControl\Devices\Input\ChannelLists" or on 64bit systems:

"C:\Program Files (x86)\Common Files\DVBControl\Devices\Input\ChannelLists"

Users can also edit the Service File, using the syntax: [Multicast] IP_number<TAB>Port_number<TAB>Channel_name_1 IP_number<TAB>Port_number<TAB>Channel_name_2

Where:

IP_number	= UDP Multicast IP number
Port_number	= UDP Multicast port number
Service_name	= Service name

Importing a M3U/VLC Service list file is possible via File \rightarrow Import M3U/VLC Service list

E.7 Streaming Input

Tuner	×
Enabled	
Playlist:	✓ Edit
Network Interface:	172.16.0.106 - Realtek PCIe GBE Family Controller 🗸 🗸
Stream Type:	RTMP V Stream Options: 1 V
RTMP://	flash.oit.duke.edu/vod/_definst_
Username:	Password:
	Use HTTP / HTTPS / SOCKS Proxy Server
Proxy URL/Port:	(Example: 10.0.0.1:8080)
Username:	Password:
	ОК

After selecting "Streaming Source" in the Input Selector, the Set Tuner window appears.

The Stream Type can be:

- RTP
- RTSP
- RTMP
- HTTP Live (Cupertino HLS)

Stream Type:	RTMP	~
	RTP RTSP	
18 A	HTTP Live (Cupertino) RTMP	

E.8 HTTP-TS Input

After selecting "Http-TS Source" in the Input Selector, the Set Tuner window appears.

Tuner		×
Service File: Service:	Sat2IP_28.mul ~	Edit
URL: http:/	/172.16.0.161/?src=1&freq=10788&sr=22000&pol=v&msys=dvbsπ	ds=all 🗸
Cancel		OK

HTTP-TS is a TS over HTTP source.

E.9 RTMP Tap

After selecting "RTMP Tap Monitoring" in the Input Selector, the Set Tuner window appears:

🔳 Tuner								×
							OK	(
Network Interface:	192.168.	20.6 - IPTV (Qualcom	m Atheros	Ar81xx seri	es PCI-E	Ethernet Contro	oller)	\sim
Source Address: Dest Port:	172.16.0 1935	.200						
Automatic discove	ered TS UD	P traffic. You can clic	k on a mul	ticast line to	take ove	er it's settings:		
Destination	DPort	Source	SPort	= RTP	πι	= Multicast	~ Bitrate	
172.217.132.105	1935	172.16.0.200	43443	No	64	No	198.1 kbps	

RTMP Tap sources need to be used in combination with a hardware tab device (Like NTap). You need to install the WinPCap drivers for this to work!

E.10 DVB-ASI Input

After selecting the appropriate input source in the Input Selector, the Set Tuner window appears. Drivers, which are already installed, can be chosen via the pull-down menu.

Set Tuner - Dektec

Set Dektec Tuner	
Device: 1. ASI/SD	I (DTU-225)
IP Configuration (C Address:	Only IP Input Ports) Port: 0
RF Frequency (Onl	y ATSC/DVB-C/DVB-T/DVB-S boards only)
Transponder File:	
Service:	
Transponder:	
Frequency:	(MHz)
Polarity:	Horizontal
(Models 1	45/160/2144 only): Port Configurator
Cancel	ОК

Tuning parameters

Parameter	Description
Device	Select the ASI input device

For the DTA 145/160 devices, Port Configuration is available.

Set Tuner - Deltacast

Set Tuner:		×
		Π
Device:	Deltacast Board:1 ASI_BOARD_22 2xIn, 2xOut	-
RX Channel:	ASI_CHN_RX0 -	
	ASI_CHN_RX0	
	ASI_CHN_RX1	_
Cancel	ОК	
		_

Tuning parameters

Parameter	Description
Device	Select the ASI input device
RX Channel	Select the preferred input (multi-inputs)

Set Tuner - DVEO

Tuner
DVEO
CMI
Device: 3. DVB Quad/i PCIe(3.2)
Cancel

Tuning parameters

Parameter	Description
Device	Select the ASI input device

Set Tuner - Lumantek

Tuner	
Device: 1. ASI V	TEF 13010 -
	ОК

Tuning parameters

Parameter	Description
Device	Select the ASI input device

Set Tuner - StreamLabs

luner	×
	Ctream Labo
	Jiream Laus
INFIN	IITE FREEDOM ON•AIR
Device:	•
	ОК

Tuning parameters

Parameter	Description
Device	Select the ASI input device

E.11 DVB-S Input

Set Tuner - BDS

After selecting "BDA Source" in the Input Selector, the Set Satellite Tuner window appears if a Satellite device is installed.

Set Satellite Tuner:			
Device: 1. TBS 89	20 BDA Tuner/Demod		
Transponder File: 19.	2E.xml 🔻		
Service: ZDI	₹		
Transponder:	11954 🔻 DVB-S2		
Frequency:	11954 (MHz)		
Symbolrate:	27500 (kS/s)		
Modulation:	Not Set FEC: 3/4		
LNB Frequency:	10600 (MHz)		
Bandwidth:	6 MHz v		
Guard Interval:	NOT SET		
Polarity:	Horizontal/Left (High)		
LNB Selection:	(kHz)		
DiSEqC:			
TBS 8920 BDA Tuner/Demod			
Cancel	ОК		

When multiple BDA driver adapters are installed, they can be selected via de Device pull-down menu.

Device:	1. USB 2.0 BDA DVB-S Tuner	1
	1. USB 2.0 BDA DVB-S Tuner	
	2. USB 2.0 BDA DVB-T Tuner	
	3. USB 2.0 BDA DVB-C Tuner	

Set Tuner - Satellite

There are two ways to set the tuner parameters.

- Manual input
- Transponder File input
Tuning parameters

Parameter	Description
Frequency	10700 - 12750 MHz
Symbol Rate	2000 - 45000 kS/s
FEC	1/2, 2/3, 3/4, 5/6, 7,8, Auto sense
LNB frequency (MHz)	Universal LNB's mostly use 10600
Polarity	Horizontal/Left (High), Vertical/Right (Low)
LNB selection	None, 22/33/44 kHz
DiSEqC	None, Simple A, Simple B, Pos A - Opt A, Pos B - Opt B

When pressing the Tune button, the Signal Strength en Quality is given. If a DVB signal is received it gets locked.

Transponder File

A Transponder File can be used, instead of manually typing tuner parameters.

In the "C:\Program Files\Common Files\DVBControl\Devices\Input\ChannelLists" directory, there are already Transponder Files available, which can be edited.

Transponder File:	10E.xml 🔹
Service:	10E.xml 13E.xml
Transponde	16E.xml 19.2E.xml
Frequenc	21.6E.xml 21E.xml
Symbolra	23.5E.xml
Modulatio	26.xml
LNB Frequen	28.2E.xml 3E.xml
Bandwid	4.8E.xml
Guard Interv	7E.xml
Dolorit	

Users can edit the Transponder File, using the syntax:

<?xml version="1.0"?> <SatChannelList> <ChannelList> <SatChannel> <Frequency>10876</Frequency> <SatID>30</SatID> <TransponderID /> <Position>V</Position> <SR>22000</SR> <FEC>5/6</FEC> <SID>30605</SID> <Name>National Geographic Channel Europe</Name> </SatChannel> </ChannelList>

Set Satellite Tu	iner:
Device: 1	. TBS 8920 BDA Tuner/Demod
Transponder Fi	ile: 19.2E.xml 👻
Servio	re: 🔽
Transp	TVP HD pond TVP Historia
Freq	uenc TVP Info TVP Kultura
Symb	polra TVP Polonia TVP Sport
Mod	ulatic TVVI
LNB Free	upc Direct enath:
Ban	Idwid UPC Direct
Guard I	UPC Direct Locked
P INR Co	Joan Usch's Schwestern Tune
LIND 36	Venus Club TV DISE(Userptica (18.06)
	VH1 Classic Europe
	Viacom
Cancel	Viajar OK
	Viasat Explorer (05-23)
	Vibration
	Virgin 17
	virgin 1/

The Services list then can be used to quickly get all tuning parameters.

E.12 DVB-C Input

After selecting "BDA Source" in the Input Selector, the Set Cable Tuner window appears if a Cable device is installed.

Set Cable Tuner:		
Device: 3. USE	2.0 BDA DVB-C Tuner Refresh	
Transponder File:	NL_UPC.cab 🖌 Edit	
Service:	Nederland 1	
Transpond	er: ^^ Service ^^ 🔽 🔽 DVB-S2	
Frequenc	91 386.750 (MHz)	
Symbolra	e: 6900 (kS/s)	
Modulatio	n: QAM 64 🛛 🖌 FEC: 3/4	
LNB Frequen	cy: 10600 (MHz)	
Bandwid	th: 6 MHz Strength:	
Guard Interv	val: NOT SET	
Polari	ry: Vertical/Right (Low)	
LNB Selection	n: (kHz)	
DiSEc	c: 💽	
USB 2.0 BDA DVB-C Tuner		
Cancel	ОК	

Set Tuner - Cable

There are two ways to set the tuner parameters.

- Manual input
- Transponder File input

Tuning parameters

Parameter	Description
Frequency	50 - 860 MHz
Symbol Rate	1 - 7 MS/s
Modulation	QAM4, QAM16, QAM32, QAM64, QAM128, QAM256

Transponder File

A Transponder File can be made instead of manually typing the tuner parameters.

After tuning (manually) to a Transponder, the Transponder File can be created via "Tools > Make Transponder File". The Services and Transponder information in the Transponder File is created by interpretation of the Service and Transponder descriptions in the tuned Transponder. The Saved Transponder File should have the extension .cab and should be placed in the

C:\Program Files\Common Files\DVBControl\Devices\Input\ChannelLists directory.

Users can edit the Transponder File, using the syntax:

```
[Cable]
TS_ID<TAB>Freq<TAB> QAM<TAB>SR<TAB>Service_name_x1<TAB>Service_name_x2 ..
TS_ID<TAB>Freq<TAB> QAM<TAB>SR<TAB>Service_name_y1<TAB>Service_name_y2 ...
```

Where:

TS_ID	= Transponder_id
Freq	= Frequency (kHz)
QAM	= QAM16:1, QAM32:2, QAM64:3, QAM128:4, QAM256:5
SR	= Symbol Rate (kS/s)
Service_name_x	= Service name (can be extended by <tab>)</tab>

E.13 DVB-T Input

After Selecting the Technosat or AirStar DVB-T board the Set Tuner window will look like this:

Set Tuner - Terrestrial

Set Terrestrial Tuner:		
Device: 2, USE	2.0 BDA DVB-T Tuner Refresh	
Transponder File:	NL_Digitenne.ter Clit	
Service:	Nederland 1	
Transpond	er: 🗥 Service ^^ 🔽 🔽 DVB-52	
Frequen	618.000 (MHz)	
Symbolra	:e: 6900 (kS/s)	
Modulatio	n: QAM 64 💙 FEC: 3/4 💌	
LNB Frequen	cy: 10600 (MHz)	
Bandwid	th: 8 MHz	
Guard Inter	val: 1/4 Quality:	
Polari	ry: Vertical/Right (Low)	
LNB Selection	in: (kHz)	
DiSEd	c:	
USB 2.0 BDA DVB-T Tuner		
Cancel	ОК	

There are two ways to set the tuner parameters.

- Manual input
- Transponder File input

Tuning parameters

Parameter	Description
Frequency	171 - 230 MHz, 474 - 858 MHz
Bandwidth	7, 8 MHz
Guard Interval	1/4, 1/8, 1/16, 1/32. Auto sense

Transponder File

A Transponder File can be made instead of manually typing the tuner parameters.

After tuning (manually) to a Transponder, the Transponder File can be created via "Tools > Make Transponder File". The Services and Transponder information in the Transponder File is created by interpretation of the Service and Transponder descriptions in the tuned Transponder. The Saved Transponder File should have the extension .ter and should be placed in the

C:\Program Files\Common Files\DVBControl\Devices\Input\ChannelLists directory.

Users can edit the Transponder File, using the syntax:

[Terrestrial]
TS_ID <tab>Freq<tab>BW<tab>GI<tab> Service_name_x1<tab>Service_name_x2</tab></tab></tab></tab></tab>
TS_ID <tab>Freq<tab>BW<tab>GI<tab> Service_name_y1<tab>Service_name_y2</tab></tab></tab></tab></tab>

Where:

TS_ID	= Transponder_id
Freq	= Frequency (kHz)
BW	= Bandwidth, 8MHz:0, 7MHz:1, 6MHz:2
GI	= Guard Interval, 1/32:0, 1/16:1, 1/8:2, 1/4:3
Service_name_x	= Service name (can be extended by <tab>)</tab>

E.14 SDI Input

xxxxx

Tuner	×
-	Blackmagicdesign
Device:	01. DeckLink SDI (1) V
Video:	1080i50 (1920 x 1080, 25 FPS) ~
	Auto Detect Input Format (If supported)
Audio:	Stereo Group 1 (Chn 1+2) 🛛 🗸
Quality:	Quarter \vee
	ОК

F Legal Notes

F.1 Trademarks

DVB is a registered trademark of the DVB Project. Windows is a registered trademark of Microsoft Inc. Dolby and the double-D symbol are registered trademarks of Dolby Laboratories. MainConcept is a registered trademark of MainConcept Inc.

All other product names identified throughout this manual are trademarks of their respective owners. They are used in an editorial fashion only for the benefit of such companies. No such use of any trade name is intended to convey endorsement or other affiliation.

F.2 Copyright

The DVBControl toolset, website, design, text, photos and graphics are subject to copyright protection. The website and its contents shall not be copied, modified or published to other websites or any other media. RTSS BV reserves all copyright and trademark claims due to unlawful use.

F.3 Disclaimer

Knowledge which is published in these pages is subject to ongoing change due to progress in research and development. RTSS BV reserves the right to change or update any information on the website without notice. This also applies to improvements and/or changes to the DVBControl toolset.

The information and material provided is "as is", without warranty of any kind, express or implied, including without limitation any warranty concerning the accuracy, adequacy or completeness of such information or material or the results to be obtained from using such information or material. Neither RTSS BV nor the author(s) shall be responsible for any claims attributable to errors, omissions or other inaccuracies in the information or products. And in no event, shall RTSS BV or the author(s) be liable for direct, indirect, special, incidental or consequential damages arising out of the use of such information or products.

G Contact

DVBControl.com is a trademark of RTSS B.V. (RTSS = *Real-Time Software Solution*)

Product information

Website:www.DVBControl.comE-mail:Info@DVBControl.com

Support E-mail: Support@DVBControl.com

Address RTSS B.V. Oude Enghweg 1 1217 JA Hilversum The Netherlands

Tel: +31 (0) 53 7 130 150*

* Local time zone is GMT+1

Company registration VAT: NL8208.38.044.B01

KvK: 32153810



DVBControl

DVBAnalyzer
DVBMosaic
DVBLoudness
DVBMonitor

All specifications are subject to change without notice. Copyright 2006-2019 RTSS B.V.

www.DVBControl.com Real-Time Software Solutions

Oude Enghweg 1 1217 JA Hilversum The Netherlands Tel +31 (0) 35 7 130 150 Email info@DVBControl.com