

# Transport-Stream Analyser

## Installation



### 1. Introduction

The *StreamXpert™* is DekTec's real-time/offline transport-stream analyzer. It is used to analyze/monitor live incoming transport-streams received with one of DekTec's DVB input devices or for offline analysis of recorded transport-stream files.

The main features of the *StreamXpert* are:

- Real-time and offline analysis, monitoring and recording of MPEG-2 transport streams;
- Real-time, analysis and monitoring of OTT HTTP Smooth Streaming (MS-SSTR) and MPEG-DASH on-demand and live streams;
- Real-time and offline analysis, monitoring of ATSC 3.0 MMT, ROUTE and ALP;
- Real-time analysis and decoding of SMPTE-2110 video and audio streams;
- DAB(+) in depth analysis and decoding
- DEPI transport stream unpacking (used in the IP tunnel between DOCSIS equipment);
- Complete diagnostic and statistical information for PIDs, services, components and tables;
- Template-based decoding of tables in MPEG-2 private section format;
- Integrated decoder video/audio decoder with support for MPEG-1/2 video, AVC/H.264 Video, HEVC/H.265 Video, MPEG audio, (HE-)AAC audio, MPEG-H audio, AC3 and AC4 audio;
- Unique PID grid for an instant overview of the entire contents of the transport stream;
- Modern and intuitive GUI.

A setup program is available for easy installation or upgrading of the *StreamXpert* software. The installation package includes installation support for the *Dta*, *DtaNw*, *DtPcie*, *DtPcieNw*, *DtBb2* and *Dtu* device drivers, which are required to run the *StreamXpert*.

#### 1.1. DekTec Cards Supported by StreamXpert

The *StreamXpert* supports the following DekTec PCI/PCI-Express cards, USB-2/3 and IP adapters for analysis of streams:

Type	Description	Input Format
<b>PCI</b>		
<b>DTA-112</b>	ATSC/DVB-T/QAM modulator	ASI
<b>DTA-115</b>	Multi-standard modulator	ASI
<b>DTA-120</b>	DVB-ASI input	ASI
<b>DTA-122</b>	DVB-SPI (LVDS) input	SPI
<b>DTA-124</b>	Quad ASI/SDI input	ASI
<b>DTA-140</b>	DVB-ASI input+output	ASI
<b>DTA-145</b>	ASI/SDI input+output, low-profile	ASI
<b>DTA-160</b>	Gigabit Ethernet TSoIP + 3 ASI ports	TSoIP, ASI

<b>PCI Express</b>		
<b>DTA-2110</b>	10GbE NIC optimized for SMPTE 2110	TSolP, SMPTE-2110
<b>DTA-2125</b>	25GbE NIC optimized for SMPTE 2110	TSolP, SMPTE-2110
<b>DTA-2127</b>	Quad S2X Receiver with 3G-SDI/ASI Port	DVB-S/S2, ASI
<b>DTA-2128</b>	Octal S2X Receiver	DVB-S/S2
<b>DTA-2131 (B)</b>	Multi-standard VHF/UHF receiver	DVB-T2/T/C2/C, QAM-B/C, ISDB-T, ATSC, ATSC 3.0
<b>DTA-2132</b>	High-End Satellite Receiver	DVB-S/S2
<b>DTA-2136</b>	Dual QAM-A/B/C receiver	DVB-C, QAM-B/C
<b>DTA-2137 (C)</b>	Dual DVB-S/DVB-S2 receiver	DVB-S/S2
<b>DTA-2138B</b>	DVB-T2/C2 and ISDB-T receiver	DVB-T2/T/C2/C, ISDB-T
<b>DTA-2139 (B) (C)</b>	12-port Cable/Terrestrial receiver	DVB-T2/T/C2/C, ISDB-T, ATSC, ATSC 3.0
<b>DTA-2142</b>	Multi-mode serial and parallel port	ASI, SPI
<b>DTA-2144 (B)</b>	Quad ASI/SDI ports	ASI
<b>DTA-2145</b>	ASI/SDI input+output, low-profile	ASI
<b>DTA-2152</b>	Dual HD-SDI input+output	ASI
<b>DTA-2154</b>	Quad HD-SDI/ASI input+output	ASI
<b>DTA-2160</b>	Gigabit Ethernet TSolP + 3 ASI ports	TSolP, ASI
<b>DTA-2162</b>	2xGigabit Ethernet TSolP	TSolP
<b>DTA-2172</b>	Dual 3G-SDI/ASI input+output	ASI
<b>DTA-2174 (B)</b>	Quad 3G-SDI/ASI input+output	ASI
<b>DTA-2175</b>	HD-SDI/ASI input+output	ASI
<b>DTA-2178</b>	Octal 12G-SDI/ASI ports	ASI
<b>DTA-2178-ASI</b>	Octal ASI ports	ASI
<b>DTA-2179</b>	12x HD-SDI/ASI input+output	ASI
<b>DTA-2180</b>	H.264 HD encoder	ASI
<b>DTA-2182</b>	Dual H.264 HD encoder	ASI
<b>DTA-2195</b>	12G-SDI input+output	ASI
<b>USB-2</b>		
<b>DTU-225</b>	FantASI ASI/SDI input	ASI
<b>DTU-236 (A)</b>	QAM measurement receiver	DVB-C, QAM-B/C, ATSC, ASI
<b>DTU-238</b>	DVB-T2/T/C, ISDB-T and ASI analysis probe	DVB-T2/T/C, ISDB-T, ASI

<b>DTU-245</b>	FantASI ASI/SDI input+output	ASI
<b>IP standalone modules</b>		
<b>DTE-3120</b>	Networked ASI input	ASI
<b>USB-3</b>		
<b>DTU-331</b>	Portable all-standard RF probe for USB-3	DVB-T2/T/C2/C, QAM-B/C, ISDB-T, ATSC, ATSC 3.0, DVB-S

## 2. System Requirements

Platform	Windows 2k16/2k19/2k22, 10, 11
Processor*	Core i5 5 <sup>th</sup> generation minimum Core i7 7 <sup>th</sup> generation recommended
RAM	4 GB
Graphics	DirectX 9.0 (or higher) compatible video card
Audio	A sound card is recommended

\* Or equivalent AMD processor

## 3. Files

The [StreamXpert.zip](#) archive contains the following files:

<a href="#">DTC-320 StreamXpert Installation.pdf</a>	This document
<a href="#">StreamXpert Setup.exe</a>	Setup program for <i>StreamXpert</i>

## 4. Installing the Software

The following install steps should be executed:

1. Extract [StreamXpert.zip](#) into a temporary folder.
2. Run [StreamXpert Setup.exe](#) to install *StreamXpert*.
3. Optionally install appropriate license(s) through *DtInfo*. The *DtInfo* utility can be downloaded [here](#).

*StreamXpert* can now be started using the desktop shortcut.

## 5. Command-line options

### 5.1. Syntax

StreamXpert [-cf config\_file]

### 5.2. Options

-cf Load StreamXpert options from the specific file (config\_file).

## 5.3. Examples

StreamXpert -cf C:\myconfigfile.sxc

## 6. Revision History

Revision	Date	Change description
v2.27.0	2025.06.18	<ul style="list-style-type: none"> <li>• Support for DAB(+) ETI file recording</li> <li>• Improvements on video decoding and lip-sync behaviour</li> <li>• Fix for supporting DVB-T2 1.7 MHz bandwidth</li> <li>• Fix for supporting DVB-S/S2/S2X symbolrate &lt;1 MBd</li> <li>• Fix for ES info not shown for (E)-AC3 (introduced in v2.26.0)</li> <li>• Fix for potential AAC/MPEG audio ES info (introduced in v2.24.0)</li> <li>• Fix for Teletext not decoded correctly (introduced in v2.26.0)</li> <li>• Fix for ST-2110 525i59 video not shown correctly</li> </ul>
v2.26.0	2025.02.26	<ul style="list-style-type: none"> <li>• Support for DAB(+) ETI file analysis</li> <li>• DAB(+) improvement to decode for all services the audio meta data</li> <li>• Fix for potential decoding issue when using remote desktop</li> </ul>
v2.25.0	2024.11.27	<ul style="list-style-type: none"> <li>• Support for <a href="#">DTA-2125 25G SmartNIC Optimized for SMPTE 2110</a></li> <li>• Support for <a href="#">DTA-2128 Octal DVB-S2X Receiver for PCIe</a></li> <li>• DAB(+) extended with EWS Emergency Warning System FIG 0-15</li> <li>• Added serial number in adapter drop down in case of multiple cards</li> <li>• Fix for OTT MPEG-DASH live feed not decoding</li> <li>• Fix for ATSC 3.0 only showing a single audio stream</li> <li>• Fix for ATSC 3.0 not correctly parsing SMT table in LLS</li> <li>• Fix for Dolby AC-3 audio stutters at high bitrate</li> <li>• Fix for Adapter selection showing the wrong IP address for virtual NICs</li> </ul>
v2.24.0	2024.09.10	<ul style="list-style-type: none"> <li>• Support for DAB(+) decoding and in depth meta data analysis using <a href="#">DTA-2131B</a> or <a href="#">DTU-331</a></li> <li>• Decoding improvements for ATSC 3.0 and OTT</li> <li>• Improvement for AAC-LATM detection and decoding</li> <li>• Improvement for unclear message on DTU-331 without license</li> <li>• RF frequency can now be configured with 3 digits precision</li> <li>• Fix for MER not shown in ATSC 3.0 LDM configuration</li> <li>• Fix for possible invalid characters in the tree view</li> <li>• Fix for incorrect bitrates after T2MI switching</li> <li>• Fix for possible memory issue on specific AC-4 audio</li> </ul>
v2.23.0	2024.04.29	<ul style="list-style-type: none"> <li>• Support for 1080i HEVC decoding</li> <li>• Support for interlaced or progressive; 'i' or 'p' indication in the AVC ES info</li> <li>• Improvement on the DVB-S2 RF parameters in the TS tab</li> <li>• Improved timing of the decoding; faster startup</li> <li>• Improved DEPI support (unpacking of a TS in the DEPI IP tunnel between DOCSIS equipment)</li> <li>• Improvement for AAC descriptor parsing</li> <li>• Fix for specific MPEG-H configuration where presets could not be selected</li> <li>• Fix for old table data shown when changing TS mode</li> <li>• Fix for unexpected TR 101 290 rule violation for the RRT table</li> <li>• Fix for DTA-2110 source specific multicast not working when port was not specified</li> </ul>
v2.22.0	2024.02.27	<ul style="list-style-type: none"> <li>• Support for T2MI decoding</li> <li>• Support for STLTP decoding</li> <li>• Support for ATSC 3.0 Low Level Signalling certification data</li> <li>• Support for DVB-T2 and ATSC 3.0 RF parameters in the TS tab</li> <li>• Support for DVB Subtitling indication in the PID tree</li> <li>• Fix for video decoding error for Windows 7 / Server 2016</li> <li>• Fix for specific DVB-T2 stream video decoding fail</li> </ul>

Revision	Date	Change description
		<ul style="list-style-type: none"> <li>• Fix for incorrect User-Defined Descriptor table decoder processing</li> <li>• Fix for DTE-3120 not found by StreamXpert</li> <li>• Fix for DTA-2110 Source Specific Multicast not working</li> </ul>
v2.21.0	2023.11.08	<ul style="list-style-type: none"> <li>• Support for <a href="#">DTA-2110</a> SMPTE-2110 viewer (video/audio decoding)</li> <li>• Support for <a href="#">DTA-2131B Multi-Standard Cable/Terrestrial Receiver</a></li> <li>• Support for ATSC/QAM/DVB-T/DVBS(2) parameters in TS tab</li> <li>• Support for Teletext region selection</li> <li>• ATSC 3.0 Improvement to ignore unsupported TrackGroup field</li> <li>• Fix for potential decoding crash on switch to same (redundant) stream</li> <li>• Fix for DTA-2132 manual symbolrate configuration not working</li> </ul>
v2.20.0	2023.09.01	<ul style="list-style-type: none"> <li>• Support for DTU-331 DVB-CID (Digital Video Broadcasting - Carrier ID) used to track and manage satellite transmissions</li> <li>• DTU-331/DTA-2132 improved decoding for DVB-S</li> <li>• Improved MPEG-H decoding for streams with more than 1 AU per PES packet</li> <li>• Fix for invalid characters in PID view introduced in v2.18.0</li> <li>• Fix for AC-4 audio ES Info not updating dynamically</li> <li>• Fix for potential crash on DEPI configuration</li> </ul>
v2.19.0	2023.06.22	<ul style="list-style-type: none"> <li>• Support for <a href="#">DTA-2110 10GbE NIC optimized for SMPTE 2110</a></li> <li>• Support for <a href="#">DTU-331 Portable all-standard RF probe for USB-3</a></li> <li>• Support for DVB AVS3 video format detection (no decoding)</li> <li>• Improved supported for ATCS 3.0: now supporting SignedMultiTables</li> <li>• Improved Spectral Inversion configuration for ATSC 3.0</li> <li>• Improved MER reporting in ribbon UI</li> <li>• Fix for MER not shown for ATSC 3.0, DVB-T2, DVB-C2 and DVB-S2(X)</li> <li>• Fix for invalid disconnected symbol for IP adapter; issue was introduced in a previous release</li> <li>• Fix for DVB descriptors not shown in the PMT table; issue was introduced in a previous release</li> <li>• Fix for ATSC3.0 MMT decoding not working; issue was introduced in a previous release</li> </ul>
v2.18.0	2023.01.11	<ul style="list-style-type: none"> <li>• Support for <a href="#">DTA-2127 Quad S2X Receiver with 3G-SDI/ASI Port for PCIe</a></li> <li>• Support for identifying a stream with JPEG-XS video</li> <li>• Auto detection of IP address (best guess) for PCAP file input</li> <li>• Show basic RF statistics in ribbon UI bar</li> <li>• Update MPEG-H ES Info to latest specification</li> <li>• RRT table decoding improvement</li> <li>• Improvement for decoding CA information</li> <li>• Improvement for showing network adapter correctly when MAC address is duplicate</li> <li>• Improvement on showing correct ribbon UI options for RF configuration</li> <li>• Improvement for DEPI packets discarded incorrectly in some cases</li> <li>• Improvement for processing high bitrate streams</li> <li>• Improvement for audio &amp; video decoding issues for specific streams</li> <li>• Fix for one-part virtual audio channels not decoded correctly</li> <li>• Fix for failing to run in Lite mode where license would allow it</li> </ul>
v2.17.1	2022.07.05	<ul style="list-style-type: none"> <li>• Closed Caption decoding now supports selection of 4 channels</li> <li>• Closed Caption decoding now supports extended character set</li> <li>• Fix for Closed Caption decoding not working for Intel UHD 770 and AMD Video adapters</li> <li>• Fix for Closed Caption decoding not working when using Remote Desktop</li> </ul>

Revision	Date	Change description
		<ul style="list-style-type: none"> <li>• Fixes in Closed Caption character/colour handling</li> <li>• Increased width of URL bar to accommodate large URLs like used for Source Specific Multicast</li> <li>• Fix for wrong icons in PID/Table overview</li> </ul>
v2.17.0	2022.04.15	<ul style="list-style-type: none"> <li>• Major performance improvement for 4K video decoding</li> <li>• StreamXpert is now deployed as 64-bit application</li> <li>• Support for HEVC 4:2:2 video</li> <li>• PCAP files that contain VLAN tags are now supported</li> <li>• Fix for video decoding not starting; seen on recent PC setups</li> <li>• Fix for video not decoding when audio was not present</li> <li>• Fix for decoding video with specific aspect ratios (12:11)</li> <li>• Fix for ATSC3.0 decoding not starting for some streams</li> <li>• Fix for specific HE-AAC audio issues</li> <li>• Fix for potential overflow Warning message</li> <li>• Fix for missing service signalling for some ATSC3.0 PCAP streams</li> <li>• Fix for lockup when reading TS with bad PAT table</li> <li>• Fix for showing incorrect ES Info for AAC</li> </ul> <p><b>• Limitation: For Intel UHD 770 and AMD Video adapters Closed Caption decoding is sometimes not working or resulting in decoding issues</b></p>
v2.16.2	2021.12.06	<ul style="list-style-type: none"> <li>• Fix for StreamXpert didn't receive ATSC3.0 stream when forwarding ALP over UDP from Atsc3Xpert.</li> <li>• Fix for potentially decoding not working due to missing mpg2splt.ax file, seen for Windows Server 2012R2 installation.</li> </ul>
v2.16.1	2021.11.10	<ul style="list-style-type: none"> <li>• Support for additional TableIdExt (=TableIdExt2/TableIdExt3) in the custom table definition using "descriptor_tag_ext"; note that the XSD checks are now stricter and might require changes in your existing custom XML files.</li> <li>• Fix for PMT Language Descriptor field missing the Language value</li> <li>• Fix for Incorrect EIT table parsing resulting in multiple EIT nodes and empty event ID field</li> <li>• Fix for incorrect ATSC ES Info Closed Caption status (always 'absent')</li> <li>• Fix for crash or hang on empty TS file or inaccessible network location</li> </ul>
v2.16.0	2021.06.09	<ul style="list-style-type: none"> <li>• Support for MPEG-H RAW table view for deep down analysis of MPEG-H metadata tables</li> <li>• Support for identifying AVS3 encoded video</li> <li>• Support for DTA-2131 Spectral inversion configuration</li> <li>• Support for DTA-2132 DVB-S software demodulation using virtual port 2</li> <li>• Added support to show MPEG-H audio configuration "profile" and "level" for baseline configurations of OTT and ATSC3.0 streams</li> <li>• Fix that disables decoding of supplemental MPEG-H audio streams, since multi-stream is not supported</li> <li>• Fix for potential memory leak</li> </ul>
v2.15.0	2021.03.18	<ul style="list-style-type: none"> <li>• Support for DEPI (Downstream External PHY Interface); unpacking of a TS in the DEPI IP tunnel between DOCSIS equipment</li> <li>• Support for PCAP files for analysing TS in UDP, RTP and DEPI IP captures</li> <li>• Support for identifying JPEG-XS video</li> <li>• Improved support for high DPI displays (e.g. 4K resolution screen) and scaling</li> <li>• Dolby AC4 improvement for showing full channel configuration using object-based coding</li> </ul>

Revision	Date	Change description
		<ul style="list-style-type: none"> <li>• Fix for Dolby AC-4 ES Info tree contained wrong presentation id</li> <li>• Fix for potential memory leak and crash when DTA-2131 was used</li> <li>• Fix for Teletext pages 800-899 that were not configurable for viewing from the PID/TS tree</li> <li>• Fix for OTT URL input in the ribbon bar that did not accept a hyphen "-"</li> </ul>
v2.14.0	2020.11.27	<ul style="list-style-type: none"> <li>• Improvement for showing MPEG-H audio ES info Presets conditions</li> <li>• Improvement for specific MPEG-H audio streams that were not decoded caused by not supported sample rates</li> <li>• Improvement for specific MPEG-H audio streams not showing the audio scene info preset descriptions in the ES info view</li> <li>• Improvement for configuring the MPEG-H audio settings 'Muting' option</li> <li>• Improvement for video decoding of specific ATSC 3.0 stream</li> <li>• Improvement for processing of specific OTT DASH streams type</li> <li>• Improvement for HE-AAC audio decoding</li> <li>• Bug fix for incorrect TS bitrate reported when using Local NIC input, introduced in v2.10.0</li> <li>• Bug fix for stop responding on specific MPEG-H audio stream</li> <li>• Bug fix SH_delivery_system_descriptor was not correctly decoded</li> <li>• Bug fix and improvement for ARIB characters that were not completely decoded introduced in v2.12.0</li> </ul>
v2.13.0	2020.09.17	<ul style="list-style-type: none"> <li>• Support for ATSC 3.0 video and audio decoding</li> <li>• Support for ATSC 3.0 in depth ES video and audio information in the tree view</li> <li>• Support for OTT HEVC video decoding</li> <li>• Support for OTT MPEG-H audio decoding</li> <li>• Support for OTT in depth ES video and audio information in the tree view</li> <li>• Support for S2X satellite delivery system descriptor</li> <li>• Support for Protection message descriptor</li> <li>• Support for <a href="#">DTA-2178 Octal 12G-SDI/ASI Ports with Genlock for PCIe</a></li> <li>• Update TR 101 290 2.3a PCR repetition error default to 100ms; according latest TR 101 290 2020 specification</li> <li>• Improvement reset button now reset the graph range for example to reset graph after a spike bitrate</li> <li>• Bug fix OTT download was also initiated in TS mode</li> <li>• Bug fix PID tree was not re-initialized by the Reset button</li> <li>• Bug fix for potential crash on specific ATSC 3.0 stream</li> </ul>
v2.12.0	2020.07.16	<ul style="list-style-type: none"> <li>• Support for MPEG-H audio; including in depth meta data analyzing, decoding and configuration</li> <li>• Support for Audio Preselection Descriptor (NorDig IRD Specification 3.1.1)</li> <li>• Bug fix DTA-2180 Encoder input was disabled in the supported inputs list</li> </ul>
v2.11.0	2020.06.02	<ul style="list-style-type: none"> <li>• Support for <a href="#">DTA-2139C Twelve-channel Cable/Terrestrial Receiver</a> including ATSC3.0 MMT/ROUTE analysis</li> <li>• Support for <a href="#">DTA-2178-ASI Octal ASI Ports</a></li> <li>• Support for ATSC3.0 detailed Elementary Stream processing</li> <li>• Bug fix for possible invalid file filters in the file open dialog</li> </ul>
v2.10.0	2020.03.30	<ul style="list-style-type: none"> <li>• Auto symbol rate support for the DTA-2132 High-End Satellite Receiver</li> <li>• OTT improvement for audio decoding for a specific manifest definition</li> <li>• Radio service decoding improvement; an audio indication (icon) is shown</li> <li>• Bug fix for OTT URL field non-operational in version 2.9.0</li> <li>• Bug fix for multiple popup menu messages in full screen TV view</li> <li>• Bug fix TR 101 290 analyser did potentially use wrong profile</li> </ul>



Revision	Date	Change description
v2.9.0	2020.01.31	<ul style="list-style-type: none"> <li>• Support for ATSC3.0 MMT/ROUTE analysis using DTA-2131 adapter</li> <li>• Support for <a href="#">DTA-2174B Quad 3G-SDI/ASI Ports PCIe adapter</a></li> <li>• Bug fix for crash when DTA-2131 was in use by another application</li> <li>• Bug fix for alias editor not working in MPEG-TS mode</li> <li>• Bug fix for file selection not working when previous file was removed</li> <li>• Bug fix for potential crash seen on Windows Server 2019 during IP adapter scan</li> <li>• Bug fix for DTA-2142 SPI adapter not part of the available adapters</li> <li>• Bug fix for incorrect input fields seen for RF inputs when switching modulation standard</li> </ul>
v2.8.0	2019.12.18	<ul style="list-style-type: none"> <li>• Support for ATSC3.0 IP and PCAP file support including MMT and ROUTE + ALP decoding (note DTA-2131 support will be added in next release)</li> <li>• Support for HDR/WCG related elementary stream info for AVC and HEVC</li> <li>• Bug fix for crash when no audio device was installed</li> </ul>
v2.7.0	2019.09.19	<ul style="list-style-type: none"> <li>• Support for dynamic update the list of available USB and IP adapters on connect/disconnect/enable/disable</li> <li>• Bug fix for possible application hang on H.264/AVC stream</li> <li>• Bug fix for possible DTA-2137 tuning issue</li> <li>• Bug fix Es Info treeview did show CC errors in red even for 0 errors</li> </ul>
v2.6.0	2019.08.02	<ul style="list-style-type: none"> <li>• Support for <a href="#">DTA-2132 High-End Satellite Receiver PCIe adapter</a></li> <li>• Support for configuring alias names for IP URL's</li> </ul>
v2.5.0	2019.06.07	<ul style="list-style-type: none"> <li>• Support for <a href="#">DTA-2172 Dual 3G-SDI/ASI Ports PCIe adapter</a></li> <li>• Support for new ATSC, DVB, MPEG and ISDB tables and descriptors</li> <li>• Support for Dolby AC-4 decoder v2.1.1 and several AC-4 bugfixes</li> <li>• Support for Closed Caption presence/absence information in ES info</li> <li>• Extra CA System Name added for scrambled PID and Services</li> <li>• Extra IP adapter info for IP address, Network alias name in adapter selection dropdown</li> <li>• Bug fix: DTA-2145 in failsafe could not be used</li> <li>• Bug fix: IP addresses were not always persistently stored</li> <li>• Bug fix: TR 101 290 logging did not use correct profile on mode change</li> <li>• Bug fix: custom configuration file was not loaded; introduced in v2.3.0</li> <li>• Bug fix: Video was not decoded for specific OTT stream</li> <li>• Bug fix: Video and Audio was not decoded for specific OTT stream</li> <li>• Bug fix: RTP IP address did automatically change into UDP; Note: RTP FEC is currently not enabled in StreamXpert since FEC statistic are not shown</li> <li>• Bug fix: USB adapter disconnect sometimes resulted in a crash</li> <li>• Bug fix: Messages and Trace bar could not be activated after undock-hide</li> <li>• Bug fix: ES info for LATM or ADTS audio was not shown</li> </ul>
v2.4.1	2019.02.20	<ul style="list-style-type: none"> <li>• Support for DTA-2139B Twelve-Channel Cable/Terrestrial Receiver for PCIe</li> <li>• Bug fix: DtapService crash was seen on older PC's that did not support AVX instruction set</li> </ul>
v2.4.0	2019.02.04	<ul style="list-style-type: none"> <li>• Support for Dolby AC-4 meta data and audio decoding</li> <li>• Support for <a href="#">DTA-2175 HD-SDI/ASI input+output PCIe adapter</a></li> <li>• Bug fix: in some cases, AAC audio was not decoded</li> <li>• Bug fix: for crash when Windows Audio Service was disabled</li> <li>• Bug fix: for crash when selecting collapsed teletext ribbon bar</li> <li>• Bug fix: OTT didn't decode live DASH streams when only 1 presentation field was available</li> </ul>

Revision	Date	Change description
		<ul style="list-style-type: none"> <li>Bug fix: TR101290 EIT_actual_error was counted every 10 seconds instead of every 2 seconds</li> </ul>
v2.3.0	2018.05.28	<ul style="list-style-type: none"> <li>Support for OTT analysis mode: HTTP Smooth Streaming (MS-SSTR) and MPEG-DASH manifests visualization. MPEG-DASH profiles decoding is supported for both on-demand and live streams containing AVC/H.264 video and AAC audio</li> <li>Support for detection of AVS,AVS+ and AVS2 encoded video (no decoding support yet)</li> <li>File input ribbon media control added</li> <li>Decoding TV view now shows service name, resolution, bitrate and codec info</li> <li>Bug fix: ISDB-T Parameter Emergency-Alarm Broadcast was not shown</li> </ul>
v2.2.1	2018.03.16	<ul style="list-style-type: none"> <li>Bugfix: MS Office font was required for Teletext decoding</li> <li>Bugfix: DTA-2131 QAM-B config did not always set default symbol rate</li> <li>Bug fix: the last-set IP-address was not loaded on start</li> </ul>
v2.2.0	2018.02.14	<ul style="list-style-type: none"> <li>Support for Teletext decoding</li> <li>Support for DTA-2131 QAM-B</li> <li>Bug fix: StreamXpert needed to be restarted every 2-3 days when dongle license was used</li> </ul>
v2.1.7	2017.05.31	<ul style="list-style-type: none"> <li>Bug fix: closed captions where garbled for video streams with a frame rate above 30fps</li> <li>Bug fix: active Tr101290 profile was not updated when switching between standards</li> </ul>
v2.1.6	2017.04.20	<ul style="list-style-type: none"> <li>Bug fix: when switching between services it could take tens of seconds before decoding the video of the newly selected service began</li> <li>Bug fix: display resolution for interlaced HEVC content was reported as the field resolution (i.e. half height)</li> <li>Bug fix: Frame rate for HEVC with an invalid NumUnitsInTick field was reported as "1.#J"</li> </ul>
v2.1.4	2017.02.28	<ul style="list-style-type: none"> <li>Support for SCTE-35 stream-type</li> <li>Bug fix: VLAN configuration was not working</li> </ul>
v2.1.3	2017.01.02	<ul style="list-style-type: none"> <li>Now possible to use offline mode with NIC-only license</li> <li>Bug fix: SX license on DTE-31xx series was not accepted</li> <li>Bug fix: audio decoding not running smooth after switching to another service</li> </ul>
v2.1.2	2016.10.12	<ul style="list-style-type: none"> <li>Updated ATSC version of build-in template for AC-3 descriptor</li> <li>Bug fix: on Windows XP the TR 101 290 tab page was empty</li> </ul>
v2.1.1	2016.09.26	<ul style="list-style-type: none"> <li>Bug fix: failure to detect presence of DTA-2138B, DTA-2144B and DTU-245B cards</li> </ul>
v2.1.0	2016.09.15	<ul style="list-style-type: none"> <li>Support for offline (file based) analysis</li> <li>Support for TSolP RTP streams with an extended RTP header</li> <li>Bug Fix: failure to decode services from a transport-stream with 204-byte packets</li> </ul>
v2.0.30	2016.06.14	<ul style="list-style-type: none"> <li>Bug fix: failure to decode services which use a separate PID for the PCR</li> <li>Bug fix: interruption in decoding when the PAT changes, but the service that is being decoded remains unchanged (i.e. when a new service is added or other service is removed from the PAT)</li> </ul>
v2.0.29	2016.05.20	<ul style="list-style-type: none"> <li>Bug fix: TS bitrate reported as 0bps after a temporary loss-of-signal</li> </ul>

Revision	Date	Change description
v2.0.28	2016.05.11	<ul style="list-style-type: none"> <li>• Support for extraction of metadata from AC4 sub-streams</li> <li>• Restored support for using the StreamXpert on Windows XP. NOTE: we recommend using windows 7 or higher</li> <li>• Bug fix: occasional crash that occurred when number of services in the transport-stream changes</li> <li>• Bug fix: lip-sync issue with (E)-AC-3 audio</li> <li>• Bug fix: StreamXpert would not list local NICs if there were more than 10 local NICs available</li> <li>• Bug fix: failure to decode video streams with a large vbv-delay</li> </ul>
v2.0.25	2016.02.18	<ul style="list-style-type: none"> <li>• Restored '+' and '-' keyboard shortcuts for 'zapping' through services to decode</li> <li>• Identify custom tables by name, instead as a 'private/custom table', if there is a XML template definition for the table. E.g. AIT table is now identified as AIT in the PID and service trees</li> <li>• Restored option to select a specific character code table for decoding of string in P(SI) tables/descriptors</li> <li>• Bug fix: aspect ratio was not always maintained correctly by the video decoder</li> <li>• Bug fix: failure to Digicypher video</li> <li>• Bug fix: crash of StreamXpert when there are no (or no licensed) input adapters in the system</li> <li>• Bug fix: closed caption where garbled when both the primary and secondary closed caption streams were present</li> <li>• Bug fix: could only decode the first video/audio PID from a service with more than one video/audio stream</li> <li>• Bug fix: AC-3 audio was not decoded properly when multiple (complete + partial) AC-3 audio frames were encapsulated in one PES packet</li> </ul>
v2.0.24	2015.10.20	<ul style="list-style-type: none"> <li>• Bug fix: AVC/HEVC video with an access unit per field would not decode smoothly or freeze regular</li> <li>• Bug fix: crash when decoding AVC/HEVC with an access unit per field</li> <li>• Bug fix: failure to receive IP streams via a DTA-160/2160/2162</li> </ul>
v2.0.23	2015.10.15	<ul style="list-style-type: none"> <li>• Added support for decoding video while connected via a remote desktop session</li> <li>• Increased max. number of services in decode popup to 50</li> <li>• Increased with of service and PID dropdowns controls in decode ribbon tab</li> <li>• Bug fix: failed to decode a service with (E-)AC-3 audio on a Windows 7 machine</li> <li>• Bug fix: incorrect resolution was reported for some HEVC streams</li> <li>• Bug fix: some HEVC video streams where not decoding smoothly. NOTE: this does not apply to 4k resolutions (CPU specs are TBD)</li> <li>• Bug fix: Lite version refused to decode 8-bit AVC streams</li> <li>• Bug fix: field parity in vbi_data_descriptor was displayed as even when it should be odd and other way around</li> </ul>
v2.0.22	2015.09.30	<ul style="list-style-type: none"> <li>• New ribbon based GUI look</li> <li>• Support for HEVC and AVS decoding</li> <li>• Support for Dolby AC-4 metadata</li> <li>• Dolby certified Dolby Digital and Dolby Digital Plus audio decoder</li> <li>• Full screen decoding with a dual-screen mode</li> <li>• Support for DTA-2152/2154/2174 and DTU-238</li> <li>• Many bug fixes</li> </ul>



## 7. Contact Information

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