



**MTSA-HW and MTSA-PC
MPEG Test System
Release Notes**

This document supports software installer version 3.3.1.
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077-1604-00

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Release notes

This document describes new features, improvements, and limitations of MTSA-HW and MTSA-PC software installer version 3.3.1.

New features and improvements

- Support for MTSA MPEG Test Systems MTSA-HW and MTSA-PC
- Transport Stream Compliance Analyzer with AC4 audio and Dolby Vision support
- Buffer Analyzer with MP4 AAC support
- Multiplexer with AC4 audio support
- PES Analyzer with scrambled PID analysis support

MPEG Player issues

Quad ASI Card Drops TS Packets

The Quad ASI card drops TS packets that have a TS Sync Byte in error. To playout the errored packets without dropping it, play in Non-TS mode. To receive packets with a TS Sync Byte in error, analyze with "Timestamp=TRUE".

PCR Init Value – Different for Each Start of Play

The MPEG Player uses the values set in the "PCR Init Value" dialog, only for the first playout. In subsequent playouts, this value is not used. To force the MPEG Player to use the value set in the "PCR Init Value", close and restart the application.

Progress Bar Not Accurate for 204 Byte Packet Size

When playing out TS packets of 204 byte packet size, the progress bar shown in the MPEG Player may not be accurate.

Transport Stream Compliance Analyzer issues

Only one instance of TSCA with IP analysis allowed	MTSA does not support running two simultaneous instances of TSCA with IP analysis. When TSCA is running IP analysis opening another instance of either TSCA or MPEG Player or PQA IP generate/capture will stop the already running TSCA IP analysis. Please contact Technical Support for further assistance with this limitation.
Simultaneous MPEG Player and TSCA IP analysis	To simultaneously run the MPEG Player and TSCA IP analysis, it is recommended to start the MPEG Player before starting TSCA IP analysis.
TSCA payout with 204 byte packet streams	TSCA payout for 204 byte packet streams is supported on VLC version 3.0.7. Earlier versions of VLC versions such as 2.2.1 does not support this.
Program tree does not always update correctly	After deferred analysis has completed, occasionally the program tree might not display the program names even though they appear in the Summary View. If you switch from the Program tab to another tab, and then back again, the program names will appear.
Processing may become strained with Script Validation enabled in Real Time Mode	If you enable Script Validation for Real Time Analysis, the TSCA might become strained. If this occurs, and script validation is required, disable the feature, make a recording in real time, and then perform a deferred analysis on the recording with the feature enabled.
Analyzing RTP streams using UDP causes TSCA to become overwhelmed	When you select an IP session to analyze from the “Browse for UDP flow...” dialog box, the TSCA attempts to identify whether it is RTP or UDP, and automatically updates the “Use RTP” check box in the Real-time Analysis Open Transport Stream dialog box. If you manually clear the “Use RTP” and analyze a known RTP stream, this can cause the TSCA to become overwhelmed and data to be lost.
IP packet inter-arrival timing	<p>The TSCA uses WinPcap for IP input using an NIC. The timing of WinPcap is affected by the type of processor, hyper-threading and SMP. See the WinPcap change log (http://www.winpcap.org/misc/changelog.htm) for more details.</p> <p>IP Packet timing measurements using an NIC are based on timestamps averaged over a 40 ms period. You can define an integration period for the graphical display of average Packet Inter-Arrival Time. The default integration period is 1 second.</p>
H.264 thumbnails with Recovery Points	The TSCA thumbnail decoder does not support H.264 Recovery Points.

Concurrent analysis behavior

It is possible to have multiple instances of the TSCA running at the same time. However, the following behavior should be noted:

- Triggers are saved on restarting analysis. The effect of setting a trigger in an instance and restarting analysis will be to cause the trigger to be inherited in other instances when analysis is restarted in those instances.
- When a parameter is modified in one instance, it will be inherited in other instances when analysis is restarted in those instances.
- When multiple instances of the TSCA are analyzing in real-time, restarting the analysis using the "Restart" icon may not always work. It is recommended to start analysis using the appropriate interface from the "Real-time" icon, rather than using the "Restart" icon.

Connection to VLAN sessions using a NIC

The VLAN tag will not appear in the TSCA analysis.

If you need to analyze VLAN sessions, you must update to the latest driver for the NIC adapters and add a DWORD registry entry.

For a PCI-Express network adapter, add a DWORD entry "MonitorMode" to a value of 1 within:

```
HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\Control\Class\
{4D36E972-E325-11CE-BFC1-08002BE10318}\00xx
```

where xx is the instance of the network adapter.

For a PCI/PCI-Extended network adapter, add a DWORD entry "MonitorModeEnabled" to a value of 1 within:

```
HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\Control\Class\
{4D36E972-E325-11CE-BFC1-08002BE10318}\00xx
```

where xx is the instance of the network adapter.

All the IP interfaces on the MTSA Analyzer including those on the 10Gig card are PCI-Express cards and hence require the MonitorMode DWORD to be added.

ES Analyzer issues

Regedit error when launching ES Analyzer

The ES Analyzer application requires that it always be run in administrator mode. Because of this, the Option Key also must be loaded (once) as administrator. Follow these steps to make the necessary changes:

- Load the option key into the administrator account.
 - Launch the OptionKey Wizard (Start > Tektronix MTSA > OptionKey Wizard).
 - Copy the option key from the Key String field and close the wizard.
 - Select the OptionKey Wizard again and right-click.
 - Select Run as administrator.
 - Paste the option key into the Key String field and close the wizard.
- Set the ES Analyzer to run as administrator.
 - Select the ESAnalyser icon, right-click, and select Properties.
 - Open the Compatibility tab and check “Run this program as an administrator”.
 - Select OK to close the Properties.

Only partially decodes 4:2:2 Profile@HighLevel file

4:2:2 Profile@HighLevel files are only partially supported by ES Analyzer.

Multiplexer issues

- When section bitfields are edited, the CRC field does not refresh automatically to reflect the change. The CRC change would be visible only after the stream is multiplexed. It would be also available if the stream is exported as a .muxml file, and imported back.
- Elementary stream within other containers, such as *.h264, *.MP4, Fluxmux and others, are not directly supported.
- Incomplete access units (for the last access unit), will be dropped during multiplexing.
- On looping small files, the PAT and PMT table stop time resets to the start time. The repetition interval then becomes zero because there is only one occurrence in each of these table sections.
- The multiplexer does not consider the start time of the stream when adjusting the PTS/DTS values of the elementary stream. A work around for this is to enter a DTS offset for the PID equal to its lag against the PCR PID.
- Altering some stream properties (like duration) does not affect other stream properties. For example, other PIDs do not automatically adjust to new transport stream durations automatically. However, the stream properties can be set manually.

Carousel Analyzer issue

Spikes on bit rate graphs for long streams

The Carousel Analyzer bit rate graphs for long streams may show spikes.