TECHNICAL MONITORING

REAL-TIME A/V ALERTS, MULTIVIEWER, BROADCAST QOE, TS ANALYSIS

MONITOR TV, INTERNET, AND RADIO

MULTIVIEWER ANY INPUT, ANY LAYOUT
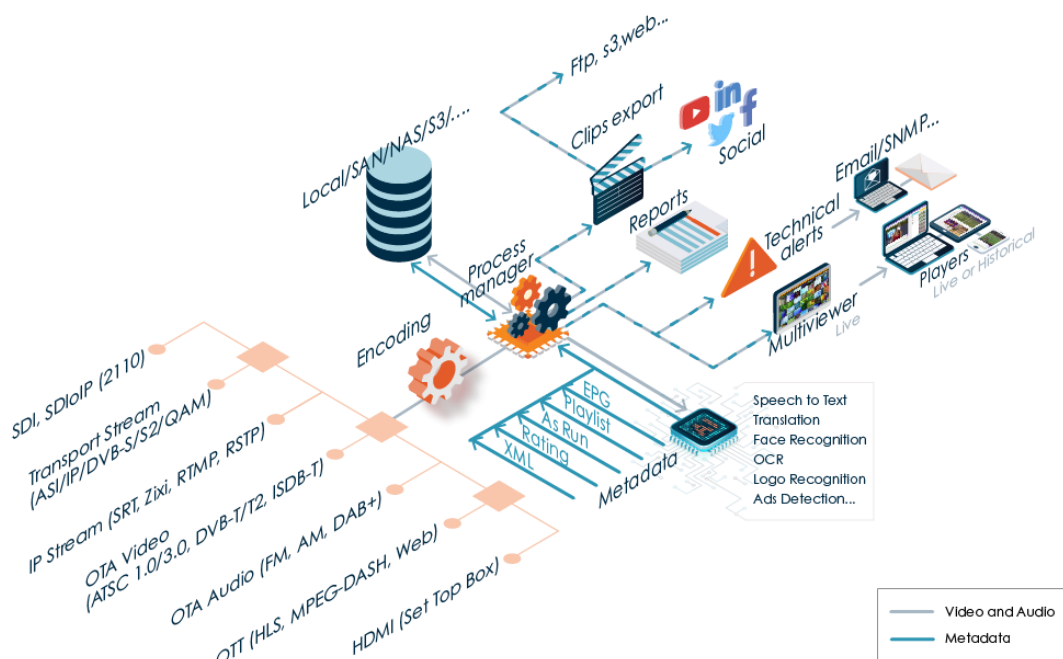
TS ANALYSIS REAL-TIME REPORTS

ALERTS AUDIO/VIDEO ISSUES, CLOSED CAPTION, SUBTITLES, LOUDNESS, SCTE, PCIP, NAVE ,…

REPORTS VIA E-MAIL, SNMP, DASHBOARD

ACTUS
Intelligent Monitoring Platform

ACTUS ALERT CENTER

Alert Center constantly monitors incoming audio/video inputs in real time, evaluating their technical values against a set of rules and user-defined parameters. Any exception is logged and reported via multiple methods, including e-mail, SNMP, multi-wall dashboard, or log file. The alerts are logged and users can create and export reports featuring graphs, pie charts, and statistics.

INPUTS AND FORMATS

ANY MIX OF INPUTS

Alert Center/Mulitvieiwer (Mosaic) accepts any type of feed — whether it's baseband, IP, RF, digital, or analog — and any combination. It can detect and display alerts from various phases of production, including SDI or ASI feeds from the playout; IP feeds from the transmission; ATSC or DVB-S/C/T feeds from off-air capture; and HDMI or analog feeds coming from set-top boxes. Any TV broadcast format/resolution is supported, including MPEG2/MPEG4/AVC/HEVC video, MPEG, and AAC and AC3 audio.

DETECTION ENGINE

ALERT CONFIGURATION

The system can be configured with alert thresholds for each and every technical issue — pixelization, frozen image, no audio, low audio, blue screen, black screen, missing subtitles/closed captions, missing SCTE, audio below threshold, and more. Typically, alerts are only required for audio/video outages that will cause viewer discomfort.

AUDIO/VIDEO ISSUES

The system detects audio and video issues such as no video signal, frozen screen, pixelization, no/low/high audio, monotone screen, color bars, and more. Audio alerts are given for each audio track language.

LOUDNESS VIOLATION

Using the Loudness Module, the system can detect a program segment (or whole program) with an average loudness level ("I") that is higher or lower than the configured threshold values, and issue an alert.

MISSING CAPTIONS/SCTE

The CC Module will detect any segment where closed captions, subtitles, or SCTE are missing over a predefined time period, and issue an alert.

TR-101-290 TS MONITORING

The TR-101-290 Module evaluates the transport stream and detects anomalies such as missing/unreferenced PIDs, timing/clock issues, and others based on the ETR-101-290-1 standard.

MISSING SCTE

The SCTE Module detects triggers, signals, and cues in the feed, including SCTE35 and SCTE104. It will issue an alert if "expected" signals are not present in the feed for more than a given time period.
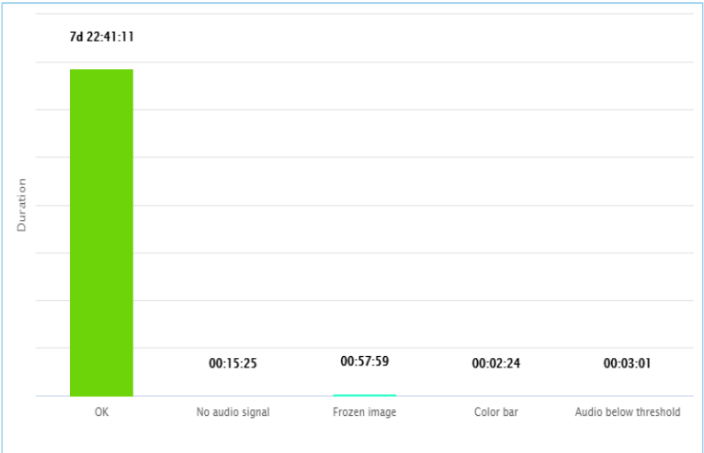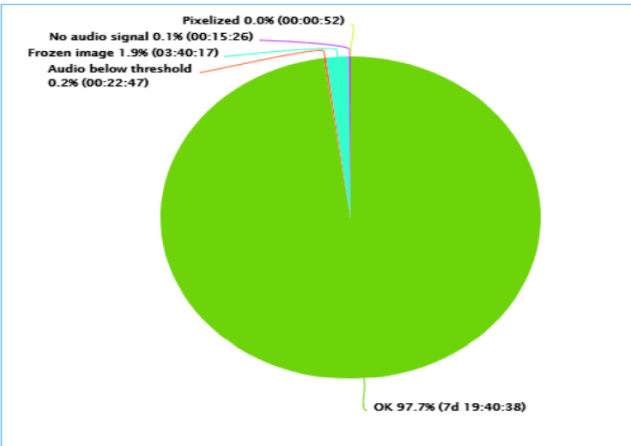
ALERTS AND REPORTS

Alert Center logs all alerts and allows users to create and export reports based on specific channels, alerts, and more. Audible alarm is given as well, if needed. For example:

Alerts Summary

From: Mon Dec 07 2020
To: Mon Dec 14 2020

Note: Summary table for each channel, display the total time per event, and total number of events

	OK	No audio signal	Frozen image	Color bar	Audio below threshold	Pixelized
Euronews	7d 22:41:11 243	00:15:25 28	00:57:59 189	00:02:24 1	00:03:01 26	
France24	7d 20:42:37 846	00:14:24 111	02:39:16 550		00:20:26 171	00:03:17 21
French	7d 19:40:38 947	00:15:26 131	03:40:17 622		00:22:47 194	00:00:52 6
Giallo	7d 23:59:25 2		00:00:35 2			

ACTUS MOSAIC/MULTIVIEWER

Actus Mosaic is an efficient and cost-effective multiviewer system that can display over 40 TV signals — including error detection and alerts, audio VU meters, clocks, and widgets — on any large wall monitor screen. It also integrates with Actus TS Analysis and presents loudness, SCTE, closed caption, and subtitle metadata. Its low cost and ability to use existing sources from Actus encoders make Actus Mosaic a perfect complementary solution for content monitoring rooms. It can display any recorded channel, which means that regardless of the input type — analog, IP, ASI, SDI, DVB, or other — all channels can be monitored in Mosaic. Clicking on a specific channel will allow users to hear its audio.

- o Configurable to any number of channels
- o Displays any mix of video inputs
- o Does not require additional servers or capture cards
- o Technical alerts in real time: On-screen, e-mail, SNMP trap, exported reports
- o TS Analysis can be integrated
- o Penalty Box can be integrated
- o Presents all metadata: Closed captions, subtitles, loudness, SCTE

CENTRALIZED LOGS

Alerts are logged in log files, allowing technical managers to review them all in a single place. Actus Mosaic includes all alert options highlighted in this document.

SNMP

The detection of a technical issue can trigger an alert at the site's central SNMP server.

E-MAILS

Any anomaly detected can be sent via e-mail.

TS ANALYSER

Actus Mosaic includes deep inspection and analysis of the transport streams through a rich HTML5 web interface. Users can track/analyze MPEG sections and tables — such as PAT, PMT, NIT, and SDT — and monitor/analyze TR-101-290 priority 1, 2, and 3 events, while viewing them on the multiviewer.

UNLIMITED DISPLAYS /LAYOUTS

An unlimited number of display monitors (one screen per PC) can be utilized, and an unlimited number of layouts can be designed.

MIXING

FEEDS

Mosaic accepts any audio/video input encoded by the Actus recorders, including MPEG2/4, AVC, HEVC video, MPEG, AAC and AC3 audio, closed captions, teletext, and DVB subtitles.

SCTE/LOUDNESS/CLOSED CAPTIONS

There are options to display subtitles, closed captions, teletext, audio tracks, SCTE, and loudness in Mosaic.
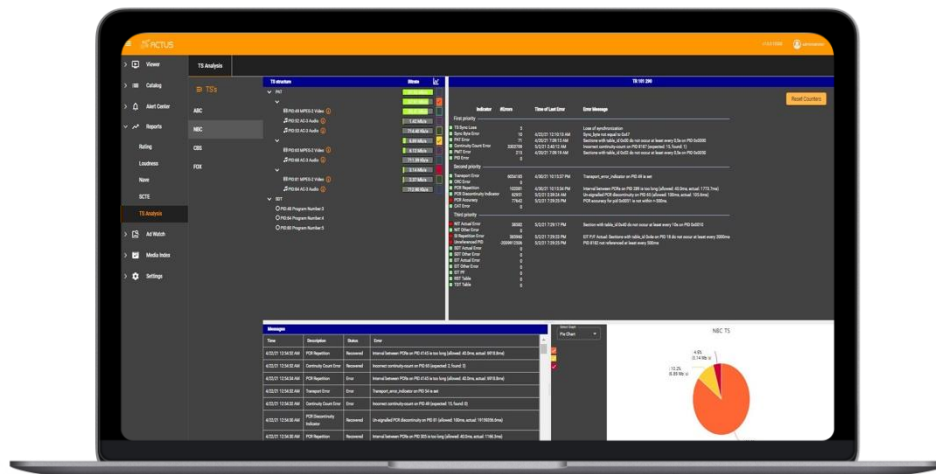
PENALTY BOX   Mosaic can also include Actus Penalty Box, which provides an overview of only the channels that have issues such as a frozen image or no audio. The Penalty Box can be independent, integrated into Mosaic's screen, or both.

ACTUS TRANSPORT STREAM ANALYSIS

o   Deep inspection and analysis of transport streams (TS)

o   TS structure

o   Error messages

o   Track/analyze MPEG sections and tables, such as PAT, PMT, NIT, and SDT

o   Monitor/analyze TR-101-290 priority 1, 2, and 3 events

o   Monitor the TS through a rich HTML5 web interface

o   Display TR-101-290 events on the multiviewer

OTHER ADVANTAGES

COST-SAVING	There is no need to add additional servers or capture cards.
SCALABILITY	Additional optional alerts can be added on demand without the need for hardware changes.
FLEXIBILITY	Alert Center is designed with a number of parameters that allow each of our customers to adapt the solution to their specific requirements. For example, some users may require a higher (less sensitive) threshold, while others may prefer a shorter latency.

Other modules offered by Actus media platform:

Actus compliance logging and monitoring (View)
Actus OTT Monitoring
Actus content re-purposing (Clip Factory)
Actus Rating Analysis (Rating Analyzer)
Actus Automatic ads detection (AdWatch)
Actus AI integration
Actus Content matching (Track Match)
Actus Remote Video Monitoring