Headends and video service providers today deal with a large amount of complex content. Programs may be re-encoded, transcoded, and multiplexed. These transformations can adversely affect the integrity and quality of service.

Keeping these diverse complexities and challenges in mind, Interra’s ORION provides an edge as the only enterprise-class solution that offers a simple, yet powerful approach to content monitoring. ORION performs critical monitoring functions in a single, integrated platform that is comprehensive, efficient, and easily scalable for hundreds of programs.

- **Enterprise Level Solution** – Easy deployment and expansion using standard PC hardware
- **Centralized Enterprise-wide Monitoring**

- **Comprehensive Monitoring** – Transport streams, IP packets, embedded data, audio and video quality, ad insertion

- **Integrated Monitoring** – Leverages QC and standards compliance of our industry leading Baton and Vega products

### Advantages

- **Broadcasters, Cable Networks**
- **Telco Operators**
- **Encoder/Decoder Manufacturers, System Developers**
- **Streaming Media Providers**
- **End-to-end DTV Solution Providers**
- **Cable and Satellite Headends**

### Typical Users

- Monitor and track every SCTE-35 message
- Record ad insertions for visual inspection
- Check inserted ads for audio/video quality
- View syntax details of SCTE-35 cue messages for debugging purposes
- All relevant information extracted and summarized

### Digital Program Insertion and Compliance Checks

# ORION

Real-time Content Monitoring

ORION - A New Model in Enterprise Monitoring

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ORION’s monitoring can be scaled from a single monitoring unit to multiple units that handle high volume, streaming content effortlessly. Its web-based interface enables remote monitoring through any browser-enabled device providing extreme flexibility and on-the-go decision-making.

ORION monitors all aspects of transport streams: content structure, composition, programs, audio-video quality checks, and advanced functions such as digital program insertion (DPI).

ORION users have a full-featured error detection, video quality analysis, alerts, reporting, and trend analysis tool at their fingertips.

**Features**

- In-depth monitoring and compliance checks
  - MPEG-2 transport streams over IP
  - ATSC, DVB and ISDB compliance
  - TR 101 290 compliance
  - DVB subtitles, closed captions and teletext
  - Video and Audio conformance checks

- Monitoring QoS/QoE/MOS

- Video quality checks
  - Freeze frames, black frames and blockiness

- Audio loudness compliance
  - ITU, EBU and CALM Act

- Audio quality checks
  - Loudness, silence and audio levels

- Content integrity checks
  - Digital program insertions and compliance checks

- IP packet integrity checks
  - Dropped packets, interference and inter-packet jitter

- Alarms, alerts and reporting
  - Highly configurable and easy to set up alarms / alerts (including SNMP)
  - Manual and automatic recording of signals based on customizable triggers for deeper debugging
  - Rich, highly configurable reports for real-time and logged data
  - Integrated with Vega analyzer for offline debugging
  - Real-time graph and timeline for analyzing alerts and trends

- Realtime Playback

- Support for REST API

**Formats & Protocols Supported**

<table>
<thead>
<tr>
<th>Interface</th>
<th>IP (v4), ASI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocols</td>
<td>MPEG-2 Transport, DVB, ISDB, and ATSC compliance</td>
</tr>
<tr>
<td>Audio Formats</td>
<td>MPEG-1/MPEG-2 Audio, AAC Audio, Dolby AC-3, EAC-3 Audio</td>
</tr>
<tr>
<td>Video Formats</td>
<td>SD/HD Video, HEVC, H.264/MPEG-4 Part 10 (AVC), MPEG2 Video</td>
</tr>
<tr>
<td>Embedded Data</td>
<td>Closed Captioning (EIA-608, EIA-708, SCTE-20, DIVICOM, NADBS), DVB Subtitle, Teletext, SCTE-27, SCTE-35</td>
</tr>
<tr>
<td>Network Transmission Protocol</td>
<td>UDP/RTP, Multicast (IGMP v1/2/3)</td>
</tr>
<tr>
<td>Checks</td>
<td>CableLabs, Audio Loudness, Audio Quality, Video Quality</td>
</tr>
</tbody>
</table>