Live Transcoder

Video encoding and transcoding on-premise and in the cloud
Live Transcoder is an eco-friendly, GPU-powered software for video encoding and transcoding. With the world’s fastest JPEG2000 codec, it seamlessly transcodes between production formats like JPEG-XS TR-07, JPEG2000 TR-01, NDI, and distribution formats such as AVC and HEVC. Additionally, it offers motion-compensated frame rate conversion.

Deploy Live Transcoder as a docker container on-premises or in the cloud. Ideal for events like sports tournaments or festivals, this pay-as-you-go solution leverages Nvidia GPUs and cloud technology for cost-efficient streaming, superior performance, scalability, and reduced carbon footprint.

**JPEG-XS & JPEG2000 TRANSCODING**

The world’s fastest JPEG2000 TR-01 & JPEG-XS TR-07 engines are directly compatible with contribution streams and allows for direct contribution to distribution transcoding.

**REAL-TIME FRAMERATE CONVERSION**

Ingest compressed live IP video formats, such as H.264, JPEG2000 TR-01, JPEG-XS TR-07, or NDI, and convert between 50 fps and 59.94 fps frame rate standards.

**VERSATILE DEPLOYMENT & PRICING**

Deploy Live Transcoder on-premises, in the cloud as a docker container, or mix. Choose Pay as you go, monthly, or annual subscription models and meet your current streaming needs.
# Additional features

## High Value Transcoding

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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<tbody>
<tr>
<td><img src="image" alt="Low latency" /></td>
<td>Experience end-to-end live video transport with ultra-low latency.</td>
</tr>
<tr>
<td><img src="image" alt="High bitrate formats" /></td>
<td>Native support for high bitrate production contribution formats including JPEG2000, JPEG-XS and NDI.</td>
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<tr>
<td><img src="image" alt="Multichannel synchronous streaming" /></td>
<td>Effortlessly transport multiple camera feeds from a venue to a studio or the cloud in a synchronized manner using Live Transcoder.</td>
</tr>
<tr>
<td><img src="image" alt="Motion Compensated Conversion" /></td>
<td>The state-of-the-art, motion compensated algorithm enables spotless and seamless visual quality for live sports streaming.</td>
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## Easy integration and management

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<td><img src="image" alt="3rd party integration" /></td>
<td>Easy insertion into existing workflows via REST API.</td>
</tr>
<tr>
<td><img src="image" alt="Centralized control" /></td>
<td>Set up, manage and control hundreds of streams from a single console via REST API or web interface and monitor them via SNMP.</td>
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## Flexible OpEx Deployment

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<tr>
<td><img src="image" alt="Easy deployment" /></td>
<td>Software only containerized solution simplifies deployment; no need for specialized support; maximum flexibility.</td>
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<tr>
<td><img src="image" alt="Simple scalability" /></td>
<td>Extend your capacity simply by spinning new instances.</td>
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## Advanced Image processing

- Perform image resizing, **high-quality deinterlacing**, cropping, padding, logo insertion, and color adjustments.

## Adaptive Bitrate Transcoding

- Seamlessly adapt live video content to meet the resolution, quality, and codec **requirements** of current and future devices.

## Green streaming

- Reduce carbon footprint with energy-efficient **streaming** by leveraging GPU-powered processing and cloud technology.

## Motion Compensated Conversion

- The state-of-the-art, motion compensated algorithm enables **spotless and seamless visual quality** for live sports streaming.
Video input

**Supported codecs:**
- JPEG 2000 TR-01
- JPEG-XS TR-07
- NDI
- H.264 (MPEG-4 AVC)
- H.265 (HEVC)
- MPEG-2
- SMPTE 2110

**Color component sampling:**
- 4:2:2 10bit/8bit
- 4:2:0 10bit/8bit

Audio input

**Codec:**
- Uncompressed PCM - multichannel (SMPTE 302M-2007)
- AAC (ADTS / LATM)
- MPEG2 Audio
- Dolby-E pass through
- AC-3
- E-AC-3

Metadata

**SCTE-35**

**Metadata pass through**

**Subtitles embedding into H.264 SEI messages**

**Closed Captions (EIA-608/708)**

**SMPTE 2038**

**Timecode insertion into SEI messages for H.264 and H.265 encodes (MISB 0604.6) supported with SDI, NDI and TS inputs**

Video processing

- Resizing
- Automatic color component subsampling (both configured automatically based on input and output settings)
- De-Interlacing
- Cropping / Padding
- Color adjustments
- Frame rate conversion (Motion compensated)
- Logo insertion

Containers & Protocols

**UDP, RTP**

**MPEG-2 TS, MPTS**

**VSF TR-01**

**VSF TR-07**

**RTMP / RTMPS**

**SRT with Path Redundancy**

**NDI (input & output)**

**HLS**

**Hittless Merge**

**Hittless Switch**

Synchronization

**Input PCR:**

Configurable: global
(in separate transport stream) or local
(contained in each input transport stream)

**Output PTS:**

Configurable: pass-through or adding offset to input PTS

Multipipeline synchronization using single PCR stream in multiple pipelines

Audio processing

- Shuffling
- Volume gain
- Sampling rate conversion

Audio output

**Audio codec:**

- AAC (ADTS / LATM)
- AC-3
- Uncompressed PCM (SMPTE 302M-2007)
- MPEG2 Audio
- Dolby-E pass through

Configuration options:

Web UI, SNMP, REST API

System Monitoring options:

System webconsole, SNMP + custom OIDs