

iLux|FILE

Stream Engine



The iLux File distribution platform assures exceptional quality, speed and reliability.

On Premises Scalable Cluster with GPU Acceleration

or

[Signup/Login](#) and use the **Stream Engine Cloud**

The **iLux File - Stream Engine** transcoding platform is a widely deployed, professional media asset processing system. Since 2010, Millions of media assets have been processed by large cable and OTT customers. The proven platform is scalable for any workload size, with automation for “set up and forget” operation. Create your configurations and input watch folders, and when new media assets arrive, they are picked up and processed.

Stream Engine is available as an on-premise solution or you can use the igolgi [Stream Engine Cloud](#). For on-premise deployments, a single server to a large cluster can be set up. You can easily add more servers into the cluster over time if your workload demand increases, without any disruption to the ongoing processing.

Stream Engine processing is optimized to run on GPU hardware for the highest density and lowest power per channel performance. In most cases, a single server with 1 or more GPUs can process a cable headend daily workload of 1000s of assets.

igolgi also provides a [Stream Engine Cloud](#) system. Simply create an account and you can start processing on our GPU cluster located in our Chicago Data Center. Controllable with a restful API or web user interface, you can easily connect your media assets from your own cloud or even drag and drop them into the system.



Stream Engine provides the highest level of compression efficiency with lots of flexibility and codec support. Stream Engine has also been integrated with asset management solutions and object storage solutions to create a very powerful file processing system for on-premise deployments. This forward-looking architecture is especially important for next generation audio and video codec formats and other aggregation functions.

Stream Engine has modular architecture with a Schedule component and independent transcoder worker processes. The scheduler is fully redundant and distributes all assets to worker processes and manages the compute load evenly. The system is designed with robust failsafe mechanisms to ensure timely job completion and guarantees no downtime.

Full documentation of the API and user interface is available online at the link below.

<http://docs.streamengine.igolgi.com/books/igolgi-stream-engine>

The image shows a user interface for configuring a transcoding job. It includes sections for Output Format, Common Output Settings, Audio Profiles, and Video Profiles. A separate window displays a curl command for sending a POST request to the API.

OUTPUT FORMAT ▼

HLS

Separate Audio ⓘ

Yes

COMMON OUTPUT SETTINGS ➤

AUDIO PROFILES ▼

Codec ⓘ Channels ⓘ Source Stream ⓘ Bitrate

aac ▼ 2 ▼ 1 ▼ 32

Ⓢ Audio Profile

VIDEO PROFILES ▼

⊕ Video Defaults ▼

Width ⓘ	Height ⓘ	Bitrate (kbps)
1280	720	3500

Ⓢ Video Profile

CURL COMMAND ▼

```
curl http://localhost:4000/api/v0/job \
-k \
--request POST \
-u 51e395dad0d378ac32b6322979d3d1ac:a \
--header 'Content-Type: application/json' \
-d '{
  "videoProfiles": [
    {
      "width": 1280,
      "height": 720,
      "video_bitrate": 3500,
      "video_framerate": "1x",
      "audio_profiles": "0"
    }
  ],
  "separate_audio": false,
  "segmented_output_dash": false,
  "output_container": "mp4",
  "picture_transform": "none",
  "logo_url": null,
  "audio_volume": 100,
  "closed_captions": false,
  "gop_length": 2,
  "video_aspect_ratio": "passthrough",
  "rotation_blackness": 0,
  "video_codec": "h.264",
  "segmented_output_hls": false,
  "ip_distance": 2,
  "audioProfiles": [
    {
      "audio_codec": "aac",
      "audio_channels": 2,
      "audio_bitrate": 256,
      "source_stream": 1
    }
  ],
  "input": null,
  "cloud_credentials": {
```

copy

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Stream Engine



Flexible Inputs

Ingest a variety of formats from a local source or remote location including cloud providers.



Easy Conversion

Create linear or adaptive bit rate (ABR) streams for distribution to a local archive, MAM, or a remote location.



Fail safe redundancy

Stream Engine includes redundant scheduler to manage the transcode load across the cluster for optimum performance.



Powerful workflows

Web and RESTful interfaces ensure easy integration with other applications.



Simple control

Built-in diagnostic and management tools make iLux File simple to set up, control and manage.



Multiple streams

HTTP Live Streaming and DASH format support.

Key Features

- Input File Formats: MPEG2 TS, MP4, MXF and many others
- Outputs: MPEG2 TS, MP4, HLS, DASH
- Transcode up to 4KP60
- Scale down or scale up to any resolution
- MPEG2, H.264, and HEVC
- AAC and Dolby AC3, stereo or 5.1
- Upconvert or Downconvert audio
- Multi-channel Audio support
- Compatible with third party CDNs
- Frame rate conversion
- MCTF de-interlacing for highest video quality with interlaced inputs
- Advanced De-Telecine Algorithm removes repeated fields. Automatically detects 3:2, 5:4, and other random pulldowns, and converts to progressive formats.
See more information here
<https://streamengine.igolgi.com/#detelecine>
- Full Closed Captioning support
- CALM: Dynamic Audio Loudness Control



Our Mission

First and foremost, igolgi is an engineering and development company. Our engineering staff has years of experience in every type of compression and encoding technology, and we are experts in software control and interface. Our principal engineers hold over 200 patents in compression related projects. For over a decade we have provided innovative, flexible, and high-quality solutions for the broadcast, cable, LPTV and government markets.

igolgi is an American company - all development, engineering, production, and support is based in the USA.

As compression technologies evolve, igolgi is a partner you can count on to ensure every aspect of your design and implementation meets today's needs and is ready for future growth and expansion.

This is our "sweet spot". Let us help you.

Call or email us for a no-obligation discussion of your current and future needs.

Our Promise



Highest Quality.

Our advanced Codecs and optimized software algorithms assure the best quality in any resolution.



Simplest to Use.

Our enhanced user interface makes set up, monitoring, and changes fast and simple.



Most Configurable.

Use the API to integrate into your workflow for maximum control



Easiest Upgrade.

Update the software and change out hardware (if required) to keep you future proofed.



Superior Support.

Our support is USA-based, and our PremierPlus ® gives you 24x7x365 expanded support and service.



Best Value.

igolgi has it all: technology, flexibility, expandability, and support... at a price that will surprise and please you.

Stay Connected



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