

The iLux Live software defined distribution platform assures exceptional quality, speed and reliability.



To encode or transcode live video from any source to single or multi-rate outputs in any format, there is no simpler, or higher video quality solution than the igolgi iLux-LIVE product family. The iLux Live is built on cpu/gpu hardware that is **ultra-dense** and **very low power**.

Up to **160** HD channels per 1 RU or **80** channels of HD with ABR profiles (assuming typical ABR profiles with 2 HD and 2 SD).

iLux Live supports the latest codecs including H.264, HEVC, and **AV1**.

iLux-LIVE is a proven, reliable solution deployed for more than 15 years and processing thousands of live channels every day for leading cable, satellite, broadcast, IPTV, and OTT providers.

iLux Live provides a compact solution that sets up in minutes for any live inputs and live adaptive streaming. igolgi's advanced H.264/HEVC/AV1 encoding technology provides professional quality video with 2-pass encoding algorithms creating outstanding video at the lowest possible bit rates, saving bandwidth and cost for CDN hosting and distribution.

The system is housed in a 1 or 2 RU chassis that can be configured with CPU and/or GPU processing as required to insure the highest necessary throughput. igolgi designed codecs maximize performance and video quality. Since iLux live is software-defined, simultaneous functions and system reconfiguration is straightforward, providing a powerful and future proofed system. Any IP-based signal can be transcoded or encoded to any other IP format internally. The same is true for SDI or ASI signals with the addition of up to 4 PCIE cards. A convenient Web interface with a very rich and easy to navigate GUI together with diagnostic and maintenance tools makes for simple set up and management.

Together with an integrated ORIGIN server, content taken off satellite or any other broadcast source or coming in over IP networks can be transformed for ABR delivery. iLux Live also integrates with a wide variety of third-party packagers/encryptors so it can be used for ABR transcoding only.

The iLux live platform is part of the iLux family of igolgi products offering exceptional video processing and advanced software algorithms for the highest quality and fastest throughput. iLux products are all simple to set up, monitor, and use, and offer a variety of hardware and software configurations appropriate for any application.

Our products are designed, manufactured, and tested in the United States with USA-based support. Our value proposition is simple: the highest quality, most flexible products at the best price point.

## Key Features



### Highest Quality Video

- Excellent Video Quality
- H.264, HEVC, or AV1 full two-pass encoding
- Up to 4Kp60 formats
- HDR support
- Super low delay mode
- MCTF de-interlacing for highest video quality with interlaced inputs
- 50/60 HZ format conversion



### Extensive Audio Capabilities

- Multi-channel audio support
- Audio loudness processing
- AC3, AAC, AAC-HE, MPEG level I,II,III, PCM
- Embedded SDI support
- Combined or separate audio and video OTT formats



### Specialized Applications

- Multi-rate adaptive delivery and hosting
- Single-rate delivery
- Single channel or multi-channel mux
- Reliable transport
- Decryption and encryption



### Exceptional Reliability

- 99.999% reliability, systems running 12+ years
- 1:1, N+1, or N+M redundancy
- Redundant input and outputs
- Redundant, hot swap power Supplies



### Advanced Platform Features

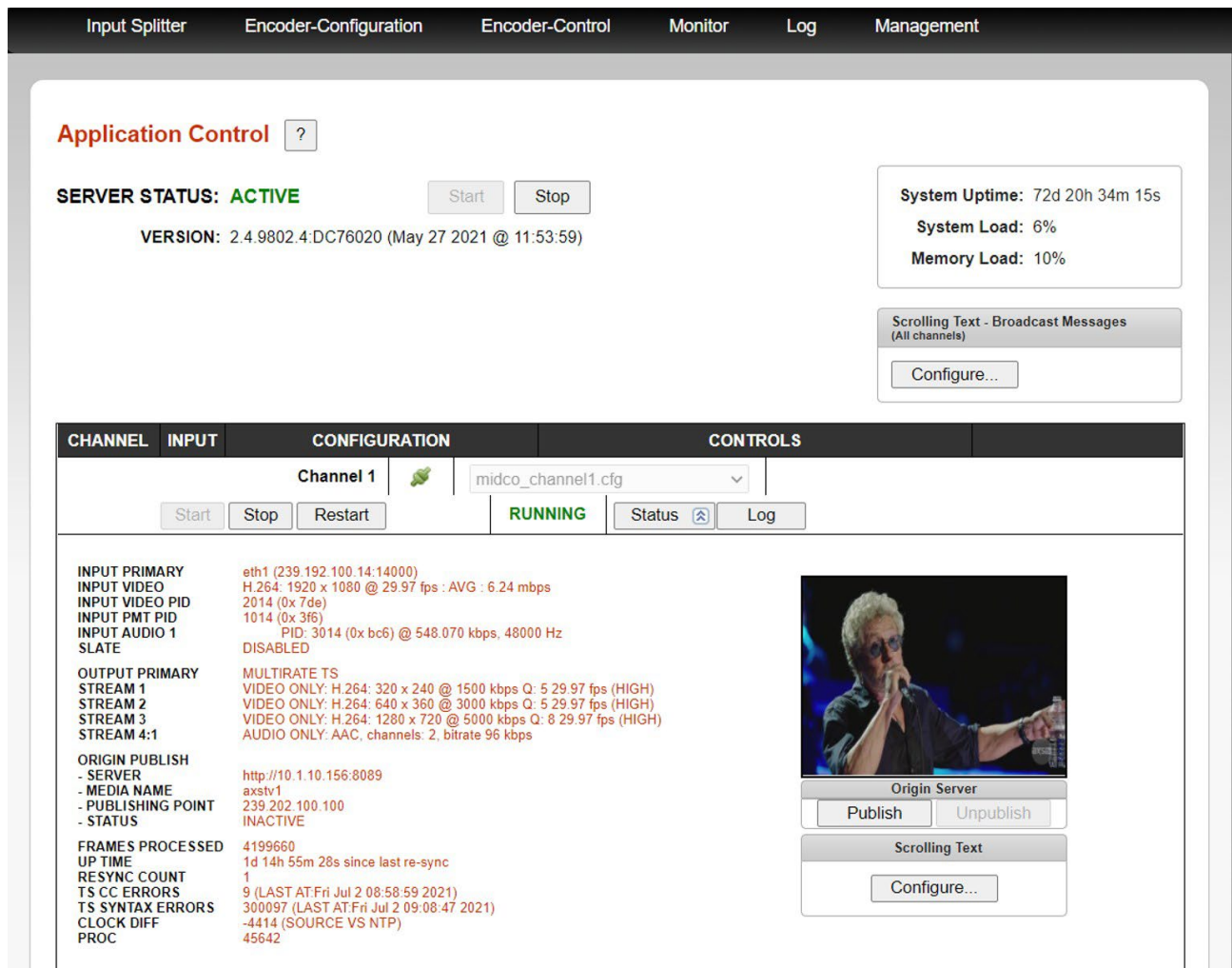
- Software license, appliance, and cloud form factors
- Ultra-dense GPU accelerated
- Wide variety of interface support
- Full closed caption, time code, and aux data format support



### System Adaptability

- Push or stream to CDN
- DRM integration
- Digital ad Insertion
- Logo and scrolling text insertion
- Slate insertion
- Watermark insertion

## Intuitive User Interface



The screenshot displays the iLux LIVE web interface with a navigation bar at the top containing: Input Splitter, Encoder-Configuration, Encoder-Control, Monitor, Log, and Management.


**Application Control** [?]

**SERVER STATUS: ACTIVE** [Start] [Stop]

VERSION: 2.4.9802.4:DC76020 (May 27 2021 @ 11:53:59)

System Uptime: 72d 20h 34m 15s  
System Load: 6%  
Memory Load: 10%

Scrolling Text - Broadcast Messages (All channels)  
[Configure...]

CHANNEL	INPUT	CONFIGURATION	CONTROLS
Channel 1		midco_channel1.cfg	[Start] [Stop] [Restart] <b>RUNNING</b> [Status] [Log]

**INPUT PRIMARY** eth1 (239.192.100.14:14000)  
**INPUT VIDEO** H.264: 1920 x 1080 @ 29.97 fps : AVG : 6.24 mbps  
**INPUT VIDEO PID** 2014 (0x 7de)  
**INPUT PMT PID** 1014 (0x 3f6)  
**INPUT AUDIO 1** PID: 3014 (0x bc6) @ 548.070 kbps, 48000 Hz  
**SLATE** DISABLED

**OUTPUT PRIMARY** MULTIRATE TS  
**STREAM 1** VIDEO ONLY: H.264: 320 x 240 @ 1500 kbps Q: 5 29.97 fps (HIGH)  
**STREAM 2** VIDEO ONLY: H.264: 640 x 360 @ 3000 kbps Q: 5 29.97 fps (HIGH)  
**STREAM 3** VIDEO ONLY: H.264: 1280 x 720 @ 5000 kbps Q: 8 29.97 fps (HIGH)  
**STREAM 4:1** AUDIO ONLY: AAC, channels: 2, bitrate 96 kbps

**ORIGIN PUBLISH**  
 - SERVER http://10.1.10.156:8089  
 - MEDIA NAME axstv1  
 - PUBLISHING POINT 239.202.100.100  
 - STATUS INACTIVE

**FRAMES PROCESSED** 4199660  
**UP TIME** 1d 14h 55m 28s since last re-sync  
**RESYNC COUNT** 1  
**TS CC ERRORS** 9 (LAST AT:Fri Jul 2 08:58:59 2021)  
**TS SYNTAX ERRORS** 300097 (LAST AT:Fri Jul 2 09:08:47 2021)  
**CLOCK DIFF** -4414 (SOURCE VS NTP)  
**PROC** 45642

**Origin Server**  
 [Publish] [Unpublish]

**Scrolling Text**  
 [Configure...]

iLux-LIVE is controlled via a feature rich Web Interface which includes real time status information, thumbnails of the live video being processed, and SNMP MIBs to trap events and alarms.

# Specifications

## Video

Video Compression Input	MPEG-2 simple, main, and main profile @ high level H.264 Baseline, Main, High , High 10 , High 422 HEVC/H.265 Main, Main 10 , Main 422 10 AV1 Main and High
Video Compression Output	MPEG-2 simple, main, and main profile @ high level (HD only) H.264 Baseline, Main, High , High 10 , High 422 HEVC/H.265 Main, Main 10 , Main 422 10 AV1 Main and High
Video Processing	Slate Insertion Progressive, interlace Resolution Cropping, scaling and upconversion or downconversion De-interlacing MCTF Noise Filtering with strength options Ultra Low Latency Mode 4K HDR HLG BT-2020 50 to 60 Hz, 60 to 50 HZ format conversion

## Resolutions and Frame Rates

IP Input Formats	240p, 288p,480p,576p @ 10,12.5,15,20,23.97, 6,29.97,30,50 and 59.94 and 60 Hz
Flexible – QCIF to 4Kp60	576i and 480i x 720, 544 and 352 pixels @ 23.976, 24, 25, 29.97 and 30 Hz 1080i x 1920, 1440, 1280 and 960 pixels @ 23.976, 24, 25, 29.97 and 30 Hz
Common Resolutions:	720p x 1280, 960 and 640 pixels @ 23.976, 24,29.97,30, 50, 59.94, and 60 Hz 1080p x 1920,1440,1280, and 960 pixels @ 23.976, 24,29.97,30, 50, 59.94, 60 Hz 2160p x 3840, 4096 pixels @ 23.976, 24,29.97,30, 50, 59.94, and 60 Hz

## Resolutions and Frame Rates Cont.

SDI Input Formats	SD : 625i50 (PAL), 525i59.94 (NTSC) HD 1280x720 : 720p60, 720p59.94, 720p50, 720p30, 720p29.97, 720p25, 720p24 ,720p23.98 HD 1920x1080 : 1080i60, 1080i59.94, 1080i50, 1080p30, 1080p29.97, 1080p25, 1080p24, 1080p23.98, 1080psf30, 1080psf29.97, 1080psf25, 1080psf24, 1080psf23.98, 1080p60 A/B, 1080p59.94 A/B, 1080p50 A/B, 1080p60, 1080p59.94, 1080p50. 1080psf29.97, 1080psf25, 1080psf24, 1080psf23.98, 1080p60, 1080p59.94,1080p50, 1080p48, 1080p47.952 4K 3840x2160, in 8 or 10-bit, 2 Sample Interleave or Square Division : 2160p60, 2160p59.94, 2160p50, 2160p30, 2160p29.97, 2160p25, 2160p24, 2160p23.98
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## Audio

Audio Compression	Multiple programs per channel, configurable SDI audio slots MPEG-1 layer 2 MPEG-2 layer 3 (mp3) AAC-LC, AAC-HEV1, AAC-HEV2 Stereo and 5.1 PCM Up to 8 stereo pairs, or mix of stereo and 5.1 programmable SDI slots
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## Specifications Continued

### Transport Processing Inputs

MPEG2-TS over UDP	Unicast or multicast, SPTS or MPTS IP or ASI input, VSB, satellite, or QAM Redundant IP input
HLS	Single Profile HLS input
Transport Protocol	RTP/RTSP
Scrambling	BISS 0/1/E decryption per PID, BISS -CA
FEC	SRT input decode CoPv3 FEC ZIXI

### Transport Processing Outputs

MPEG2-TS over UDP	Unicast or multicast, SPTS or MPTS IP and simultaneous ASI output Redundant IP output
SDI	3G-SDI, 12G-SDI inputs for SD, HD, and 4K content types
MPEG DASH	DASH Packaged Output
STLTP- ATSC 3.0 Broadcast Gateway	A.324 Compliant Output to Feed Single or SFN Transmitters

### Ancillary Data

EIA608 & EIA708 closed captioning
SCTE35 passthrough (with IP input)
Embedded on SDI
Embedded timecode on SDI
Digital Ad Insertion
DRM integration
CDN integration and redundant publishing points

### Configuration and Management

Web Based User Interface
IPMI hardware management
SNMP Mibs, downloadable from GUI
Channel configuration backup and restore

### Physical

Dimensions	1U standard chassis : 1.7 x 17.2 x 28.5 28 pounds
	1U short depth chassis : 1.7 x 17.2 x 16.9 15 pounds
	1U Dense GPU Chassis : 1.7 x 17.2 x 36 30 pounds
	2U Dense IO Chassis : 3.4 x 17.2 x 26 30 pounds
Power	400 to 2000 Watt power supply depending on chassis
Environmental Spec.	Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)
	Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)
	Operating Relative Humidity: 8% to 90% (non-condensing)
	Non-operating Relative Humidity: 5% to 95% (non-condensing)
	Cooling front to back



# 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 ATSC 3.0, IP, and 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.

SD, HD-SDI, ASI, IP are all configurable for maximum flexibility.



### 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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