



**SOFTCAST**

**Software for Broadcast**

Technical Document

Release Version 1.0

**Product Sheet**

# **SC-Ingest**

**Content Ingest Module**

<http://www.softcast-technology.com>

## SC-Ingest

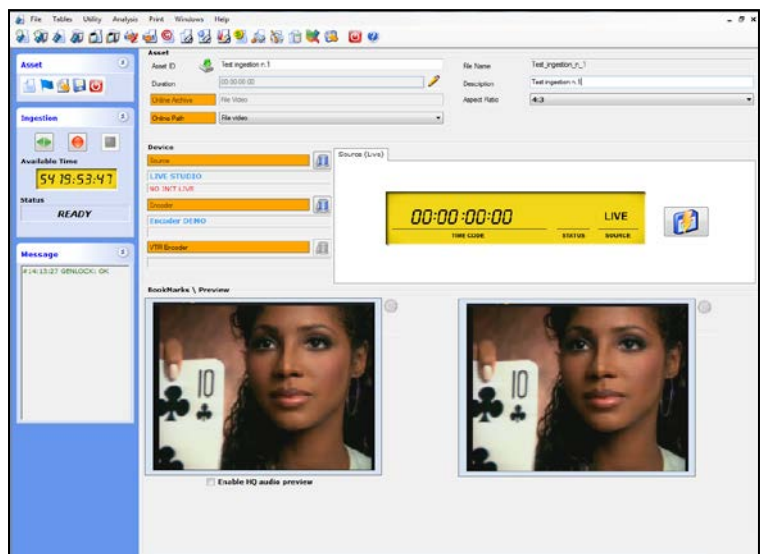
**SC-Ingest** is the SoftCast application for manual and automatic scheduling of video signal ingest from VTR, satellite and live feeds.

**SC-Ingest** supports the creation and addition of metadata for the new assets and to see the signal preview (video and audio) that it's going to be captured during the ingest process.

The application can also control the available encoders (local or remote) and manage at the same time the high-quality and the low-resolution (i.e. proxy) encoding of the new asset. **SC-Ingest** also controls devices such as VTRs, Cart Machines and Audio/Video Routers for the automatic assignment of the video source that is going to be recorded.

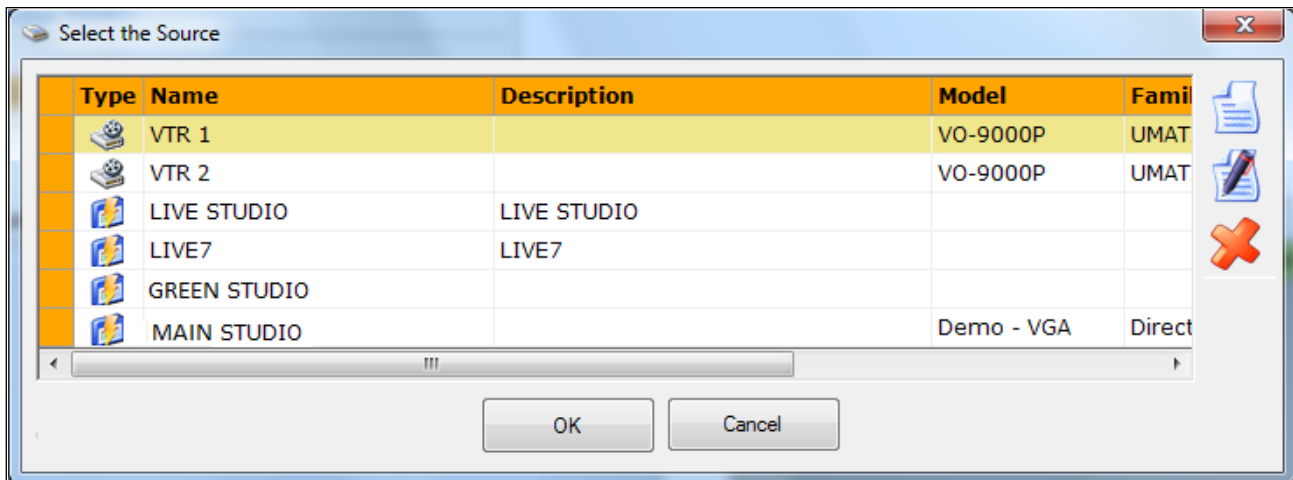
### Key Features:

- Automatically controls one or more A/V Routers or Matrix
- Remote Control of VTRs and Cart Machines
- Audio/Video preview while ingest for monitoring and real time verification
- Metadata input for MAM application
- Define automatic encoding sessions
- Check of the ingest sessions
- Encoders and video formats
- Edit/Play while ingest with AJA board
- Simultaneous creation of different formats of the same file while ingest



## Automatically controls one or more A/V Routers or Matrix

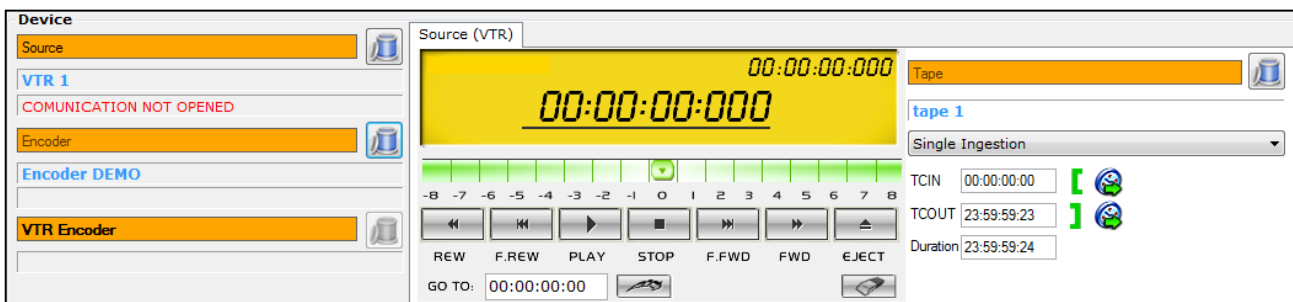
**SC-Ingest** is able to control, through the module **SC-DeviceManager**, one or more A/V Routers: in this way the operator can select the audio/video source he wants to capture and the switching on the matrix will be done automatically. At this point the audio and video preview allow to check and confirm the selected source.



(SC-Ingest, Source selection window)

## Remote Control of VTRs and Cart Machines

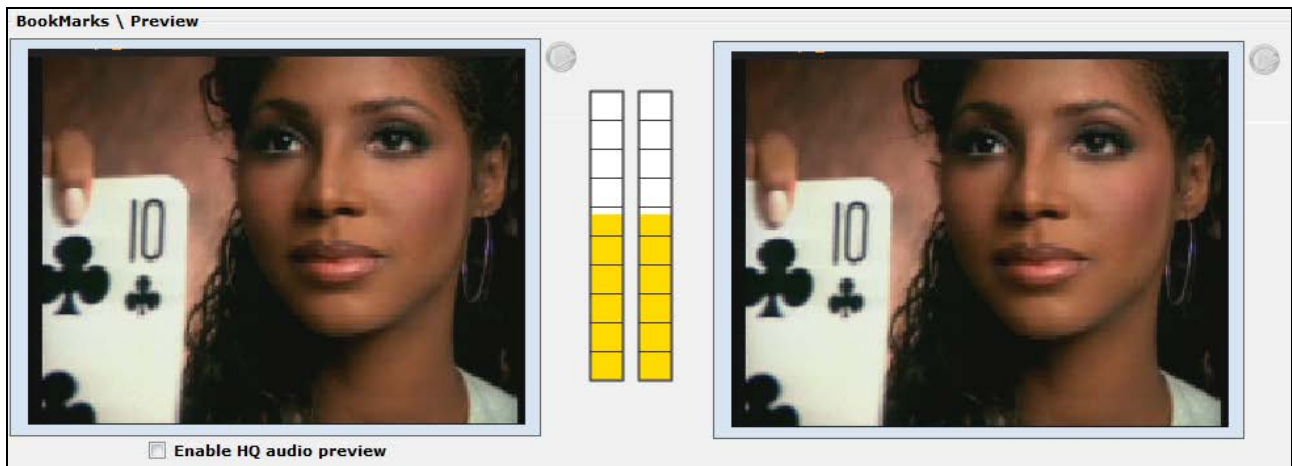
In **SC-Ingest** it's possible to select a VTR and control it remotely as recording source. The application allows to do single or multiple recordings from the same tape, automating the ingest process of more clips from the same tape.



(SC-Ingest, remote control of a VTR as ingest source)

## Audio and Video preview while ingest

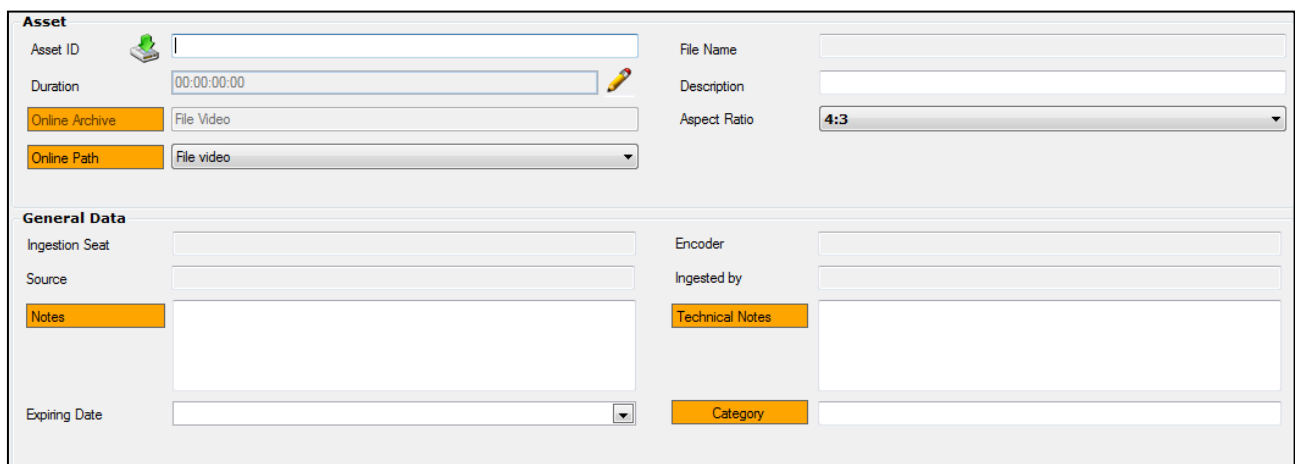
**SC-Ingest** allows to monitor the audio and video signal that the encoder is receiving before, while and after the ingest process; in this way the encoding session can be configured at best choosing the correct source and adjusting the peak meter for the audio levels.



(SC-Ingest, Audio and video preview during the ingest)

## Metadata input for MAM application

With **SC-Ingest** GUI it's possible to add metadata, before and during the ingest process. Also the same metadata screen can be edited, changed, etc.



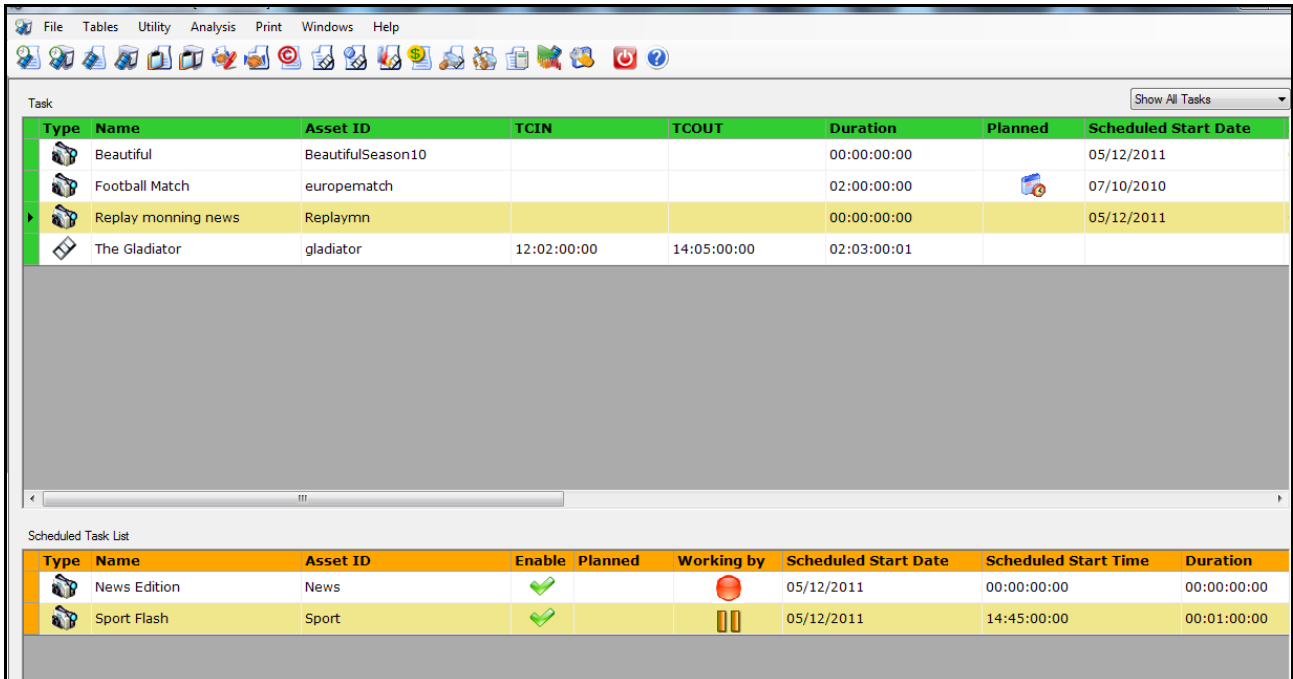
The screenshot shows a metadata input form with the following fields and sections:

- Asset** section:
  - Asset ID: text input field
  - Duration: text input field with value "00:00:00:00" and a pencil icon
  - File Name: text input field
  - Description: text input field
  - Aspect Ratio: dropdown menu with "4:3" selected
  - Online Archive: dropdown menu with "File Video" selected
  - Online Path: dropdown menu with "File video" selected
- General Data** section:
  - Ingestion Seat: text input field
  - Encoder: text input field
  - Source: text input field
  - Ingested by: text input field
  - Notes: large text area
  - Technical Notes: large text area
  - Expiring Date: dropdown menu
  - Category: dropdown menu

(SC-Ingest, Metadata insertion)

## Define automatic encoding sessions

**SC-Ingest** can schedule the encoding sessions (Tasks) to record at fixed times and dates. The planning can be daily, weekly or monthly. In any moment it is possible to edit a task, for example the operator can stop it or change the start or the end time.



The screenshot shows the SC-Ingest software interface. At the top, there is a menu bar with 'File', 'Tables', 'Utility', 'Analysis', 'Print', 'Windows', and 'Help'. Below the menu bar is a toolbar with various icons. The main window is divided into two sections. The top section is titled 'Task' and contains a table with the following data:

Type	Name	Asset ID	TCIN	TCOUT	Duration	Planned	Scheduled Start Date
Beautiful	Beautiful	BeautifulSeason10			00:00:00:00		05/12/2011
Football Match	Football Match	europematch			02:00:00:00		07/10/2010
Replay monning news	Replay monning news	Replaymn			00:00:00:00		05/12/2011
The Gladiator	The Gladiator	gladiator	12:02:00:00	14:05:00:00	02:03:00:01		

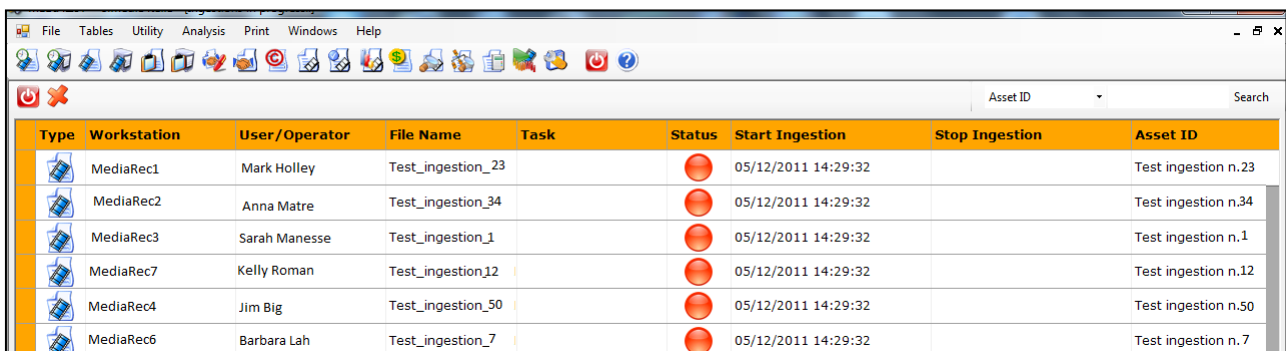
The bottom section is titled 'Scheduled Task List' and contains a table with the following data:

Type	Name	Asset ID	Enable	Planned	Working by	Scheduled Start Date	Scheduled Start Time	Duration
News Edition	News Edition	News	✓			05/12/2011	00:00:00:00	00:00:00:00
Sport Flash	Sport Flash	Sport	✓			05/12/2011	14:45:00:00	00:01:00:00

(SC-Ingest, Task archive)

## Check of the ingest sessions

At each **SC-Ingest** workstation it's possible to monitor at any time all the scheduled sessions in the entire system to check if everything is ok.



The screenshot shows the SC-Ingest software interface displaying a table of ingest tasks in progress. The table has the following data:

Type	Workstation	User/Operator	File Name	Task	Status	Start Ingestion	Stop Ingestion	Asset ID
MediaRec1	MediaRec1	Mark Holley	Test_ingestion_23		●	05/12/2011 14:29:32		Test ingestion n.23
MediaRec2	MediaRec2	Anna Matre	Test_ingestion_34		●	05/12/2011 14:29:32		Test ingestion n.34
MediaRec3	MediaRec3	Sarah Manesse	Test_ingestion_1		●	05/12/2011 14:29:32		Test ingestion n.1
MediaRec7	MediaRec7	Kelly Roman	Test_ingestion_12		●	05/12/2011 14:29:32		Test ingestion n.12
MediaRec4	MediaRec4	Jim Big	Test_ingestion_50		●	05/12/2011 14:29:32		Test ingestion n.50
MediaRec6	MediaRec6	Barbara Lah	Test_ingestion_7		●	05/12/2011 14:29:32		Test ingestion n.7

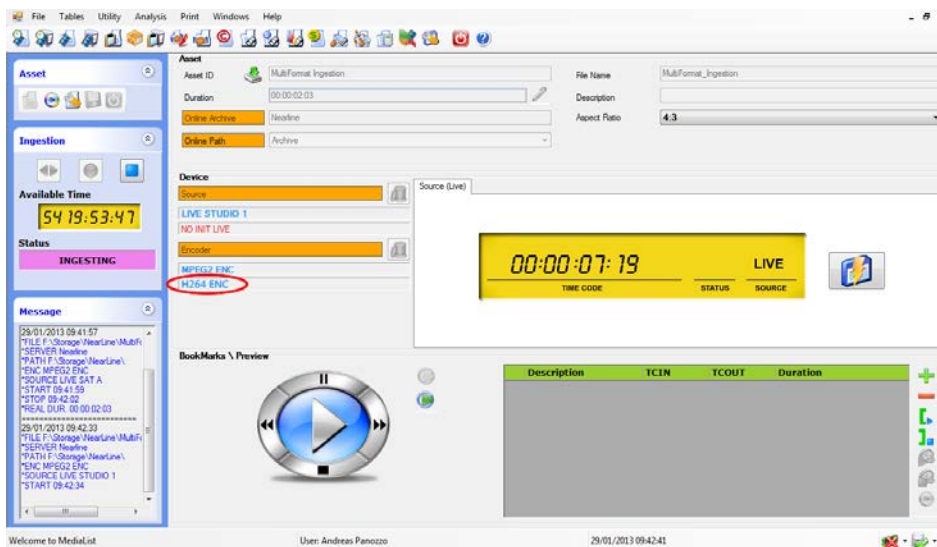
(SC-Ingest, ingest tasks in progress)

## Edit/Play while ingest

With **SC-Ingest** it is possible to edit the clip during the ingestion session and also to put the content on air while the ingestion session is not closed yet. This solution is always available using AJA boards or video servers that support this function.

## Simultaneous creation of different formats of the same file while ingest

**SC-Ingest** can manage the creation of different formats of a single file simultaneously during the ingestion session. It can be for example the creation of the HQ copy of the content and at the same time the low-res.



(SC-Ingest, multi-ingest tasks in progress)

## Encoders and video formats

**SC-Ingest** is the SoftCast application for the ingest process. The encoding process needs a physical ENCODER. There are two different types of encoders: the first type is a capture card installed in the same machine where **SC-Ingest** runs, the second one is inside an external Video Server.

The main Video Servers **SC-Ingest** is able to control are:

- XOR MEDIA
  - MediaCient
  - MediaServer (MSV-1200)
- OMNEON (now HARMONIC)
  - Spectrum
  - MediaDeck
  - Spectrum ChannelPort
  - Spectrum Media Center
- HARRIS
  - NEXIO AMP
  - NEXIO Volt
- EVS
  - XT-3
  - XS-Nano
- GRASS VALLEY
  - K2 Summit
  - K2 Solo
- GAMMARED.

SoftCast's versatility lets the customer choose the best solution for himself.

In the IT solutions proposed by SoftCast we usually use AJA Video System boards; LSe and LHe+ are the models used for the automation. Each video board has analog and digital\SDI output that can be used at the same time. The LHe+ model can support both the SD and the HD format.

The image shows an AJA OEM-LHe+ video board.



These are the specifics of AJA Boards we use for ingest process.

## SPECIFICATIONS

### OEM-LH

PCI and PCI-X compatible

### OEM-LHe

PCIe 4-lane compatible

### Video Input

Digital:

HD-SDI/SDI, SMPTE-259/292/296

Analog:

SD and HD Input, BNC

HD: YPbPr, RGB

SD: YPbPr, RGB (component mode)

Composite/YC (composite mode)

12-bit A/D

### Video Output

SD and HD Output, BNC

YPbPr, RGB

SD: YPbPr, RGB (component mode)

Composite/YC (composite mode)

12-bit D/A

### Video Formats

SD:

525i 29.97

625i 25

HD:

720p 50

720p 59.94

720p 60

1080i 25

1080i 29.97

1080i 30

1080p 23.976

1080psf 23.976

1080p 24

1080psf 24

1080p 25

1080psf 25

1080p 29.97

1080psf 29.97

1080p 30

1080psf 30

### Audio Input

2-channel 16/24/32-bit AES/EB

ple rate

synchronous or Non-synchronous

nal sample rate conversion)

16/24/32-bit SMPTE-259 SDI embedded

audio, 8-Ch, 48kHz synchronous

Analog:

2-channel balanced input

+24dbu Full Scale Digital

16/24/32-bit A/D, 48 KHz sample rate

+/- 0.2db 20 to 20 KHz Frequency Response

### Audio Output

Digital:

2-channel 16/24/32-bit AES/EBU, 48KHz

sample rate

16/24/32-bit AES/EBU, 48 KHz sample rate

16/24/32-bit SMPTE-259 SDI embedded

audio, 8-Ch, 48 KHz synchronous

Analog:

2-channel balanced output

+24dbu Full Scale Digital

16/24/32-bit D/A, 48 KHz sample rate

+/- 0.2db 20 to 20 KHz Frequency Response

### Down-Conversion

Hardware 10-bit output, 16/24/32-bit internal processing

Anamorphic: full-screen

Letterbox: image is reduced with black top

and bottom added to image area with the

aspect ratio preserved

Crop: image is cropped horizontally

### Machine Control

RS-422, Sony 9-pin protocol Connector provided on OEM-LH/LHe breakout cable and

on optional KL-Box.

### Reference

Analog Color or HD Tri-level

1 BNC on standard breakout cable (75 ohm

terminating)

KL-Box (optional): 2 BNCs, passive loop