



# LightCube SD/HD

PLAYOUT AUTOMATION

ingest  
MAM  
traffic  
archive  
playlist  
playout  
audio processor  
upscaler/downscaler  
tv logo generator  
CG management  
matrix/router/VTR control  
GPI control  
live event control  
broadcast records  
IP encoder





# LightCube

## THE BEST PRICE FOR TV CHANNEL AUTOMATION

### THE HEART OF YOUR TV CHANNEL

TWT presents the first playout solution, designed by broadcasters for broadcasters: LightCube provides the full workflow in one single workstation.

Reliable and intuitive, LightCube SD/HD offers simultaneous capture and playout.

**LOGO**  
2D-3D fixed and animated channel branding on playout.

**CG MANAGEMENT**  
Up to five simultaneous 2D-3D fixed and animated logo event, related to a specific (gif, tiff, jpg, png, tga).

**CRAWL AND ROLL**  
Real time crawl and roll editor, user friendly settings interface.

**PLAYLIST**  
Intuitive and user friendly playlist. Capable of loading external list of files. Accept third party's software playlist.

**MARK**  
Mark software with frame precision in order to mark files in and out, graphics and logos.

**THERE IS MORE!**  
LightCube is a modular system that can be upgraded to the larger WonderCube platform: Advanced CG and traffic, redundant play out, Blu-Ray library and storage server, news room automation and prompter.

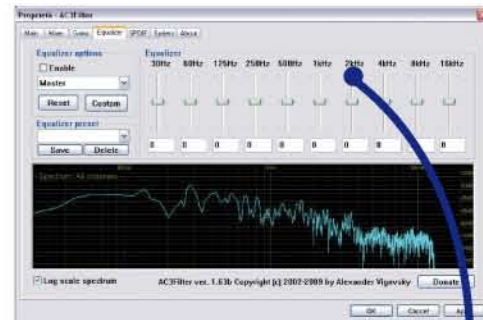
**ALL IN ONE**  
Ingest - M.A.M - Traffic - Storage - Playlist - Playout - Audio processor - Matrix, Mixer and VTR control - Broadcast records - IP encoder.

**PLAYOUT PREVIEW**

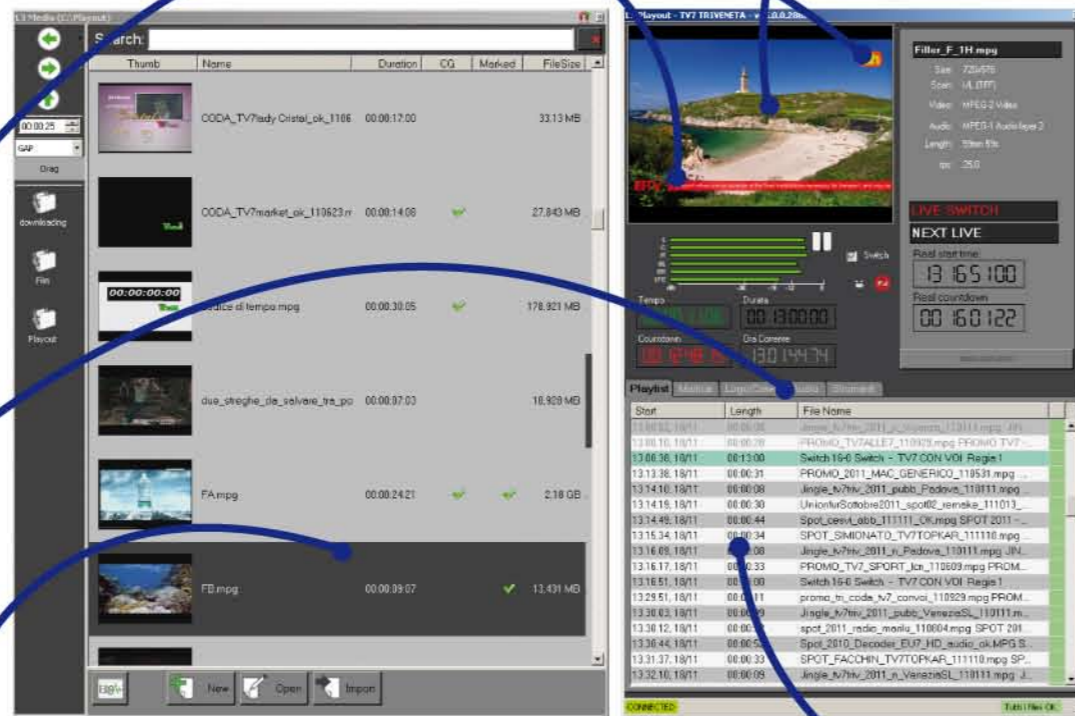


**ARCHIVE**  
Archiving system with SQL database. Exclusive features for file compatibility analysis, MD5 checksum and 2D-3D CG mark.

**TRAFFIC**  
Traffic software for long term scheduling like: advertisement, movies, soapoperas, cartoons, etc...



**AUDIO PROCESSOR**  
Finally a high level audio processor built-in to the playout platform.



**MATRIX/MIXER/VTR**  
Full automatic/manual control for external devices.



**MIXED FORMATS**  
SD, HD, 4:3, 16:9. Automatic upscale or downscale. Avi, MPG, MP4, M2P, DV, MPEG-1,2,4, Quick-Time, DX50, etc...

**INGEST**  
SD and HD ingest. VTR remote control. Settable capture parameters with fixed and variable bitrate.

**IP ENCODER**  
Encoder for playout and live sources output.



# FEATURES AND FUNCTIONS OF THE LIGHTCUBE® PLAYOUT AUTOMATION

## Archive

MAM  
File cataloguing with SQL database  
Stored files video preview – available during Playout video output  
Video parts preview for commercials and adv breaks events  
Database search filter  
New items insert using "drag & drop" function from Windows folder  
File integrity check using MD5 control

## Mark

File mark procedure with frame precision  
Second mark out for automatic Playout optimization  
CG mark of 2D, 3D fixed and animated graphics (gif, tiff, jpg, png, tga)

## Traffic

Easy Playlist fill in with "drag & drop" function directly from the archive  
Colored indicator of the on air item  
Video preview of the Playlist files – available during playout mode  
Multiple items insert in Playlist, useful for advertisement scheduling  
Keyboard short cuts: Ctrl+x, Ctrl+c, Ctrl+v, ...  
Advertisement scheduling

## Playout

Automatic file filler randomly taken from a selected folder  
Output video preview, integrated in the Playout software  
Audio gain preview  
Audio gain control  
Advanced live event control panel  
Manual file player mode  
Fast item insert in Playout by "drag & drop" function from Windows folder  
Manual control of the player with play, pause and skip functions  
Automatic upscaler, downscaler  
Automatic aspect ratio adapter 4:3,16:9  
SD, HD

## Audio processor

Audio processor software integrated on Playout: audio gain control, compression, equalizer, ...

## CG management

2D, 3D fixed and animated channel branding (gif, tiff, jpg, png, tga)  
Up to five simultaneous 2D, 3D fixed and animated (gif, tiff, jpg, png, tga)  
Secondary graphic event, related to a specific item (gif, tiff, jpg, png, tga)  
Crawl and roll generation with font, colour and speed settings

## Languages

Available in English, Italian, German, French, Spanish, Russian, Arabic

## Broadcast records

Broadcast records generator

## External devices

External device control through RS 232 or LAN port like mixer, VTR, router, matrix

## Storage hardware

1 TB HDD available space, RAID 10 configuration (upgradable)  
Possibility to manually move files to a consumer USB HDD, in order to increase the storage space  
Possibility to manually move files to a LAN attached server, in order to increase the storage space



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## Multiformat Capture SD/HD\*\*

MPEG-2, DV

## Multiformat Playout SD/HD

AVI, MPG, MP4, M2P, DV, MPEG-1,2,4, Quick-Time, DX50, etc...

## Audio/Video Input\*\*

Serial Digital SDI - Analog Component YUV\* - Composite\* - Embedded Audio  
Unbalanced AES/EBU\* - Analog XLR Stereo\*

## Audio/Video Output

Serial Digital SDI - Analog Component YUV\* - Composite\* - Embedded Audio  
Unbalanced AES/EBU\* - Analog XLR Stereo\* - IP

## Hardware certification

Dell hardware certification

## Hardware after sales assistance

Two years, on site, after sales assistance on Dell hardware - spare parts and Dell qualified technicians support

## Modularity

Modular system upgradable to WonderCube Solution

## CONFIGURATIONS:

### Playout (L3-O.HD.IP)

Storage + Playlist + Playout + AudioProcessor + TV logo + CG Management + Live event control + Matrix/router/mixer/VTR control + Broadcast records + IP encoder

### Playout + Ingest (L3-I.O.HD.IP)

Ingest + Storage + Playlist + Playout + Audio Processor + TV logo + CG Management + Live event control + Matrix/router/mixer/VTR control + Broadcast records + IP encoder

### Playout + Traffic (L3-T.O.HD.IP)

Traffic + MAM + Storage + Playlist + Playout + Audio Processor + TV logo + CG Management + Live event control + Matrix/router/mixer/VTR control + Broadcast records + IP encoder

### Playout + Ingest + Traffic (L3-I.T.O.HD.IP)

Ingest + Traffic + MAM + Storage + Playlist + Playout + Audio Processor + TV logo + CG Management + Live event control + Matrix/router/mixer/VTR control + Broadcast records + IP encoder



Technical configurations subject to modifications during the year without notice.

\*\* only L3-I.O.HD.IP and L3-I.T.O.HD.IP configuration

\* optional

(L.I.S.L3.11.10.11.E)