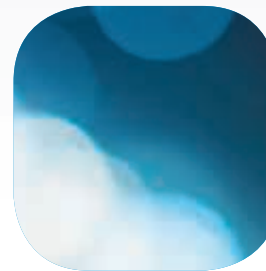
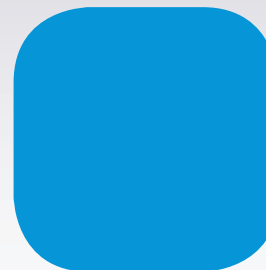




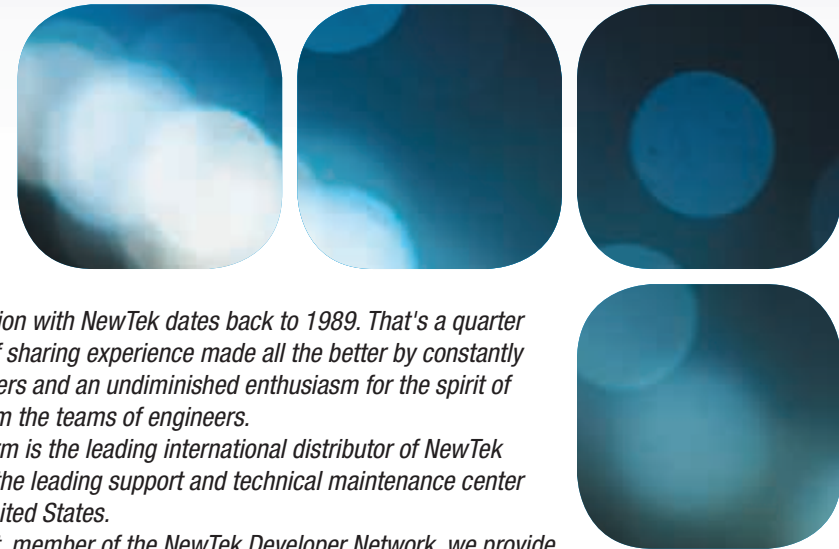
# 3D STORM

3D STORM PRODUCTS CATALOG 2016



TOOLS FOR LIVE VIDEO AND SPORTS PRODUCTION

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*Our collaboration with NewTek dates back to 1989. That's a quarter of a century of sharing experience made all the better by constantly listening to users and an undiminished enthusiasm for the spirit of innovation from the teams of engineers.*

*Today, 3D Storm is the leading international distributor of NewTek products and the leading support and technical maintenance center outside the United States.*

*With LiveXpert, member of the NewTek Developer Network, we provide exclusive tools for live video and sports production, developed by industry leaders.*

*LiveXpert extends any production environment by giving all the tools to manage, create and add outstanding graphics, social media content, timing and scoring information into any live production workflow.*

*Sports scoring and statistics, graphics management and social media integration, 3D Storm solutions round out control room equipment in TV studios and conference facilities, mobile control rooms for entertainment and sports events, as well as outside broadcast vans.*

*I am delighted to introduce you to the 3D Storm 2016 edition of NewTek and LiveXpert catalog."*

**Franck Lafage**  
Managing Director – 3D Storm

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At a time when broadcast channels are multiplying, **NewTek** offers a wide range of tools to produce more audiovisual content, more quickly, more easily and at a lower cost.

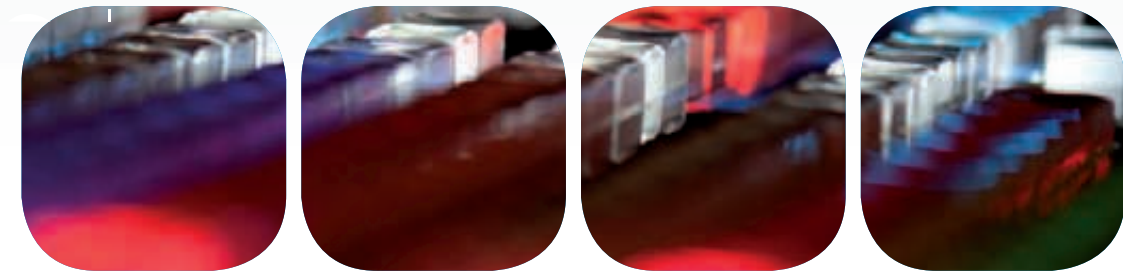
**NewTek** is transforming the way people create network-style television content and share it with the world. From sporting events, Web-based talk shows, live entertainment, classrooms, and corporate communications, NewTek gives customers the power to grow their audiences, brands and businesses, faster than ever before.

Our guiding principle is to ensure that you move as quickly as possible from the communication idea to it being broadcast, from capturing

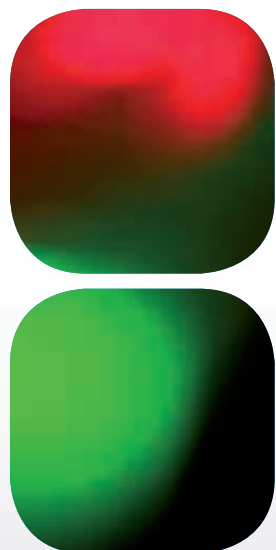
events to making them available on every screen. Tell us what you have in mind and we will do our best to develop the tools to take your messages anywhere and broadcast them everywhere!

Our 2015-2016 line of products includes the best of the market in terms of combining the worlds of video and IT. Never have these two worlds been so naturally united to help you overcome all compatibility issues.

We wish you a pleasant time exploring this catalog and we remain at your service to help you simplify your projects!



The ergonomics and reliability of TriCaster are proven daily in broadcasts of all sizes, from national and local TV network to Web TV, in the largest stadiums and the farthest corners of the world, in lecture halls and conference rooms, convention halls, concert halls, emergency rooms etc.

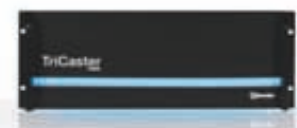


# TriCaster™

A production system for all live broadcasts

The selection available in the **TriCaster** range offers solutions sized to suit every type of installation and production. For mobile or static productions, the all-in-one TriCaster concept offers you immediate time savings as all components are built-in and preset: mixer, recorders, encoders, character generators, VT player and effects generators!

**The serious stuff begins when the cameras are connected!**  
The user interface and ease of use are identical for all models in the range so choose the one that suits the scale of your productions.



**TriCaster™ 8000**  
*8 HD/SD SDI and analog camera inputs. For its superior animated graphics capacity, can be integrated in a redundant environment.*



**TriCaster™ 460**  
*4 HD/SD SDI and analog camera inputs for versatile formats, can be integrated in all environments*



**TriCaster™ 410**  
*4 HD/SD SDI camera inputs. Compact, for completely autonomous productions*



**TriCaster™ Mini SDI**  
*4 HD/SD SDI camera inputs. Choose the form factor that matches your needs.*



**TriCaster™ Mini**  
*4 HDMI camera inputs. Full broadcasting system fits in cabin baggage.*

# TriCaster™



## Versatile and ergonomic

Versatility is everywhere in the TriCaster architecture, in the universal source management, the native support for multiple codecs, the number of in-built tools and the different ways they can be used.

**Multi-source:** TriCaster are the first production systems to mix all digital and analog SD and HD video resolutions in real time with IT flows from encoders and IP servers, and content from computers, tablets or smartphones through network links or wireless. All done directly without adding converters, or the need to synchronize sources. Many IP protocols are supported, including Apple™ AirPlay®, PowerPoint® or Keynote® type presentations, Web pages, Skype video calls and IP camera streaming.

**Multi format players:** a large number of file formats can be read in real time by the built-in players in TriCaster, organized in playlists which enable you to play videos, ads and animated graphics. Players

can be triggered by the switcher to avoid any risk of black screen. They support loop mode can be used display contents to screens on stage through the auxiliary outputs.

**Camera control:** TriCaster can control as many robotic cameras as there are camera entries available, with live control, 8 frame presets and zoom, focus and iris adjustment.

**Multiple work stations:** Thanks to the various views and interfaces available, a TriCaster production system can be used simultaneously by several operators: director, live titling, VCR and slow motion, special effects and sound operators. All models feature a customizable multi-view output and 4 other outputs providing monitoring for each operator. This modularity is increased by a powerful macro-command system, allowing to automate operations depending on the importance of the event.

**Versatility is room to maneuver which means you can cope calmly with unexpected events during live broadcasts.**

## All out broadcasting

The most impressive advantage of TriCaster is without doubt the simplicity with which they support the specific features of each broadcast media: video broadcast, video projection, internet, local networks and social networks.

TriCaster adapts each source and all content to respect the features of every media and exploits all their advantages. It frees you from

conversion or compatibility issues and eliminates rack interfaces from your configurations.

**Compatible productions:** TriCaster does not just broadcast everything everywhere. It offers tools compatible with every media, while harmonizing their use. A key moment selected from the recording can be used not only for live rebroadcasting, with a slow motion option available, but also for promotion on Facebook™ or YouTube™ with the option to enter a commentary before uploading. The features of internal routing to the various TriCaster outputs and the flexibility of the M/E buses allow for multiple adaptations such as:

- managing different animated graphics for live streaming from a simultaneous production for DTTV or video projection,
- supplying monitors on set from autonomous playlists,
- separating conference media broadcast from video production.



# TriCaster™



## Isocorder® Technology

**NewTek** has given the TriCaster range the most powerful digital recording system of the moment. This means all TriCasters have as many HD recording channels as there are camera inputs. That means 4 channels on Mini, 410 and 460, and up to 8 channels on TriCaster 8000, a single 4U rack mount. Its features outstrip those of many dedicated recording servers:

**Customized redundancy:** each source, Program or Auxiliary output on TriCaster can be selected in a recording channel. With each drive supporting two simultaneous recordings operators can freely decide to double up recordings from important sources on two different hard drives. More flexible than a fixed RAID configuration. IsoCorder supports the direct recording of sources on centralized storage servers (SAN) from several recommended manufacturers such as: <http://newtek.com/solutions/newtek-developer-network.html>

**Multimedia codecs:** a choice of codecs channel by channel including the most popular on the market: QuickTime® (XDCam HD compatible) with 4:2:2 or 4:2:0 sampling, MPEG-2 (Mainconcept High or normal Profile), AVI (SpeedHQ), H264 (high quality or Web quality). The same source can be recorded several times simultaneously to be available immediately in different formats. IsoCorder supports all TriCaster resolutions up to 1080p.

**Simultaneous media recording and playback:** The files being captured can be placed in the DDR playlists as well as in the publication list. During production, they can therefore be read and adjusted while recording is in progress, to be exported to FTP or networked disks, or even published on social networks during live production.

**Frame synchronization:** IsoCorder® allows you to record each camera simultaneously with triggered frame synchronization so the files can be used later in multi-camera montages. Synchronization can be done manually, by MIDI command or GPI option using LiveControl Box™ and by Crestron or AMX type controller.

*See chapter TriCaster Advanced Edition to know how TriCaster integrated players and recorders can be even more powerful.*



# TriCaster™ 8000

Making live broadcasting secure



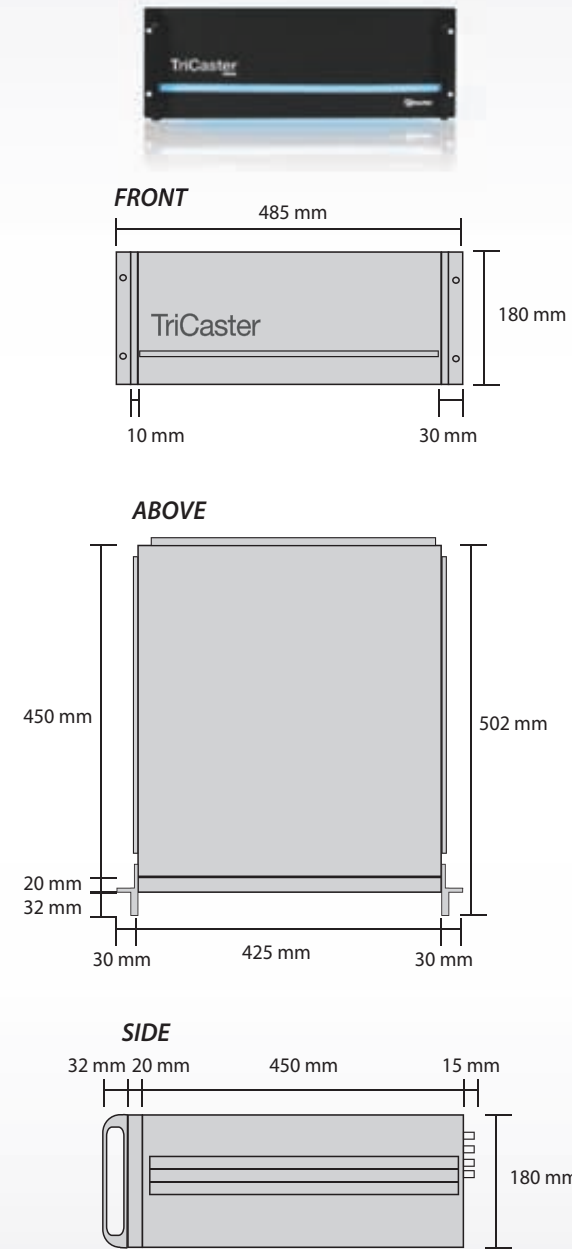
Monitor not included.

**TriCaster 8000** has an exclusive full redundancy mode which can be used in live environments looking for zero defects. A second unit connected by Ethernet network is immediately recognized and automatically duplicates the work environment of the master production system. All actions are reported in real time to ensure that you carry on working in the event of a malfunction. TriCaster 8000 controls different grids to extend its input/output capacities and can make use of GPI to automate processes and make them secure.

### Expanded powerful effects engine.

**TriCaster 8000** M/E capacity is increased tenfold with 4 compositing overlays and 4 DSK channels per M/E bus. In addition, each full M/E bus can be used in overlays from another M/E, offering a capacity for animated graphics never before achieved on a mixer.

TriCaster 8000 has a built-in real time video tracker to automatically detect an object of solid color in a scene, to texture it using any source in the production system and to link other sources to the movements of the object.



## Technical Specifications

### Switcher Channels

24 channels : 10 external, 6 internal, 8 M/E buses • 2 independent or synchronized mix buses • 8 ME with re-entry • 4 DSK + 4 DSK per ME • Video tracking in real time

### Router Support

Compatible external video routers include brands supporting Grass Valley® Native Protocol, AJA® KUMO and Blackmagic Design® Video Hub

### Video Input

8 x HD-SDI, HD Component, SD-SDI, SD Component, Y/C or Composite connections • 1x Genlock input

### Audio Inputs

8 SDI Embedded - 8 AES3/EBU - 8 x 2 Balanced XLR (Mic/Line) - Phantom Power Support

### Video Output

Configurable for up to 14 output connections, with support for key output and per-connection signal settings  
• 3 x SDI • 3 x Analog (configurable for Component or Y/C + Composite) • 2 x HDMI output • 2 display port HDMI and HD15 connectors • Network output for live streaming • A/V output to network-connected TriCaster over local network

### Audio Outputs

3 SDI Embedded - 2 AES3/EBU - 4 Balanced XLR - 4 Balanced XLR (AUX) - 1 Stereo Jack 1/4" (phones)

### Media Players

5 integrated digital media sources for video, graphics and sounds (2 DDRs, 2 GFX and Sound) • 10 animation buffers (Clip Store) • 5 still & title buffers (Frame Store)

### Recording

Multi-track, multi-format recording of up to 8 simultaneous channels via IsoCorder™ technology - Native recording in up to 1080p with timecode - Encoding format selectable from: QuickTime® (XDCAM HD compatible, 4:2:2 encoding, 24-bit audio), MPEG-2 (high or normal profile), AVI (SpeedHQ), and H.264 (high or Web quality) - Freely choose to add recordings to Publish queue and DDR destinations - 2 x USB ports for recording to external storage

### Recording Capacity

1 x 3TB internal drive, 3 x removable 2TB media drives accommodating a total of ~220 hours capacity expandable using additional supported storage, USB3 removable drives

### Redundancy

Redundant Power supply - synchronized control supported between 2 TriCaster 8000

### System Physical

4U Rack Mount, 21 kg

In depth features on pages 22 and 23



Subject to change without notice.

# TriCaster™ 460

The go anywhere model!

As comfortable with mobile independent productions as staged productions, TriCaster 460 is perfectly sized to cover all your production needs with 2 to 4 cameras.

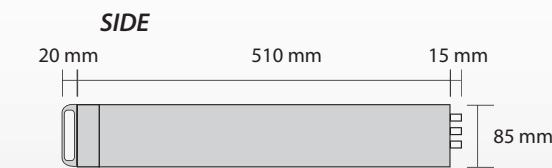
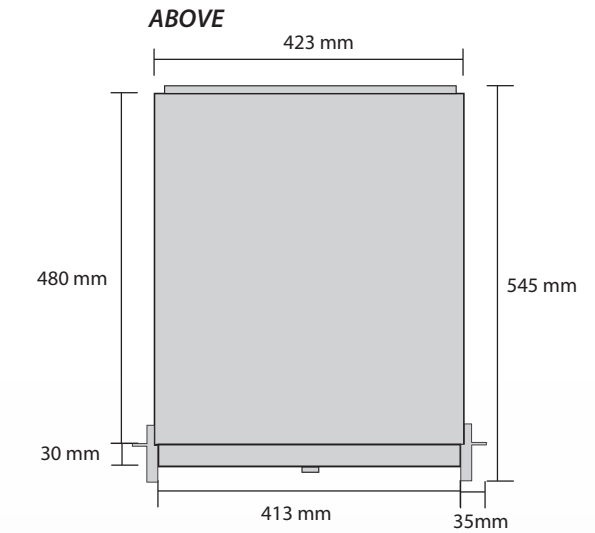
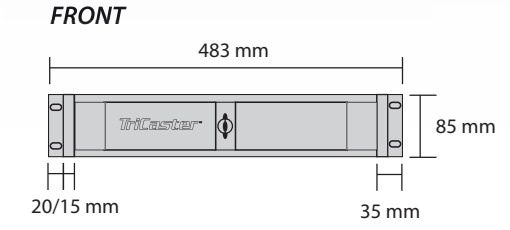
Its 2U frame works wonders to produce and broadcast quickly and well.

### Analog/digital transition

In many areas, being able to connect sources or broadcast in analog remains valuable for bringing flexibility to daily life. TriCaster 460 delivers this comfort with no restrictions and without using converters that can degrade the signal or add processing time. With its M/E features TriCaster allows you to adapt formats, resolutions and 4:3/16:9 aspect ratios within the same production.



Optional control surface sold separately - Monitor not included.



## Technical Specifications

### Switcher Channels

- 15 channels : 6 external, 5 internal, 4 M/E buses
- 2 independent or synchronized mix buses
- 4 ME channels
- 2 DSK + 1 DSK per ME

### Video Input

- 4 x HD-SDI, HD Component, SD-SDI, SD Component, Y/C or Composite connections
- 1x Genlock input

### Audio Inputs

- 4 SDI Embedded - 3 x 2 Balanced Jack 1/4" (Mic/Line) - 1 x 2 Balanced XLR (Mic/Line) - Phantom Power Support

### Video Output

Configurable for up to 11 output connections, with support for key output and per-connection signal settings

- 2 x SDI
- 2 x Analog (configurable for Component or Y/C + Composite)
- 1 x HDMI output
- 2 x Display Ports DVI and HDMI connectors
- Network output for live streaming
- A/V output to network-connected TriCaster over local network

### Audio Outputs

- 2 SDI Embedded - 1 x 2 Balanced XLR - 1 x 2 Balanced Jack1/4" (AUX) - 1 Stereo Jack1/4" (phones)

### Media

- 4 integrated digital media sources for video, graphics and sounds (2 DDRs, 1 GFX and Sound)
- 5 animation buffers (Clip Store) • 10 still & title buffers (Frame Store)

### Recording

Multi-track, multi-format recording of up to 4 simultaneous channels via IsoCorder™ technology - Native recording in up to 1080p with timecode

### Recording Capacity

- 1 x 3TB internal drive accommodating ~70 hours 1080i
- Expandable using USB3 and removable drives

### System Physical

- 2U Rack Mount,
- 11.8 kg



In depth features on pages 22 and 23

Subject to change without notice.

# TriCaster™ 410

The price is small  
but not the list of features!

The most streamlined of our professional models, **TriCaster 410** is unbeatable in terms of budget for fully digital independent production with 4 cameras. With IsoCorder® technology the power and flexibility of the 4 HD recorders guarantee the investment by themselves!

## A professional production environment

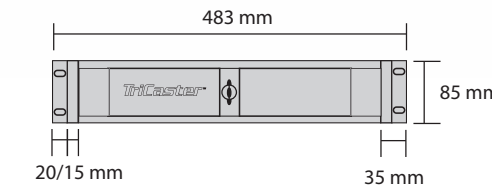
TriCaster 410 delivers live to air, display, stream, record, and social media network—all at the same time. Its mobile, 2U form factor provides uncluttered I/O in any combination of resolutions and frame rates. It benefits from the same architecture as all the models in the range.



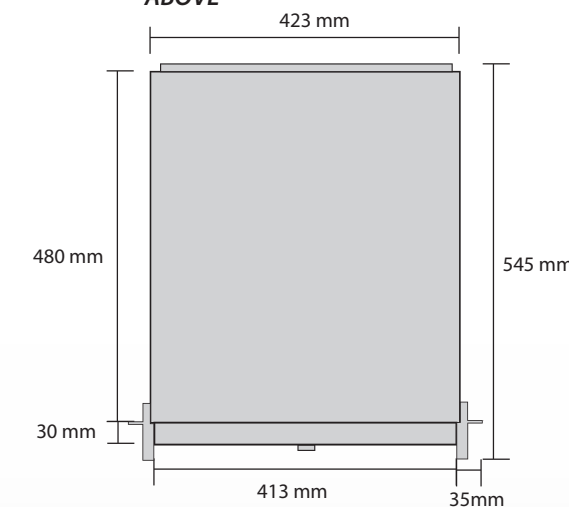
Optional control surface sold separately - Monitor not included.



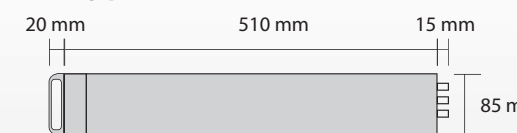
FRONT



ABOVE



SIDE



## Technical Specifications

### Switcher Channels

15 channels : 6 external, 5 internal, 4 M/E buses  
2 independent or synchronized mix buses  
4 ME channels  
2 DSK + 1 DSK per ME

### Video Input

4x SDI SD/HD

### Audio Inputs

4 SDI Embedded - 1 x 2 Balanced XLR (Mic/Line) - 1 x 2 Balanced Jack1/4" (Mic/Line)

### Video Output

Configurable for up to 7 output connections, with support for key output and per-connection signal settings

- 2 x SDI
- 1 x HDMI output
- 2 x Display Ports HD15 for additional displays or projectors
- Network output for live streaming
- A/V output to network-connected TriCaster over local network

### Audio Outputs

2 SDI Embedded - 1 x 2 Balanced XLR - 1 x pair Balanced Jack1/4" (AUX) - 1 Stereo Jack 1/4" (phones)

### Media

4 integrated digital media sources for video, graphics and sounds (2 DDRs, 1 GFX and Sound)  
15 still & title buffers (Frame Store)

### Recording

Multi-track, multi-format recording of up to 4 simultaneous channels via IsoCorder™ technology

- Native recording in up to 1080p with timecode

### Recording Capacity

1 x 3TB internal drive accommodating ~70 hours 1080i  
• Expandable using USB3 ports

### System Physical

2U Rack Mount  
11,8 kg

*In depth features on pages 22 and 23*



Subject to change without notice.



# TriCaster™ **Mini**

Make the ordinary extraordinary

Whether you are new to video, adding live events or streaming to your production activities, or searching for a practical way to produce a multi-camera video program, no other all-in-one solution for capturing, mixing and presenting your own productions will get you network-television results like the ultra-portable TriCaster Mini. As mini and easy to use as it may be, TriCaster Mini delivers all the power, the ultra-professional rendering quality and the performance of the other TriCasters.

**Three models:**

**TriCaster Mini HD-4**

- HDMI inputs and outputs.
- 1 internal hard disk drive with a capacity of approximately 15hrs of video in HD.

**TriCaster Mini HD-4i**

- HDMI inputs and outputs.
- 2 internal hard disk drives with a capacity of approximately 30hrs of video in HD.
- Built in 7-inch screen for broadcast monitoring.

**TriCaster Mini HD4-SDI**

- SDI inputs and outputs
- 2 internal hard disk drives with a capacity of approximately 30hrs of video in HD
- Built in 7-inch screen for broadcast monitoring



**Within everyone's reach:**

- Use your everyday devices: camcorders, hybrid cameras and mini-cameras.
- Let yourself be guided by the intuitive interface when you start off and progress naturally, no matter your initial level.

**Simple to set up:**

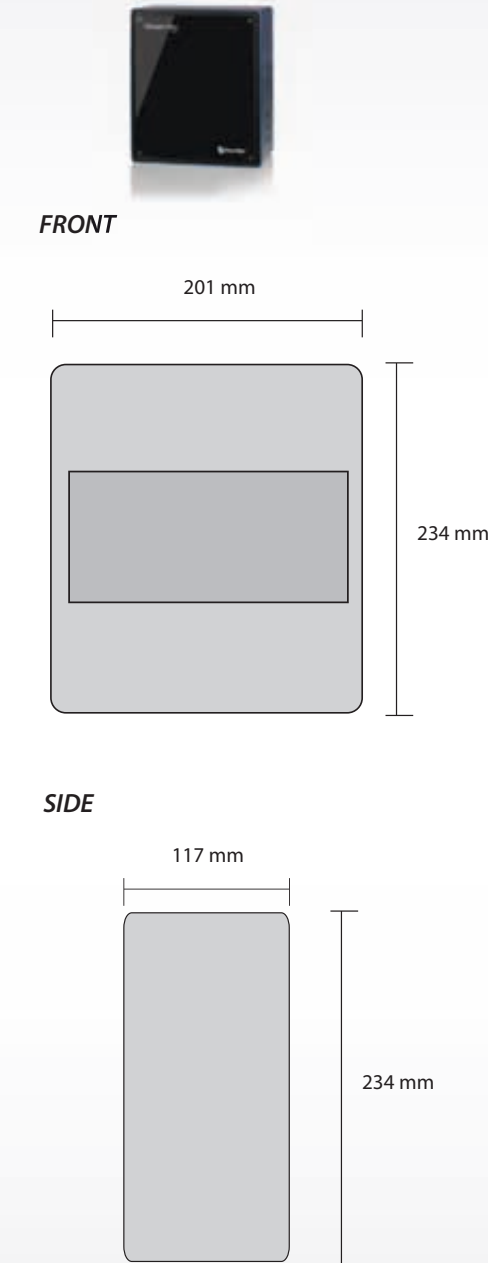
No software installation needed and no configuration requiring specific technical skills.

- Connect TriCaster Mini in a network with computers, tablets or smartphones to integrate presentations directly and share screens.
- Stream live on the internet, record all your sources simultaneously and publish extracts simultaneously in real time on Facebook®, Twitter® and YouTube®.
- Start broadcasting almost as soon as you've taken it out of the box!

**It can go everywhere with you:**

Travel light with the smallest of the TriCasters.

- So compact that it can be set up on the smallest table corner
- Lightweight and portable to capture and broadcast all your travels



Technical Specifications

**Switcher Channels**

16 channels : 6 external, 6 internal, 4 M/E buses • 2 independent or synchronized mix buses • 4 ME channels • 2 DSK + 1 DSK per ME

**Video Input**

4 simultaneous live video sources over HDMI or SDI depending on model, with per-input auto-detection of format, resolution, and frame rate. Included cable retention bracket may double as handle

**Audio Inputs**

4 Embedded Audio - 1/4" Mono Jack (Mic) - 1 x pair 1/4" Stereo Jack (Line)

**Video Output**

Configurable for up to 6 output connections with support for per-connection signal settings

- 2 x HDMI or SDI (primary) depending on model
- 1 x DVI and 1 x HDMI (video only) display ports for additional displays or projectors
- Network output for live streaming
- AV output to network-connected TriCaster over local network

**Audio Outputs**

2 Embedded Audio - 1 x pair 1/4" Stereo Jack (Line) – 1x pair Stereo jack 1/4" (phones)

**Media**

5 integrated digital media sources for video, graphics and sounds (2 DDRs, 2 GFX and Sound) • 15 still & title buffers

**Connectivity**

Built-In WiFi & Bluetooth  
 Supports wireless connection to local network for streaming, publishing and networking with external devices  
 Support for keyboard and mouse using wireless Bluetooth technology

**System Physical**

• 11.7 x 23.4 x 20.1 cm • 4.1 kg (9 lbs)

*In depth features on pages 22 and 23*

Subject to change without notice.

# TriCaster Advanced Edition

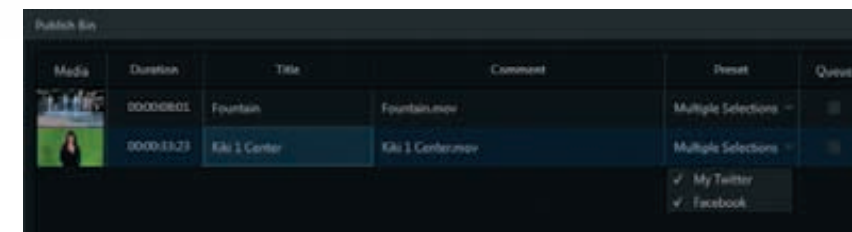
A giant leap in productivity



With no additional hardware needed, **TriCaster Advanced Edition** software unlocks your TriCaster's potential with more than 60 production-enabling capabilities in all sectors of operation: streaming, graphics, recording, use efficiency, audio, virtual set ...

## Multi-Platform Live Streaming and Multi-Account Publishing

Reach more viewers and attract different audiences by live streaming without multiplying encoders. TriCaster Advanced Edition provides faster setups and higher-performing live streaming to multiple channels at once. It includes also social sharing on more platforms : Dropbox™, LinkedIn™,



Tumblr™, Twitch™, Vimeo™ and more. The new Publish workflow with built-in extensive transcoding options allows video clip transfer to local or FTP storage while live with support of multiple and custom transcoding profiles.

## Edit, Play and Replay while recording

TriCaster Advanced Edition delivers the most powerful media players and recorders never integrated into a live production system, allowing editing and playback of all channels being recorded as well as importing new medias at any time during live. The new transcoding engine will import contents automatically collated into the appropriate media file folders and converted automatically to the best format for real-time playback in TriCaster. Easy built-in clip splitting and trimming tools speed up turnaround of raw recordings. Creating playlists of highlights with customized transition between clips and automatic metadata display have never been so flexible.

Each Media Players also features integrated instant replay support with real-time multi angle display and amazing automation process for live

slow-motion with intro and outro transitions and overlay logos. Time shifting can also be performed just by adding Advanced Edition software to TriCaster.

## Engage with Real-Time Data-Driven Graphics

TriCaster Advanced Edition grows the graphic tool box by adding hundreds of supplied borders. Users can easily add their own elaborate custom effects using Photoshop and create custom multi-box compositions in TriCaster's M/Es.

When productions call for up-to-the-second information like sports statistics, social media feeds, election results, or sales figures, save time and effort by dialing up DataLink to insert dynamic data into flawless, production-ready graphics. Title pages can automatically show correct data entirely without user intervention from SQL databases, text or XML or Excel files, RSS feeds and internal sources such as clips or still titles, comment fields linked to inputs or switcher actions.





In addition, DataLink™ Web allows to easily populate both text and image from webpages. Simply select some text, or an image, and use the right-click context menu to update a DataLink key you have defined. Any title page using that key will immediately update. DataLink™ Web is available without charge from the Chrome Web Store.

### Virtually endless integration & automation possibilities

Get access to more video inputs with any TriCaster model by connecting to a compatible upstream video router, then selecting and switching between router sources directly from the TriCaster Advanced Edition User Interface. Expand the outputs and choose from more video signal selections to monitor, display, or project using the supplemental display ports—and customize every screen in your setup to your workflow. Calibrate video signals with greater flexibility and accuracy with a Blue Only viewport overlay compatible with any monitor.

For more comfort, protect your live program from accidents or mistakes by locking control surface buttons and taking advantage of undo and redo commands. Gain additional flexibility for activating automated macro sequences with new triggers that include audio level changes, media playback, and specific switcher actions, and the ability to assign multiple triggers for the same macro.

### Augmented Reality at a fraction of the real cost

Create new dimensions for your virtual sets with augmented layers of 3D animated graphics or text that appear—and behave—as though they're elements within the studio, interacting with your talent, tracking with the camera, and floating in the set. The new Parallax control allows you to configure overlays to track naturally within the scene as the camera viewpoint changes according to their apparent depth within the scene, resulting in an extra-realistic tracking result. TriCaster Advanced Edition also adds improved keyer scaling and render quality as well as more layers to TriCaster Mini, 410, 460 and 860 M/E's.



### Smarter Control over the production

Get a full tour of the 60+ functions on [www.3dstorm.com](http://www.3dstorm.com) and review the benefits of Noise Gate to exclude low-level sounds, enhanced VU Meters for accurate audio-clipping and extended audio and video output configuration. Many of the great new things included in TriCaster Advanced Edition have been suggested by our customers.

### Smarter control over Audio:

Interface with audio devices over IP with Dante audio support to manage devices from anywhere in your facility into TriCaster. TriCaster Advanced Edition adds new Noise Gate settings to the audio mixer to exclude low-level sounds. The updated VU meter interface eases audio clipping and the new Default Media File Level function reduces your time spent adjusting audio level while importing each file. In addition TriCaster Advanced Edition allows free selection of which audio signal will be recorded with each video channel, and gives more flexibility routing audio to Master and Aux outputs.

# NDI - Network Device Interface

The only 10 years field-proven IP workflow

### Explore the limitless live production possibilities:

With a workflow built on the Network Device Interface (NDI)™ protocol, you can access any video source anywhere on the network. TriCaster customers who upgrade to TriCaster Advanced Edition unlock IP connectivity for each existing camera input to grow any production immediately. Any source connected to a physical input, any TriCaster output signal become IP streams that can be shared simultaneously between all NDI compatible devices connected on the network.

### Add more inputs with TriCaster Advanced Edition:

Any TriCaster Mini, 410 and 460 get a total of 8 inputs available that can be connected to SDI or IP sources. 12 inputs are available on TriCaster 860 and 8000. Combining 2 or more TriCaster on the network exposes all the inputs and outputs of every system and makes each available as a switchable source. This means you can route and switch with every camera connected to any switcher.

### Turns standard GigE LAN into a live production network:

NewTek's Advanced IP Workflow uses standard LAN networking creating a site-wide production ecosystem where everything sees everything. It



simplifies configuration and management. NDI permits multipoint and bi-directional transmission over IP with ultra-low latency video of one frame. It's entirely possible to access double-digit video streams over IP on a standard, 1Gbit network connection, with bandwidth consumption generally ranging from 50-100Mbps per video stream. There is no limit to the number of networked devices that can serve as sources. And it allows for any combination of resolutions.

### A growing Ecosystem:

NewTek's IP workflow comes with a NDI tools box including several utilities to extend the IP experience: media files server to turn video clips into NDI streams, scan converter to transform any Windows application into IP stream, plug-in for VLC Media Player...

NDI is an open protocol that third-party developers can implement to make devices available as video sources or destinations over a LAN. As an evolution of the native AirSend® protocol available as standard with all TriCaster, it makes very easy for all members of the NewTek Developer Network to upgrade their products to become NDI compatible.

# Generic features of all TriCaster

## Supported video resolutions

PAL 1080/25p, 1080/50i, 720/50p, 720/25p, 576/50p – NTSC& NTSC-J 1080/30p, 1080/60i, 720/60p, 720/30p, 480/60p.

## By video input

- Frame synchronizer and format converter, 3:2 Pull Down frequency conversion

- Color corrector, cropping and independent chroma-keys

- 4:4:4:4 sampling: - 32 bit floating point

- Fixed video processing time ranging between 1 and 2 images depending on the resolutions used.

## PTZ protocols

Panasonic Ethernet and RS232 - Sony Visca RS232, RS422 and Ethernet for EVID30/D70, HDI7V, BRC300/Z700/H700/H900 - Telemetrics Ethernet and RS232 – Pelco D : RS232/RS485 – Vaddio RS232.

## Digital sources

2 simultaneous channels to select from multiple sources:

- PC or Macintosh computers via iVGA protocol

- Tablets and smartphones via Apple AirPlay® protocol

- Video streams and audio IP depending on several protocols: http, rtsp, rtmp, rtp from IP cameras or stream servers

- Cameras on USB ports

- Streams generated by the numerous third party applications supporting AirSend® SDK, see <http://www.newtek.com/solutions/newtek-developer-network.html>

- IP streams generated by other TriCaster and 3Play

## Audio inputs

Internal processing to 4 channels, 96kHz, 32 bit floating point

## Monitoring

2 outputs for DVI and HDMI monitors for the user interface and the built-in multi-view monitor.

- Preview of all sources depending on different templates

- Customizable multi-view monitoring for real time viewing of all sources, media players, Program and Preview outputs, M/E and clocks.

- Audio modulation VU meter overlays by source, Program and Preview

- Switchable Vision control mode with Vectorscope and profile monitor, with digital tuning, preview in color and supports ITU Rec 601 and 709.

## Audio mixer

Built-in mixing features for all internal and external audio sources, for outputs, recordings, streaming and listening.

- Independently controlled Master and Aux outputs

- Solo auditioning

- Independent per-input volume, panning and audio delay control

- 7 band parametric equalizer and stereo compressor/limiter on each input.

- Possibility to group audio sources and link the selection of an audio channel to switch video sources (Audio Follow Video)

- Possibility to use the audio mixing features remotely on an iPad tablet or audio mixing consoles.

## Media players

Playback Media formats

AVI, DV, DVCPRO, DVCPROHD, FLV, F4V, H.263, H.264, MOV, MKV, MJPEG, MPEG (1, 2, TS/PS), MP4, WMV, WebM, PSD, PNG, TGA, BMP, JPEG, EXR, RAW, TIF, AIFF, MP3, WAV. And more (such as ProRes) with included import media application for batch.

## Recording

Isocorder® multichannel recording technology, multi-codecs on hard drives.

- Resolution supported up to 1080p with timecode

- Multiple independent encoding formats per channel: QuickTime® (XDCam HD compatible) 4:2:2 and 4:2:0, MPEG-2 (High or normal Profile), AVI (SpeedHQ), H264 (high quality or compression).

- Possibility of background transfer for media which is being recorded to an FTP server or network storage

- Frame synchronization for the recording channels for later multicam editing.

- Reading and editing the media being recorded

- Supports the optional 850TW console for slow motion instant replays.

## Social Networks

Built-in publishing module to engage with social networks like Facebook™, Twitter™ and YouTube™:

Feature for editing video clips and images to be published, with the possibility to enter comments. Automatic or manual downloading.

Simultaneous publication with the recording and streaming features.

## Live streaming

Standard profiles up to 720p resolution.

Numerous native presets for Youtube®, Akamai®, Ustream®.

Built-in profile editor with integrated internet browser. Configurable profiles in multiple flows depending on H264 encodings in RTMP (for Adobe® Flash Media Server), in Microsoft® Windows Media® Push/Pull, and supports streaming applications with integrated internet browser. Possibility to record the streamed program.

## Export media formats

Built-in batch transcoding to convert files saved in different formats including: Apple ProRes, AVI, DV, DVCPRO, DVD, H.264, MOV, MPEG-2, MJPEG, MP4, WebM

Presets for mobiles: Android®, iPad®, iPhone®, iPod® Touch NewTek SpeedHQ codec pack is copyright free and can be installed on PC and Macintosh for native compatibility with saved files.

## Transitions and Effects

Effects and transition engine available on the two mixers and on each DSK channel.

Large choice of transitions with animated wipes or 3D dissolves, animated jingle overlays and audio jingles to go with them.

Built-in transitions editor for completely customized transitions.

## Macro-commands

Macro-commands recorder with editor. Trigger macros with keyboard shortcuts, by allocating control surface buttons, with Midi buttons, with Crestron® or AMX® type automation systems, through GPI (optional) and gesture detection.

## Virtual sets

Exclusive real time virtual set technology from fixed cameras:

Multiple camera angles and Pan, Tilt and Zoom movements

Live source and light reflection.

Built-in library of more than 30 sets

Use real panoramic photos as 360° sets

Optional software for customizing and creating virtual sets: Virtual Set Editor.

## Hotspots

Exclusive motion detection feature. Allows you to position up to 8 interactive and virtual areas in one scene and trigger 2 macro-commands in each area.

## MIDI controllers

Native support for Midi protocol to completely control TriCaster through macro-commands from external devices: automated hotspots and MIDI consoles.

Functions	TriCaster Mini HD-4	TriCaster Mini HD-4i	TriCaster Mini SDI	TriCaster 410	TriCaster 460	TriCaster 8000
<b>Inputs/Outputs HDMI</b>	4/3	4/3	0/2	0/2	0/2	0/2
<b>Inputs/Outputs SDI SD—HD</b>	—	—	4/2	4/2	4/2	8/3
<b>SD 576/25i support</b>	—	—	✓	✓	✓	✓
<b>Fill&amp;Key inputs</b>	—	—	—	✓	✓	✓
<b>In/Out Y-U-V, Y-C, Composite</b>	—	—	—	—	4/2	8/3
<b>Display Port Output</b>	DVI	DVI	HD15	HD15	HD15	HD15
<b>Interface/Multiview Output</b>	DVI/HDMI	DVI/HDMI	DVI/HDMI	DVI/HDMI	DVI/HDMI	DVI/DVI
<b>Max streaming Resolution</b>	720p/TCAE:1080p	720p/TCAE:1080p	720p/TCAE:1080p	720p/TCAE:1080p	720p/TCAE:1080p	720p/TCAE:1080p
<b>Single/Multi—Platform Live Streaming</b>	✓/TCAE	✓/TCAE	✓/TCAE	✓/TCAE	✓/TCAE	✓/TCAE
<b>Genlock</b>	—	—	—	—	✓	✓
<b>Audio Dante – Noise Gate</b>	TCAE	TCAE	TCAE	TCAE	TCAE	TCAE
<b>External Router Support</b>	TCAE	TCAE	TCAE	TCAE	TCAE	✓
<b>Mirroring</b>	—	—	—	—	—	✓
<b>Tally Port</b>	—	—	—	✓	✓	✓
<b>Clips Media Players</b>	2	2	2	2	2	2
<b>Stills &amp; Titles Media Players</b>	2	2	2	1	1	2
<b>Transitions in Playlist</b>	TCAE	TCAE	TCAE	TCAE	TCAE	TCAE
<b>Sound media Player</b>	1	1	1	1	1	1
<b>FrameStore Buffers</b>	15 / TCAE: 10	15 / TCAE: 10	15 / TCAE: 10	15 / TCAE: 10	10 / TCAE: 5	5
<b>ClipStore Buffers</b>	0/TCAE:5	0/TCAE:5	0/TCAE:5	0/TCAE:5	5/TCAE :10	10
<b>Recording Channels</b>	4	4	4	4	4	8
<b>Select audio source per recording channel</b>	TCAE	TCAE	T.A.E	T.A.E	TCAE	TCAE
<b>Data Drives</b>	1x 750Go	2x 750Go	2x 750Go	1x 3To	1x 3To	4x 2To
<b>Manufacturer storage capacity (1080i)</b>	15h	30h	30h	70h	70h	220 h
<b>Removable Drive Bays</b>	—	—	—	—	1	4
<b>ME Channels</b>	4	4	4	4	4	8
<b>DSK</b>	2	2	2	2	2/TCAE:4	4
<b>DSK per ME</b>	1/TCAE:2	1/TCAE:2	1/TCAE:2	1/TCAE:2	1/TCAE:4	4
<b>Borders on DSK</b>	TCAE	TCAE	TCAE	TCAE	TCAE	TCAE
<b>ME Layers</b>	2	2	2	2	2/TCAE:4	4
<b>ME re-entry</b>	—	—	—	—	TCAE	✓
<b>Motion Tracking in real time</b>	—	—	—	—	TCAE	✓
<b>Augmented Reality</b>	TCAE	TCAE	TCAE	TCAE	TCAE	TCAE
<b>Redundant power supply</b>	—	—	—	—	—	✓
<b>System Physical</b>	—	—	—	2U	2U	4U

TCAE : With optional TriCaster Advanced Edition software

# Control surfaces



There is a companion control surface for every TriCaster model, purpose-designed for maximum live production functionality with that system. All the consoles incorporate backlit keys for optimum operation regardless of the light level. Grouped color codes make it easy to find the various buses and the status of delegate buttons. The multi-axis joystick gives dynamic control over robotic cameras and size, position, crop and perspective adjustments for the sources in the DVE channels. Macro mode allows you to assign customizable macro-command triggers to the control surfaces.



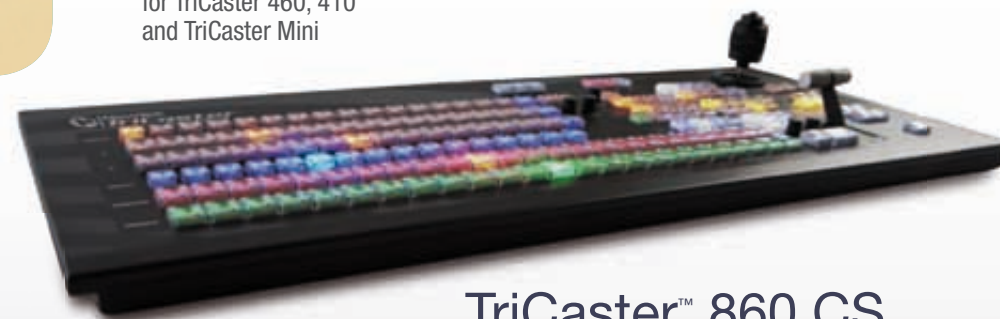
## TriCaster™ Mini CS

For TriCaster Mini and all the other models  
The MiniCS offers a compact alternative when you're working in confined spaces.



## TriCaster™ 460 CS

for TriCaster 460, 410 and TriCaster Mini



## TriCaster™ 860 CS

For TriCaster 860.

**TIP!** Lock and unlock keys for your customized setup of active sources and channels with the optional TriCaster Advanced Edition software – See page 18.

## TriCaster™ 8000 CS

For TriCaster 8000.

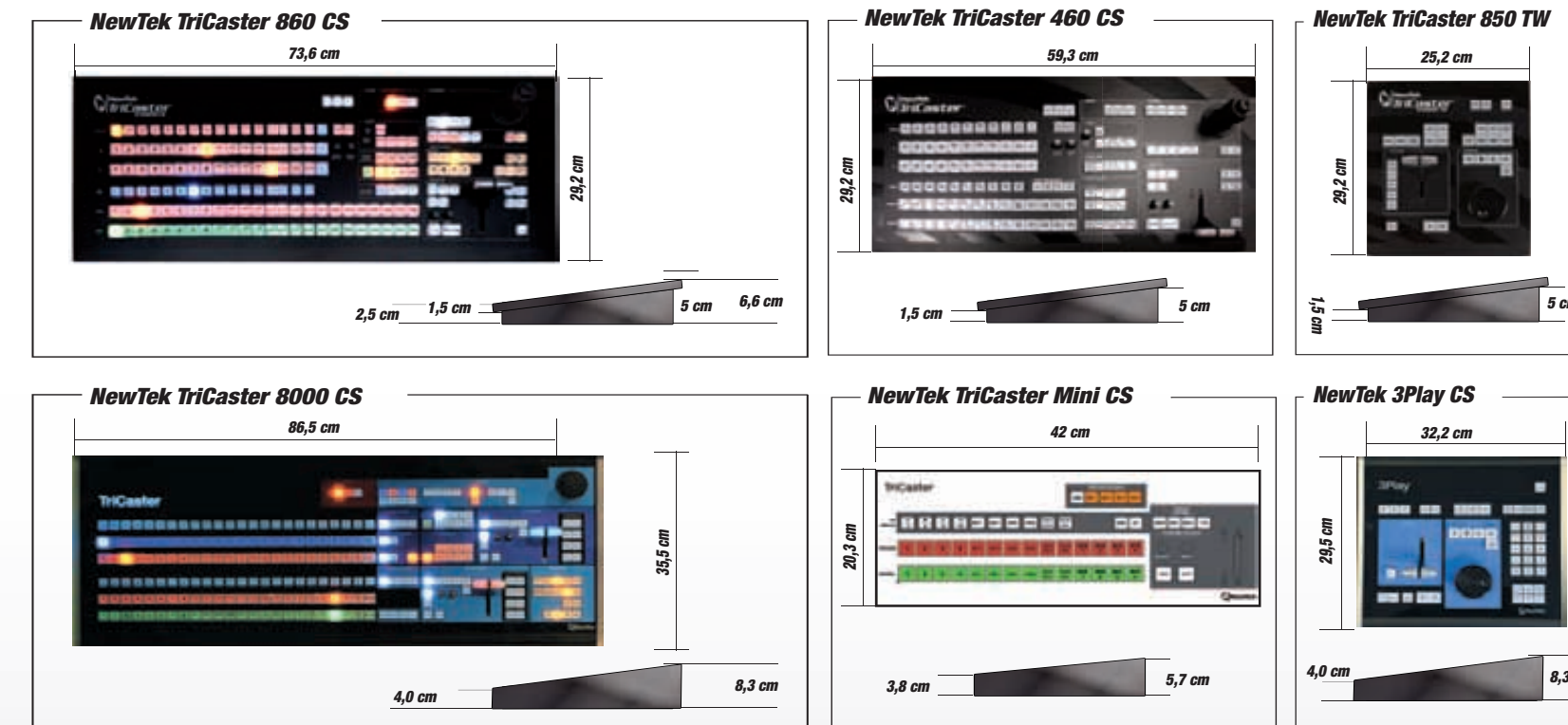


## TriCaster™ 850 TW

Share the workload with second operator, focusing exclusively on stored clips and graphics. Add slow motion playback and instant replay : a must for any sports production. Its ergonomic design is perfectly suited to broadcasting slow motion playbacks at the lower cost ever!

- Ergonomic control over the editing functions, Jog-Shuttle controller and dedicated buttons from media players of TriCaster.
  - Select rebroadcast actions with one touch
  - T-Bar for precision control of slow motion playbacks
- TriCaster 850 TW is compatible with TriCaster 8000, 860, 460, 410, and Mini. As well as with all the old models in the SD/HD range.

## Dimensions



# TalkShow™



Live Skype interviews that look great—and sound amazing



Add more on the ground expertise and analysis to your productions. Avoid multiplying transmission budgets and heavy equipment for your reporting teams or losing time to synchronize video recordings with poor quality telephone recordings.

The **TalkShow** rack from NewTek is designed to integrate Skype video communications into your broadcast production environment as directly and simply as possible. It delivers the signal from the caller in broadcast-ready HD with SDI-embedded audio. TalkShow is a compact 1U rack with Skype TX software from Microsoft, an HD-SDI output for direct connection to the final production, an HD-SDI input to send a return image back to the caller, a genlock input for perfect switching, and several video and audio correction tools to ensure the best rendering possible.

TalkShow allows you to control the video and sound quality of calls with the usual professional broadcast production tools. Skype video calls are treated like any other audio/video source in the studio. The only difference is that TalkShow allows you to instantly reach a panel of more than 300 million experts or potential witnesses!

**TalkShow is the only Skype TX based device that offers as standard:**

- Optimized audio management**  
 With built-in parametric equalizer and compressor/limiter to maintain consistent levels and prevent saturation between calls and SDI embedded audio. Also included support for Dante Audio Networking.

- AirSend Networking**  
 Enabling network transmission of audio and video signals between TalkShow and TriCaster or 3Play for seamless integration over IP saving SDI in and out.

- Call Recording**  
 Supports full-bandwidth recording of call video and audio (optionally including return audio on separate channels) to external USB 3.0 or SAN storage

- Extended Video signals controls and quality**  
 When lighting conditions or color characteristics are less than ideal, easily compensate with TalkShow integrated real-time Proc-Amp tool for both incoming and outgoing video signals including white balance, RGB advanced brightness/contrast and Auto Color corrections.

- Talk Back**  
 Provides direct, off-air communication between operator and remote caller via headset

- Real time monitoring**  
 A full-color preview via the video screen built into the faceplate for instant recognition of the caller currently online. With tally support to indicate whether the caller is live or on standby

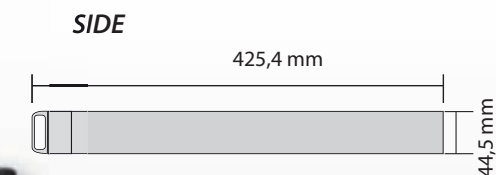
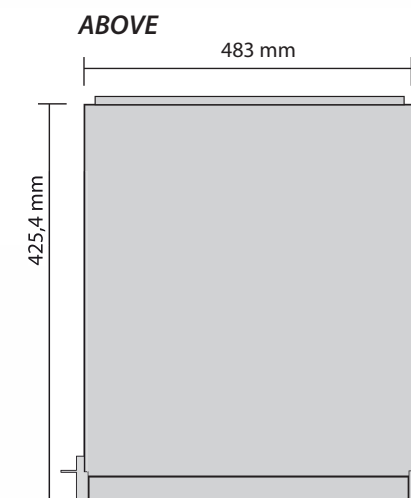
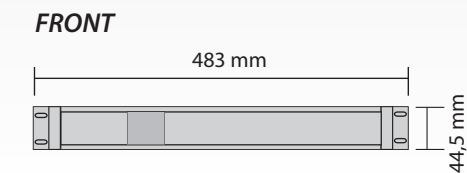
- Enhanced preview monitoring**  
 Full-motion input and output video previews within user interface with Audio VU metering configurable for dBFS, dBU and dBVU.



# TalkShow™ Technical Specifications

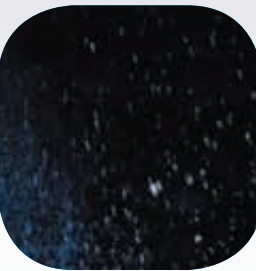
<b>Video Input</b>	1 x HD-SDI with embedded audio for program signal playback to caller
<b>Video Output</b>	1 x HD-SDI with embedded audio
<b>Audio Input &amp; Output</b>	1 x embedded SDI audio, 2 x Balanced XLR (Line)
<b>Dante Audio Networking</b>	Integrated Dante audio support, enabling TalkShow to interface with other audio devices utilizing the Dante networking protocol from Audinate
<b>Video Scaling</b>	automatic aspect ratio conversion
<b>Audio Effect Controls</b>	Fully configurable settings for incoming and outgoing audio signals, including gain control, seven-band equalizer and compressor/limiter
<b>Clean Signal</b>	Skype TX eliminates banners, sound alerts and advertising messages from video and audio streams.
<b>Talk Back</b>	Supports direct, off-air communication between operator and remote caller via headset
<b>Bandwidth Management</b>	Automatic switching to a customizable still image in the event of unexpected loss of bandwidth.
<b>Call Management</b>	<ul style="list-style-type: none"> <li>• Direct mouse and keyboard USB interface required for Skype TX call management in single-unit installation (single-caller)</li> <li>• Supports Skype TX call management over local network via Skype TX Control application in multi-unit installation (multi-caller)</li> </ul>
<b>Local Monitoring</b>	<ul style="list-style-type: none"> <li>• DVI and HDMI monitor ports for connecting external user interface display</li> <li>• Stereo 1/4" phone jack for local audio monitoring</li> <li>• Front-mounted RGB video preview display with tally support</li> <li>• Full-motion input and output video previews within user interface</li> <li>• Audio VU metering configurable for dBFS, dBU and dBVU</li> </ul>
<b>Watermark</b>	Integrated support for displaying Skype logo watermark on output
<b>Tally</b>	<ul style="list-style-type: none"> <li>• Supports hardware tally via HD15 GPI connector or network tally via NewTek AirSend</li> <li>• Optionally display customizable tally overlay on return signal</li> </ul>
<b>GPI</b>	HD15 GPI connector
<b>Reference</b>	<ul style="list-style-type: none"> <li>• Genlock input supporting SD (Bi-level) or HD (Tri-level) reference signals</li> <li>• +4dBu audio reference level</li> </ul>
<b>Software</b>	Windows Embedded 8.1, Skype TX Client software, and TalkShow control software
<b>Technical Spec.</b>	i7 Quad-Core, Ram 8Gb, Intel HD4600 GPU, 120Gb internal SSD
<b>Processing</b>	Video: 4:4:4:4, 32-bit Floating Point Audio: 4 channels, 96 kHz, 32-bit Floating Point
<b>Network</b>	Dual gigabit Ethernet NIC supporting Skype TX call transmission, AirSend signals to and from supported systems, Dante audio networking, and local network traffic
<b>Fail-Safe</b>	<ul style="list-style-type: none"> <li>• Multi-tiered fail-safe system</li> <li>• Automatic failover to audio transmission with caller snapshot when bandwidth falls below operator-defined preset value</li> <li>• Comprehensive system restore operation</li> </ul>
<b>System Physical</b>	1RU Rack Mount with 180W power supply (110-220V external; 12V internal) • 48.3 x 4.5 x 42.5 cm with rack ears attached • 6.4 kg

Subject to change without notice.



# 3Play™

4800  
440  
Mini



## Transform games into spectacles

This 3Play server new generation gives you a decisive lead in all audience targets and every playing field! This is the most complete, integrated production solution for sporting events and large screen animation. Masters in the art of combining tools with ergonomics and productivity, NewTek offers a whole new versatility, at a very competitive price.

**3Play** provides multiple services and specific form factor for stadium productions, OB vans, racetracks, sports halls and arenas.

3Play 4800 / 440 / Mini have the same architecture and operating tools: choose the form factor and capacity that fits best your job!



### 3Play 4800 :

#### Choice of Redundancy

3Play 4800 is a 4U rack mount server with 8 Channels IN + 2 Channels OUT with redundant power supplies and 4 hard drives for a recording capacity of 200 hours. It lets you record either 8 sources simultaneously or 4 sources on 2 pairs of hard drives ensuring that the server is always running even if one or two of the hard drives fail.



### 3Play 440:

#### Compact form and budget for full sports coverage

3Play 440 is a 2U rack mount server with 4 Channels IN + 2 Channels OUT and 2 hard drives for a recording capacity of 140 hours.



### 3Play Mini:

#### It Goes Anywhere

Compact design fits in a backpack for this server delivering 4 Channels IN + 2 Channels OUT of HDMI for a recording capacity of 30 hours.





# 3Play™

4800  
440  
Mini



Tablet and Backpack not included.

## Instant slow motion replay tools

**Recording / playback:** From your standard cameras, in SD or HD 3Play continuously records 4 or 8 channels of video and audio. It guarantees that sources are synchronized for recording and playing back. 3Play uses sophisticated algorithms to play back a fluid and precise replay slowed down or accelerated from -200% to +200%.

**Broadcasting:** the operator has real time access to each source while it is being recorded, he can select extracts to be played back in all playback modes: at normal speed, slow motion or accelerated, front/rear. A playlist editor lets him create match reports, highlights within minutes and import video clips, trailers and presentations to be broadcast.

**Publishing:** during live broadcasts and with no additional equipment, 3Play lets you publish video clips on social networks with comments on the action to engage more viewers, animate supporters clubs and to promote brand images.

**Judging:** with the exclusive use of a video referee, 3Play can return at any moment to the same action from every angle simultaneously, in all playback modes, including image by image. After the game, it becomes a flexible and fast analyzing tool for coaches. 3Play is frequently used as a video referee in handball competitions, go kart racing and on many racecourses.

## Choose innovation

**Integration for better broadcasting:** why accumulate flight-cases when a single 3Play server allows you to record hours of footage, manage slow motion replays for the main screen, direct streaming for the second screen, and publish the best moments to the third one. Being live on Facebook, Twitter, YouTube requires nothing more than pressing a single button, there's no need for excess equipment!

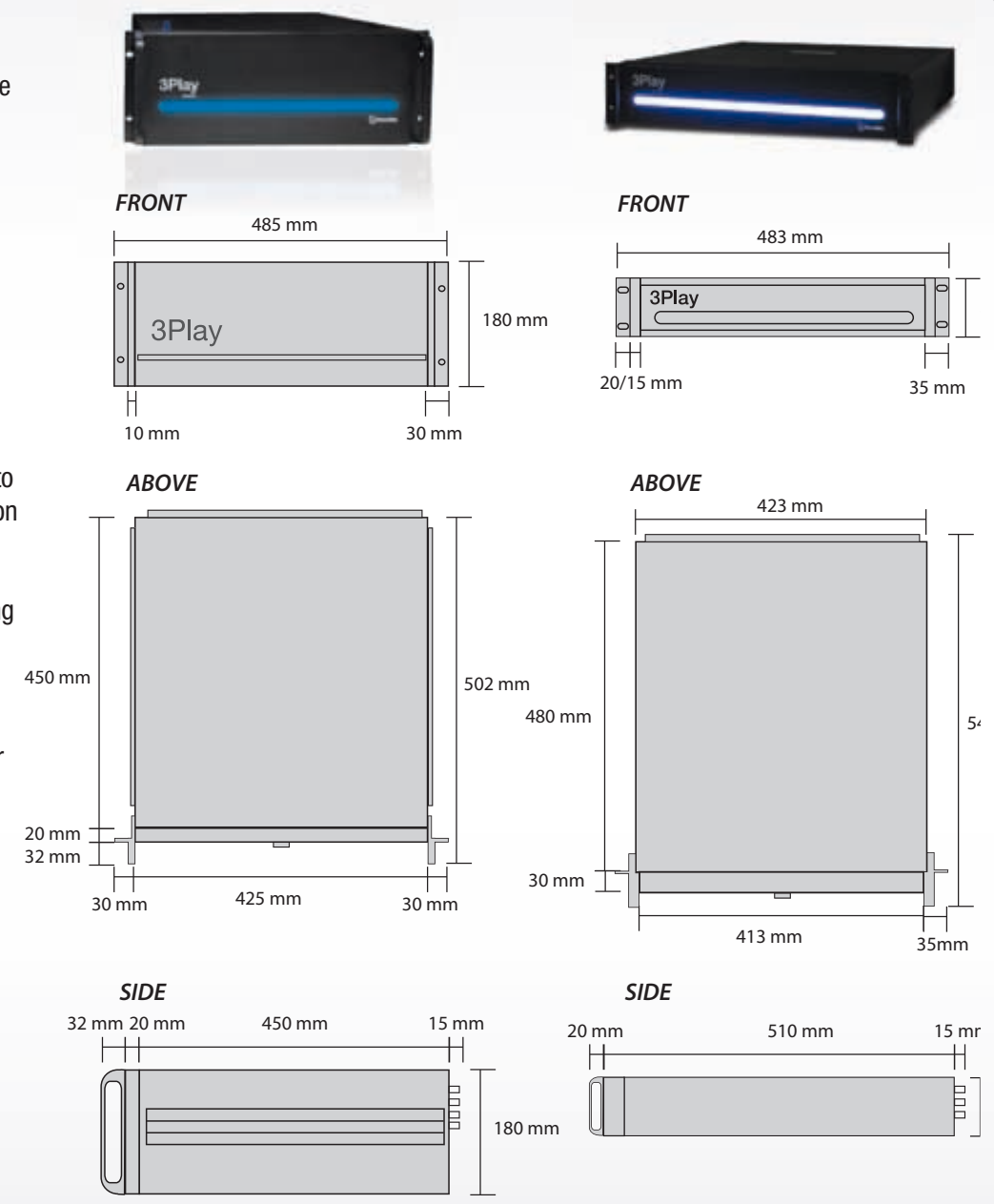
**More previews:** 3Play offers the operator more information and previews than any other slow motion systems. He always has all the live broadcast angles available and all the action which has already been selected and he can switch to the best shot at any moment.

**Program/Preview mode:** the outputs are configurable in 2 independent channel modes or in AB /Roll so a second slow motion angle can be prepared while the previous one is being broadcast. The control surface includes dedicated commands to return instantly to the action, choose the best angle and be ready to rebroadcast it. Running in parallel with keyboard and mouse and a full graphical user interface, intelligently distributed on 2 screens, 3Play offers true ease of use for preparing reports and highlights during a live show.

**Fast and precise indexing:** 3Play has an innovative built-in system to mark each clip with a series of keywords on the fly. It only takes 3 button presses to associate the name of the team, the player and the type of action to an event. Indexing is completely customizable and allows you to import keywords from a spreadsheet. On demand, all clips responding to an extended search are instantly listed.

**Visuals that Impress:** without using a video mixer, 3Play allows operators to broadcast enriched images composed with multiple sources: to overlay journalists over a replay, a view of the scoreboard or a second angle on the same action. 3Play can also display scores and manage transitions with 3D animated jingles.

**Choose versatility:** a single server does not mean one operator alone. 3Play is configurable for multiple users with remote monitoring and interfaces. It can control an external grid to access more sources in real time. With its powerful macro command editor, 3Play enables you to automate recurring operations and even to use them remotely on an external MIDI console to be used by an assistant. It has full SDK which can be controlled by IP commands. A media import module with a transcoding option lets you load a large number of file formats to broadcast them.



# 3Play™ 425

A major league player - But without the price!



For years, the extremely high cost of servers has restricted the use of live slow motion replays to broadcasting sports to large audiences. Without quality broadcasting, it's difficult to increase your ratings! With 3Play 425, NewTek lets all sports develop their audience by offering attractive broadcasting.

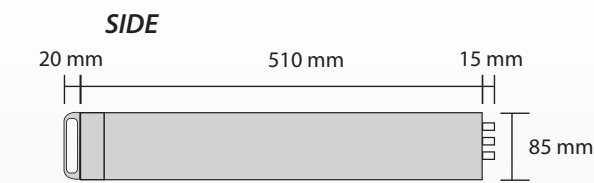
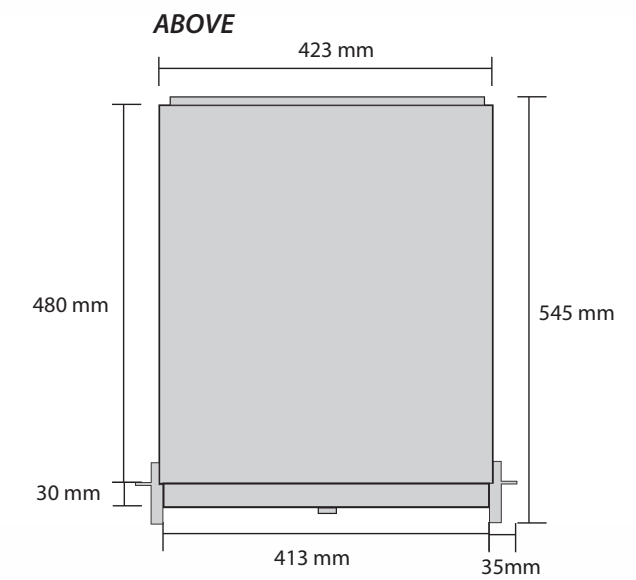
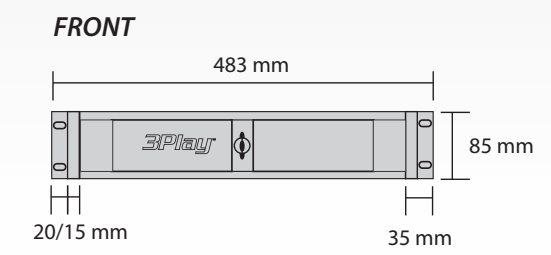
**NewTek 3Play 425** is a live slow motion replay 6 channel server (4 inputs, 2 outputs) which lets you simultaneously, play, record and create instant slow motion replays on all sources. 3Play 425 is affordable yet still ergonomic and fast to use. The control surface comprises dedicated commands to return instantly to the action, choose the best angle and be ready to rebroadcast it. Running in parallel with keyboard and mouse, 3Play offers true ease of use for preparing reports and highlights.

**Integrated and versatile:** Recording capacity of 30 hours on extractable storage disk, supports SD or HD media sources in SDI or analog. Two independent SDI and analog broadcast outputs. 2 output screens for the built-in multi-view monitor to view sources and output channels and display the playlist of summaries and selected clips.

**Interpolated slow motion:** 3Play gives the public what it expects from high quality replays to enjoy the best moments of their favorite sport even more. With slow motion speed dynamically variable from 0 to 100%.

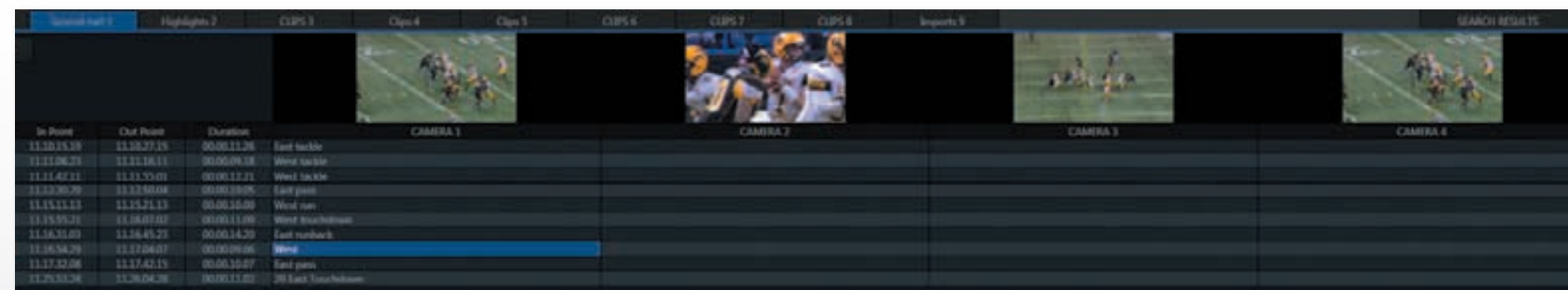


**Configured for the trunk of a car:** a TriCaster 410 and 3Play 425 together are all the production equipment you need and the most compact there is. A complete 4 camera production system in two 2U racks with slow motion server on each camera, with no need to add video routers. Everything is built-in: animated graphs and scores, customized transitions, playlists for presenting teams and players and promoting sponsors. And all the outputs for simultaneous broadcasts on large screens, on DTTV channels and the Internet.



# 3Play™ Technical Specifications

	3Play 4800 – 440 - Mini	3Play 425
<b>Recording Format</b>	QuickTime® - XDCAM HD compatible – 4 :2 :2 encoding – 24bit audio	MPEG-2 all I-frame
<b>Supported Session Formats HD</b>	PAL,: 1080/25p, 1080/24p, 1080/50i, 720/50p, 720/25p, 720/24p • NTSC, NTSC-J : 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p	
<b>Output Channels</b>	2 independent channels or Program/Preview Mode with transitions	2 independent channels
<b>DSK</b>	1 overlay per playout channel, with independent transition, positioning, scaling and cropping, and support for picture-in-picture layering of live camera, playback angle, game clock signal.	—
<b>IP Sources</b>	2 simultaneous live inputs per DSK for connection with: • networked computers via NewTek AirSend protocol • wireless Apple AirPlay devices; • a variety of third-party partner solutions, see <a href="http://www.newtek.com/solutions/newtek-developer-network.html">http://www.newtek.com/solutions/newtek-developer-network.html</a> • Other networked TriCaster and 3Play	—
<b>Buffer</b>	Stills, titles and animation buffers for overlay	—
<b>Playback</b>	From -200% to +200%	0% to 100%
<b>Router Support</b>	AJA, Blackmagic Design, Ensemble Designs, Miranda, Utah Scientific, and brands supporting Grass Valley Native Protocol	—
<b>Grab</b>	Grab still images from output or all inputs and outputs	—
<b>Media Publishing</b>	Facebook, Twitter, YouTube, FTP, network servers	—
<b>Asset Management</b>	By keywords. Tags system to enter and organize metadata via user-defined codes, with support for Microsoft Excel import	Enter free hand metadata per clips.
<b>External Control</b>	Macro Commands Control by : • standard MIDI and AMP protocols • IP protocol by SDK • IP commands by a companion NewTek TriCaster system	—
<b>Tally Display</b>	Supports tally display from NewTek TriCaster	—



Subject to change without notice - Full specifications on [www.3dstorm.com](http://www.3dstorm.com)

	3Play 4800	3Play 440	3Play Mini	3Play 425
<b>Video Input</b>	8 x HD/SD-SDI, HD/SD Component, Y/C (BNC) or Composite • Per-input format configuration, scaler and frame synchronizer enabling intermixing of formats • automatic color correction	4 x HD/SD-SDI, HD/SD Component, Y/C (BNC) or Composite • Per-input format configuration, scaler and frame synchronizer enabling intermixing of formats • automatic color correction	4x HDMI • Per-input format configuration, scaler and frame synchronizer enabling intermixing of formats • automatic color correction	4 x HD/SD-SDI, HD/SD Component, Y/C (BNC) or Composite • Per-input format configuration, scaler and frame synchronizer enabling intermixing of formats
<b>Supported SD resolution</b>	NTSC 480/60i PAL 576/25i 16:9 and 4:3 aspect ratios	NTSC 480/60i PAL 576/25i 16:9 and 4:3 aspect ratios	NTSC 480/60p PAL 576/50p 16:9 and 4:3 aspect ratios	NTSC 480/60i PAL 576/25i 16:9 and 4:3 aspect ratios
<b>Genlock Input</b>	SD and Tri-level	SD and Tri-level	-	SD and Tri-level
<b>Audio Input</b>	8 SDI Embedded • 8 AES3/EBU • 8 x 2 Balanced XLR • Phantom Power Support	4 x SDI Embedded • 3 x 2 Balanced 1/4" • 1 x 2 Balanced XLR	4 x HDMI Embedded • 1 x Jack1/4" balanced mic • 2 x Jack 1/4" balanced line	4 x SDI Embedded • 3 x 2 Balanced 1/4" • 1 x 2 Balanced XLR
<b>Video output</b>	3 x HD/SD-SDI, HD/SD Component, Y/C (BNC) or Composite 1 x HDMI output • 2x HDMI and DB15 VGA display ports for auxiliary monitoring or display • Ethernet connection for A/V output over a local network to TriCaster	2 x HD/SD-SDI, HD/SD Component, Y/C (BNC) or Composite 1 x HDMI output • 2x HDMI and DB15 VGA display ports for auxiliary monitoring or display • Ethernet connection for A/V output over a local network to TriCaster	2 x HDMI playout channels -1 x DVI and 1 x HDMI (video only) display ports for auxiliary monitoring or display, -Ethernet connection for A/V output over a local network to TriCaster	2 x HD/SD-SDI, HD/SD Component, Y/C (BNC) or Composite 1 x HDMI output -Ethernet connection for A/V output over a local network to TriCaster
<b>AUX video output</b>	1 SDI SD/HD and analog	-	-	-
<b>Audio output</b>	3 SDI Embedded • 2 AES3/EBU • 4 x 2 Balanced XLR • 1 Stereo 1/4" (phones)	2 SDI Embedded • 1 x 2 Balanced XLR • 1 x 2 Balanced 1/4" • 1 Stereo 1/4" (phones)	2 HDMI Embedded • 2 x jack 1/4" balanced line • 1x Jack 1/4" stereo headphone	2 SDI Embedded • 1 x 2 Balanced XLR • 1 x 2 Balanced 1/4"
<b>User interface / multiview</b>	1x DVI output for combined display of all live sources and playout channel, with clips and playlists • 1x DVI output for integrated multiview of all live sources and playout channel	1x DVI output for combined display of all live sources and playout channel, with clips and playlists • 1x HDMI output for integrated multiview of all live sources and playout channel	1x DVI output for combined display of all live sources and playout channel, with clips and playlists • 1x HDMI output for integrated multiview of all live sources and playout channel	1x DVI output for combined display of all live sources and playout channel, with clips and playlists • 1x HDMI output for integrated multiview of all live sources
<b>Recording Channels</b>	8 or 4 redundant	4	4	4
<b>Hard Drives - Capacity</b>	4x 2TB removable – 200 h	1x 3TB – 1x 3TB removable – 140 h	2x750 GB – 30 h	1x1TB – 1x1TB removable – 40 h
<b>Time Code</b>	External LTC or internal	External LTC or internal	Internal	External LTC or internal
<b>Control Surface</b>	Included 3Play CS	Included 3Play CS	Optional – Included Touchscreen Web app	Included 3Play425CS
<b>Redundant Power Supply</b>	Yes	-	-	-
<b>Built-In WiFi</b>	-	-	Yes – 802.11ac	-
<b>Case Display</b>	-	-	7" LCD screen with configurable output	-
<b>System Physical</b>	4U – 20 kg	2U – 11,8 kg	11,7 x 23,4 x 20,1 cm – 4,1 kg	2U – 11,8 kg

Subject to change without notice - Full specifications on [www.3dstorm.com](http://www.3dstorm.com)

# LiveMedia Server

Dual channel, multiformat digital player/recorder



**LiveMedia Server** is a versatile solution for recording and broadcasting video clips. Especially suitable for live requirements, it offers operators great flexibility to import and readjust clips at the last moment, instantly record and replay files, natively support and mix a great number of codecs, formats and resolutions.

### Compact to integrate, easy to use

LiveMedia Server is a compact 1U rack device with a depth of just 42 cm. It offers 2 channels configurable as recorder or player as desired: i.e. 2 broadcast channels, 2 recording channels or 1 recording channel and 1 playout channel simultaneously. LiveMedia Server has 2 SDI SD/HD inputs and outputs with embedded audio.

The modular user interface is displayed on a standard monitor and is operated by keyboard, mouse and an included Jog-Shuttle controller.

### Total multi-codec environment

LiveMedia Server supports the recording and playing of most codecs and formats, without prior transcoding: DNxHD, H264, ProRes, MPEG1/2/4, XDCAM, QuickTime, MXF, WMV... All types of files can be mixed in the same broadcasting list, LiveMedia Server automatically manages the SD/HD conversions, the aspect ratio changes and field inversions.



### Playlist editor

The clip broadcasting lists are editable in real time by simply dragging and dropping and by monitoring the folder: new clips saved in a folder are automatically detected to be added to the playlist, even during broadcasting. They support the following play modes: sequential, clip by clip and loop.

### Playout during recording

A clip being recorded on a channel can be dragged in real time into the play channel enabling simultaneous broadcasting with slow-motion play.

### External controls

LiveMedia Server can command one BlackMagic router and one TriCaster production system over IP to trigger a switching onto playout. On the other hand, LiveMedia Server can be controlled by GPI, VDCP protocols and Sony RS 422.

### Two graphic layers per channel

A fixed or animated graphics page can be embedded on a playlist's broadcast. It may simply contain a static logo, but also several animated elements assembled with the free LiveCG Composer editor.



▲ Included Jog-Shuttle controller

Optional Jog-Shuttle console for intensive live use ▼



A second graphics channel also enables a graphics page to be synchronized on each clip of the same playlist.

## Technical Specifications

### Video input

2x SD/HD-SDI with embedded audio, 1x Genlock

### Video output

2x SD/HD-SDI with embedded audio

### Audio channels

16 channels IN/OUT

### Monitoring output

1x DVI

### Storage

2x 2TB hard drives

### External router control

TriCaster and BlackMagic Atem® through IP

### Supported Codecs (Rec/Play)

MPEG1/2/4, Cuda H264, Quicksync H264, Apple ProRes, DNxHD, DV/DVCPRO-HD, FLV/Sorenson, HuffYUV, MJPEG, WMV, JPEG2000, Theora, Lossless JPEG, Quicktime Animation

### Supported file formats (Rec/Play)

MPEG PS, MPEG TS, MP4, MOV, XDCAM, MXF, MXF D-10, GXF, DV, FLV, DVD Video, ASF, iPod MP4, AVI, MKV, WebM, MP3, AC3, AAC, WAV

### Chassis

1RU, i7 processor, 16GB of ram, 150W power supply

# LiveCG Broadcast™

Compact Graphics Generator with Social Media Integration



**LiveCG Broadcast** is a stand-alone 1RU device that gives the ability to display all graphics needed for a television production, with the fewest number of steps: including fixed and animated titles and logos, crawled or rolled tickers, clocks, countdown, dynamic data and bitmap sequences. LiveCG Broadcast can broadcast live messages collected from social network accounts such as Facebook®, Twitter®, Flickr®, Instagram®... as well as RSS feeds, SMS, Skype® messages, and dynamic data from text files or Excel spreadsheets.

### Multilayers:

LiveCG Broadcast is the most compact multilayer character generator for automatic management of titles and graphics. A single page can contain multiple still or animated objects with transition per element.

### Independent pages Composer:

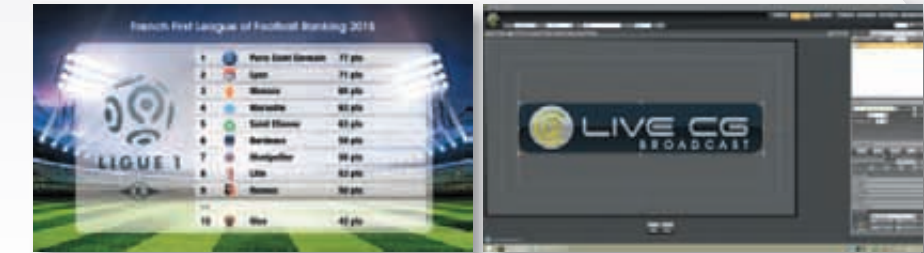
Create CG pages from any PC or laptop in the network with the free of charge LiveCG Composer. Versatile for live events and On-Air broadcasting.

### LiveCG Broadcast includes:

- A playlist editor: collect any page into a playlist that can run in loop mode 24/7 seamlessly.
- A scheduler creator: select pages and apply broadcast period, exact time or precise from this time to that time and loop over day, week or month.
- A live interface: allocate pages to interactive buttons to go on air manually or by GPI or Midi triggering during a live event.

### Perfect for music, sport, news or shopping channels:

LiveCG Broadcast can handle multiple dynamic sources simultaneously: split the screen to display music titles, artists, people info, games ranking, stock exchange rates, breaking news ... updated automatically from RSS feeds, text files or Excel spreadsheet.



### Smart and versatile link to Excel spreadsheets:

Excel files spreadsheets can also be used to create amazing interactive display of pictures, logos and figures, based on customized formulas and automatic rules for election results, sports scores, television games...

### LiveCG Broadcast Features:

- Statics and animated graphics and logos
- Dynamic text, clock, date, crawl, roll, ticker...
- TGA, BMP, PNG, TIF, JPG, GIF sequences and FLASH (.swf) animations with alphachannel
- Effects: shadow, blur, motion blur, smooth edge
- Smooth Transition: fade, move, zoom
- Midi protocol support
- GPI with optional LiveControl Box
- Included USB remote panel
- Unicode support

### Two models available:

#### LiveCG Broadcast IP for TriCaster and 3Play:

Directly connected to TriCaster or 3Play through the network, it avoids using external video inputs. Full animated graphics with transparency are delivered in real time to a single NET input.

#### LiveCG Broadcast SDI for all video switchers:

It provides SDI in and out as well as Key out and genlock in to be integrated with any professional video switchers and video server. It supports both internal and external key modes. LiveCG Broadcast SDI also supports AirSend® connection to TriCaster and 3Play.



# Social Hub

Live from the Social Networks, in touch with your audience

**Social Hub** is a message moderation software that supports most of the actual social networks and dynamic data sources. Used with LiveCG Broadcast or LiveCG Action it allows incoming messages from your audience to be quickly and safely sent on-air. Social Hub manages accounts from multiple social networks and messaging tools at the same time: Twitter®, Facebook®, Instagram®, Skype®, WhatsApp®, Flickr®, Line®. It is designed to collect also SMS from mobile phones, RSS feeds and emails.

## Collect, sort, validate and display:

Within a single user interface, Social Hub downloads and lists messages from all registered accounts. Several parameters can be set for each account : update frequency per seconds, date range per days, maximum number of messages, Hash-Tag for tweets, Fan Page name for Facebook®... Messages can be sorted by account, sender, date and a search engine is available to retrieve specific contents by keywords. The operator can read, and modify each message before validation and send it On-Air. Pictures or video clips attached to messages can be downloaded from Social Hub.



## Flexible integration:

The full integration with LiveCG Broadcast and LiveCG Action allows customization of any graphic element of the message, showing it as static text, crawl or tickers. Content coming from different accounts can be mixed in a single graphic area or separated into dedicated zones on-screen with lower third and logo branding. Social Hub software can be installed remotely from the CG system sending messages through the network. A single license can address several CG units by sending dedicated content to each of them. Each CG operator is prompted when new messages have been validated. Messages can be simultaneously collected into a file or a folder for archiving purposes. A report session gives the ability to monitor and manage the messages already sent.



Connect Social Hub to OpenWeatherMap and get free access to weather data and forecast over 200 000 cities in the world, to automatically display logos and parameters, such as temperature, humidity, sunrise, sunset...

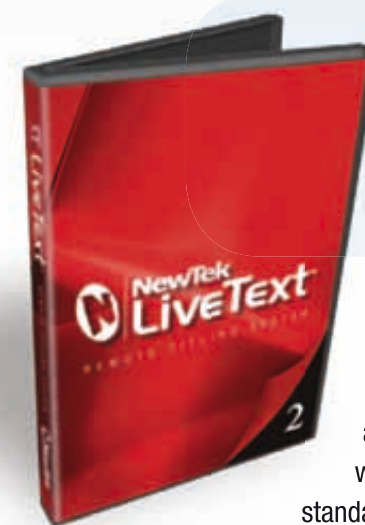
## System requirements:

- Dual Core CPU, 2GB of ram, windows XP SP3 or more recent versions
- Internet connection
- Social Hub is provided with a GSM modem for SMS support



# LiveText 2

Titler and character generator



**LiveText** is NewTek character generator built into TriCaster systems. It supports numerous file formats for importing existing elements and graphic charts, preparing title page and logo templates which can then be edited during live broadcasts to enter the names of speakers, replace photos and logos.

**LiveText operator workstation:** NewTek offers an additional LiveText 2 license to create a remote workstation dedicated to character generator, on a standalone PC connected to the production system via

the network.. The graphics and animation pages are transmitted in real time through IP channels and can be used live, without monopolizing the video inputs. Transparency (Alpha Channel) is detected directly in the different M/E and DSK overlays.

**Dynamic animated graphics:** The LiveText 2 license allows you to automate result table displays (sports, elections, games etc.), scores updated instantly, RSS news feeds, extracts from SQL databases, as well as the current time and date.

**Extremely intuitive editor:** The LiveText 2 multi-overlay editor works very fast to achieve most of the needs of animated graphics: titles/subtitles, crawl and roll, simple generic credits...



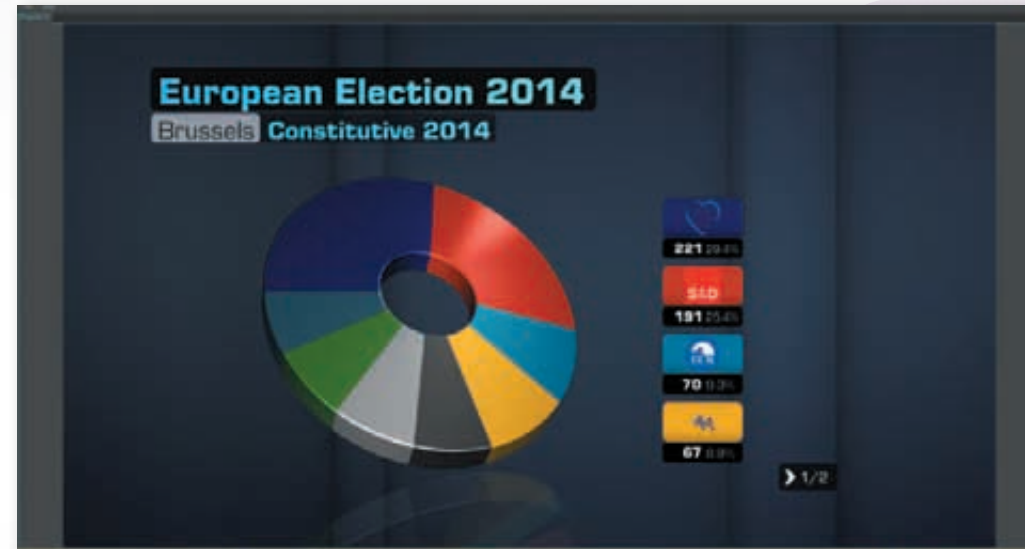
## Minimum system requirements:

Windows 7 or Windows Vista operating system or higher  
 Processor with SSE2 support (Intel® Core2® type or higher)  
 4 GB of RAM  
 DirectX® 9 graphics card or higher and a minimum resolution of 1200x800.  
 Gigabit Ethernet connection.

# LiveCG Election™



2D and 3D statistical data animation software



**LiveCG Election** is a motion software product that processes the results of elections and all types of figures in real time. With its 3D rendering engine, data is instantly transformed into motion graphs: 3D Bar Charts, Curve Charts, Pie Charts, Tables ... LiveCG Election can process live data during election evenings, at conventions, free-hand votes and all instances requiring animation of statistical results the minute they are received.

## Simple, flexible preparation:

LiveCG Election lets you import in advance photos of candidates and party logos in standard graphic formats: JPEG, TGA, BMP and PNG. The lists are saved as projects that can be used in any election or similar event.

**A colour code is assigned to each party, using chromatic references or an eyedropper to directly recover the official colour of each logo.**



## LiveCG Election integrates 10 types of customizable graphics



This gives a choice over background, positioning of titles and captions, fonts and size and orientation of graphics in 3 dimensions. The user can choose how the logos and photos are displayed, and to add the reflection of the graphs.

## Real-time data processing

LiveCG Election recovers data from .csv files scanned in real time before each broadcast of graphics. The results can be updated automatically at any time. Files are shared across a network so they can be changed from a dedicated workstation using Excel® or any other application that generates .csv files.

The processed data covers: titles and captions to be broadcast, the names of parties and candidates, the number of votes and seats won, and the percentage distribution of votes. LiveCG Election also lets you display predictions and comparisons between two election results.

## Adapted for live use

LiveCG Election integrates an interactive playlist to manage the live display of motion graphics. Very flexible to use with drag/drop, it lets you select the graphics to be broadcast, moving from one animation to another, but also allowing certain data to be retained on the screen while displaying new graphics.

Two text crawl areas can be added at the bottom of the screen for automatic display of information threads read dynamically from shared text files.

## Virtual set and augmented reality

In association with TriCaster Advanced Edition, LiveCG Election can integrate graphic animations in augmented reality into virtual sets. The graphs fit naturally with the set's different shooting angles and form part of a high-quality production.



## Technical specifications

- UNICODE platform
- Image import formats: JPG, BMP, TGA, PNG
- Air Send® link for TriCaster and 3Play
- Supports BlackMagic 4K Extreme video cards with SDI SD/HD Fill and key signal

## Configurations Available

- LiveCG Election software for TriCaster
- LiveXpert 4U Rack

# Virtual Set Editor™ 2.5

**VSE is NewTek application to integrate new virtual sets and composition templates in TriCaster. It consists of 2 modules:**

**Set editor:** VSE includes a variety of live virtual set templates that you can customize, quickly and easily—right out of the box: delete set furniture or elements, change color palettes, replace textures, edit camera zoom.

**Importing new sets:** a new set can be created using all the 3D design software available on the market. The project must then simply be assembled in a PSD project including the different layers of the set: background, shots of actual views to be inserted, foregrounds and other decorative elements. VSE lets you transform the PSD project into a virtual set directly accessible from the TriCaster M/E buses.

**Creating composition templates:** in the same way, VSE allows you to very quickly prepare composition templates to overlay several real sources on a customized background, with frames, borders and shading. Simply prepare the background and the locations to overlay the sources in a Photoshop® project and import it with VSE to create the corresponding M/E.



**Holographic sets:** VSE also allows you to transform a panoramic image into 360° set in which the various Live sources connected to the TriCaster can be integrated.

**Features:**

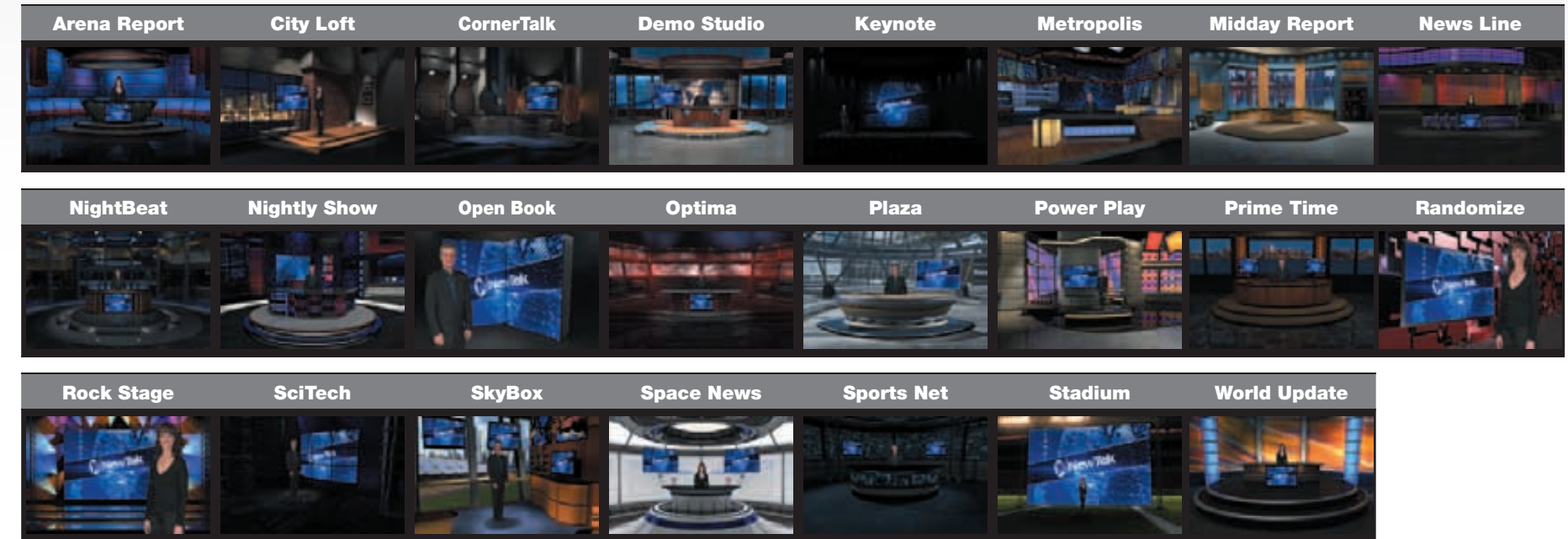
Virtual Set Editor 2.5 includes 2 VSE software licenses, one that can be installed on the TriCaster and the other on a PC for creation. An additional Animation Store Creator license is also provided to enable you to remotely create custom transitions.

**Minimum system requirements:**

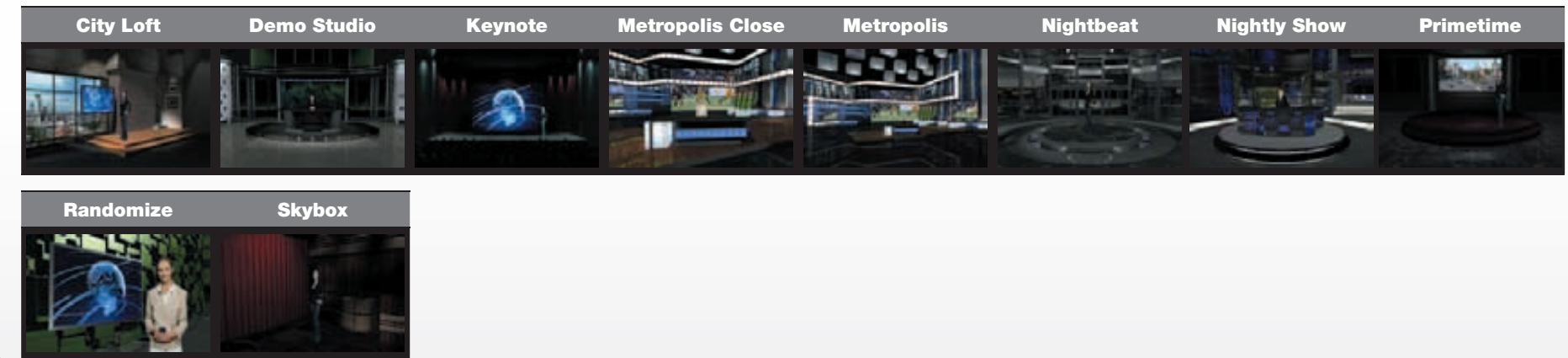
- 64-bit operating system: Windows 7 or Windows Vista or higher
- 4GB RAM
- Directx® 11 graphics card NVidia GPU with 1GB of dedicated memory and minimum resolution of 1200x800.
- 5GB of free space on hard disk
- 1200 x 800 display.



## TriCaster Virtual Set Gallery



## Virtual Set Editor 2.5 Gallery – Customizable environments



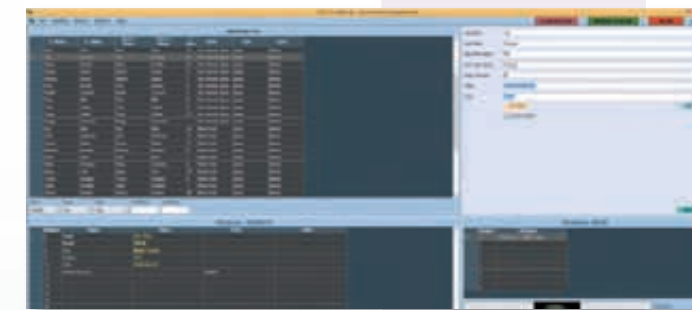


# DELTA-stat IP™

Graphics and scoring system for multisport live production



classified by sport, team, and nationality. Each field can be customized to store various types of information such as age, height, weight, rank, position... Pictures and videos can be attached to each entry form. Import players' lists easily and in a matter of minutes from an Excel spreadsheet. With DELTA-stat IP, store each event's information, organize them by competition, generate results tables, or create stadiums presentation...



Player's record

### Intuitive Graphic Design Tool:

Create customized graphics using information from the database. Insert logos, titles, clips, animate and synchronize them to deliver high-end quality graphics with a very intuitive and complete tool. DELTA-stat IP supports True Type and UNICODE font types. The exclusive timeline provides a rapid and precise control over the animations and transitions. For a perfect finish, each object can be associated to a fixed or animated texture with transitions.



Result table template

### Customized interface for live:

DELTA-stat IP provides dedicated user interfaces for each sport, to easily manage live production according to the rules and actions of each sport. Two windows give the ability to preview pages before being sent live, keeping a complete control over the on-screen content. Games information about players, teams' results, ranking... are available from the tabs, to easily display pre-game information.



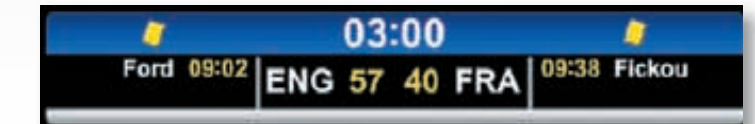
Live Interface - Rugby

Players' replacement, yellow card, goal... specific animations for each action of the game can be launched with a single mouse click.

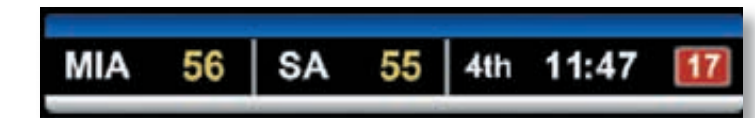


### Timers and countdowns:

Every timer design can be adapted to each sport, to display various timing information during the game: extra time, injury time, shot clock... DELTA-stat IP can be connected to digital scoreboards using LiveCG TeD.



Rugby timer, with suspension time



Basketball timer with scores

### Statistics:

A module dedicated to statistics inputs, feeds the database in real-time to be live-ready. Statistics categories can be customized according to players, actions and position on the field. All the statistics of a game can be stored in the event database.

### Features:

- Specific user interfaces for: Soccer, Rugby and Basketball
- UNICODE support.
- Supported formats: JPG, BMP, TGA, PNG...
- Supported video formats: QuickTime® (.mov).
- AirSend Protocol support for TriCaster and 3Play integration.
- 1U Rack format.



**DELTA-stat IP** is a complete turnkey solution to generate and display graphics for multisport live productions such as pre-game animations and presentations, clocks, animated scores, statistics management, actions, referee decisions...

It is featured in a 1U rack format, easy to integrate in stadiums and sports arenas control rooms or in OB vans. Using an Ethernet connection, and not video inputs, DELTA-stat IP complements perfectly TriCaster and 3Play. The quality of DELTA-stat IP 3D graphics engine optimizes display on big screens and on any video terminal.

### Advanced Database Engine:

DELTA-stat IP multi criteria database eases drastically games' preparation and sequencing. Input information about referees, commentators, players

# LiveCG Football 2™

## Football Scoreboard and Presentation Software



**LiveCG Football™** is the dedicated tool for managing real-time graphic displays during football (Soccer) games. As additional software to TriCaster/3Play or as independent turnkey system, it includes all features needed to compose and display full information on stadium big screens. Many major football clubs use it presenting game presentation, displaying player's details, teams ranking, scores and statistics, promoting sponsors, and more. LiveCG Football is the essential ingredient for turning a game into a show, all in the colours of the club!



### Player database

LiveCG Football includes a database that stores and classifies teams according to their country or competition, with logos and a selection of



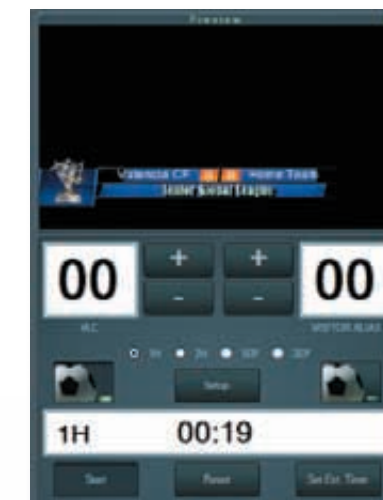
player pictures as well as manager and referee information. Compiling a team sheet then becomes a simple matter of clicking just once on each starting player and substitute!

### Full graphic editor

LiveCG Football editor allows customization of your graphical content with clubs and championships standards. It lets you import still or animated components from existing visuals created with tools like Photoshop®, After Effects®, Flash®. LiveCG Football comes with a full set of templates to associate every action of the game to a dedicated motion graphic that will be updated in Live with datas from the database and from the game.



### Clocks and in-game event management



LiveCG Football generates clocks for automatic time displays: normal playing time, additional time and extended play. The user interface allows the operator to trigger each animation for any game's action, with a single mouse click: offside, red/yellow card, player substitution, penalty, corner, goal attempt, etc. When the operator triggers one of these animations, it automatically increments the corresponding counter: match score, player statistics, team statistics, etc.

### Stats Module

LiveCG Football can keep track of a whole range of data and display the running totals during the match: Ball possession per team, shots on target vs. total shots, goal chances, assists vs. total passes, fouls by/on a player.



### Advertisements and information

To enliven the pre-match build-up and half-time periods, LiveCG Football can display a scrolling band with the scores from other games, or it can play advertisements for the club's partners and sponsors. An input box enables the operator to type in messages directly, which appear instantly on the screens.

### Features:

- Supported files formats: GIF, TGA, PNG, JPG and image sequences
- Supported animation formats : SWF (Flash)
- Supported video resolutions: SD, HD, PAL, NTSC, 16/9, 4/3
- Layer management, with alpha channel
- Transition effects: fade in/out, shift, blur, stretch, etc.
- NewTek AirSend® protocol supported for direct Ethernet connection to TriCaster and 3Play

### Recommended hardware configuration:

- i7 processor
- SSD system disk
- 3TB HDD for data
- 16GB RAM

### Configurations available

- LiveCG Football software for TriCaster/3Play
- LiveXpert 4RU turnkey solution providing SDI SD/HD and Fill & Key outputs

# LiveCG Tennis™

Graphics and scoring software for Tennis



**LiveCG Tennis** is a complete solution to generate and display graphics for tennis live productions, such as animations, players' presentations, animated scoring, timers and statistics management. LiveCG tennis is made for perfect big screen display as well as television production.

## Complete and user-friendly interface:

Designed for all games' configurations, single or double, with management of team's name and nationality, LiveCG Tennis fits any game's configuration and any competition. A number of 10 fields are available on each player presentation form, such as age, height, rank, top seed, left-hander, right-hander, prize list... Each field can be used in the different layers displayed.

## Automated scoring

LiveCG Tennis automates scoring management and display, switching between servers at the end of each game, break points, set points or match points...

## An intuitive graphics editor:

Customized graphics created with the graphic editor can be automatically updated, directly from the Live interface, with filled in or imported information on players, or the scores, in real time. Integrate text, logos, titles, image sequence and swf Flash animations with transparency, with the user-friendly interface.

## Statistics:

LiveCG Tennis features a module dedicated to game's data, in order to feed scoreboards with statistics on players, or comparison between players. This module can be customized. Data can be imported from an XML file, or from an internet source or manually input data. All statistics from a game can be stored on a hard drive.

## Features

- Supported Image formats: JPG, BMP, TGA, PNG...
- Supported animation format: image sequences and Flash Animation (swf)
- Alpha Channel 32 bits with transparency
- Support for NewTek AirSend protocol
- Optional, SDI output for Fill & key signal

## System requirement

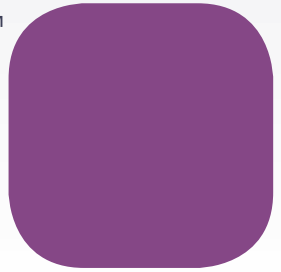
Processor i7, 16 Go de ram, Hard drive 250 Go, Graphic memory 512 Mo.

## Configurations available

- LiveCG Tennis software for TriCaster/3Play
- LiveXpert 1RU turnkey solution providing SDI SD/HD and Fill & Key outputs

# FingerWorks IP™

Draw as easily as speaking!



**FingerWorks IP** is a graphics workstation for adding interactivity to Live TV shows in news, sports and scientific programs. Using its large touchscreen, commentators can enhance their voice commentaries unaided: they can

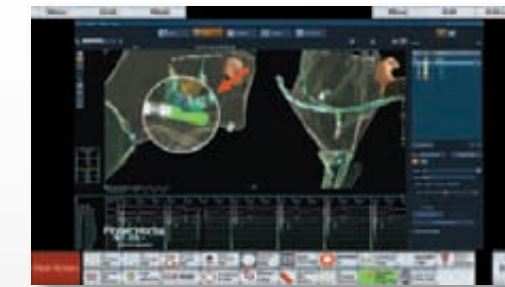


display animated symbols to focus attention on an important area of the image, draw the path of a ball explaining the tactic as it unfolds, or provide a real-time illustration of political swings or bad weather progressions.

## Broad range of tools:

Each reporter—a "commentator-telestrator"—has a custom range of graphical tools. All they have to do is grab one with a finger and drag it to the required spot on the image.

They have easy access to simple, intuitive tools for drawing arrows, single out a person with a circle, etc. In addition to classical drawing facilities such as lines, curves, or geometric



shapes, FingerWorks also features dynamic zooming, spotlights, halos, all kinds of animated arrows, and a whole library of 3D animated objects. Its real time 3D rendering engine enables the use of customized, high quality tools.

## Mask management:

FingerWorks IP features built-in masking technology to enable foreground and background to be differentiated and to mimic the image's perspective. Players can be automatically uncoupled from the field, enabling graphic items to be placed on a transparent layer between the two planes. Notable uses include placing the offside line, depicting angles of view, showing distances, etc.



## Configurations available

- LiveXpert 1RU turnkey solution providing AirSend® stream for TriCaster/3Play
- LiveXpert 4RU turnkey solution providing SDI SD/HD and Fill & Key outputs

# LiveMixer™

TriCaster Audio Mixer Remote Control



Operating audio mixing with a mouse and a graphic interface on screen is not easy under pressure of a live event. LiveMixer is an exclusive add-on that provides the ability to connect a low-cost Behringer BCF2000 or a professional Yamaha 01V96i to any TriCaster HD model, in order to remotely control the audio mixer functions of the TriCaster.

Just connect the audio console to one USB port of the TriCaster, using the supplied USB-to-MiDi adapter and run the LiveMixer setup on your TriCaster.

**LiveMixer** can be easily configured by independently linking each audio channel of the TriCaster to a fader of the audio mixer, or by mixing audio sources apart from the TriCaster and controlling all internal sources (DDR's, Sound, NET...) and outputs from the external audio mixer.

LiveMixer provides a bidirectional control, any fader change from the audio mixer updates the graphic interface of the TriCaster, and any change made

from the TriCaster interface is reflected on the motorized fader of the audio mixer.

**LiveMixer** is easy to install and easy to use, it comes with factory presets and can be customized to suit production needs.

## LiveMixer Features

- Presets for different TriCaster models or custom presets.
- Control over audio level, Solo, Mute, Pan and Follow functions from Behringer BCF-2000 and Yamaha 01V96i
- Supports up to 32 audio channels with a single control surface
- Compatible with all TriCaster HD models.



# LiveMixer Remote™

Audio mixing remote workstation and automation tools for TriCaster



Unlike LiveMixer, **LiveMixer Remote** runs from another PC or laptop giving a full dedicated workspace to the sound operator. It is connected to the TriCaster through the network and offers a dedicated user interface and the ability to connect a Behringer BCF2000 or Yamaha 01V96i to a USB port on the remote PC using the supplied USB-MiDi adaptor. LiveMixer Remote offers the same audio control features as LiveMixer.

in the studio or a presenter on stage and the TriCaster operation room. Just connect a Midi controller to the remote PC to be able to assign macro-commands to any button, giving a smart and secure interface.

## Automated multi-camera production for Radio channel or conferences:

LiveMixer Remote includes a sophisticated rules editor to automate a multicam record based on audio level detection. This combines the TriCaster's powerful macro-command editor and robotic camera guidance capabilities. This multichannel detection system allows mixing rules to be set over several audio inputs in order to manage wide shots selection. It handles also adjustable time delays to provide smooth transitions between camera shots and to avoid long static shots. Settings can be used to build full scenarios that can trigger one or more actions.

## Technical features:

- Midi Launchpad tablet support
- Pre-setting for various TriCaster models and customizable interface.
- Can be used with Behringer BCF-2000 and Yamaha 01V96i to control sound volume and Solo, Mute, Pan, Follow modes, etc.
- Control all of the TriCaster's sound input and output channels
- Can pick up sound level across 16 mono audio sources or more through optional device.



In addition, LiveMixer Remote includes a full set of features to operate any function of the TriCaster remotely over a local network:

## Remote access to all macro-commands:

LiveMixer Remote gives the ability to trigger any macro-commands of a TriCaster from a PC connected over the local network. More reliable and stable than wireless connections, much longer than simple USB cable, LiveMixer Remote lets you imagine interactive scenarios between an anchor

# NewsCaster™

Open the doors of Broadcast Newsroom

**NewsCaster** is a Newsroom Automation product that integrates Broadcast Newsroom Computer Systems with the TriCaster product line. The TriCaster operator no longer needs to manually set up the show and drop what they are doing to make adjustments while on-air. Playout sequencing will all be done under the control of the Newsroom Computer System. Whole shows are uploaded and then updates automatically applied, without the assistance of the TriCaster operator.

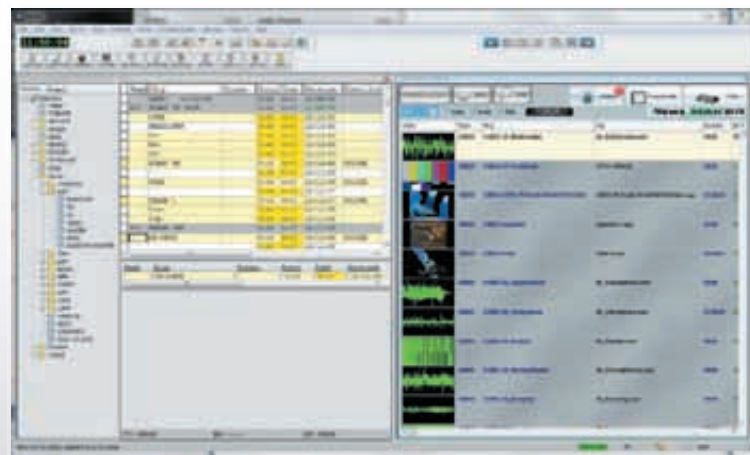
### NewsCaster does two things.

- It allows Newsroom Computer System users to browse and select from proxies made from the current contents of the TriCaster.

- It dynamically controls the TriCaster Media Bin playlists reflecting the playout sequence as specified within the Newsroom System. The contents of the Media Bins are cleared and reloaded when a newsroom show is placed on-air. As the show producer adds, deletes, moves or floats stories, the Media Bin playlists are automatically modified to reflect these changes. Support is provided for the DDR1, DDR2, Graphics, Text and Audio Media Bins.

### MOS Integration :

NewsCaster uses MOS ready ActiveX Plugins and the MOS Protocol to interact with the Newsroom System. The ANNova OpenMedia, AP ENPS, Avid® iNEWS®, NorCom CPower and Octopus production environments are all supported by NewsCaster.



Integration with iNews®



Intégration with ENPS®



### NewsCaster in action:

NewsCaster connects your Newsroom Computer System to the TriCaster by actively linking the TriCaster DDR, Text, GFX, and Sound MediaBins to a NRCS Rundown.

When a show is placed on-air, NewsCaster uploads the events to the TriCaster Media Bins. As slugs within the rundown are added, deleted, moved or floated, the contents of the MediaBins are automatically adjusted. Clips can be automatically allocated to the DDR1 and DDR2 MediaBins or distributed as specified within the NRCS.

NewsCaster caches proxies of the video assets that are on the TriCaster or Network Storage.

These proxies are then available within the Newsroom Computer System, allowing preview and playback control directly from the NRCS client workstation.

### Character generation:

Also available is an integrated character generator. Style templates can be updated within the Newsroom Computer System client, users can display a list of these templates and can enter the variable information.

### Technical specifications:

- 1RU system running Windows 7
- 6x port Gigabit Ethernet
- 2x 1TB system drives
- 2x 4TB data drives
- Redundant power supplies

# LiveTally™

Tally Lights Systems for wireless and wired installations



**LiveTally** is the simplest and most complete solution for fitting Tally lights to your video cameras. The package comprises a transmitter box to be connected to the mixer and some receiver boxes fitted with LEDs to be placed on each camera. The connection between the transmitter and the receivers could be any combination of standard RJ45/CAT5 cables or long distance wireless connection using radio frequency.

LiveTally wireless features are ideal in noisy locations where it can be extremely difficult to hear through traditional radio communication systems such as concerts or motorsports events, giving both cameraman and presenter visual indication for both live and preview during the shoot.

### LiveTally transmitter:

The transmitter is connected to the TriCaster through a USB port and to other vision mixer by using the Tally or GPI port. It receives information from a camera's PGM output and sends a pulse to turn on the red LED on the receiver assigned to this camera.

### Up to 16 cameras supported:

The new LiveTally range includes 3 models supporting up to 4, 8 and 16 receivers or cameras. All transmitters include wireless connecting capability and 8xRJ45 ports used to connect receivers with point-to-point CAT5 cables. A single transmitter can then handle at the same time tally receivers connected by cable or wireless. The case of the transmitter incorporates a small screen for displaying the receiver statuses, an alarm button with flashing light in the event a receiver becomes deactivated and a menu for managing the remote receivers. The transmitter also displays the battery charge level for each wireless receiver in use.

### Tally Program and Preview:

LiveTally supports 3 statuses per camera: not selected ie receiver turned off, selected as Preview ie receiver turned on to green light and selected as Program ie receiver turned on to red light.

LiveTally transmitter allows getting the Preview Tally information from any recent TriCaster models including TriCaster Mini. It is also compatible with any vision mixer providing this information from its tally port (ex: Roland mixers).

### Two receivers in the range:

LiveTally Air is the receiver used for long distance wireless connection. It is powered by an internal battery that can be recharged using the transmitter's RJ45 ports and included short cable. A charge lasts 2 or 3 days depending on how heavily the battery is used. There are no cables to run; just fit a LiveTally Air receiver to each camera, power up, and they will be automatically recognized by the transmitter connected to your mixer. Wireless transmission on the free frequency of 866/915MHz produces a reliable link over a distance of up to 2 km between your control room and the cameras.

LiveTally Remote receivers are connected to the transmitter through the RJ45 connectors. They are powered directly by the transmitter through the CAT5 cable.



### Full options:

The receivers come in a professionally finished, lightweight, tough case. It has a large red LED on the fascia for the people on the set, and a small LED at the back for the cameraman.

The red LED lights up when the camera concerned is on PGM, and the green LED when on Preview.

The front tally lights can be switched off in case the light could disturb during concert for example. LiveTally Air Receiver includes an extra connector to plug an optional small LED extender that can be placed closer to the cameraman's eye or into the camera's viewfinder.

Each receiver is delivered, ready for use, with one 1/4" screws adapter for camera flash hot shoe mount and one 1/4" male to 1/4" male threaded screw adapter.

### Available models:

- LiveTally TX4: Wired and wireless transmitter supporting up to 4 cameras
- LiveTally TX8: Wired and wireless transmitter supporting up to 8 cameras
- LiveTally TX16: Wired and wireless transmitter supporting up to 16 cameras
- LiveTally Air: Wireless tally receiver
- LiveTally Remote: Wired tally receiver

### Technical features:

- Compatible with TriCaster 410/450/450Extreme/455/460/850/850Extreme/855/860/8000 units
- Compatible with most mixers on the market that use open/closed contact or +5v or -5v
- Management of the Tally Program and Preview on TriCaster Mini/410/460/860/8000 and Roland mixers.
- Mains plug and power supply block supplied.
- USB cable included for connection to TriCaster.



**LiveTally Converter** is an adapter for TriCaster HD models that converts the Tally connector into closed contacts.

As standard, TriCaster Tally connector delivers 3 to 5 volts on pin used for Tally lights which is not suitable to connect to external Tally devices, including camera CCU. LiveTally Converter is a smart cable that plugs in one end to the TriCaster tally port and provides a

## LiveTally Converter

standard DB15 connector with closed contacts only on the other end.

### Technical features:

- 15 pins (DB15) male connector for any TriCaster 410/450/450 Extreme/455/460/850/850 Extreme/855/860/8000
- Small box with 15 pins (DB15) female connector
- 40 cm long cable



## Ethernet to GPI and Quad RS-232/422 hardware interface

**LiveControl Box** acts as a portal for controlling devices like VCR's, DDR's, video routers, switchers, projectors... across a network.

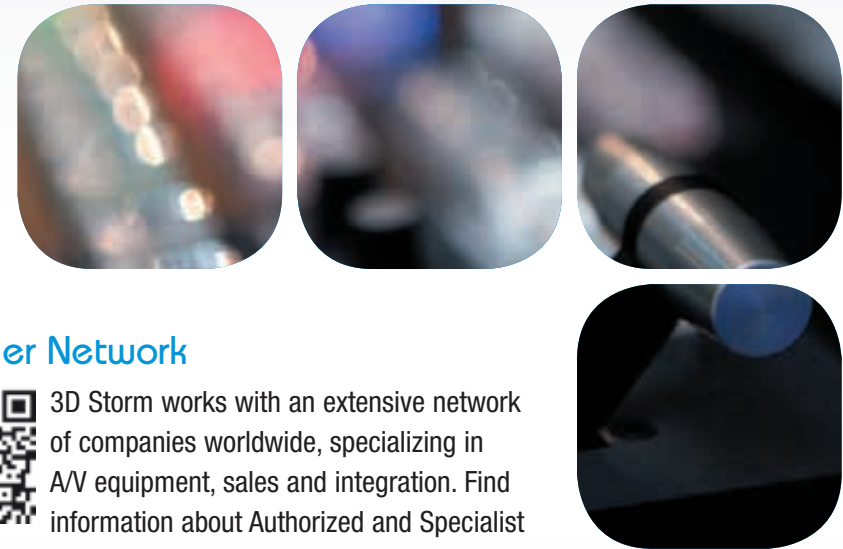
LiveControl Box works with TriCaster 410, 460, 860 and 8000. It's the interface mandatory for sending and receiving GPI (General Purpose Interface) to and from any kind of devices supporting GPI. It converts switch contact closure to IP commands compatible with TriCaster to trigger macro-commands. LiveControl Box supports simultaneously 24 GPI inputs and 24 GPI outputs. The GPI ports on the rear of the Box are 25 pin D-sub connectors. Configuration is accomplished through a web page server built into the box.

### Technical features:

- communication over standard TCP/IP
- traffic can be routed over internal LANs, wireless LANs, MANs, WANs and Internet
- GPI In connector has 24 TTL/CMOS inputs with internal pull-ups to +5 volts.
- GPI Out connector has 24 TTL/CMOS outputs.
- Requests TriCaster version 2.3 and above
- Dimension : 21,6x11,94x4,45 cm
- Weight : 1,5 Kg



# Services



## Reseller Network



3D Storm works with an extensive network of companies worldwide, specializing in A/V equipment, sales and integration. Find information about Authorized and Specialist NewTek and LiveXpert resellers in your country on [www.3dstorm.com](http://www.3dstorm.com).

## Training Program



3D Storm organizes training courses for NewTek TriCaster and 3Play, virtual set creation and LiveXpert products. These training courses can be supplemented by production assistance assignments to support you during your first projects.

## NewTek TriCaster Operator Certification



Obtaining NewTek operator certification is a token of your in-depth technical knowledge of TriCaster and 3Play equipment. Certified operators can pride themselves in having their expertise recognized by an up to date technical charter.

3D Storm organizes official certification for TriCaster and 3Play operators on demand or during sessions organized for this purpose. The certification programs are available at this link: <http://www.newtek.com/support/certified.html>. 3D Storm is authorized for certification preparation and for validating experience.

## Maintenance and repair center:

3D Storm is an international maintenance and repair center for NewTek products. The 3D Storm technical service, based in Bordeaux, France manages the under warranty and out of warranty after-sales service, fully on the spot, without factory return and exclusively with genuine spare parts certified by NewTek.

## Call Back



Do not hesitate to use our FREE CALLBACK SERVICE accessible from the homepage at [www.3dstorm.com](http://www.3dstorm.com). Fill in the required fields with your phone number, a callback time and we will contact you as soon as possible. Contact 3D Storm for any information regarding products or services: [info@3dstorm.com](mailto:info@3dstorm.com).

# Warranty



## NewTek Manufacturer's Warranty

The original warranty period for NewTek TriCaster and 3Play new systems is twelve (12) months from the date of registration of the product. More information on the NewTek manufacturer's warranty: <http://www.newtek.com/support/warranties-a-returns.html>

## 3D Storm Warranty management:

During the original warranty period for customers inside EEC, 3D Storm handles repair costs. Shipping costs are shared between 3D Storm and the owner. Shipment back to 3D Storm is paid by the owner while the repaired product will be sent back on 3D Storm expenses. 3D Storm customers may benefit from a special rate on product loan fees during the repair period.

## 3D Storm Extended Warranty Program Service Plus:

Available on the following products: TriCaster 410, 460, 860, 8000, 3Play 425, 440, and 4800, (excluding control surfaces and accessories). The product has to be purchased through 3D Storm official network of resellers, and registered through the manufacturer registration process.

- 12 months extension of warranty period
- Extended tech support with priority on Call Back service
- Free Pick-up and return of product inside EEC
- Preferred prices for product loan during repair period inside EEC
- The Service Plus Gold Star contract is transferred if the production system is resold and protects your investment.

For more information visit <http://www.3dstorm.com/en/warranty>



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