TOOLS FOR LIVE VIDEO AND SPORTS PRODUCTION

3D STORM

3D STORM PRODUCTS CATALOG 2016-2017

3D STORM NEWTEK OFFICIAL DISTRIBUTOR

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What if adopting a new technology was not synonymous of big investment, complex technics and steep learning curve! But instead that it naturally merges into your existing infrastructure, boost your productivity and increase your ROI…

This revolution is NDI (Network Device Interface) it is developed by NewTek. Basically this allows to network your existing production equipment's: Video cameras, projectors, switchers, players/recorders, editing workstations… To share and mutualize these as easily as a printer or a scanner on an office network. NDI allows to capture, play and record from anywhere on a standard gigabit Ethernet network.

This new technology can be tried and used without paying anything. This is a true revolution!

It is now 27 years that the 3D Storm team is partnering with NewTek. 3D Storm, first international Authorized NewTek distributor adopted NDI since day one and we are now very proud to introduce 60 pages dedicated to the LiveXpert product line of tools and solutions for video production over IP.

Franck Lafage
Managing Director – 3D Storm

NewTek LiveXpert DELTACAST FingerWorks NewsMAKER

NDI™

The new era of live production is here

A Whole new production environment:

Release your video productions from the technical and physical limitations of standard broadcast infrastructures. NewTek NDI is an open standard anyone can implement to connect video equipment across a network. Your production switcher, capture system, media server—any NDI-enabled device on the network—can see and access content from all other devices.
Forget about investing in completely new facilities, networks, or signal infrastructures.
With NDI's encoding performance, your network can accommodate multiple, high-quality, ultra-low latency video streams using a familiar standard: the Ethernet-based LAN.

Engage in your own experience:

NDI is more than an IP-based replacement for SDI, sending a one-way signal from a video source to a switcher. It allows connecting and sharing sources between the studios, the conferencing rooms, the editing departments...
Connect a source anywhere and use it simultaneously from any location for recording, monitoring, displaying on large screens or broadcasting…
Download the free NDI Tools Pack and start breaking the limits: **http://newtek.com/ndi**

Remove Routing Constraints.

Using your existing equipment, network, and NewTek NDI, you can start producing video over IP immediately. In university: capture live any conference or lecture course and organize full interaction between different connected rooms where students can follow the program without latency allowing real-time Q&A. In surgical environment: NDI allows accessing and sharing any video sources from one suite to another without having any production equipment installed in sterile areas except cameras. HD quality, no latency and bi-directional communication for Tally and monitoring offer full flexibility for live broadcasting, conferencing or training.

Monitor, Display, Record, Edit from everywhere:

NDI tools improve production process by replacing previous devices by simple software applications that can be used from any workstations in the local network. Recorder apps such as LMS-NDI or NDI IsoCorder allow ingesting live footage directly from the editing suites. Monitoring and Multiviewers can be set-up by a click of mouse everywhere it is needed to visualize sources.

Collaborative production takes also advantages from NDI by saving time at all review, validation and render stages with NDI for Adobe® Creative® Cloud®.

Features that make NDI unique for Live Video Production:

- Multipoint : each NDI source is available to many users
- Bi-Directional : any machine can send or receive NDI
- No latency : NDI transmission requires less than one video frame
- Resolution and frame rate independent supporting 4K and beyond
- NDI is no harder to use than the Internet (maybe easier)
- NDI is fully compatible with SDI, it's an amazing extension
- NDI is available without cost
- NDI makes it possible over standard 1Gbit/s network

Bandwidth consumption:

- Limited to sources that are actually being used
- Data demands are 50-100 Mbps per used stream

Network requirement:

- NDI is designed for use with standard consumer off-the-shelf (COTS) networking devices.
- Work or Home network location for Windows machine
- Port ranges used for NDI : 49152 to 65535
- Network switch with full duplex ports
- 1Gbps switch upstream and downstream

Start constructing your live IP video production workflow with the growing suite of NDI software, tools, and utilities from NewTek and the NewTek Developer Network.

LMS NDI™

LMS-NDI is the first virtual multi-channel HD video broadcasting and recording server, using the NewTek NDI® protocol. The software can be installed in any PC with Windows connected to the LAN and can provide up to 4 media playing or recording channels per PC.

Broadcast what you want, where you want:

The LMS-NDI application enables you to create and broadcast multi-codec clip playlists from a PC on the local network, without a dedicated peripheral. The integrated playlist editor supports most of the market's files and codecs: MPEG PS/TS, MP4, QUICKTIME, Apple ProRes®, DNxHD®, DVCPRO HD, XDCAM, MXF, GXF, DV, FLV and many others in the same broadcast list. LMS-NDI reads the playlist in real time, without prior transcoding, in an NDI stream available on the entire network. All devices with NDI support can connect to the playlists being broadcasted.

Record as you like, where you like:

No more time lost transcoding or copying, LMS-NDI enables to record directly in the desired format, on the required PC.
If the recorded file has to be edited just after capture, install an LMS-NDI license on your editing station, select the desired NDI stream and codec and you can start editing as soon as the recording finishes!
LMS-NDI enables to edit recording profiles supporting a great number of codecs: MPEG1/2/4, H264, Apple ProRes, DNxHD, DV/DVCPRO-HD… It also supports QuickTime Animation, enabling you to maintain the transparency (alpha channel) of the NDI stream.
LMS-NDI can support up to 4 simultaneous recording channels.

TriCaster perfect companion:

Networked with a TriCaster, LMS-NDI installed on a PC will add 1 to 4 media players with control over input switching from Play and Stop commands. Or LMS-NDI can be used as a multi-channel recorder offering direct support for multiple codecs.

Minimum system requirements:

- I7 processor, 8GB of ram
- Windows 7 or higher
- Gigabit Ethernet port
- 2TB internal drive or SAN or NAS
- Multi-channel recording performances depend on the resources of the docking station and codecs selected.

NewTek NDI™

Design next-generation IP workflows

NDI™ Tools Pack

This starting kit includes the free tools to experiment the NDI power: a test patterns generator and a monitoring app to generate and to visualize NDI streams over your Network.

- With NDI VLC plug-in, you can broadcast a video clip all over the network using VLC player.
- NDI Scan Converter will turn any PowerPoint presentation or Internet browser or any running Windows application into a full HD NDI stream allowing direct integration into live production.
- Install NDI Connect with a video capture card to instantly convert any camera output signal into a NDI stream available for a TriCaster and other NDI devices over the network. Or use NDI Connect to select a NDI stream and display it full screen through the video output of the video card. NDI Connect supports many I/O video cards such as AJA, BlackMagic, Matrox, Deltacast… and also USB3 capture or DirectShow devices.
- NDI Isocorder encodes video in a high-quality QuickTime format using the NewTek SpeedHQ® codec and allows for virtually unlimited remote ISO recording with suitable storage media and capacity.

NDI™ Connect Pro

Add sources, Bridge formats

Install NDI Connect Pro on a compatible PC with a video I/O card such as AJA, BlackMagic, Matrox, Deltacast or other manufacturers and make a 4 channels NDI media server over IP. Each channel can be used to:

- Convert into NDI any video source connected to the capture card, in real-time with no latency.
- Output any NDI stream to a video output from the video card.
- Playback previously stored media files with Autoplay on NDI Tally.
- Convert IP streams such as RTMP, RTSP, HTTP or Apple AirPlay® into NDI.
- Connect with common IP cameras from JVC, Panasonic, PTZ Optics, Sony, and Vaddio.

NDI Connect Pro includes NDI Connect Webserver for remote viewing of NDI sources from a web browser of any networked device, including iOS and Android devices. Create your customized Multiviewer anywhere in the network!

NDI™ IsoCorder Pro

Capture everything on the network.

NDI IsoCorder Pro records multiple live video sources, even inputs and outputs from other video systems on the network, with embedded timecode. It supports capture and still image grabs of up to 16 NDI sources, and includes professional

color correction tools, 8-channel audio control, independent or group control of recorders, and support for 32-bit NDI sources with transparency. It encodes video in a high-quality QuickTime format that is compatible with any platform using NewTek SpeedHQ® codec.

NDI™ for Adobe® Creative Cloud®

Using NDI allows users to send full-resolution, real-time video with audio and transparency across the network, directly from the timeline, saving valuable time by eliminating the need to render and upload. Speed up editing workflows and get every cut in on time with the flexibility to review, approve, and deliver content from anywhere on the network—in real time.

NDI™ Transmit

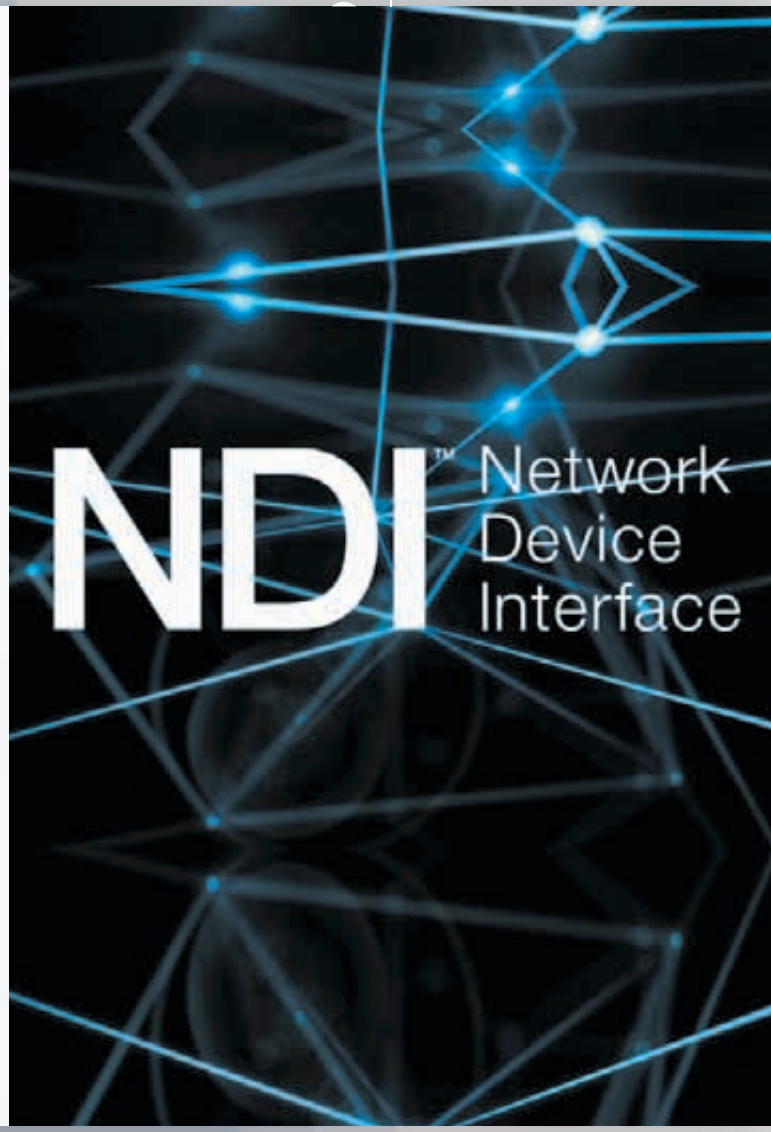
Web Communications Enhancer

NDI Transmit allows you to replace webcam video with broadcast-quality NDI video signals, by making any compatible video source on your network available as the webcam input for software applications like Google Hangouts, GoToMeeting, WebEx, Skype, and more. Conduct meetings, training, conferences, or any online or interactive video communications with professional-grade video using the consumer-grade and business-grade applications you already use.

NewTek NDI™ Telestrator

Draw and diagram on screen over IP

Touchscreen-friendly with professional paint and shape tools, and a variety of color and highlight options, NewTek Telestrator lets you analyze, present, and explain with precise detail. Weather reports, instant replays, or sales forecasts… when NDI Telestrator runs on an NDI-enabled PC, telestration is immediately available over IP as a switchable source for production systems and other NDI-enabled devices on the network—with ultra-low latency.



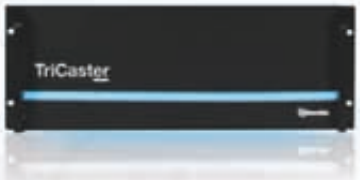
NewTek TriCaster™

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.

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.

NewTek™

A production system for all live broadcasts

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 fitting in a cabin baggage.

TriCaster™

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 makeover 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

Versatile and ergonomic

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.

Multiple 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.

Multimedia codecs: a choice of codecs channel by channel including: QuickTime® (XDCam HD compatible) with 4:2:2 or 4:2:0 sampling, MPEG-2, AVI (SpeedHQ), H264. 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 edited while recording is in progress, to be exported to FTP or networked disks, or even published on social networks during live production.

NewTek™

Generic features of all TriCasters

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 delay ranging from 1 to 2 frames depending on the resolution

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 AirSend® 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 integrated Waveform and Vectorscope, 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 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®, Facebook Live®, 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. It allows positioning up to 8 interactive and virtual areas in one scene and triggering 2 macro-commands per area.

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

TriCaster™ 8000

Making live broadcasting secure

Monitor not included.

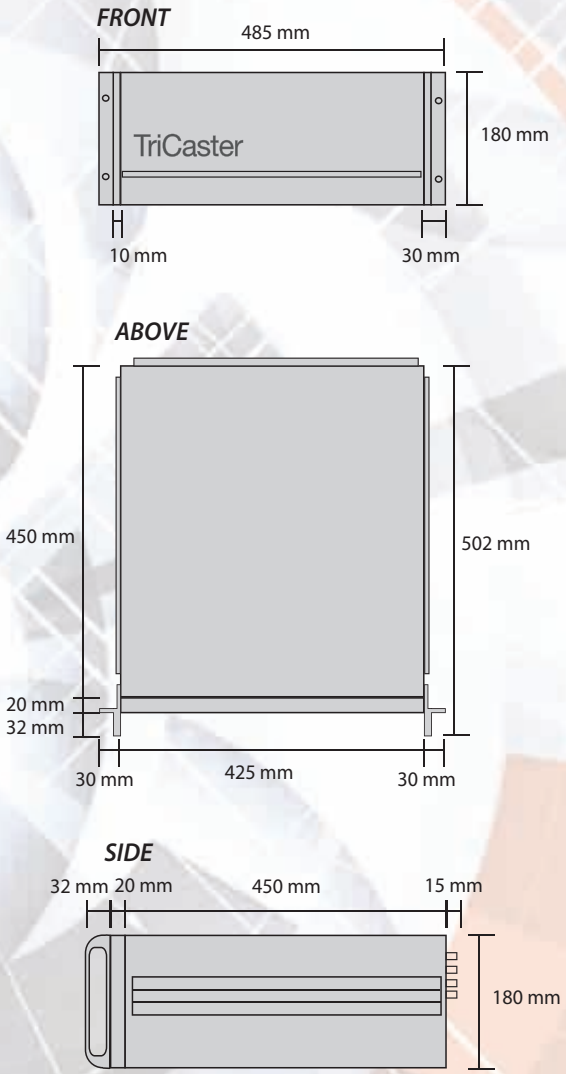
With its 8 camera inputs expandable to 12 using NDI IP protocol, **TriCaster 8000** is the most complete live production suite in a 4U rack. Offering an exclusive redundancy mode which can be used in live environments looking for zero defects. A second unit connected by Ethernet network is immediately recognized and automatically duplicates the work environment of the master production system.

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 inserted as one layer 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.

NewTek™

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) • 1 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)

Recording Capacity
3TB internal drive accommodating ~70 hours 1080i plus 4 trayless SATA III removable drive bays with hot-swap support for unlimited storage and backup

Redundancy
Redundant Power supply - synchronized control supported between 2 TriCaster 8000

System Physical
4U Rack Mount, 21 kg

In depth features on pages 13 and 25

Subject to change without notice.

NewTek TriCaster 8000 CS

TriCaster™ 460

The go anywhere model!

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

Analog/digital transition

Being able to connect sources or broadcast in analog remains valuable for bringing flexibility to daily life. TriCaster 460 delivers this comfort without using converters that can degrade the signal or add processing time. Its M/E features allow adapting formats, resolutions and 4:3/16:9 aspect ratios within the same production.

Add TriCaster Advanced Edition to expand TriCaster 460 to 8 inputs with NDI workflow and to get the same features as TriCaster 8000.

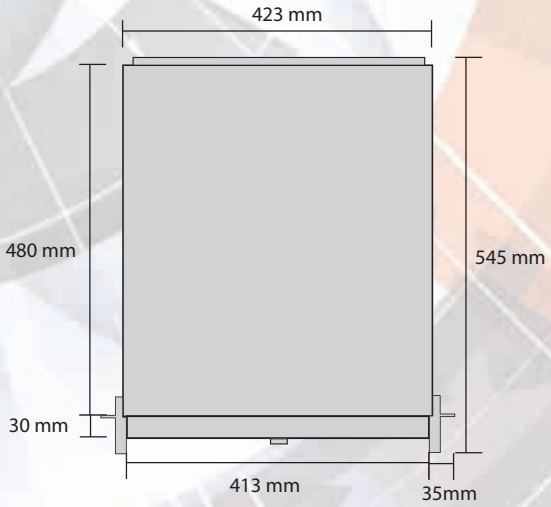
Optional control surface sold separately - Monitor not included.

NewTek™

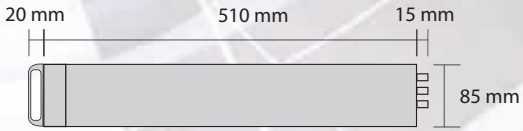
Technical Specifications

FRONT

ABOVE



SIDE



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)

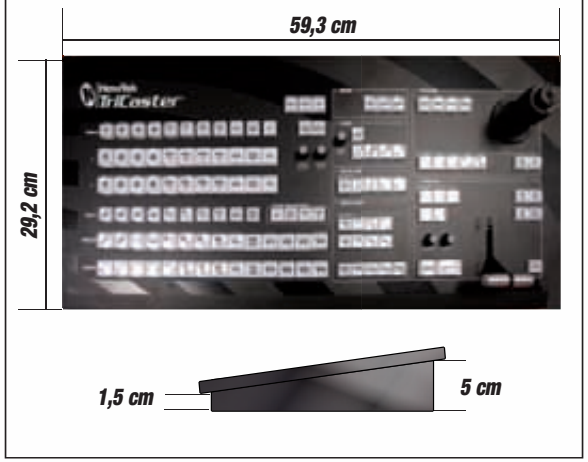
Recording Capacity
1 x 3TB internal drive accommodating ~70 hours 1080i
Plus 1 trayless SATA III removable drive bay and expandable using USB3 ports

System Physical
2U Rack Mount,
11.8 kg

In depth features on pages 13 and 25

Subject to change without notice.

NewTek TriCaster 460 CS



TriCaster™ 410

Small price, large feature set!

Optional control surface sold separately - Monitor not included.

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

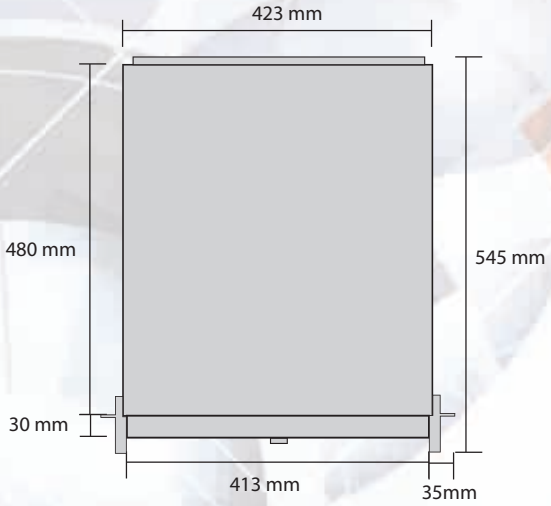
TriCaster 410 delivers live to air, display, stream, record, and social media network—all at the same time. It benefits from the same architecture as all the models in the range and it is expandable to 8 inputs and IP Workflow with TriCaster Advanced Edition.

NewTek™

Technical Specifications

FRONT

ABOVE



SIDE

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

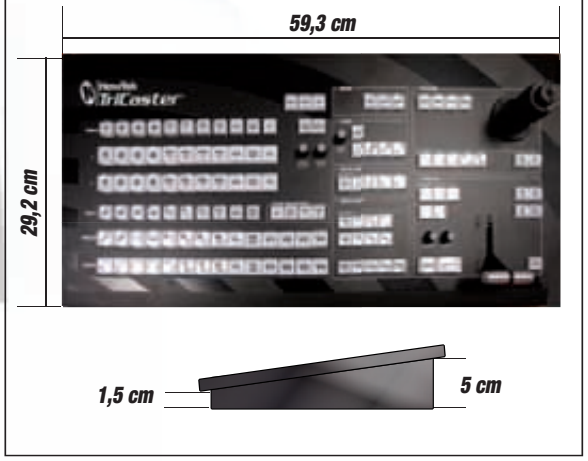
Audio Outputs
2 SDI Embedded - 1 x 2 Balanced XLR - 1 x pair Balanced Jack1/4" (AUX) - 1 Stereo Jack 1/4" (phones)

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 13 and 25

NewTek TriCaster 460 CS



Subject to change without notice.

TriCaster™ Mini

Make the ordinary extraordinary

Whether you are new to video, 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

NewTek™

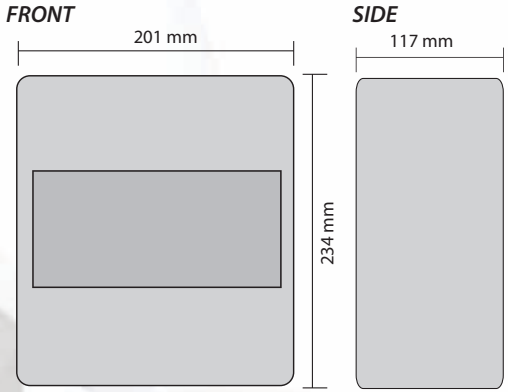
Technical Specifications

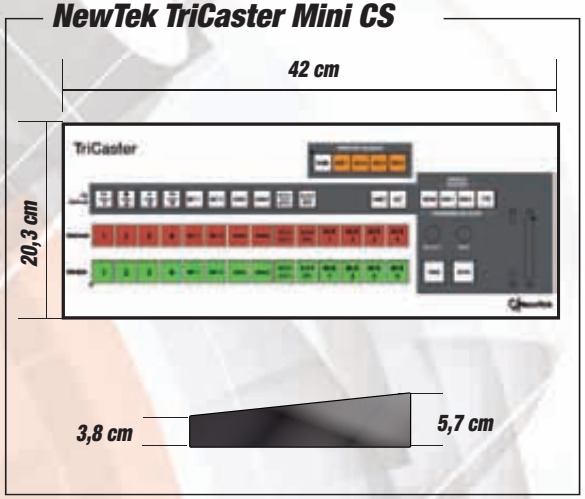
Simple to set up:

- No software installation needed and no configuration requiring specific technical skills.
- 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.
- Connect TriCaster Mini in a network with computers, tablets or smartphones to integrate presentations directly and share screens.
- Stream and Publish live on the internet simultaneously in real time on Facebook®, Twitter® and YouTube® and more. Record all your sources simultaneously.

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





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 depending on model
• 1 x DVI and 1 x HDMI (video only) display ports for additional displays or projectors
• Network output for live streaming
• A/V 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)

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 13 and 25

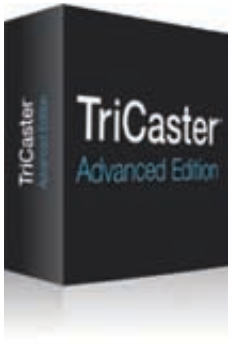
Subject to change without notice.

TriCaster™ Advanced

A giant leap in productivity

With no additional hardware needed, **TriCaster Advanced Edition** software unlocks TriCaster's potential with extended NDI support and more than 100 production-enabling capabilities in all sectors of operation: streaming, graphics, recording, use efficiency, audio, virtual set …

Get a full tour of the 100+ functions on www.3dstorm.com



More inputs with advanced IP workflows

TriCaster Advanced Edition adds 4 more inputs to any TriCaster. Each input supports either video sources or NDI streams offering direct and easy connection to all kinds of sources produced by any NDI compatible tools - See page 3!
In addition, all inputs and outputs from the TriCaster are available as NDI streams allowing sharing all sources around the network, without latency or loss of quality. Multiple workflows are then available such as connecting 2 TriCaster sharing mutually all resources!

Multi-Platform Live Streaming and Multi-Account Publishing

Broadcast simultaneously to multiple CDN's without adding any external encoders. TriCaster Advanced Edition provides faster setups and higher-performing live streaming and publishing to multiple channels at once: Facebook Live™, 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.

NewTek™

Edition

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. Easy built-in clip splitting and trimming tools speed up creation of playlists of highlights with customized transition between clips and automatic metadata display. Each Media Players also features integrated instant replay support with amazing automation process for live slow-motion with intro and outro transitions and overlay logos. Time shifting can also be performed.

Engage with Real-Time Data-Driven Graphics

TriCaster Advanced Edition grows the graphic tool box by adding bordering capability to P.I.P. as well as a new Full Motion Composition Engine to create sophisticated animations of DVE on TriCaster 460 and 8000.
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 dialling up DataLink to insert dynamic data into flawless, production-ready graphics. Title pages can automatically show correct data 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

TriCaster™ Advanced Edition

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. 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 Lens Flares and 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, 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 Audio

Interface with audio devices over IP with Dante audio support to manage devices from anywhere in your facility into TriCaster. Apply sophisticated routing and mix-minus configurations with four complete 4x4 routers for every audio input.

Exclude low-level sounds with the new Noise Gate settings added to the audio mixer. Fine-tune sound with independent control for every audio channel—up to 4 per input. The updated VU meter interface eases audio clipping. **And more!**

NewTek™

Functions	TC Mini HD-4	TC Mini HD-4i	TC Mini SDI	TriCaster 410	TAE Mini/410	TC 460	TC 8000	TAE 460/8000
Inputs/Outputs HDMI	4/3	4/3	0/2	0/2		0/2	0/2	
Inputs/Outputs SDI SD—HD	—	—	4/2	4/2		4/2	8/3	
NDI Support	0	0	0	0	✓	0	0	✓
AirSend, AirPlay, RTSP, RTMP, HTTP inputs	2	2	2	2	0	2	2	0
SD 576/25i support	—	—	✓	✓		✓	✓	
Fill&Key inputs	—	—	—	✓		✓	✓	
In/Out Y-U-V, Y-C, Composite	—	—	—	—		4/2	8/3	
Display Output	DVI+HDMI	DVI+HDMI	DVI+HDMI	HD15+HDMI		HD15+HDMI	HD15+HDMI	
Interface/Multiview Output	DVI/HDMI	DVI/HDMI	DVI/HDMI	DVI/HDMI		DVI/HDMI	DVI/DVI	
Max streaming Resolution	720p	720p	720p	720p	1080p	720p	720p	1080p
Single/Multi—Platform Live Streaming	Single	Single	Single	Single	Multi	Single	Single	Multi
Genlock Input	—	—	—	—		✓	✓	
Audio Dante – Noise Gate	—	—	—	—	✓	—	—	✓
4 audio ch control & 4x4 routing matrix	—	—	—	—	✓	—	—	✓
External Router Support	—	—	—	—	✓	—	✓	✓
Mirroring	—	—	—	—	—	—	✓	NC
Tally Port	—	—	—	✓		✓	✓	
Clips Media Players	2	2	2	2		2	2	
Stills & Titles Media Players	2	2	2	1		1	2	
Datalink® Dynamic CG	—	—	—	—	✓	—	—	✓
Transitions in Playlist	—	—	—	—	✓	—	—	✓
Sound media Player	1	1	1	1		1	1	
FrameStore Buffers	15	15	15	15	10	10	5	5
ClipStore Buffers	0	0	0	0	5	5	10	10
Recording Channels	4	4	4	4	4	4	8	4
Multi codecs Recording	✓	✓	✓	✓	—	✓	✓	—
Replay Channels	1	1	1	1	4	1	1	4
Data Drives	1x 750Go	2x 750Go	2x 750Go	1x 3To		1x 3To	1x 3To	
Manufacturer storage capacity (1080i)	15h	30h	30h	70h		70h	70 h	
Removable Drive Bays	—	—	—	—		1	4	
ME Channels	4	4	4	4	NC	4	8	NC
DSK	2	2	2	2	2	2	4	4
DSK per ME	1	1	1	1	2	1	4	4
Borders on DSK	—	—	—	—	✓	—	—	✓
ME Layers	2	2	2	2	2	2	4	4
ME re-entry	—	—	—	—	—	—	✓	✓
Motion Tracking in real time	—	—	—	—	—	—	✓	✓
Augmented Reality & Lens Flares	—	—	—	—	✓	—	—	✓
Redundant power supply	—	—	—	—		—	✓	
System Physical	—	—	—	2U		2U	4U	

NC : No change

Control surfaces

All the consoles incorporate backlit keys for optimum operation regardless of the light level. 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™ 460 CS

for TriCaster 460, 410 and TriCaster Mini

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™ 860 CS

For TriCaster 460,410 and TriCaster Mini running TriCaster Advanced Edition

TIP! Lock and unlock keys for your customized setup of active sources and channels with the optional TriCaster Advanced Edition software – See page 22.

TriCaster™ 850 TW

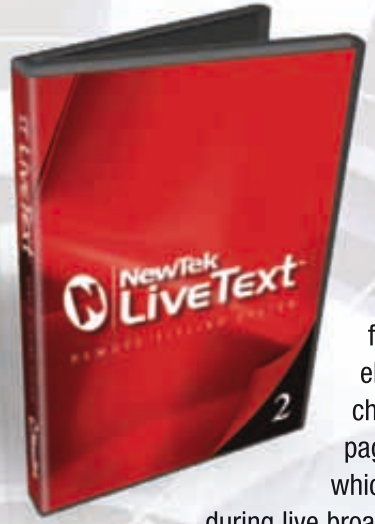
Share the workload with second operator, focusing exclusively on stored clips and graphics. Add slow motion playback and instant replay : a must for any sports production. Its ergonomic design is perfectly suited to broadcasting slow motion playbacks at the lower cost ever!

- 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.

NewTek™

LiveText™ 3

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 3 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 graphics: The LiveText 3 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: LiveText 3 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.

Virtual Set Editor™

VSE is NewTek application to integrate new virtual sets, composition templates and customized transitions in TriCaster. It consists of 2 modules: VSE and Animation Store Creator.

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.

Content Package:

- 13 customizable virtual sets
- 3 holographic virtual sets
- 3 multi-layer sets
- 6 PSD examples
- 14 box effects
- 51 box frames
- 20 backgrounds
- UV gradient warp image
- 3 animation store examples

Minimum system requirements:

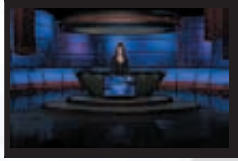
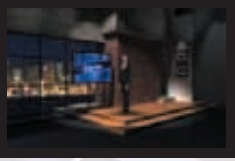
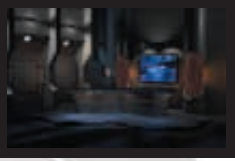
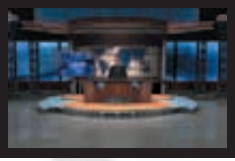
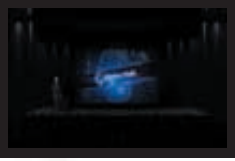
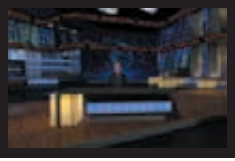
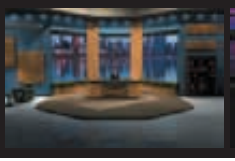
- 64-bit operating system: Windows 7 or Windows Vista or better
- 4GB RAM
- DirectX® 11 graphics card NVidia GPU with 1GB graphic memory
- 5GB of free space on hard disk
- 1200 x 800 display.

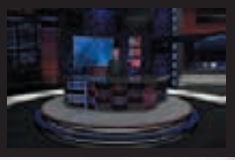
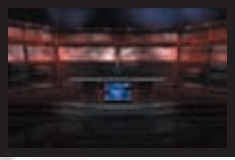
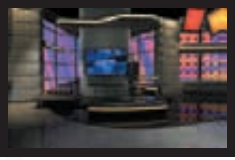
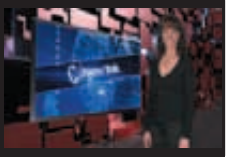
Available Licences:

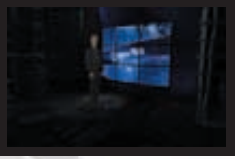
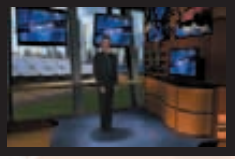
- **Virtual Set Editor 2.5:** Includes Virtual Set Editor and Animation Store Creator applications and content. Works on system not yet upgraded to Tricaster Advanced Edition
- **Virtual Set Editor AE:** Exclusively compatible with TriCaster Advanced Edition software. Features enhanced LiveSet™ technology and support for real-time animated lens flares

NewTek™

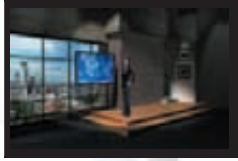
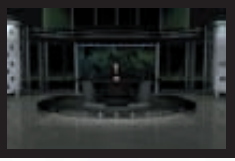
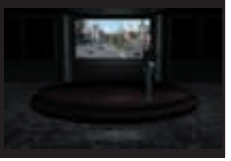
TriCaster Virtual Set Gallery — Non editable Virtual Sets included with TriCaster systems

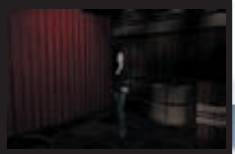
Arena Report	City Loft	CornerTalk	Demo Studio	Keynote	Metropolis	Midday Report	News Line
							

NightBeat	Nightly Show	Open Book	Optima	Plaza	Power Play	Prime Time	Randomize
							

Rock Stage	SciTech	SkyBox	Space News	Sports Net	Stadium	World Update
						

Virtual Set Editor Gallery — Customizable environments included with VSE package

City Loft	Demo Studio	Keynote	Metropolis Close	Metropolis	Nightbeat	Nightly Show	Primetime
							

Randomize	Skybox
	

TalkShow™

Live Skype interviews that look great—and sound amazing

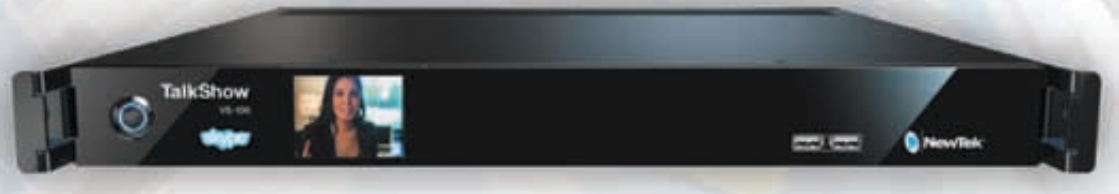
The **TalkShow** racks from NewTek are designed to integrate Skype TX video communications into your broadcast production environment as directly and simply as possible. It avoids multiplying transmission budgets and heavy equipment for your reporting teams or losing time to synchronize video recordings with poor quality telephone recordings. TalkShow allows you to instantly reach a panel of more than 300 million experts or potential witnesses!

TalkShow VS4000

Superior multi-caller conversations. 4 concurrent Skype video channels.
4-in, 4-out HD-SDI connections. Consolidated, multi-caller control with tally notification

TalkShow VS100

Single Caller. Advanced capabilities. 1-in, 1-out HD-SDI connections
Industry-standard XLR and SDI-embedded audio



NewTek

Small and Simple

Each TalkShow turnkey with Skype TX software from Microsoft occupies only 1RU of your rack, integrating easily into any facility.

TalkShow delivers the signal from the callers in broadcast-ready HD with SDI-embedded audio for direct connection to the final production. It includes HD-SDI inputs to send a return image back to each caller.

A genlock input, and several video and audio correction tools ensure a perfect switching and the best rendering possible.

Key features for a broadcast environment:

NewTek's proprietary, real-time video processing engine incorporates superb scaling, format conversion, aspect, and color correction routines. Skype video calls can be treated like any other audio/video source in the studio. It is optimized to provide the lowest latency when integrated into and genlocked within broadcast environments. With TalkShow's exclusive support for multi-channel audio on input for signals coming into the system over the network or SDI, operators can have multiple, selectable audio feeds—such as mix-minus—available for use as the return audio back to the caller.

Entire video calling workflow:

TalkShow is not only passing a studio-grade Skype call through to a switcher. It can make every call higher quality, more efficient with the appropriate tools set :

With TalkShow's Talk Back function, operators can speak with callers as easily as they do with in-studio talent and crew, enabling them to provide instructions before they go to air.

TalkShow is the only Skype TX solution to support a tally overlay visual for return to callers, indicating when they are on air.

Incoming and outgoing audio signals are fully configurable, with gain control, compressor/limiter, and 7-band equalizer on inputs and outputs to enhance sound quality, adjust levels for consistency, and prevent clipping or overdriving.

TalkShow™

Multiple, Simultaneous Skype Calls

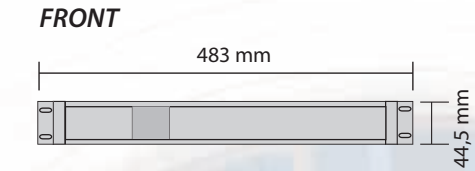
TalkShow VS4000 manages group calls of up to 4 different people at the same time. Calls can be organized as queue of any combination of 4 contacts or as a group talk. Each contact can use whatever Skype device is available: mobile phone, laptop…

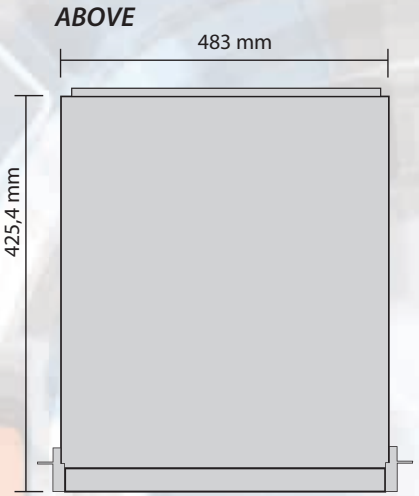
IP Networking

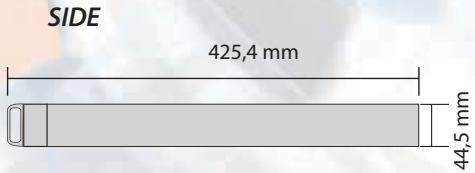
Integrate TalkShow into IP video workflows via NDI™, which allows TalkShow to send Skype video calls across a standard network to TriCaster® and other NDI-enabled systems and devices, and receive NDI video sources over IP for return to caller. TriCaster will also send a tally notification downstream to TalkShow to indicate when a Skype call is on air. Also included support for Dante Audio Networking.

Extended bandwidth controls and video monitoring

TalkShow supports full-motion, high-quality video previews for real-time monitoring of input and output signals. It includes a Failover to a custom, still image when unforeseen bandwidth constraints occur below operator-defined preset value.







NewTek™

	TalkShow VS100	TalkShow VS4000
HD-SDI Video Input with embedded audio	1	4
HD-SDI Video Output with embedded audio	1	4
SDI Embedded Audio Input & Output	1	4
Balanced XLR Audio Input & Output (Line)	2	2
Output video formats	1080i @25,29.97,30 fps 1080p ® 23.98,24 fps 4:3 Anamorphic 720p @50,59.94,60 fps 4:3 Anamorphic 576i @25fps 480i @29.97 fps	1080i @25,29.97,30 fps 1080p ® 23.98,24 fps 720p @50,59.94,60 fps 576i @25fps 480i @29.97 fps
Return video formats	1080i @25,29.97 fps 1080p ® 23.98,24, 25, 30 fps, 25 PsF, 30PsF 720p @ 30,25,24 fps 576i @25fps 480i @29.97 fps	1080i @25,29.97 fps 1080p ® 23.98,24, 25, 30 fps, 25 PsF, 30PsF 720p @ 30,25,24 fps 576i @25fps 480i @29.97 fps
Gigabit Ethernet Port	2	2
NewTek NDI IP Networking	Yes	Yes
Dante Audio	Yes	Yes
Included Software	Windows Embedded 8.1, SkypeTX, SkypeTX Controller, TalkShow Control	Windows10, SkypeTX4, SkypeTX Controller, TalkShow Control
Call recording	Yes	Through NDI App
Automatic aspect ratio	Yes	Yes
7-band equalizer, compressor/limiter	Yes	Yes
Talk Back	Yes	Yes
Bandwidth Management	Yes	Yes
Local Monitoring	1x DVI, 1x HDMI Stereo 1/4” phone jack	2x HDMI Stereo 1/4” phone jack
Front-mounted video display	Yes	No
Skype Watermark on Output	Optional	Optional
HD15 GPI/Tally connector	Yes	Yes
SD (Bi-level) or HD (Tri-level) Genlock Input	Yes	Yes
Technical Spec.	i7 Quad-Core, Ram 8Gb, Intel HD4600 GPU, 120Gb internal SSD	i7 Quad-Core, Ram 8Gb, Intel HD4600 GPU, 120Gb internal SSD
System Physical	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	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 • 6.8 kg

Subject to change without notice.

3Play™ 4800 – 440 – 425 - Mini

More than replay

This **3Play** server range 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 440 - Monitor not included.

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.

NewTek™

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 425:

First price to Get in the game.

Entry-level slow motion and replay, 3Play 425 is a 2U rack mount server with 4 Channels IN + 2 Channels OUT and 2 hard drives for a recording capacity of 40 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. Tablet and Backpack not included.

3Play™ 4800 – 440 – 425 - Mini

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.

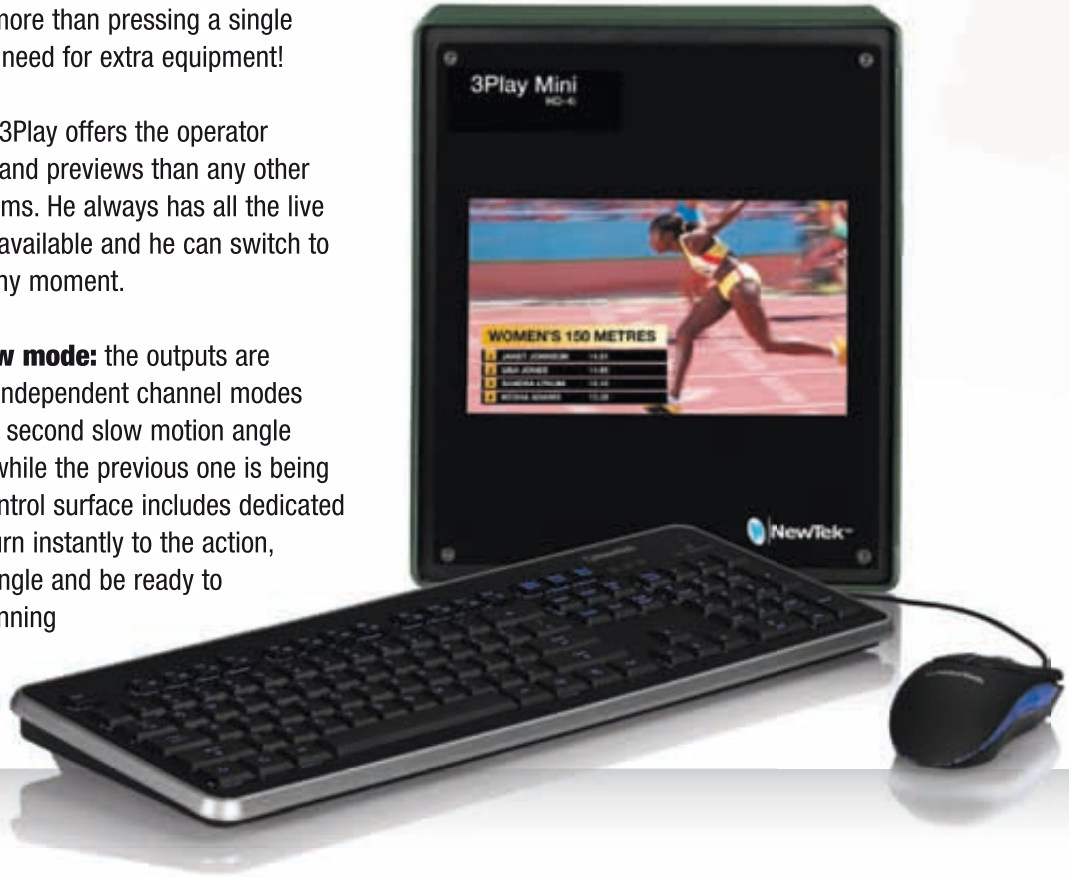
Judging: with the exclusive use of a video referee, 3Play can return at any moment to the same action from every angle simultaneously, in all playback modes, including image by image. After the game, it becomes a flexible and fast analysing tool for coaches. 3Play is frequently used as a video referee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

Choose innovation with 3Play 4800-440 and Mini

A single 3Play server allows you to record hours of footage, manage slow motion replays for the main screen, broadcast 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 extra 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 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.

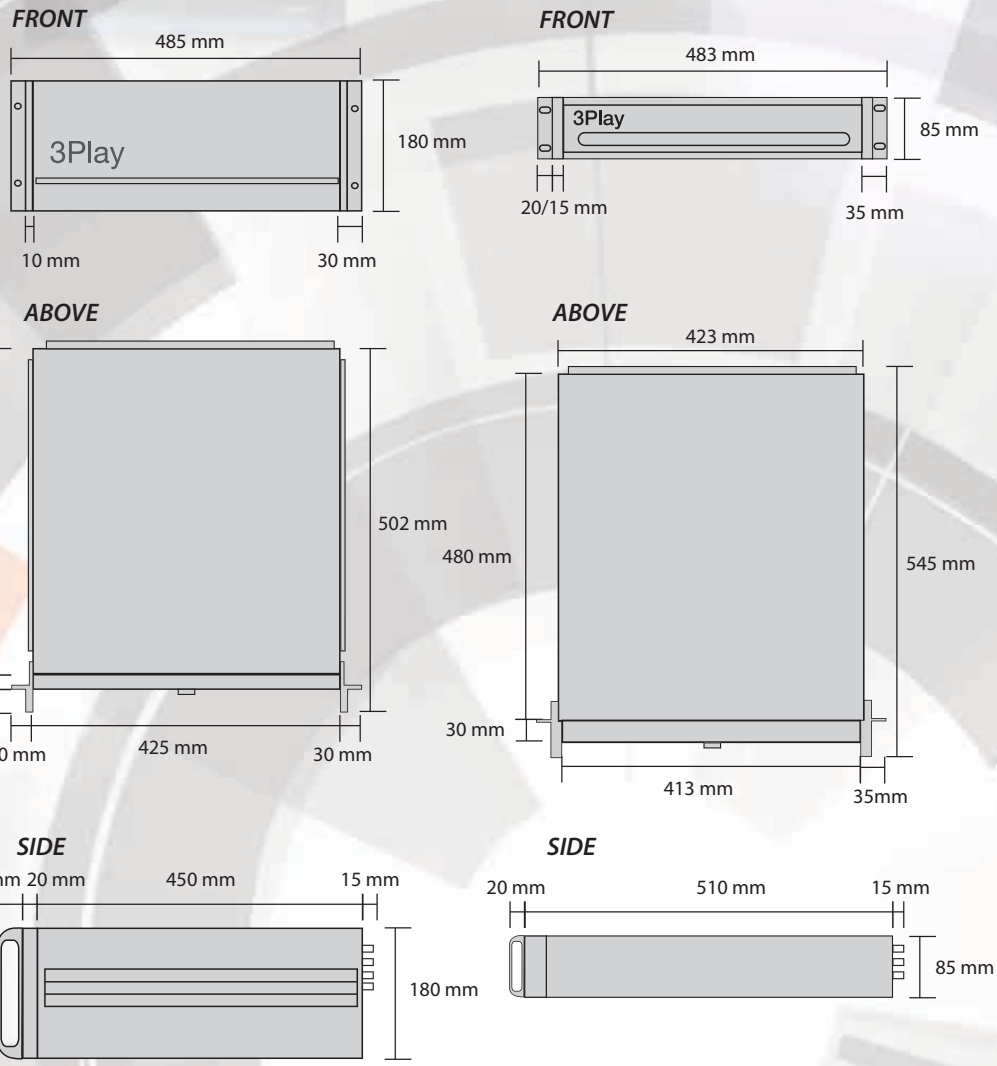


NewTek™

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.

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.

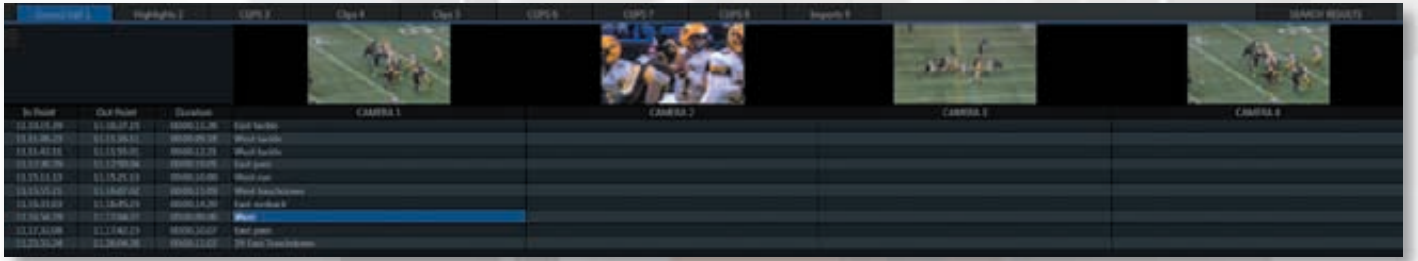
Choose versatility: a single server does not mean one operator alone. 3Play is configurable for multiple users with remote monitoring and interfaces. It can control an external grid to access more sources in real time. With its powerful macro command editor, 3Play enables you to automate recurring operations. A media import module with a transcoding option lets you load a large number of file formats to broadcast them.



3Play™ Technical Specifications

	3Play 4800 – 440 - Mini	3Play 425
Recording Format	QuickTime® - XDCAM HD compatible – 4 :2 :2 encoding – 24bit audio	MPEG-2 all I-frame
Supported Session Formats HD	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	
Output Channels	2 independent channels or Program/Preview Mode with transitions	2 independent channels
DSK	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.	—
IP Sources	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 http://www.newtek.com/solutions/newtek-developer-network.html • Other networked Tricaster and 3Play	—
Buffer	Stills, titles and animation buffers for overlay	—
Playback	From -200% to +200%	0% to 100%
Router Support	AJA, Blackmagic Design, Ensemble Designs, Miranda, Utah Scientific, and brands supporting Grass Valley Native Protocol	—
Grab	Grab still images from output or all inputs and outputs	—
Media Publishing	Facebook, Twitter, YouTube, FTP, network servers	—
Asset Management	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.
External Control	Macro Commands Control by : • standard MIDI and AMP protocols • IP protocol by SDK • IP commands by a companion NewTek TriCaster system	—
Tally Display	Supports tally display from NewTek TriCaster	—

NewTek™



Subject to change without notice - Full specifications on www.3dstorm.com

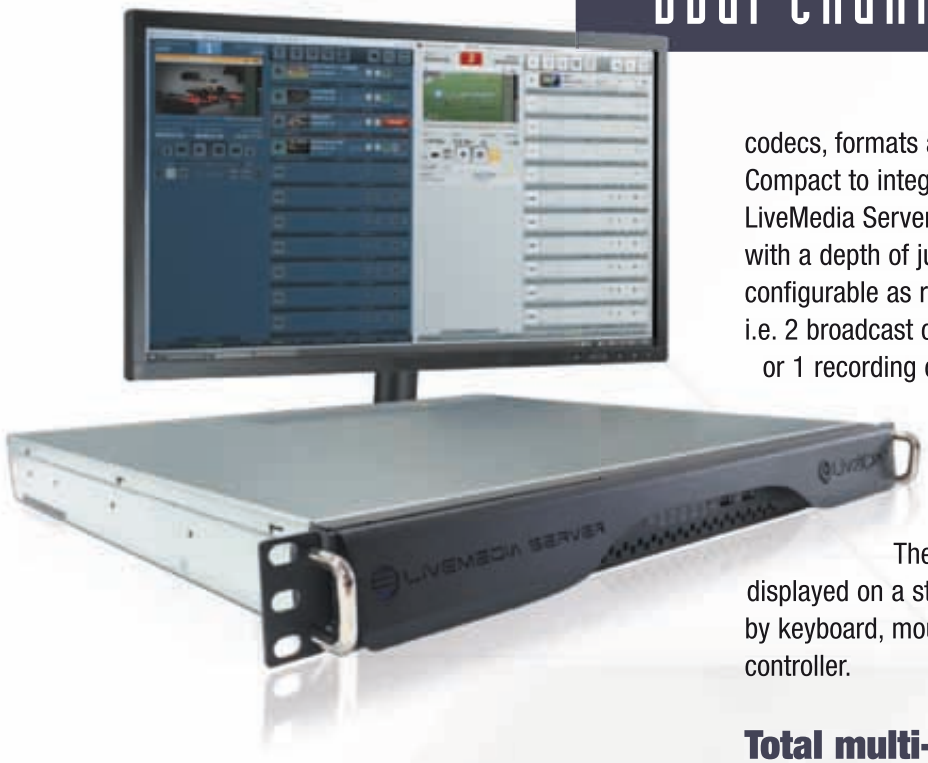
3Play™ Comparison Table

	3Play 4800	3Play 440	3Play Mini	3Play 425
Video Input	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
Supported SD resolution	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
Genlock Input	SD and Tri-level	SD and Tri-level	-	SD and Tri-level
Audio Input	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
Video output	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
AUX video output	1 SDI SD/HD and analog	-	-	-
Audio output	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"
User interface / multiview	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
Recording Channels	8 or 4 redundant	4	4	4
Hard Drives - Capacity	4x 2TB removable – 200 h	1x 3TB – 1x 3TB removable – 140 h	2x750 GB – 30 h	1x1TB – 1x1TB removable – 40 h
Time Code	External LTC or internal	External LTC or internal	Internal	External LTC or internal
Control Surface	Included 3Play CS	Included 3Play CS	Optional – Included Touchscreen Web app	Included 3Play425CS
Redundant Power Supply	Yes	-	-	-
Built-In WiFi	-	-	Yes – 802.11ac	-
Case Display	-	-	7" LCD screen with configurable output	-
System Physical	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

LiveMedia Server

Dual channel, multi format 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. LiveMedia Server supports NDI® for integration into flexible IP workflows.

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.

Playback while 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 or time delay.

External controls

LiveMedia Server can command BlackMagic routers and TriCaster production system over IP to

LiveXpert

trigger a switching onto play or stop. 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.
A second graphics channel also enables synchronizing a graphics page or a logo with each each clip in a playlist.

Optional Jog-Shuttle console for intensive live use ▼

▲ *Included Jog-Shuttle controller*

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

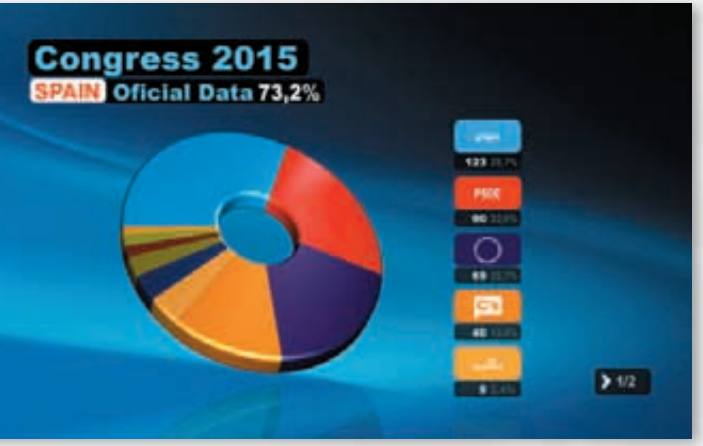
Supported file formats (Rec/Play)
MPEG PS, MPEG TS, MP4, MOV, XDCAM, MXF, MXF D-10, GXF, DV, FLV, DVD Video, ASF, iPod MP4, AVI, MKV, WebM, MP3, AC3, AAC, WAV

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

LiveCG 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 15 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.

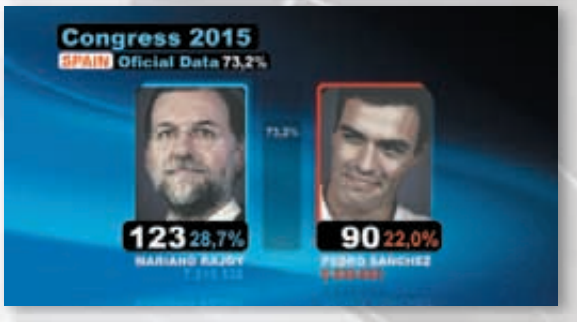
Real-time data processing

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

LiveXpert



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 support
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

LiveCG Broadcast™

Compact Graphics Generator with Social Media Integration

New! With NDI® support

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.

LiveCG Broadcast includes:

- A live interface: allocate pages to interactive buttons to go on air manually or by GPI or Midi triggering during a live event.

LiveXpert

- 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.

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

Compact Graphics Generator with Social Media Integration

Social Hub is a message moderation software program that supports most of the actual social networks and dynamic data sources. Used with LiveCG Broadcast it allows incoming messages from your audience to be selected and 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 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:

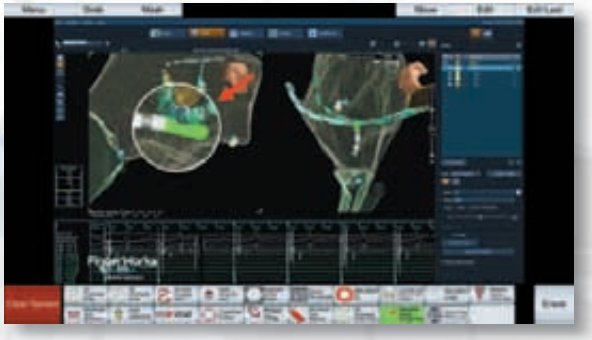
- Dual Core CPU, 2GB of ram, windows XP SP3 or more recent versions.
- Internet connection.
- Social Hub is provided with a GSM modem for SMS support.

LiveXpert

FingerWorks

Draw as easily as speaking!

FingerWorks is a graphics solution for adding interactivity to Live TV shows in news, sports and scientific programs. Using a 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 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

- FingerWorks NDI: software only program with NDI® support.
- LiveXpert 1RU turnkey solution providing NDI® stream for TriCaster/3Play.
- LiveXpert 4RU turnkey solution providing SDI SD/HD and Fill & Key outputs.

DELTA-stat IP™

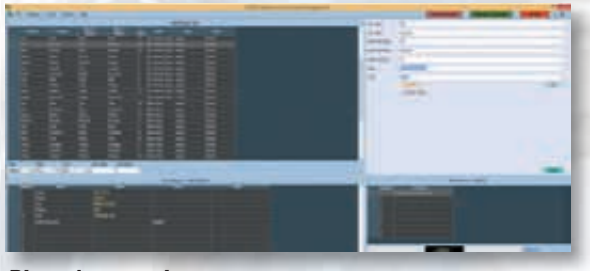
Graphics and scoring system for Stadiums and Multisport Live Production

DELTA-stat IP is a complete turnkey solution to generate and display 2D and 3D graphics for 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, and any NDI compatible devices.

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 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.

LiveXpert

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, and a generic interface that can be customized according to the scores, rules and actions of each sport. Many individual or team sports can be supported such as Tennis, Volleyball, Handball…

Two windows give the ability to preview pages before being sent live, keeping a complete control over the on-screen content.

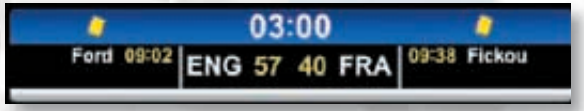
Games information about players, teams, results, ranking…is available from the tabs, to easily display pre-game information.

Live Interface - Rugby

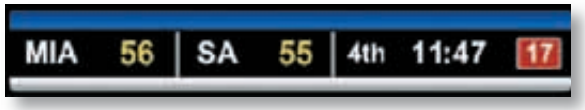
Players' replacement, yellow card, goal…specific animations for each action of the game can be launched with a single mouse click..

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.



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.

Available configuration:

DELTA-Stat Club: 1RU rack for Stadiums and Arena
DELTA-Stat Production: 1RU rack for TV productions

Features:

Available user interfaces for: Soccer, Rugby, Basketball and Baseball
UNICODE support.
Supported formats: JPG, BMP, TGA, PNG…
Supported video formats: QuickTime® (.mov).
AirSend and NDI Protocol support for TriCaster and 3Play integration.

DELTA-stat IP is a product from DELTACAST

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!

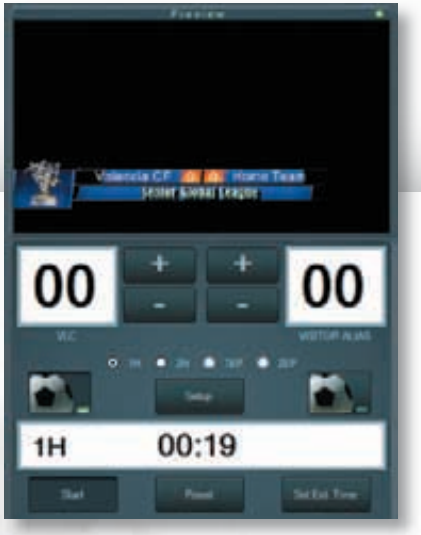
Player database

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® that will be updated in Live with data from the database and from the game.

LiveXpert



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® and NDI® 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 1RU turnkey solution providing SDI SD/HD and Fill & Key outputs

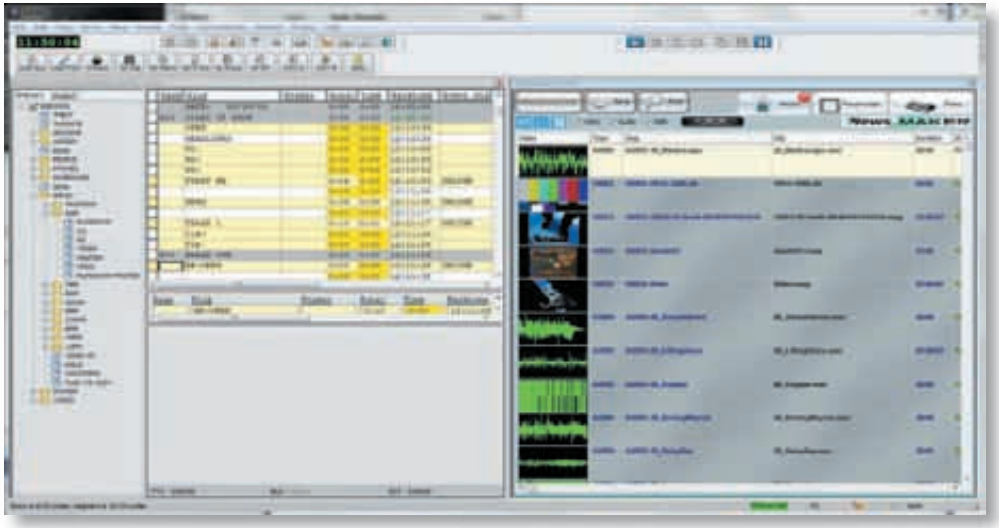
NewsCaster™

Open the doors of Broadcast Newsroom

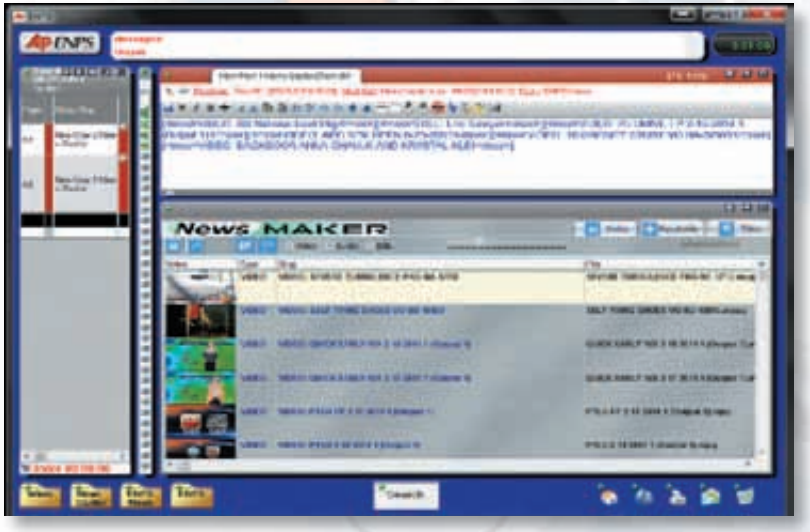
NewsCaster is a Newsroom Automation product that integrates Broadcast Newsroom Computer Systems with the TriCaster product line. The TriCaster operator no longer needs to manually set up the show and drop what they are doing to make adjustments while on-air. Playout sequencing will all be done under 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.



Integration with iNews®



Intégration with ENPS®

LiveXpert

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.

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™ 2

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 long distance wireless connection using radio frequency or standard RJ45/CAT5 cables.

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 in the event a receiver becomes deactivated and a menu for managing the remote receivers.

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).

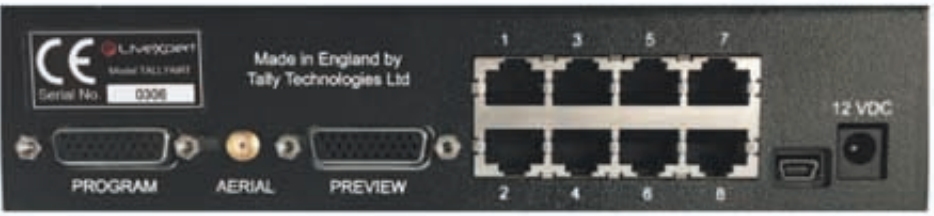
Two receivers in the range:

The receivers come in a professionally finished, lightweight, tough case. It has a large red LED on

LiveXpert

the fascia for the people on the set, and a small LED at the back for the cameraman. The front tally lights can be switched off in case the light could disturb during concert for example.

- **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 it is used. No cables to run; just fit a LiveTally Air receiver to each camera, power up, and they will be automatically recognized by the transmitter. 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. 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.
- **LiveTally Remote** receivers are connected to the transmitter through the RJ45 connectors. They are powered directly by the transmitter through the CAT5 cable.



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
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.

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

LiveTally Converter is a smart Tally box that plugs in one USB port of TriCaster Mini and TriCaster Pro ranges. It comes with a software plug-in to be installed on the TriCaster and it is Plug and Play. LiveTally Converter delivers both Program and Preview Tally information. LiveTally Converter features two standard DB15 connectors with closed contact, to be used with any GPI based tally systems or camera CCU and built-in tally lights.

Technical features:

- 2x 15 pins (DB15) male connector for delivering Tally
- Compatible with TriCaster Mini HD4/HD4i/SDI, TriCaster 410/450/450Extreme/455/460, TriCaster 850/850Extreme/855/860/8000.

LiveControl Box

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

LiveXpert

LiveMixer

TriCaster Audio Mixer Remote Control

LiveMixer is an exclusive add-on that provides the ability to connect a Behringer BCF2000 or 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 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 Remote

Audio mixing remote workstation and automation tools for TriCaster

Unlike LiveMixer, **LiveMixer Remote r**uns 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. LiveMixer Remote offers the same audio control features as LiveMixer., it includes a full set of features to operate any function of the TriCaster remotely over a local network.

Automated multi-camera production for Radio channel or conferences:

In addition, 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.

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.**

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. 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**.

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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3D STORM

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LIVEXPERT IS A BRAND OF 3D STORM – MEMBER OF THE NEWTEK DEVELOPER NETWORK

V-EN-16 - September 2016

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