



3D STORM PRODUCTS CATALOG 2017-2018

T O O L S F O R L I V E V I D E O A N D S P O R T S P R O D U C T I O N

Table of Contents

It is now almost 30 years that the 3D Storm team is partnering with NewTek to deliver groundbreaking technologies at the best price performance ratio in the industry.

3D Storm adopted NDI, NewTek's innovative Network Device Interface technology, since it was introduced at IBC 2015.

NDI is the most affordable and efficient way to easily transition to video over IP.

We are amazed to see that in no more than two years NDI has established itself as the standard of choice for video production over IP and that we've been followed in our choice by hundreds of manufacturers and millions of users!

This new edition of the 3D Storm catalog is dedicated to the LiveXpert and NewTek product lines for live and sport video production and solutions for video production over IP.

We look forward to working with you.

Franck Lafage
Managing Director – 3D Storm

NewTek IP, SDI and 4K Ultra HD Range	page 3
NewTek IP Series™	page 6
TriCaster™ TC1	page 8
IP Series™ Control Surfaces ...	page 11
TriCaster™ TC1 Control Surfaces .	page 12
NewTek TriCaster™	page 13
TriCaster™ 410	page 16
Tricaster™ Mini	page 18
TriCaster™ Advanced Edition ..	page 20
TriCaster™ Comparison Table .	page 23
TriCaster™ Control Surfaces ...	page 24
NC1 Studio & VMC1 Modules .	page 26
Connect Spark™	page 28
NDI PTZ Camera	page 30
LiveMixer™	page 31
LiveTally 2™	page 33
LiveControl Box™	page 34
Virtual Set Editor™	page 35
LiveText™ 3	page 36
3Play™	page 38
3Play™ Comparison Table	page 47
LiveMedia Server™	page 44
LMS NDI™	page 46
TalkShow™	page 48
Media Distribution System™ ..	page 52
NewsCaster™	page 54
NVG1™	page 56
LiveCG Broadcast™	page 58
Social Hub™	page 61
DELTA-stat IP™	page 62
LiveCG Football 2™	page 64
Services	page 65
Warranty	page 66

NewTek IP, SDI and 4K Ultra HD Range

Limitless IP and SDI Live Video Production

The **NewTek NDI architecture** offers the most configurable, customizable large-scale video solution in the industry—a software-driven video ecosystem that enables limitless, interconnected IP, SDI, and 4K Ultra HD production.

Never again worry about having enough inputs. Free your live productions from the constraints of hardware connections and miles of cable. Avoid costly investments in excessive bandwidth.

Interconnected Production

Connecting, communicating, and sharing video and audio across the network using innovative NDI™ technology, the NewTek IP Series and TriCaster TC1 act as an interconnected production environment. Inputs, outputs, and media assets are readily available and accessible by any user in any location on the network.

Modern Approach

- Modular architecture with limitless possibilities for configuration, customization, and control.
- Unrivaled, scalable turnkey capabilities: multi-source video mixing, advanced audio, multimedia and visual effects, and multi-delivery output.
- Transition gradually or migrate immediately to IP-based production workflows with incredibly practical infrastructure and bandwidth requirements.



NewTek IP, SDI and 4K Ultra HD Range

The nucleus of your interconnected production workflow.

Rethink connectivity and performance with the ultimate platforms for modern video production. Designed with the way you work in mind, it has everything you need to do video your way today—and tomorrow.

Produce programs, performances, events and live sports in true 4K UHD (Ultra High Definition) resolution with support for native 2160p video at 60 frames per second. Unlike other products that promise 4K UHD, only IP Series and TriCaster TC1 allow you to switch, stream and record 4K UHD video without compromising the frame rate or the number of available inputs.

IP Series VMC 1

Multi-source live mixing of up to 44 external video sources, 4 built-in video servers, 8 M/E buses, 10 animation players, up to 16 external audio inputs, 1 audio player. 3RU chassis with redundant power supply.



TriCaster TC 1-R3

Multi-source live mixing of up to 16 external video sources, 2 built-in video servers, 2 built-in graphics players, 4 M/E buses, 10 animation players, up to 16 external audio inputs, 1 audio player. 3RU chassis with redundant power supply.



TriCaster TC 1

Multi-source live mixing of up to 16 external video sources, 2 built-in video servers, 2 built-in graphics players, 4 M/E buses, 10 animation players, up to 16 external audio inputs, 1 audio player. Compact 2RU chassis with single power supply.



NewTek IP Series

Transformative. Scalable. Flexible.

Technical Specifications



The **NewTek IP Series Video Mix Engine** is where the systems, devices, applications, and sources in your workflow converge for mixing, compositing, and delivery with incomparable configuration and control.

Multi-Format Processing

Standardize to a preferred signal workflow or adapt to your infrastructure, freely intermixing formats, resolutions, and frame rates with robust multi-format video processing. With SDI I/O supporting resolutions up to 3G 1080p and an NDI-based IP workflow independent of specific

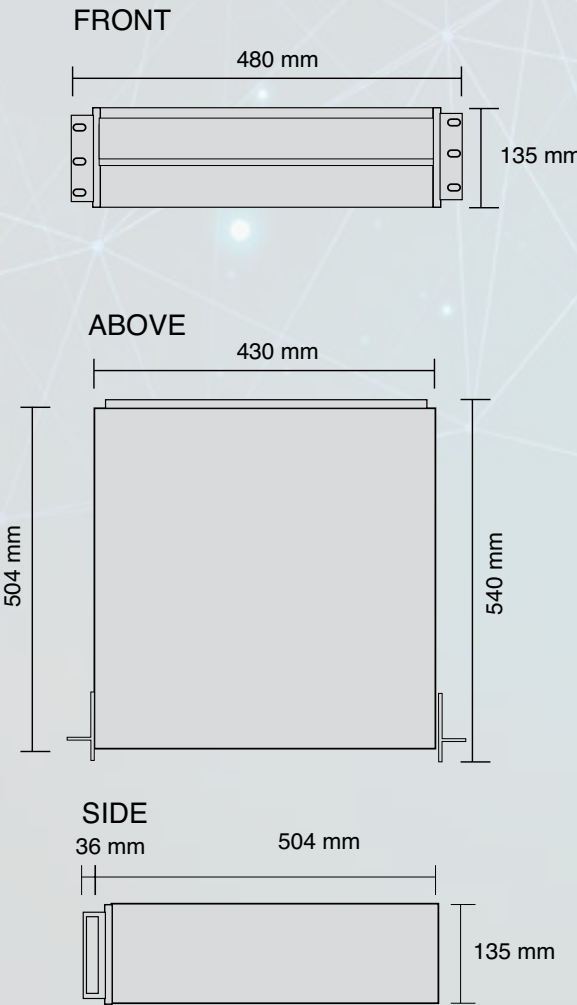
technical criteria, you can work with established formats and emerging standards.

Mix Effects

Carve your path of creativity across eight mix effects buses, each supporting sub-mixing, layering, compositing, and live virtual set configuration. All M/E buses include separate processing which delivers color correction, chroma&luma keying. Combined with video re-entry of each M/E on every M/E, you have unlimited creative potential.

Multiviewers

The Video Mix Engine is equipped with 4 dedicated multiviewer outputs, with configurable workspace layouts and viewports that allow directors and operators to customize the control environment.



Switcher
72 channels: 44 external sources, 20 internal, 8 M/E buses with re-entry • 4 independent or synchronized mix buses • 4 DSK + 4 DSK per ME

Router Support
Control over external video routers supporting Grass Valley® Native Protocol, AJA® KUMO and Blackmagic Design® Video Hub
8 x 72 NDI video router with local crosspoint control

Video Input
4 x 3G/HD/SD-SDI • 1x Genlock input
Optionally supports up to 44 simultaneous 3G/HD/SD-SDI video inputs or quad-link 3G-SDI video inputs (4K UHD) via network integration with applicable NewTek NC1 conversion modules

Audio Inputs
4 SDI Embedded - 1 x 2 Balanced XLR (Line) - 3 x 2 Balanced Stereo Jack 1/4" (Line)

Video Output
4 x 3G/HD/SD-SDI configurable for :
• 4 x independent 3G/HD/SD video mix outputs
• 1 x 4K UHD video mix output via 3G-SDI quad-link

Multiview Output
1x DVI - 1x HDMI – 3x display port

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

Network
2x 10 Gigabit – 2x 1 Gigabit ports

Recording Capacity
2 x 3TB internal drive accommodating ~140 hours 1080i

Redundancy
500W Redundant Power supply

System Physical
3U chassis, 15,4 kg (34 lbs).

In-depth features on page 10



TriCaster™ TC1

Complete Production. Like Never Before.

TriCaster TC1 represents the continued innovation of the iconic product that defined an industry. Now with support for full-capacity 4K UHD video workflow for switching, streaming, recording, and delivery, including file playback, graphics, and mix effects !

The feature-set you've been waiting for:

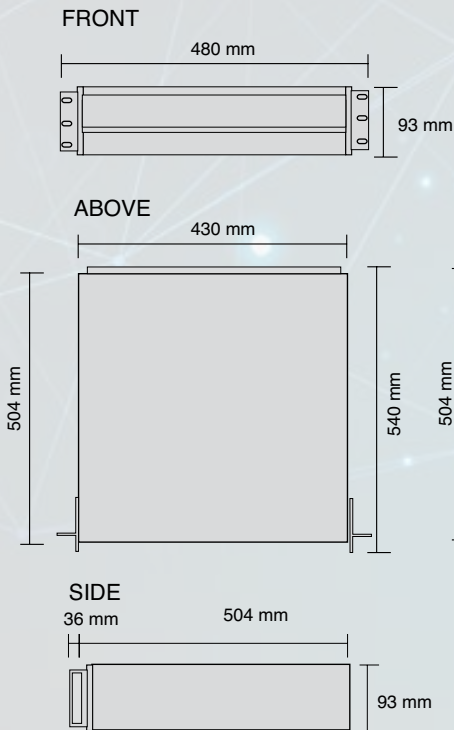
- Multi-source video mixing, including 16 external inputs with 2 channels of studio-grade Skype® video calling with Skype TX integration
- 4 M/Es

- Integrated video servers with multi-channel recording and live editing.
- Dual-channel live streaming to Facebook Live, Microsoft® Azure®, Periscope, Twitch, YouTube™ Live, and more
- Powerful automation with custom macro commands.
- Picture-in-picture effects with optional borders, 3D object positioning, and smooth-edge cropping

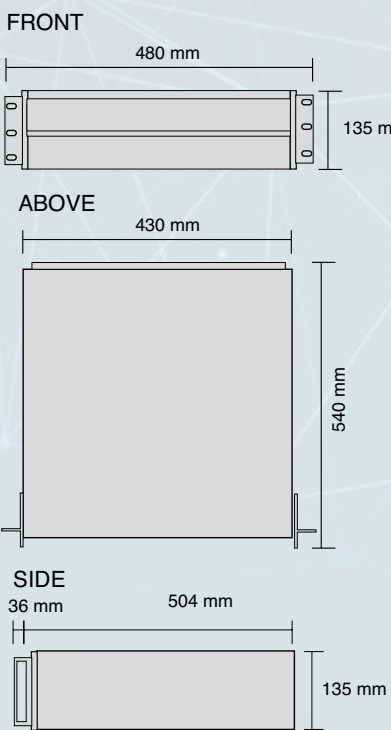
Interconnected.

You don't work in a silo. Neither should your equipment. With native integration of NDI™, TriCaster TC1 connects to the most prolific IP-based workflow in the industry.

TriCaster TC1 2U



TriCaster TC1 3U



Technical Specifications

Switcher
40 channels: 16 external sources, 20 internal, 4 M/E buses with re-entry • 4 independent or synchronized mix buses • 4 DSK + 4 DSK per ME

Router Support
Control over external video routers supporting Grass Valley® Native Protocol, AJA® KUMO and Blackmagic Design® Video Hub

Video Input
4 x 3G/HD/SD-SDI • 1x Genlock input
Optionally supports up to 16 simultaneous 3G/HD/SD-SDI video inputs or quad-link 3G-SDI video inputs (4K UHD) via network integration with applicable NewTek NC1 conversion modules

Audio Inputs
4 SDI Embedded - 1 x 2 Balanced XLR (Line) - 3 x 2 Balanced Stereo Jack 1/4" (Line)
Video Output
4 x 3G/HD/SD-SDI configurable for :
• 4 x independent 3G/HD/SD video mix outputs
• 1 x 4K UHD video mix output via 3G-SDI quad-link

Multiview Output
1x DVI - 1x HDMI – 1x display port

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

Network
2x 1 Gigabit ports

Recording Capacity
2 x 3TB internal drive accommodating ~140 hours 1080i

System Physical
TC1-R3 : 3U chassis, 500W redundant Power Supply. 14,5 kg (32 lbs)
TC1 : 2RU chassis, 400W Power Supply. 11,3 kg (25 lbs)

In-depth features on page 10

Subject to change without notice.

NewTek IP Series & TriCaster TC1 Comparison Table

Key Features	IP Series VMC 1	TriCaster TC1
3G-SDI & HD-SDI inputs	4	4
3G-SDI & SD/HD-SDI outputs	4	4
3G-SDI outputs configurable as 1x 4K UHD output via quad-link	✓	✓
4K UHD support (2160p50/60)	✓	✓
3G-SDI support (1080p50/60)	✓	✓
Support mixing of all supported resolution	✓	✓
Pairing input for Fill & Key support	✓	✓
Maximum External Sources	44	16
Maximum 4KUHD sources supported	44	16
Mix-Effects buses with 4 sources, 4 DSK & re-entry	8	4
DDR Media players	4	2
Independent video Mix outputs SD/HD/3G SDI	4	4
Graphics Media Players	—	2
Number of PTZ cameras	8	8
Integrated Skype TX channels	2	2
Live Stream encoding Engine	2	2
Network	2x 10Gb/s 2x 1Gb/s	2x 1Gb/s
Supported resolutions per input/output		
3GSDI : 1080p50,59.94,25,29.97,25,24,23.976	✓	✓
HD-SDI : 1080i50,59.94,720p50,59.94,25,29.97,24,25,23.975	✓	✓
SD-SDI : 576i50, 480i59.94	✓	✓
Networked video inputs and outputs		
Apple AirPlay® native support	✓	✓
Fill & Key support per single NDI input	✓	✓

Networked video inputs and outputs	IP Series VMC 1	TriCaster TC1
Total NDI output stream in 4K UHD session mode	1	1
Total NDI output stream in SD/HD session modes including bellow channel list:	35	8
NDI video output – PGM or M/E bus selectable	4	4
NDI video output selectable via internal matrix router	8	—
NDI conversion of SDI local inputs	4	4
NDI conversion of media players (with Alpha channel)	4	—
NDI conversion of media buffers (with Alpha channel)	15	—
Physical audio Inputs and Outputs		
SDI embedded inputs	4	4
XLR Balanced Stereo audio pair Line inputs	1	1
XLR Balanced Stereo audio pair Mic/Line inputs	—	—
Balanced Jack ¼ stereo pair Line inputs	3	3
SDI embedded outputs	4	4
XLR Balanced Stereo audio pair Line outputs	1	1
Balanced Jack ¼ stereo pair Line outputs	1	1
Monitoring Jack ¼ Stereo	1	1
Network & IP audio Inputs and Outputs		
NDI Support	✓	✓
Dante support ⁽¹⁾	✓	✓
AES67 protocol support via compatible WDM drivers ⁽²⁾	✓	✓
Audio channels per input/output	8	4
Audio input routing	4x8x8	4x4x4
DSP and audio delay available per input	✓	✓

(1): Requires Dante Virtual SoundCard license from Audinate – sold separately

(2): Requires third party virtual soundcard license – sold separately

IP Series Control Surfaces

Approach every production with absolute confidence.

Pairing the **4-Stripe Control Panel** or **2-Stripe Control Panel** with the Video Mix Engine across your network, you have consummate control of the most sophisticated productions under the most demanding of circumstances.

VMC1 4-Stripe Control Panel

- 4 x panel stripes independently configurable for switcher, M/E, PREVIZ, or matrix router operation
- 4 x multi-mode T-Bars (1 per stripe)
- 72 x crosspoints per stripe (24 buttons with 3 delegate banks)
- 2 x media player control keypads
- 2 x multi-mode joysticks (3-axis) supporting: Position/Scale, Rotate, Crop, LiveSet virtual camera control, PTZ camera control, Media player shuttle

Shared features:

- Dynamic LCD crosspoint label displays
- Support for multi-engine control
- Macro mode and number pads supporting attachment and activation of user-configured macros
- 25W PSU
- Gigabit connectivity

VMC1 2-Stripe Control Panel

- 2 x panel stripes independently configurable for switcher, M/E, PREVIZ, or matrix router operation
- 2 x multi-mode T-Bars (1 per stripe)
- 64 x crosspoints per stripe (164 buttons with 4 delegate banks)
- 1 x media player control keypads
- 1 x multi-mode joysticks (3-axis) supporting: Position/Scale, Rotate, Crop, LiveSet virtual camera control, PTZ camera control, Media player shuttle



TriCaster™ TC1 Control Surfaces

The TriCaster TC1LP and TC1SP control panels give you the choice of companion control panels to suit your workflow, environment, and budget.

Shared features:

- 1 x multi-mode joystick (3-axis)



TriCaster 850TW

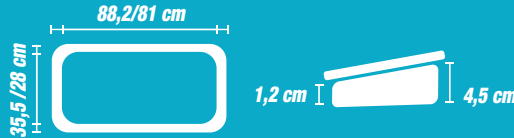
Media Player and Slow Motion Console for IP Series and TC1. Share the workload with a operator, focusing exclusively on Media players. Add slow motion playback: a must for any sports production. Its ergonomic design is perfectly suited to broadcasting slow motion playbacks at the lower cost ever!

- Ergonomic control over the editing functions,
- Jog-Shuttle controller and dedicated buttons from media players,
- T-Bar for precision control of slow motion playbacks,
- USB connectivity inc. power.



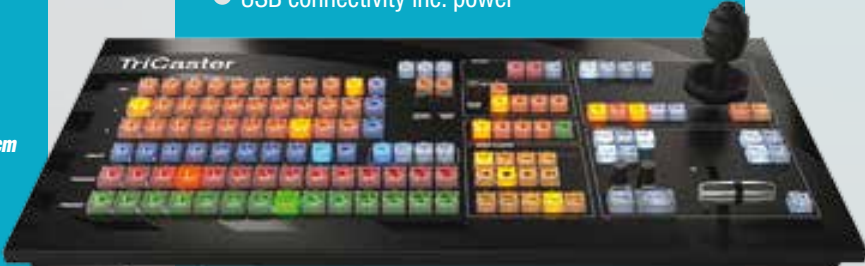
TriCaster TC1LP

- 2x panel stripes with 2 x multi-mode T-Bars
- 24x switcher source buttons
- Gigabit connectivity
- 25W PSU



TriCaster TC1SP

- 1.5x panel stripes with 1 x multi-mode T-Bar
- 14x switcher source buttons
- USB connectivity inc. power



NewTek TriCaster

A PRODUCTION SYSTEM FOR ALL LIVE BROADCASTS

Generic features of all TriCasters

NewTek TriCaster™ HD/SD

Versatile and ergonomic

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 and conference rooms, convention and concert halls, medical emergency units, etc.

Multi-source:

TriCaster is the first production systems to mix SD and HD video sources in real time with IT flows from encoders and IP servers, and content from computers, tablets or smartphones through network links or wireless. 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.

Camera control:

TriCaster can control 4 robotic cameras, with live control, frame presets and zoom, focus and iris adjustment.

Multiple productions:

TriCaster 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.

Isocorder Technology:

All TriCasters have as many HD recording channels as there are camera inputs, with the most powerful digital recording system of the moment.



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

PTZ protocols

Panasonic Ethernet and RS232 - Sony Visca RS232, RS422 and Ethernet for EVID30/D70, HD17V, 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® and NDI® 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®/NDI® SDK, see <https://www.newtek.com/solutions/newtek-developer-network/>
- 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, DVCPPro, DVCPProHD, 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 1080/25p 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 support for 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, DVCPPro, 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 both mixers and on each DSK channel.

Large choice of transitions with animated wipes or 3D dissolves, animated jingle overlays and audio jingles. Built-in transitions editor for 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 motion 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™ 410

Reasonable price, large feature set!

The most streamlined of our professional models, **TriCaster 410** is unbeatable in terms of budget for fully digital independent production with 4

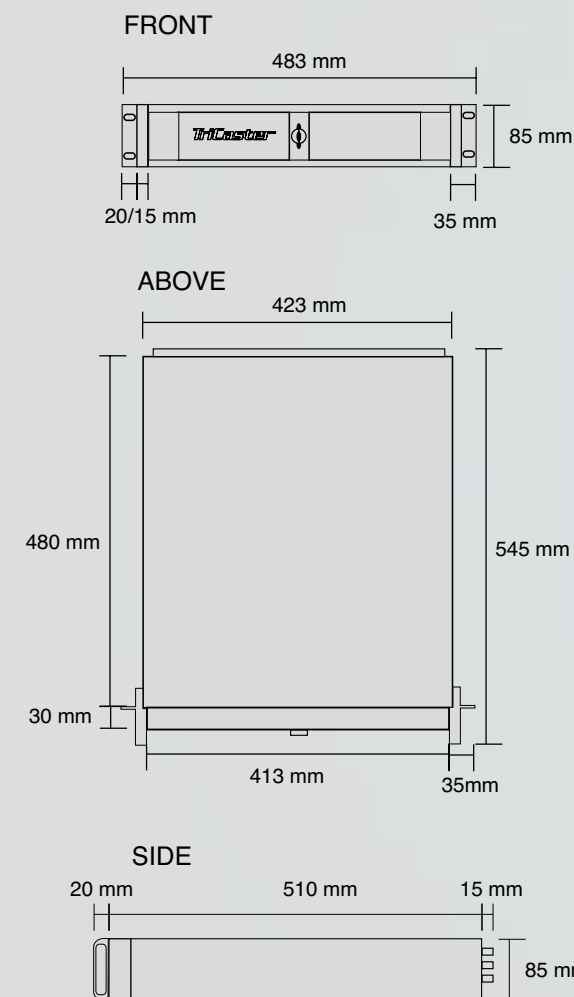
cameras. With IsoCorder® technology the power and flexibility of the 4 HD recorders guarantee the investment by themselves!

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.

Optional control surface sold separately - Monitor not included.

Technical Specifications



Switcher Channels

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

Video Input

4x SDI SD/HD
 Audio Inputs
 4 SDI Embedded - 1 x 2 Balanced XLR (Mic/Line) - 1 x 2 Balanced Jack 1/4" (Mic/Line)

Video Output

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

- 2 x SDI
- 1 x HDMI output
- 2 x Display Ports HD15 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 Jack 1/4" (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 15 and 23



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 bigger 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

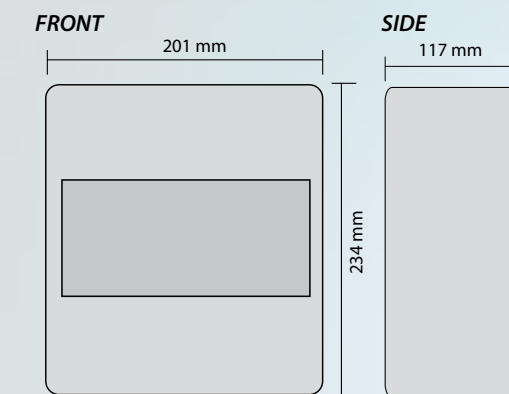
- SDI inputs and outputs
- 2 internal hard disk drives with a capacity of approximately 30hrs of video in HD
- Built-in 7-inch screen for broadcast monitoring

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.



Technical Specifications



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

4.1 kg (9 lbs)

In-depth features on pages 15 and 23

Subject to change without notice.

TriCaster™ Advanced Edition

A giant leap in productivity



With no additional hardware needed, **TriCaster Advanced Edition** software unlocks 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. 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.



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 media 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 player 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 Advanced Edition User Interface.



TriCaster™ Advanced Edition

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

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,

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.



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.

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.

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!**

Functions	TriCaster Mini HD-4	TriCaster Mini HD-4i	TriCaster Mini SDI	TriCaster 410	TAE Mini/410	TriCaster 460	TriCaster 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	✓
NDI, 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	—	—	—	—	✓	—	✓	✓
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	NC
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

TriCaster™ 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. Powered and controlled through USB.

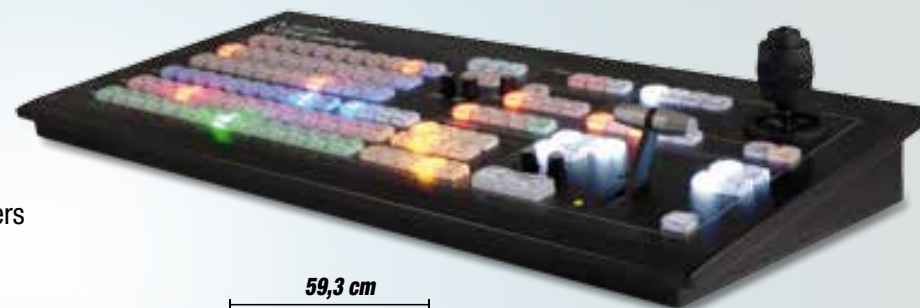
TriCaster™ 860 CS

For TriCaster TC1, 460, 410 and TriCaster Mini running TriCaster Advanced Edition.



TriCaster™ 460 CS

for TriCaster TC1, 460, 410 and TriCaster Mini



TriCaster™ Mini CS

For TriCaster Mini and all the other models including TC1. The MiniCS offers a compact alternative when working in confined spaces.



TriCaster 850TW

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.



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

NC1 Studio & VMC1 Modules

Distribute more video to more destinations



NC1 Studio I/O Module:

8 channels of versatile SDI or IP to NDI and NDI to SDI simultaneous conversions. The NC1 Studio I/O Module is a 1RU turnkey to translate up to 8 compatible video sources to SDI or NDI® for input, output, or a combination of both. It can be configured for dual-channel 4K Ultra HD at 60 frames per second with support for 3G-SDI quad-link grouping, offering the capacity of connecting 2 UHD video sources to TriCaster TC1 and IP Series Video Mix Engine. It includes real-time input, conversion and transmission of common IP video stream formats, including RTMP, RTSP, and HTTP.



NC1 Studio Input Module

4 channels of SDI to NDI simultaneous conversions. The NC1 Studio Input Module makes it possible to add up to 4 input sources to your production from any location on your network. It translates up to 4 SDI or IP video sources to NDI®, supporting Mix and match sources, including 3G-SDI and HD-SDI input devices, and RTMP, RTSP, and HTTP streams.



VMC1 Output Module

4 channels of NDI® to SDI simultaneous conversions for transmission and provision through conventional video infrastructure. VMC1 Output module can assign any NDI stream available over the network to each of the 3G/HD/SD-SDI outputs. Each output can independently rescale, rotate and position using the available 3DVE effects. It includes a HDMI or DVI output with multiviewer of all channels. Each output channel provides an overlay channel supporting 3D DVE effects, including positioning, rotating, scaling, and cropping.

NC1 comparison Matrix	NC1 I/O Studio	NC1 Input
Local Video Input	8x 3G-SDI/HD/SD	4x 3G-SDI/HD/SD
Input channel switchable to output	Yes	-
Support for 4K –UHD Quad-Link mode	Yes	-
SDI Embedded audio	Yes	Yes
Analog Audio inputs	-	2x Balanced XLR (Line) 6x Balanced Jack ¼ (Line)
Network Audio protocols	NDI, DANTE(1), AES67(2)	NDI, DANTE(1)
Hardware Tally	-	HD15
Genlock input	Yes	-
Video connector	9xMini-BNC (DIN 1.0/2.3)	4xBNC
Recording channels	8	4
Network connectivity	2 x 1 Gigabit NIC	2 x 1 Gigabit NIC
Power Supply	280W redundant PSU	180W single PSU



VMC1 OUT Features	
Local Video output	4x 3G-SDI/HD/SD
SDI Embedded audio	Yes
Analog Audio outputs	2x 2 Balanced XLR 1x Balanced Jack ¼ (Phones)
Network Audio protocols	NDI, DANTE(1), AES67(2)
Genlock input	Yes
Video connector	4xBNC
Recording channels	4
Network connectivity	2 x 1 Gigabit NIC
Power Supply	280W redundant PSU
Power Supply	280W redundant PSU

- (1) Requires Dante Virtual Soundcard license from Audinate (sold separately)
(2) Requires third-party virtual sound card license (sold separately)

Subject to change without notice.

Connect Spark™

IP video converters with NDI deliver video faster, easier, BETTER.

Get any source into any setup

Portable and WiFi-enabled, the NewTek Connect Spark IP video converter is the perfect way to get your HDMI or SDI video into any setup.



	NewTek Connect Spark SDI	NewTek Connect Spark HDMI
Input	1 x 3G/HD/SD-SDI	1 x HDMI
Loop Out	1 x 3G/HD/SD-SDI	1 x HDMI
Audio	SDI embedded 3.5mm Line Level	HDMI embedded 3.5mm Line Level
Encoding	NDIHX	NDIHX
Ethernet	1 x RJ-45 port for 10/100 M Ethernet networking	1 x RJ-45 port for 10/100 M Ethernet networking
Wireless	Built-in WiFi radio 2 x 5db 2.4G/5.8G dual-band antennas IEEE 802.11 a/b/g/n	Built-in WiFi radio 2 x 5db 2.4G/5.8G dual-band antennas IEEE 802.11 a/b/g/n
Interface	Web-based user interface for configuration and monitoring	Web-based user interface for configuration and monitoring
Tally	Tally support via NDI, with built-in program/preview tally lights	Tally support via NDI, with built-in program/preview tally lights
Formats	1080p: 59.94, 50, 29.97, 25, 24, 23.98 1080i: 59.94 720p: 59.94, 50, 29.97, 25, 24, 23.98	1080p: 59.94, 50, 29.97, 25, 24, 23.98 720p: 59.94, 50, 29.97, 25, 24, 23.98
Standards Recording*	SDI: SMPTE ST-424M, ST-292M Video: MPEG-TS Audio: AAC *Optional USB or Micro SD card required (not included)	HDMI: 0.8Vp-p Video: MPEG-TS Audio: AAC *Optional USB or Micro SD card required (not included)
BNC	75 Ohm impedance	— Not applicable —
USB	2 x USB 2.0 Type-A 1 x USB 2.0 Mini-USB	2 x USB 2.0 Type-A 1 x USB 2.0 Mini-USB
Power	External DC 12V 1A adapter 4W max power consumption	External DC 12V 1A adapter 4W max power consumption
Dimensions	127 x 108 x 28 mm (5.0 x 4.25 x 1.125 in)	127 x 89 x 28 mm (5.0 x 3.5 x 1.125 in)
Weight	220g (7.76 oz)	220g (7.76 oz)

Subject to change without notice.

Live Production
ACCESSORIES

NDI PTZ Camera™

Say HELLO to the fastest, easiest way to get IP video

Connect, capture, and control with a single network cable. No need for extra connections, cables, and messy setups. **SIMPLE. AMAZING. AND SIMPLY AMAZING.**

Corporate

Turn any office or meeting room into a remote studio for executive communications, video conferencing, or online training.

Education

Streamline virtual classroom production, lecture capture, and distance learning for live and on-demand teaching.

Entertainment

Expand event coverage in-venue and behind the scenes for live streaming, recording, and social video.

Gaming

Capture the action, emotion, and intensity of competitive gaming and eSports from every angle.

Government

Inform and involve citizens with real-time access to live meetings and community programming.



Professional A/V

Explore virtually endless video applications, from medical and security installations to weddings and graduations.

Sports

Enhance the fan experience with unique camera angles or outfit facilities for covering practices and club activities.

NDIHX-PTZ1 Technical Specifications	
Video Output	NDIHX, 3G-SDI, and/or HDMI
Video Formats	1080p: 60, 59.94, 50, 30, 29.97, 25 1080i: 59.94, 50 720p: 60, 59.94, 50, 25
Zoom	20x Optical / 12x Digital
Focal Length / Aperture	4.7mm to 94mm / F1.6 to F3.5
Rotation Speed	300°/sec maximum
Panning Angle	-170° to +170°
Tilting Angle	-30° to +90°
Horizontal Viewing Angle	63°
Flip	Integrated image flip and mirror function
Minimum Illumination	1.0 lux
Minimum Object Distance	300mm (wide) / 1500mm (tele)
Audio Input	3.5mm stereo (line)
Tally	via NDIHX
User Interface	Remote configuration, control, and monitoring via Web-based user interface or NewTek Studio Monitor application
Networking	1 x RJ45 port for 10/100 M Ethernet
Power	POE+ (802.3at) Power over Ethernet or DC 12V 1A external supply
Dimensions	175 x 183 x 183 mm (6.9 x 7.2 x 7.2 in)
Weight	1.8 kg (4.0 lbs)

Subject to change without notice.

LiveMixer

New! Now supports
TriCaster Advanced Edition

LiveMixer™ — 3D STORM

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

Included with LiveMixer, **LiveMixer Remote** runs from another PC or laptop giving a full dedicated workspace to the sound operator. It is connected to the TriCaster through the network and offers a dedicated user interface and the ability to connect a Behringer BCF2000 or Yamaha 01V96i to a USB port on the remote PC. 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.



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



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 Box

LiveTally Box 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 Box delivers both Program and Preview Tally information. LiveTally Box 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 410/460/860/8000/Advanced Edition.



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



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:

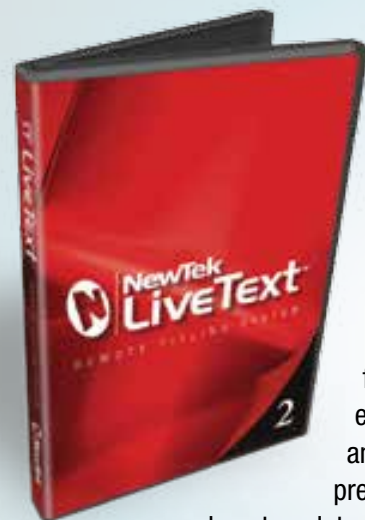
- Communication over standard TCP/IP
- Traffic can be routed over internal LANs, wireless LANs, MANs, WANs and Internet

- 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



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.



Instant Replay

AND PRODUCTION SERVERS

3Play™ 4800 – 440 – 425 – Mini

More than replay

3Play servers give 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.



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.

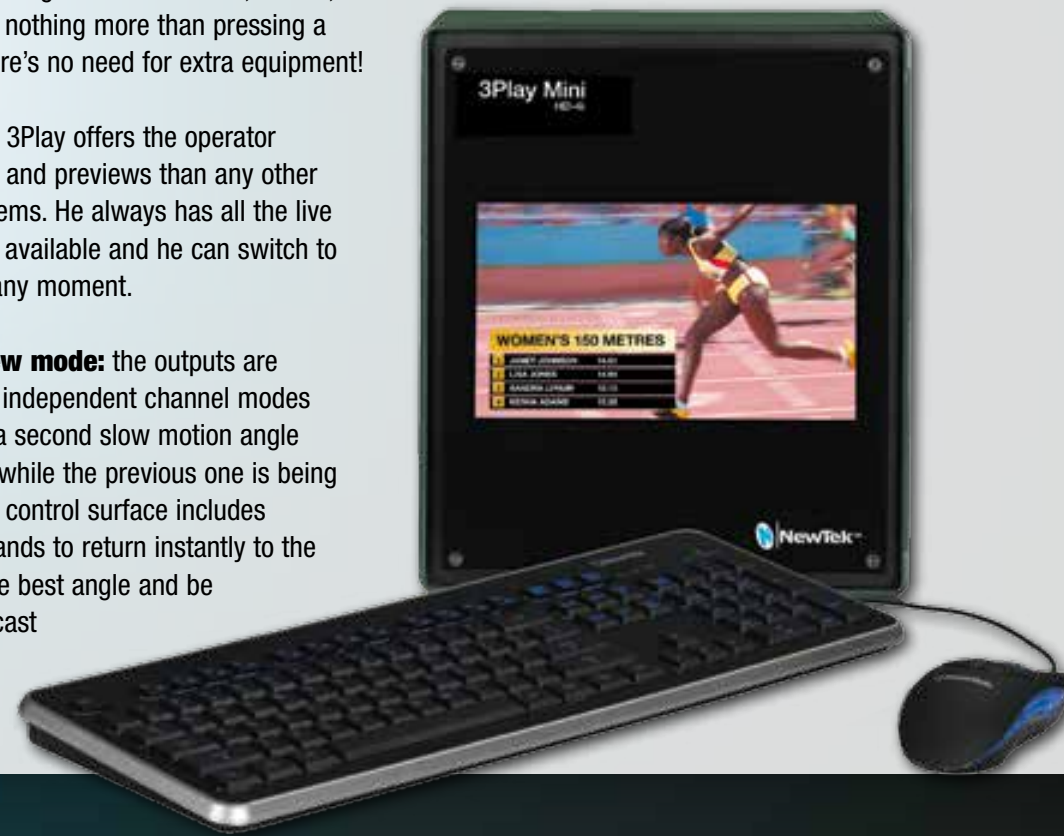
Choose innovation with 3Play 4800-440 and Mini

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 broadcasted. The control surface includes dedicated commands to return instantly to the action, choose the best angle and be ready to rebroadcast it. Running in parallel with

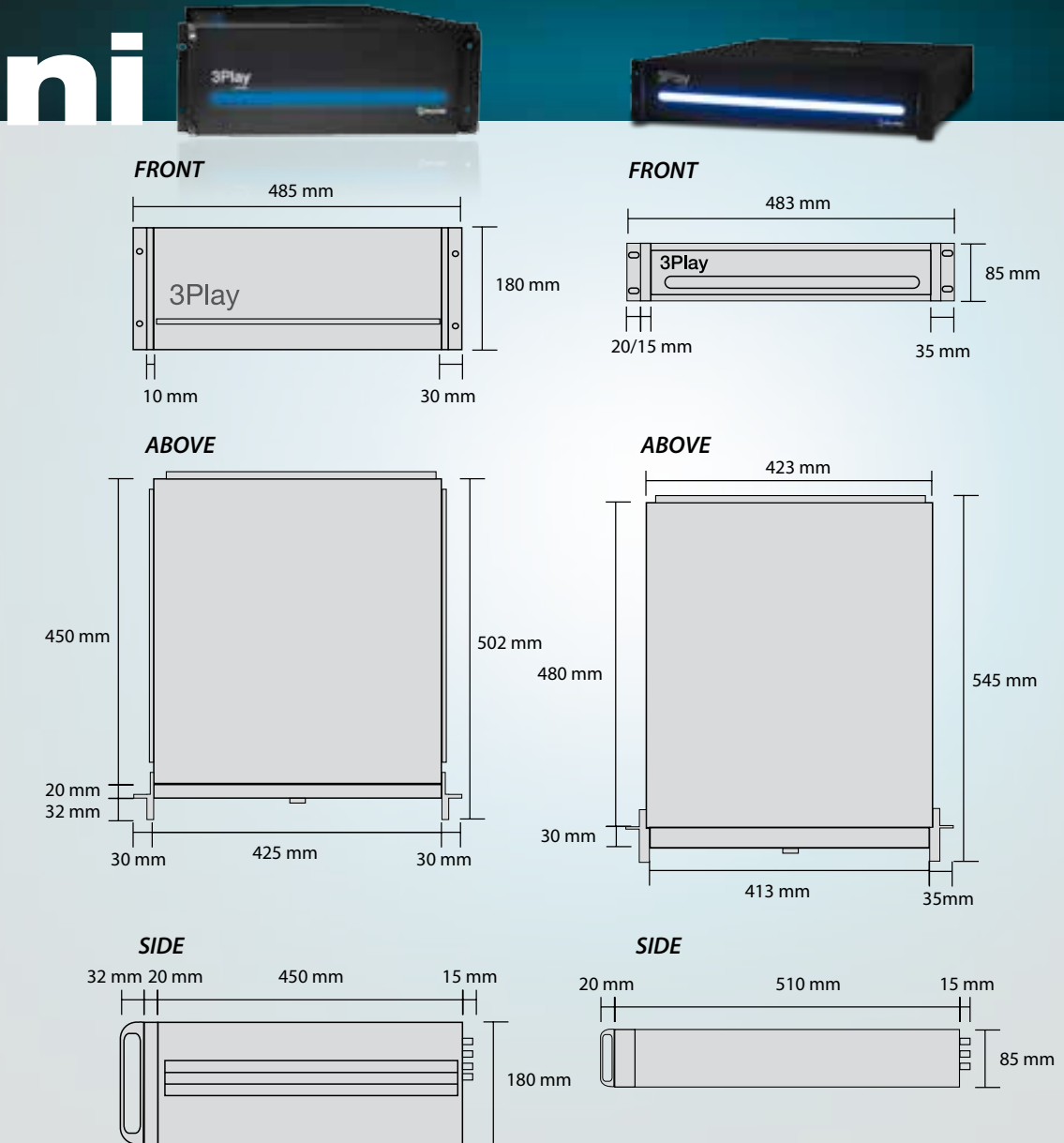
keyboard and mouse and a full graphical user interface, intelligently distributed on 2 screens, 3Play offers true ease of use for preparing reports and highlights during a live show.



Fast and precise indexing: 3Play has an innovative built-in system to mark each clip with a series of keywords on the fly. It only takes 3 button presses to associate the name of the team, the player and the type of action to an event.

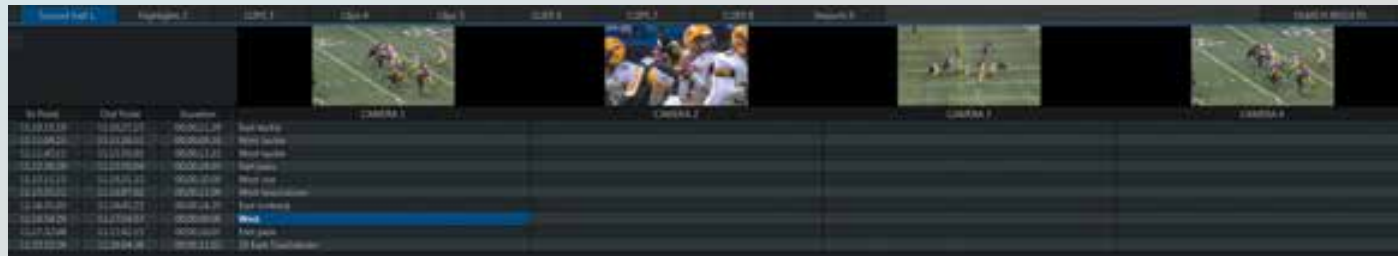
Visuals that Impress: without using a video mixer, 3Play allows operators to broadcast enriched images composed with multiple sources: to overlay journalists over a replay, a view of the scoreboard or a second angle on the same action. 3Play can also display scores and manage transitions with 3D animated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

Choose versatility: a single server does not mean one operator. 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	—



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 Jack 1/4" 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

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 freely configurable as recorder or player: 2 playout channels, 2 recording channels or 1 recording + 1 playout channel simultaneously. It features 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.

Full 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 playlist, 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 lists are editable in real time by simply dragging and dropping or 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 shift.

Built-in Scheduler

Playlists can be loaded into a Scheduler table allowing to set a date and time for each playlist to be broadcasted. The Play channel will start playing automatically each playlist based on the saved schedule. Recordings can also be scheduled over any period of time with clip splitting mode.

External controls

LiveMedia Server can command BlackMagic routers and TriCaster production system over IP to 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 to broadcast. It may simply contain a static logo, but also several animated elements assembled with the included LiveCG Composer editor. A second graphics channel also enables synchronizing a graphics page or a logo with each clip in a playlist.



Optional Jog-Shuttle console for intensive live use ▼



Included LiveCG Composer Page Editor (Free install on multiple PC)



◀ 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/DVCPR0-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

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 on 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 and more. 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. LMS-NDI can also be used as a multichannel 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.



Connect the audience

TO THE NEWS

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!

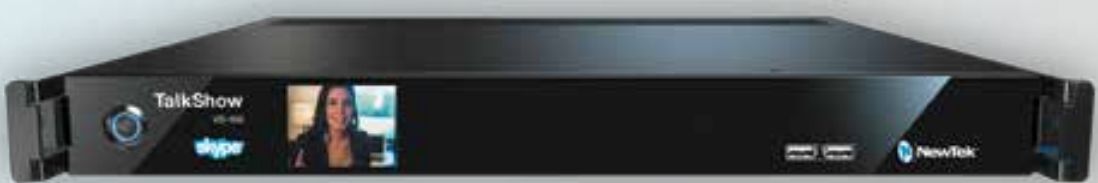
TalkShow VS4000

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.



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 any available Skype device: mobile phone, laptop, etc.

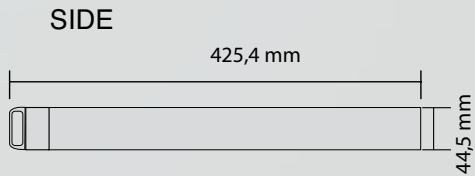
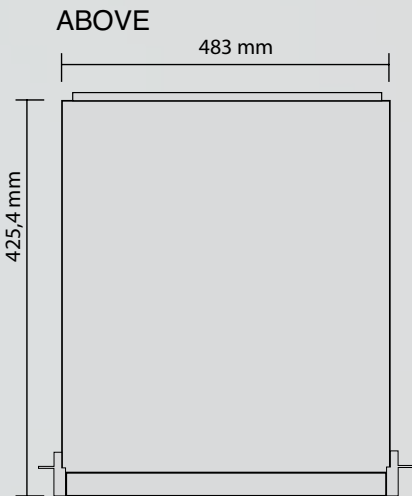
IP Networking

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.



	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	1080i @25,29.97,30 fps
	1080p @ 23.98,24 fps	1080p @ 23.98,24 fps
	4:3 Anamorphic	4:3 Anamorphic
	720p @50,59.94,60 fps	720p @50,59.94,60 fps
	576i @25fps	576i @25fps
	480i @29.97 fps	480i @29.97 fps
Return video formats	1080i @25,29.97 fps	1080i @25,29.97 fps
	1080p @ 23.98,24, 25, 30 fps, 25 PsF, 30PsF	1080p @ 23.98,24, 25, 30 fps, 25 PsF, 30PsF
	720p @ 30,25,24 fps	720p @ 30,25,24 fps
	576i @25fps	576i @25fps
	480i @29.97 fps	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	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.

Media Distribution System™

Technical Specifications

Launch your own multi-channel content networks.

The **MediaDS** is a 4 independent channels real-time media encoding and live streaming video delivery platform—establishing a direct link between the producers and the viewers. A fully integrated hardware and software solution merging NewTek's industry-leading live production technology with powerful Wowza streaming software. No additional services required.

Seamless Integration

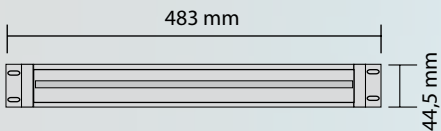
Signals to be streamed are acquired through direct, physical input using 3G/HD/SD-SDI hardware connections, over IP via NDI, NewTek's innovative Network Device Interface technology, and from other sources, including TCP/IP, webcams, and USB capture devices.

Reach Every Audience

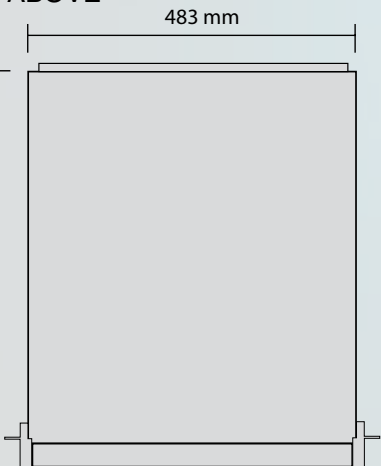
With support for delivery to viewers on the local network through Wowza streaming software, in addition to all common streaming services, websites and CDNs, including Facebook Live, Microsoft Azure, Ustream, Wowza Streaming Cloud, YouTube Live, and more, your organization can reach all of your intended audiences, wherever they watch. MediaDS distribute locally to hundreds of viewers on your network without additional servers—or even an Internet connection.



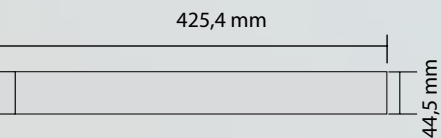
FRONT



ABOVE



SIDE



Streaming Delivery

4 x independent streams with support for Adobe® Flash® RTMP (RTMPE, RTMPT, RTMPTE, RTMPS), Apple® HTTP Live Streaming (HLS), MPEG-DASH, and WOWZ™, and simultaneous stream file archive

Video Inputs

4 x 3G/HD/SD-SDI (BNC) - Simultaneously operates as a 4-channel NDI video source

Audio Inputs

4 x SDI embedded - 1 x 2 Balanced XLR (Line) - 3 x 2 Balanced 1/4" (Line)

Network Video Inputs

4 x IP inputs via NDI®

Network Audio inputs

NDI®, DANTETM (Requires Dante Virtual Soundcard license from Audinate - sold separately)

Streaming

Independently configurable per video stream, with presets included in formats up to 1080p 60 with support for multiple selections and configurable presets.

A/V source configuration

Independently configurable video delay and color correction settings for each video stream, including white balance, proc amp controls, auto color, audio delay, automatic gain control, and manual audio channel level controls, with built-in integrated waveform and vectorscope.

Monitoring

Integrated multiviewer display with configurable workspaces and viewports

System Physical

1RU chassis with 180W PSU - 2x Gigabit Network - 48.3 x 4.5 x 42.5 cm with rack ears attached - 6.8 kg

NewsCaster™

Open the doors of Broadcast Newsroom



The **NewsCaster Suite™** offers broadcasters the ability to integrate the NewTek TriCaster® Family of products and IP Series with a Broadcast Newsroom Computer System (NRCS). Specifically designed for the TriCaster and IP Series, the NewsCaster Suite consists of two products that offer differing levels of automation for your newsroom.

NewsCaster Connect:

The first level of automation is NewsCaster Connect™. This product bridges the gap between your NRCS and the TriCaster/IP Series. Rather than having to manually populate your TriCaster or IP Series with all the various media assets that

go into a broadcast, Connect allows you to load a show almost instantaneously. Driven by the rundown within your NRCS, Connect takes the assets needed for your show and sequences them into the various media bins within the TriCaster or IP Series to facilitate a smooth and uninterrupted broadcast. NewsCaster Connect is also sensitive

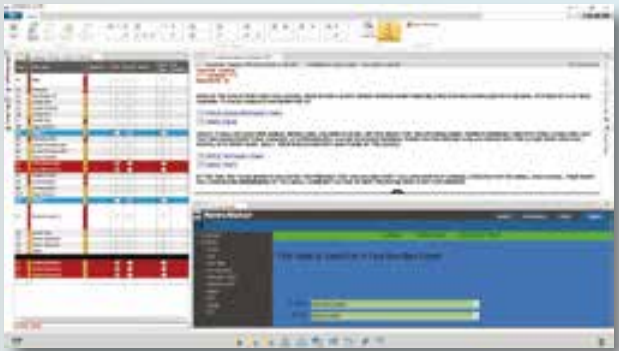
Line	Station	Color	Title	Action	Source	Time
A1		CURD	A	Open	DOR1 20170114_000204_QQOW_OPENING	Video 13:14
A1		CURD		Open	STILLS QQOW_OPENING	Still
A1		CURD		Open	SOUND EIPM Open	Audio 1:13:24
A2		CURD	B	Teaser	DOR2 Show Tease NTDTV	Video 20:10
A2		CURD		Teaser	SOUND EIPM Bumper 04	Audio 1:04:19
A3		CURD	A	Hill Cyn Fire Update	DOR1 Hill Cyn Fire VO	Video 8:03
A4		CURD	B	Chen Hearing SOT	DOR2 Chen Hearing SOT	Video 12:20
A4		CURD		Chen Hearing SOT	TITLES General 001 Mary Manning/Chen Ready The News	Title
A4		CURD		Chen Hearing SOT	TITLES General 002 Elaine Chen/Secretary Running	Title
A4		CURD		Chen Hearing SOT	SOUND ELECTION MUSIC	Audio 25:13
A5		CURD	A	Cyn Fire Upd SOT	DOR1 Cyn Fire Upd SOT	Video 15:42
A5		CURD		Cyn Fire Upd SOT	STILLS Anna Chavik.jpg	Still
A6		CURD	B	Hill Fire Upd SOT	DOR2 Hill Cyn Fire VO	Video 8:03
A7		CURD	A	Weather Tease	DOR1 Weather Bump	Video 4:26
A8		CURD	B	Weather	DOR2 Weather Tease SOT	Video 20:02
B1		CURD	A	NTD Logo	DOR1 20170113_000204_NTD_Logo	Video 6:00
B3		CURD	B	Coming Back	DOR2 Weather Bump	Video 4:26
B3		CURD	A	Coming Back	DOR1 20170113_000204_HQ01_COMING BACK	Video 6:01
B3		CURD		Coming Back	SOUND EIPM Bumper 05	Audio 1:02:29
B4		CURD	B	Happen Soon SOT	DOR2 Happen Soon SOT	Video 24:22
B6		CURD	A	Gelbans VO	DOR1 Gelbans	Video 14:12
B7		CURD		Close	SOUND EIPM Close	Audio 14:11



to any changes made within the rundown, such as adds, drops, floats, and moves. These changes will be reflected immediately within the TriCaster or IP Series as soon as they're made, even if you're on the air.

NewsCaster Control:

The second level of automation is NewsCaster Control™. This product represents the next major step in news automation. Using our own custom-developed system of NewsStyles™, coupled with a fully comprehensive back-end macro system, Control allows you to design a complete broadcast from start to finish within your NRCS and take it to air with the touch of a button. NewsStyles serve as representations of the unique visual sequences



within your broadcast (such as SOTs, VO's, and OnCameras), and they can be added to any rundown within your NRCS – just like the media assets that they will put on the air. When it's time to go live, Control's dynamic GUI and external button box allow you to progress through your rundown. All you have to do is sit back and enjoy the show.

Compatibility:

Both Connect and Control are compatible with all major MOS-enabled Newsroom System, including

- AP ENPS
- Octopus 8
- Ross Inception



- AVID iNews
- Annova OpenMedia

Technical Specifications:

Both Connect and Control include a NewsCaster Server, a 1RU server with:

- Windows 7
- 4x 1 Gigabit Ethernet ports
- 2x 10 Gigabit Ethernet ports
- 2x 1TB System Drives (RAID configured)
- 2x 4TB Data Drives (RAID configured)
- Redundant power supplies

NVG1™

NewTek-Vizrt IP Graphics Server

Take your production value to the next level with the **NVG1 NewTek-Vizrt IP Graphics Server**. A powerful 1RU turnkey video system, it combines NewTek's software-driven video technology with Vizrt's industry-leading Viz Trio™ character generator and Viz Engine™ compositing software to deliver the highest-quality CG and motion graphics into any production.



Native IP Workflow

With native integration of NDI®, the NVG1 IP Graphics Server interfaces seamlessly with the most prolific IP-based workflow in the industry, including NewTek IP Series and TriCaster live production systems. It includes production-ready news and sports graphics packages designed by Polygon Labs that you can customize to preference by changing color schemes, textures, logos, and more.

Professional Tools for Any Production Environment

Fully compatible with the entire suite of Vizrt solutions*, the NVG1 IP Graphics Server integrates seamlessly into advanced workflows for graphics authoring, data visualization, interactive election coverage, MOS newsroom production, collaborative NLE pipelines, video wall installations, and more.

Industry-Leading Live Graphics

Integrating Viz Trio for controlling graphic elements, and Viz Engine for rendering visuals in real time for output and use in your production, the NVG1 IP Graphics Server allows you to apply a signature look and feel to your branding.

Viz Trio™ and Viz Engine™ are trademarks of Vizrt



On Air graphics, Scoring

AND SOCIAL NETWORKS

LiveCG Broadcast™

Compact Graphics Generator with Social Media Integration



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 and video clips with transparency and transition per element.

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, video clips, 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® and more as well as RSS feeds, SMS, Skype® messages, and dynamic data from text files or Excel spreadsheets.



External control from TriCaster or Web browser through direct HTTP commands.

Perfect for music, sport, news or shopping channels:

LiveCG Broadcast can handle multiple dynamic sources simultaneously, like split the screen to display music titles, artists, people info, games ranking, stock exchange rates or 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 and more.



Independent pages Composer:

Create CG pages from any PC or laptop in the network with the free of charge LiveCG Composer.



Social Hub™

Social Media moderation for LiveCG Broadcast



external video inputs. Full animated graphics with transparency are delivered in real time through the NDI® protocol.

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 NDI® simultaneously.



Social Hub is a message moderation software program that supports most of the actual social networks and dynamic data sources. Delivered as standard 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 lists messages from all registered accounts. Several parameters can be set per account: update

frequency per seconds, date range per days, maximum number of messages, hash-tag for tweets, etc. 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.

Dynamic Weather information



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



LiveCG Broadcast supports:

- 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
- Video clips formats such as MPEG1/2/4, Cuda H264, Quicksync H264, Apple ProRes, DNxHD, DV/DVCPR0-HD, FLV/Sorenson, HuffYUV, MJPEG, WMV, JPEG2000, Theora, Lossless JPEG, Quicktime Animation

- Effects: shadow, blur, motion blur, smooth edge
- Smooth Transition: fade, move, zoom
- Midi protocol, GPI with optional LiveControl Box
- Included USB remote panel
- Unicode

Two models available:

LiveCG Broadcast IP for TriCaster/3Play and NDI® compatible devices:

Directly connected to the network, no need to use

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.

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...

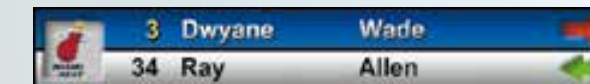
Two windows give the ability to preview pages before being sent live, keeping a complete control over the on-screen content.

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



Live Interface - Rugby

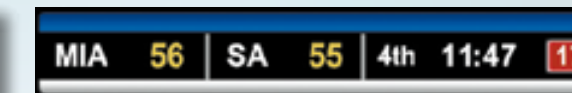
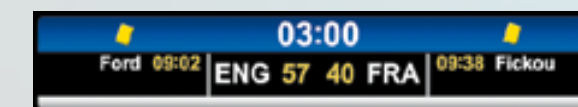
Players' replacement, yellow card, goal... specific animations for each action of the game can be launched with a single mouse click..



Rugby timer, with suspension time

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.



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
DELTA-CAST

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

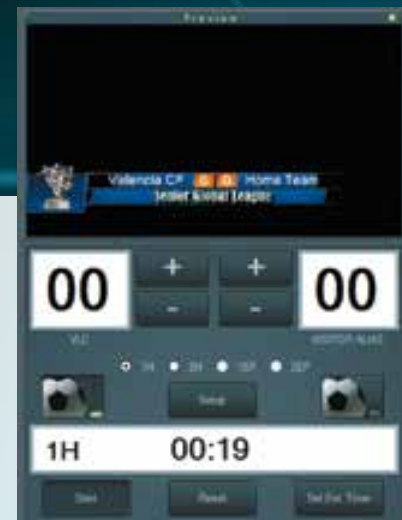
ingredient for turning a game into a show, all in the colours of the club!

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.



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

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: <https://www.newtek.com/support/certified/>. 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.

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: <https://www.newtek.com/support/warranties-a-returns/>

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 for products 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

Warranty


- The Service Plus contract is transferred if the production system is resold and protects your investment.

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

Contact 3D Storm for any information regarding products or services: info@3dstorm.com





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

70, Avenue de Capeyron - 33160 Saint-Medard-en-Jalles, France - T: + 33 (0) 5 57 262 262 - F: + 33 (0) 5 57 262 261 - info@3dstorm.com

NewTek and TriCaster are trademarks of NewTek.

All other products or brand names mentioned are trademarks or registered trademarks of their respective holders. The information, specifications and pictures in this catalogue are indicative, not contractual and subject to change without notice.

All Rights Reserved - ©3D Storm 2017