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TriCaster™ 3Play™ LightWave

Benefiting producers and artists with cost-effective and groundbreaking technologies, **NewTek** is a worldwide leader in portable live production, 3D animation and special effects tools, including the **TriCaster™** product line, **3PLAY™** and **LightWave3D®**. **NewTek** has won numerous industry accolades, including two Emmy® Awards.

Clients include: BBC, The European Parliament, France Televisions, Mediaset, RTBF, RTL, SIS LIVE, MTV, Fox News, ESPN, NBA, CBS Radio...

NewTek products have been used in blockbuster movies and television shows, including "Avatar", "Repo Men", "Alice in Wonderland", "Tintin", "CSI: Crime Scene Investigation", "Lost".





TriCaster™

High definition, live, multi-camera video production no longer requires giant production trucks with banks of monitors, meters of cables, tape machines, video recorders, video effects generators, titling stations, audio mixers and more. Today, all of that power, quality and potential exists in a 20-kilos box small enough to fit in a backpack with the flexibility for one person or a small team to deliver network-quality video. **TriCaster™** makes it possible for you to broadcast, project, live stream or record full HD programming.



TriCaster is a high definition, network-quality portable live production solution. In one small box you gain multi-channel HD switching, HD network-style virtual sets, HD titling, HD digital disk recording, audio mixing, HD editing, full HD streaming and more. Producers and sponsors worldwide find in **TriCaster** all the tools they need to achieve professional results that match their brand.



“It’s an all-terrain equipment, flexible and light. It solves a lot of bugs that usually happen during musical events production.”

Jean Roman Sales, Manager, Oxymore Productions

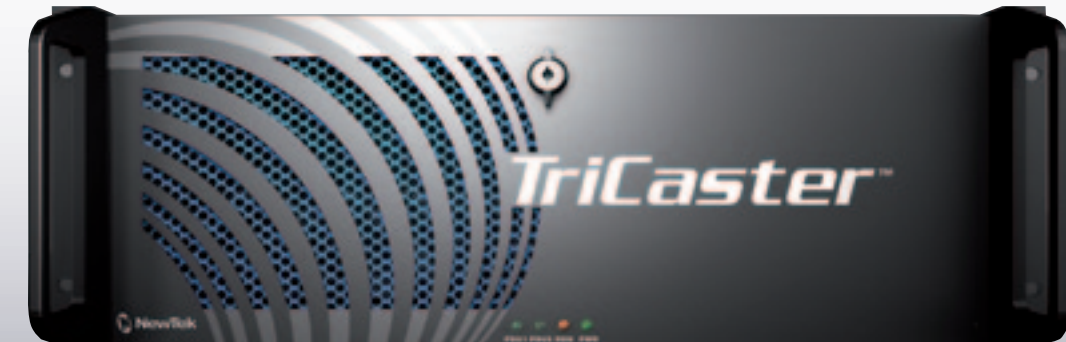


Live Production will never be the same.

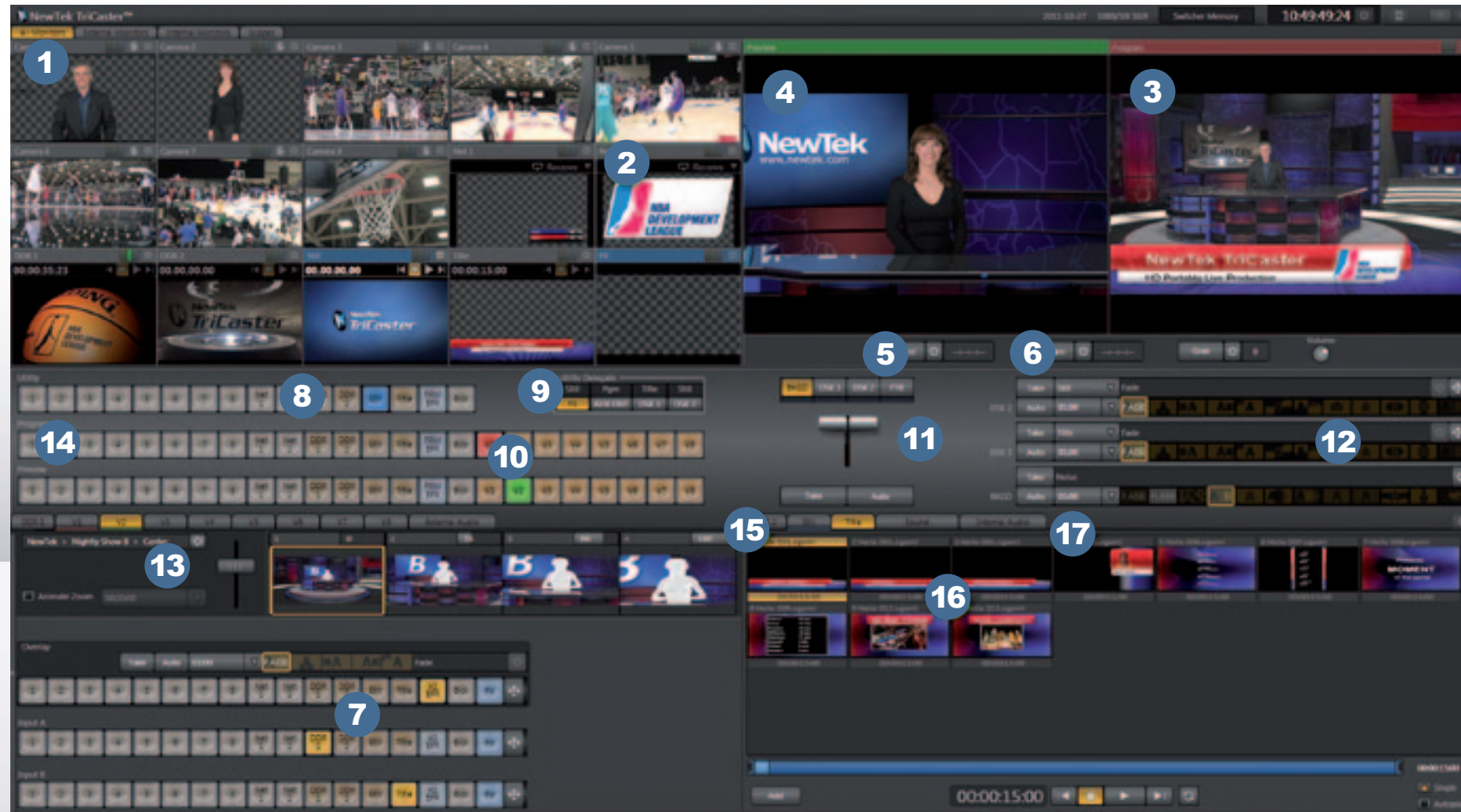
TriCaster 850 Extreme

TriCaster™ 850 EXTREME™, portable Live Production system, offers a wide range of capabilities and redefines what HD live production systems can do. **TriCaster 850 EXTREME** includes proprietary NewTek IsoCorder™ multi-track recording technology, which provides the ability to simultaneously record up to eight channels of video from either inputs or outputs.

- 24 channel switcher.
- 8 simultaneous HD/SD inputs.
- 8 Virtual Inputs which function as an advanced mix/effects bus with positioning and overlay capabilities.
- 5 digital Media Players for video playback, titles, stills, music and sound.
- Apple® AirPlay® Support of two simultaneous AirPlay audio/video streams.
- Two iVGA™ inputs deliver imagery or LiveText CG pages, from networked computers to the switcher or overlay channels.
- HDMI program out for projector (IMAG) or other monitoring applications.
- Proprietary NewTek IsoCorder™ Technology – Multi-track recording technology to record up to eight channels of video, simultaneously from any input or output.
- 200 hours of 1080i recording capacity (4x2 To).
- Supported Formats: QuickTime®, H.264®, AVI et MPEG-2.
- Four removable drive bays.
- Animation Store Transitions and Animation Store Creator – Deliver transitions embedded with full-color, motion video effects and audio, from a total of 11 animation stores.



- Live Streaming in Flash or WMV.
- Configure, store and import favorite streaming set-ups as presets, direct access to CDN accounts.
- Equalizer and compressor/limiter on every input .
- Multi-angles virtual sets with real-time reflection and animated zoom.
- Robust 19" rack mount case with Redundant power supply.



Interface

- 1 **LIVE DESKTOP MONITORS:** Integrated multi-view monitoring. Advanced alpha channel preview.
- 2 **NETWORK INPUTS:** Go wireless with iOS devices, Apple® AirPlay® support. iPad®, iPod® and iPhone®.
- 3 **PROGRAM MONITOR:** View current video output. See what your audience sees.
- 4 **LOOK-AHEAD PREVIEW MONITOR:** Display your next shot.
- 5 **ONE-BUTTON RECORDING:** Capture live production and individual sources. Simultaneously.
- 6 **ONE-BUTTON WEB STREAMING:** Use Adobe® Flash® or Microsoft® Windows Media® to stream.
- 7 **LIVE PRODUCTION SWITCHER:** 24-channel switcher. Up to eight live cameras simultaneously.
- 8 **UTILITY ROW:** Assign sources to FX bus, DSK channels and AUX output instantly.
- 9 **UTILITY DELEGATE:** Total control of utility row. Easy reference source.
- 10 **VIRTUAL INPUTS:** Assign complex switcher effects to one button. Fully customizable.
- 11 **TRANSITION CONTROLS:** Transition individual or multiple video layers – on and off screen.
- 12 **TRANSITIONS:** Broadcast-quality HD effects. Add interest and impact.
- 13 **24 HD LIVE VIRTUAL SETS:** Achieve the look of a network-style studio. Anywhere.
- 14 **VIRTUAL INPUT CONTROLS:** Configure virtual sets, double box effects and more.
- 15 **DIGITAL MEDIA PLAYERS:** Two DDRs for video playback. Titles bin. Stills store. Sound player.
- 16 **LIVE TITLES:** Give your production a network-quality finish. Graphics. Titles. Animated overlays.
- 17 **AUDIO MIXING:** Seven-band equalizer. Compressor/limiter. Complete audio control.

“ Record in HD and broadcast in SD was impossible until now. TriCaster is easy to use and allows us to vary formats and increase broadcast possibilities. ”

Jean Pecci, Film-maker, PRODCAST Films

TECHNICAL SPECIFICATIONS



TriCaster 850

HD/SD portable Live Production

TriCaster™ 850, a 24-channel video mixer, accepts high definition video in 1080p, 1080i and 720p along with SDI, Y/C, component and composite. Various formats can be combined and sources don't need to be synchronized.

TriCaster 850 is easy to use with:

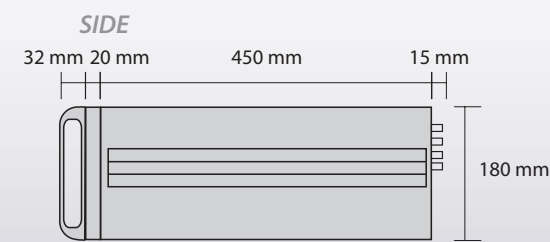
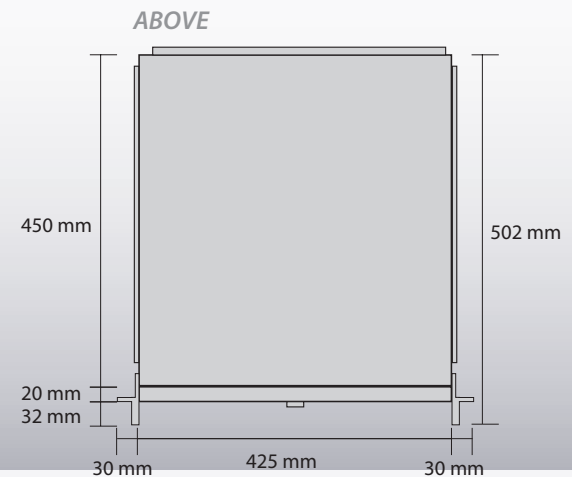
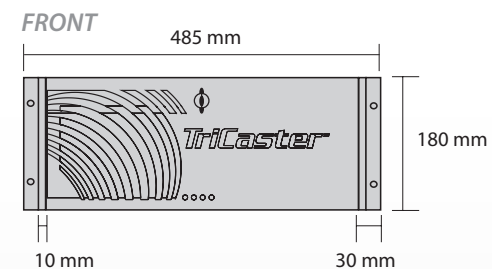
- 24-channel switcher.
 - 8 simultaneous HD/SD inputs.
 - 8 Virtual Inputs which function as an advanced mix/effects bus with positioning and overlay capabilities.
 - 5 digital Media Players for video playback, titles, stills, music and sound.
 - 16 analog XLR audio inputs.
 - Digital audio input options include eight AES/EBU inputs and full support for SDI-embedded audio.
 - 2 iVGA™ inputs deliver imagery or LiveText CG pages, from networked computers to the switcher or overlay channels
 - Apple® AirPlay® Support of two simultaneous AirPlay audio/video streams.
 - 2 (SD and analog) video output rows provide flexible simultaneous HD and SD video output from HD sessions.
- HDMI program out for projector (IMAG) or other monitoring applications.
 - 32 hours of 1080i recording capacity (2 TB).
 - 3 removable drive bays.
 - Live Streaming in Flash or WMV.
 - Configure, store and import favorite streaming set-ups as presets, direct access to CDN accounts.
 - Robust 19" rack mount case with Redundant power supply.



TRICASTER 850

“With TriCaster, we went from a team of 7 to 8 persons to 3 or 4 for the same quality of work.”

Marcos Fernandez, Director, 8mm Producciones



Video Input	8 simultaneous inputs. Any combination of:HD-SDI, HD Component, SD-SDI, SD Component, Y/C (BNC) or Composite. HD-SDI Video Conforms to SMPTE 292M and SD Video Conforms to SMPTE 259M and ITU-R BT.656.
Audio Input	8 SDI Embedded - 8 AES3/EBU - 8 x 2 Balanced XLR (Mic/Line) - Analog Audio Levels Conform to SMPTE RP-155 - Phantom Power Support.
Video Output	3 simultaneous outputs. HD-SDI, HD Component, SD-SDI, SD Component, Composite, Y/C (BNC). HDMI, DVI and VGA output for monitors and/or projector. Output sources include Program out and AUX out (configurable for Program, Program clean, Preview, any input, Effects, any frame-store, alpha out).
Audio Output	3 SDI Embedded - 2 AES3/EBU - 4 Balanced XLR - 4 Balanced XLR (AUX). 1 Stereo 1/4" (Phones). Every output supports seven-band equalizer and full stereo compressor/limiter
Video Processing	32-bit Floating Point YcbCrA 4:4:4:4
Audio Processing	32-bit Floating Point 4 channels, 96 kHz
Supported Formats	1080/25p, 1080/50i, 720/50p, 720/25p 576/25i, 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i (16:9 and 4:3)
Recording Capacity	~ 36 Hours (1080i) - 4 tray less SATA III removable drive bays with hot-swap support for unlimited storage and backup
User Configuration	Record sessions and parameters – multiple customized playlists
Source Mixing SD/HD	Yes
iVGA Channel	2 dedicated channels for access to external network sources PC and Mac® displays mirrored via NewTek iVGA™ technology, iTunes™ and wireless iOS devices via Apple® AirPlay® on any supported apps, including audio, photos and video
Tally	DB 15 connector for 8 PGM row tally lights

Live Virtual Sets	18 HD live TriCaster virtual sets, with animated zoom and independent effects, including positioning, scaling, cropping and 3D rotation
Network Connection	1 Gigabit connection for network inputs and streaming output
Virtual Input Overlay	1 per channel, upstream with keying, transitions and independent effects, including positioning, scaling, cropping and 3D rotation
Media Players	5 integrated digital media players, including 2 DDRs, Stills, Titles and Sounds players, with presets and alpha channel support, with individually adjustable audio levels for all clips
Overlay	Dual downstream keys (DSK) with matting, transitions and independent effects, including positioning, scaling, cropping and 3D rotation
Projector Output	16:9 or 4:3 aspect ratio, up to 1920 x 1200 resolution
Multi-View Monitor Output	Layout choices include All Monitors, External Monitors, Internal Monitors, Program, Preview, Effects, Preview/Program and Waveform/Vectorscope
Live Streaming Full HD 720p 16 :9	Yes
Video Projection resolution	Adjustable up to 1920 x 1200
Signal Monitoring	Waveform and Vectorscope displays - Full field rate with color preview
Live Webcasting	Yes - Adobe® Flash® to Flash media server connections or through browser based plug-ins - Microsoft® Windows Media® Push/Pull - Support for most common stream profiles
Integrated Character Generator	Yes
Media Formats	AVI, DV, DVCPPro, MJPEG, MP4, H.264, MPEG-2, DVD, WebM, MOV and more
Editing Software	Yes
Disk Bay	3 Removable drive bay SATA III
Export Media Formats	AVI, DV, DVCPPro, MJPEG, MP4, H.264, MPEG-2, DVD, WebM, MOV and more
Accessory Options	TriCaster™ 850 CS, TriCaster 850 TW, TriCaster Virtual Set Editor, TriCaster LC-11, TriCaster TimeWarp™ and LiveText™2
Redundant Power Supply	Yes

TriCaster 450 Extreme

HD Production Compact and Extreme

TriCaster™ 450 EXTREME™, a 14-channel production system, includes IsoCorder Technology that allows simultaneous multi-formats recording of up to 4 video channels from any input or output.

- 14-channel switcher.
- 4 simultaneous HD/SD inputs.
- 4 Virtual Inputs which function as an advanced mix/effects bus with positioning and overlay capabilities.
- 4 digital Media Players for video playback, titles, stills, music and sound.



- Apple® AirPlay® Support of two simultaneous AirPlay audio/video streams.
- 2 iVGA™ inputs deliver imagery or LiveText CG pages, from networked computers to the switcher or overlay channels.
- HDMI program out for projector (IMAG) or other monitoring applications.
- Proprietary NewTek IsoCorder™ Technology – Multi-track recording technology to record up to four channels of video, simultaneously from any input or output.
- 40 hours of 1080i recording capacity.
- Supported recording Formats: QuickTimeR, H.264, AVI and MPEG-2.
- 1 Internal Drive and 1 removable drive bay.

- Animation Store Transitions and Animation Store Creator – Deliver transitions embedded with full-color, motion video effects and audio, from a total of 7 animation stores.
- Live Streaming in Flash or WMV.
- Configure, store and import favorite streaming set-ups as presets, direct access to CDN accounts.
- Equalizer and compressor/limiter on every input.
- Multi-angles virtual sets with real-time reflection and animated zoom.



“ I am now doing by myself what 22 people and a half million dollar control room did, thanks to NewTek TriCaster. ”

Leo Laporte, Technology Journalist, TWiT TV

TECHNICAL SPECIFICATIONS



TriCaster 450

TriCaster 450™, a 14-channel live production system, provides 4 camera inputs fitting all main events and studios configurations.

- 4 simultaneous HD/SD inputs.
- 4 Virtual Inputs which function as an advanced mix/effects bus with positioning and overlay capabilities.
- 4 digital Media Players for video playback, titles, stills, music and sound.
- 4x4 symmetric audio channels.
- Embedded SDI audio support.
- 2 iVGA™ inputs deliver imagery or LiveText CG pages, from networked computers to the switcher or overlay channels.
- Apple® AirPlay® Support of two simultaneous AirPlay audio/video streams.
- HDMI program out for projector (IMAG) or other monitoring applications.
- 20 hours of 1080i recording capacity (2 To).
- 1 removable drive bay free space.

- 1 PROGRAM output and 1 AUXILIARY output SD/HD and analog, can be configured according to sessions with real-time down conversion ability.
- Live Streaming in Flash or WMV.
- Configure, store and import favorite streaming set-ups as presets, direct access to CDN accounts.
- Robust 19" rack mount case.



HD Production within reach

Video Processing	4:4:4:4 - 32-bit Floating Point
Audio Processing	4 channels, 96 kHz - 32-bit Floating Point
Video Input	4 simultaneous inputs. Any combination of: HD-SDI, HD Component, SD-SDI, SD Component, Y/C (BNC) or Composite. HD-SDI Video Conforms to SMPTE 292M and SD Video Conforms to SMPTE 259M and ITU-R BT.656.
Audio Input	4 SDI Embedded - 3 x 2 Balanced 1/4" (Mic/Line) - 1 x 2 Balanced XLR (Mic/Line) - Analog Audio Levels Conform to SMPTE RP-155 Phantom Power Support
Video Output	2 simultaneous outputs - HD-SDI, HD Component, SD-SDI, SD Component, Composite, Y/C (BNC) - HDMI, DVI and VGA output for monitors and/or projector - Output sources include Program out and AUX out (configurable for Program, Program clean, Preview, any input, Effects, any frame-store, alpha out)
Audio Output	2 SDI Embedded - 1 x 2 Balanced XLR - 1 x 2 Balanced 1/4" (AUX) - 1 Stereo 1/4" (Phones)
Supported Formats	Multi-Standard: NTSC-J; PAL 1080/25p, 1080/50i, 720/50p, 720/25p 576/25i
Project Formats	Support HD/SD sources 16:9 and 4:3 ratios
Recording	MPEG-2 (normal and high profile); MP3 - Full HD recording of Program output or AUX output in all resolutions up to 1080p
Recording Capacity	~ 20 Hours (1080i) - 1 trayless SATA III removable drive bay with hot-swap support for unlimited storage and backup
Live Streaming	Full HD live streaming in resolutions up to 720p (16:9 aspect ratio), with simultaneous archive - Streaming Profile Manager with integrated Web browser for access to online CDN accounts to manage or view shows
Supported Stream Types	Adobe® Flash® to Flash media server connections or through browser based plug-ins - Microsoft® Windows Media® Push/Pull Support for custom multi-bitrate streaming profiles
Network Connection	1 Gigabit connection for network inputs and streaming output
Network Source Support	2 dedicated channels for access to external network sources - PC and Mac® displays mirrored via NewTek iVGA™ technology, iTunes™ and wireless iOS devices via Apple® AirPlay® on any supported apps, including audio, photos and video

Virtual Inputs	4 independent, mix/effect-style channels, each with presets, overlay and dedicated channel for titles, frame-buffer or watch folder
Live Virtual Sets	20 HD live TriCaster virtual sets, with animated zoom and independent effects, including positioning, scaling, cropping and 3D rotation
Overlay	Dual downstream keys (DSK) with matting, transitions and independent effects, including positioning, scaling, cropping and 3D rotation
Media Players	4 integrated digital media players, including 2 DDRs, Stills, Titles and Sounds players, with presets and alpha channel support, with individually adjustable audio levels for all clips
Multi-View Monitor Output	Layout choices include All Monitors, External Monitors, Internal Monitors, Program, Preview, Effects, Preview/Program and Waveform/Vectorscope
Projector Output	16:9 or 4:3 aspect ratio, up to 1920 x 1200 resolution
Integrated Character Generator	LiveText™2
Editing Software	SpeedEDIT™ 2
Playback Media Formats	DNxHD, DV, DVCPro, DVCProHD, MOV, MKV, MJPEG, MPEG (1,2 in all profiles, program or transport streams), AVI, MOV, DV, H.263, H.264, FLV, WMV, MP4, PSD, PNG, TGA, BMP, JPEG, EXR, RAW, TIF, WAV, MP3, AIFF
Export Media Formats	Export module is included for batch copying with optional transcoding to a wide variety of different file formats and for a wide variety of different applications and devices - AVI, DV, DVCPro, MJPEG, MP4, H.264, MPEG-2, DVD, WebM, MOV - Adobe Premiere, Avid MediaComposer, Apple® FinalCut Pro, Android®, iPad®, iPhone®, iPod® Touch
Accessory Options	TriCaster™ 450 CS and TriCaster 850 TW, TriCaster Virtual Set Editor, TriCaster LC-11 and TriCaster LiveText™2
Tally	DB 15 connector for 4 PGM row tally lights

TriCaster 850 CS

TriCaster™ 850 CS hardware control surface is the ideal tool to complement TriCaster 850 EXTREME and TriCaster 850. It allocates all live functions operation on a dedicated control surface. TriCaster 850 CS provides instant control of the 24-channel system's titling parameters, effects, virtual inputs, media players, streaming and recording functions. TriCaster 850 CS provides illuminated push buttons, twist knobs, a premium T-bar and three-axis joystick.



Take control of your production

TriCaster 450 CS

TriCaster™ 450 CS hardware control surface is the ideal tool to complement TriCaster 450 EXTREME and TriCaster 450. It allocates all live functions operation on a dedicated control surface. TriCaster 450 CS provides instant control of the 14-channel system's titling parameters, effects, virtual inputs, media players, streaming and recording functions.

TriCaster 450 CS provides illuminated push buttons, twist knobs, a premium T-bar and three-axis joystick.



LC-11

LC-11 offers a physical connection to TriCaster 300 functions. This hardware control surface works with TriCaster 850 and 850 EXTREME to provide a compact control surface to produce live from confined spaces.

Large, backlit, easy-to-read buttons enable quick transition from one source to the next, along with zoom control for live virtual sets. LC-11 complements TriCaster users interface and gives more flexibility in any production environment.



TriCaster 850 TW

TriCaster™ 850 TW gives control over all media playback capabilities, including one channel instant replay. TriCaster 850 TW works seamlessly with TriCaster 850 EXTREME, TriCaster 850, TriCaster 450 EXTREME, TriCaster 450 and TriCaster 300. TriCaster 850 TW may be used as a companion to the TriCaster 850 CS control surface. Each control surface can be operated independently giving the possibility to have a workstation dedicated to media players and replay control.

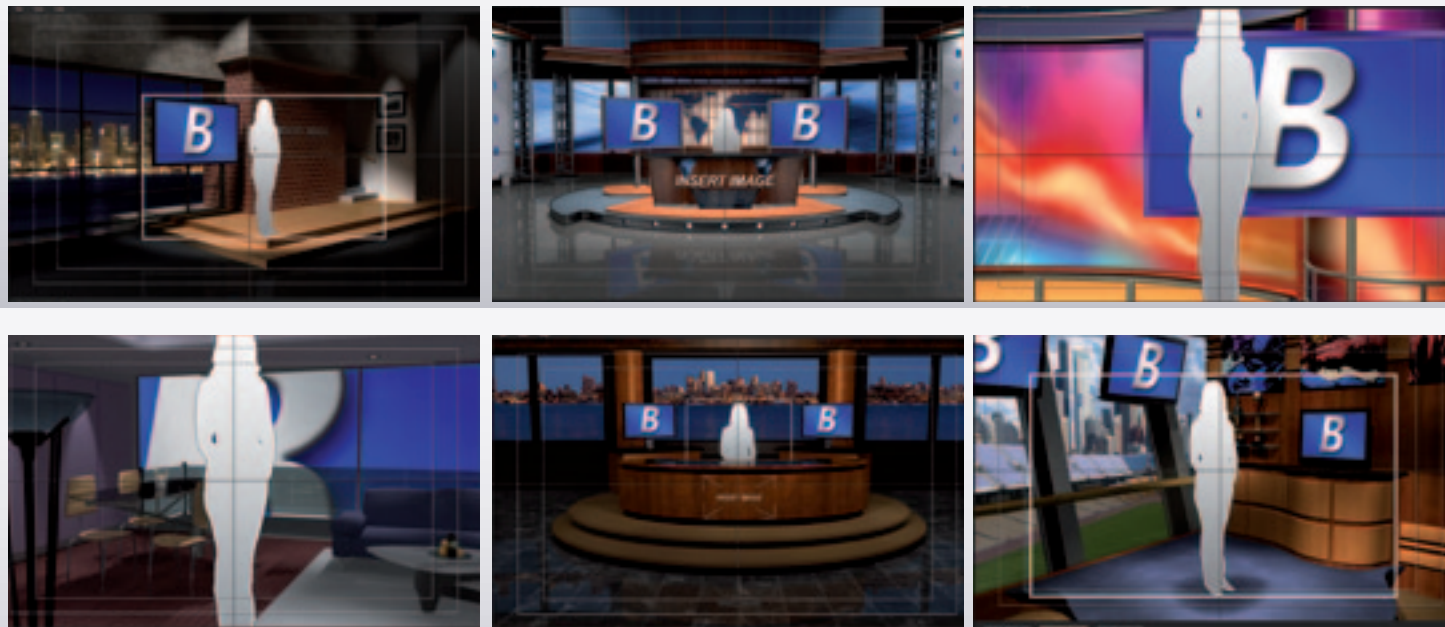
This flexible control surface provides normal and fast jog modes, a T-bar for dynamic speed replay, preset buttons, mark-in, mark-out controls to select clips.



TriCaster Virtual Set Editor (VSE)

TriCaster™ Virtual Set Editor (VSE) provides a 12 virtual sets store and a virtual set editor to create, customize your own sets, import your own creation in PSD file.

VSE is flexible to personalize your own sets without using long and complicated render. Get real-time reflections with a wide range of elements you can edit for network-style sets. Create multi-sources compositions with VSE.



LiveText 2

LiveText 2™ allows you to easily create and update titles and graphics on-the-fly during your live production. Connected to TriCaster via an Ethernet connection, this HD/SD multi-def titling software easily display real-time data, scores, times, and other fast-changing information during fast-pace production.

LiveText 2 gives the ability to share the workload and adds flexibility in your production. Whether preparing a large number of titles in pre-production on a laptop off-site or making last-minute changes during the show, LiveText makes your production run fast and smooth.



SpeedEDIT

SpeedEDIT is a resolution-independent video editor designed to work efficiently on any project. Get real-time up and down conversion, 3D position, size and rotation, interpolated slow motion. Support various resolution HD and SD on the same timeline and multi formats conversion in the same project.



3Play™

3Play™ product line is what producers were waiting for, powerful and affordable replay systems! All kinds of Sport events can now be broadcasted in slow motion, key element to appreciate and highlight a production. 3Play gives operators the ability to capture the action on every camera, to automatically archive the same action from various angles. Therefore, the director still has all his cameras angle shots for any selected action.



3PLAY

“ During international sport games broadcast, you need to be on top of your production. 3Play proved to be more efficient than any other equipment used as references on the market. ”

Ernesto Ascione, technical Director and Co-Owner, CAST Group.

TECHNICAL SPECIFICATIONS



3Play 820

Replay Reinvented

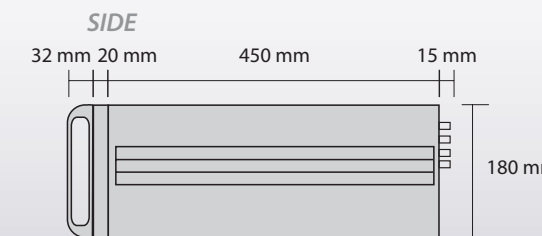
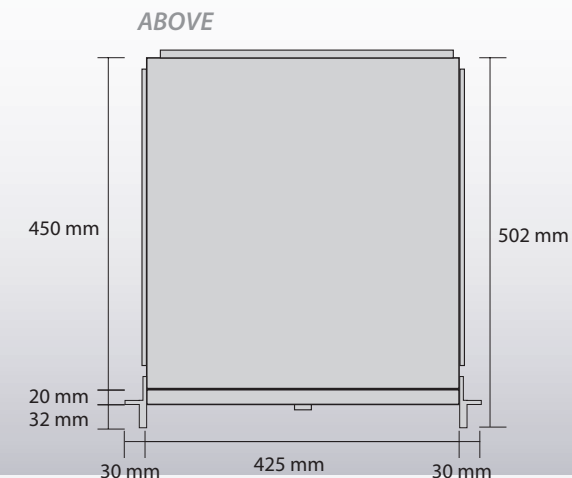
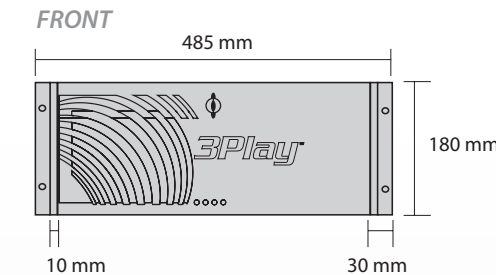
NewTek 3Play™ 820, a 10-channel (eight-in, two-out), slow motion system, includes proprietary NewTek IsoCorder™ technology which provides the simultaneous display, recording and instant replay of up to eight video streams, each with up to quad channel audio.

3Play 820 offers a revolutionary price-performance value, which retails at a fraction of the price of current four-input, two-out devices on the market. The two outputs work independently and can broadcast a slow motion or a playlist or any live input. A mode allows synchronizations of the 2 channels for simultaneous broadcast of 2 events.

- World-class, interpolated slow motion delivers smooth playback and ensures still frames are free of ghosting or blurring.
- Full support for a vast range of video and film formats.
- A second display may be used as an ISO monitor bridge including Heads Up Display (HUD).
- Easy import and export of a wide variety of popular media file types.
- Multiple playlists, including transitions, sound tracks and more.
- Linear timecode (LTC) support for synchronized capture of live action and efficient post production.
- Capture content from live video inputs to the destination drives of choice with support for writing a single channel to two simultaneous drives for fail safety when required.
- Compact 4U rack mount design includes always on-air, multi-tiered fail-safe systems and redundant hardware.
- Premium hardware control surface.



Video Inputs	8 simultaneous inputs - Any combination of: HD-SDI, HD Component, SD-SDI, SD Component, Composite, or Y/C (BNC)
Video Outputs	2 fully independent, simultaneous playout channels - HD-SDI, HD Component, SD-SDI, SD Component, Composite, or Y/C (BNC) AUX output - HDMI output - Dedicated DVI multi-view output
Video Formats	Multi-Standard: PAL 1080/25p, 1080/50i, 720/50p, 720/25p, 576/25i, NTSC-J NTSC: 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i Supports 16:9 and 4:3 aspect ratios
Audio Inputs	8 SDI Embedded - 8 AES3/EBU - 8 x 2 Balanced XLR (Mic/Line)
Audio Outputs	3 SDI Embedded - 2 AES3/EBU - 4 Balanced XLR outputs (PGM) - 4 Balanced XLR outputs (AUX)
Audio Processing	Audio is uncompressed and sampled at 96kHz, 32-bit
Recording Capacity	200 hours of combined 1080i storage across 4 removable drives (50 hours per drive)
Genlock	Locks to HD or SD analog signals - Supports either tri-level or bi-level sync sources
A/V Standards	HD-SDI video conforms to SMPTE 292M - SD video conforms to SMPTE 259M and ITU-R BT.656 - Analog audio levels conform to SMPTE RP-155



3Play 425

Replay in Compact Version

NewTek 3Play™ 425, a 6-channel, four-input, two-output, slow motion system includes proprietary NewTek IsoCorder™ technology which provides the simultaneous display, recording and instant replay of up to four video sources. **NewTek 3Play 425**, a compact, turnkey solution, provides in-game highlights authoring on-the-fly to producers looking for a serious, professional replay system. The two outputs work independently and can broadcast a slow motion or a playlist or any live input. A mode allows synchronizations of the 2 channels for simultaneous broadcast of 2 events.

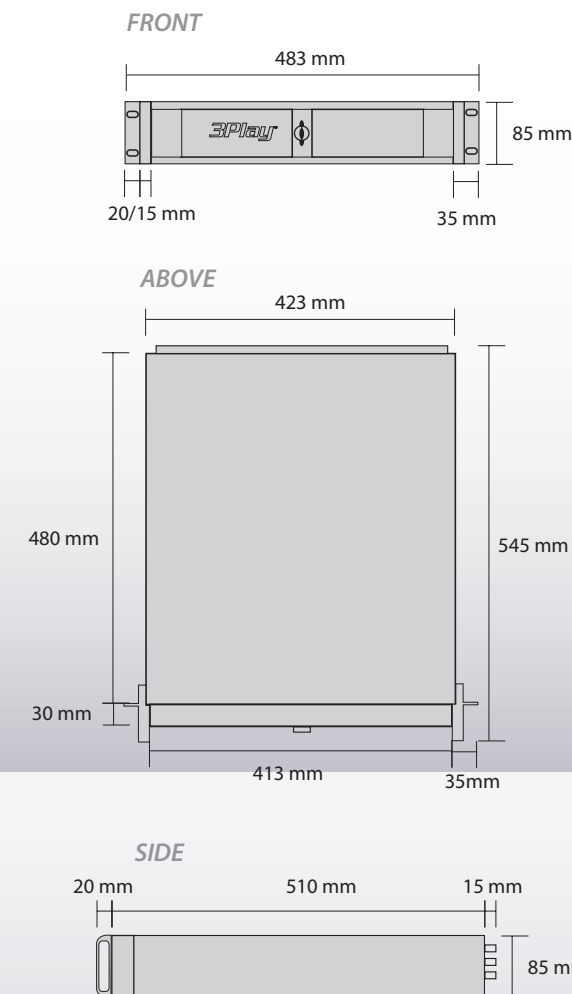
➔ **3Play 425** includes over-the-network integration with NewTek TriCaster™, appearing as a network input. The two outputs and the two iVGA channels can be linked without using any other video output. The paired 3Play 425 and TriCaster provide a complete integrated solution for live sports production with a small footprint.

- Simultaneous display and synchronized, continuous recording of up to four live video sources.
- Network-quality presentation, including interpolated slow motion and multi-angle switching during live playback.
- Instant, in-game creation of playlists and highlight reels with transitions and soundtracks.
- Team with TriCaster over Gig-E network to maximize production resources and distribution.
- Independent audio routing for every input (e.g. assign broadcast audio or natural sound to a specific camera angle).

- Native HD/SD resolution (up to 1080p).
- Integrated multi-view monitoring with Heads Up Display (HUD).
- Quick and easy import and export of media.
- Compact 2U rack mount design with multi-tiered hardware and software fail-safe systems.
- Premium hardware control surface.



Video Inputs	4 simultaneous inputs - Any combination of: HD-SDI, HD Component, SD-SDI, SD Component, Composite, or Y/C (BNC)
Video Outputs	2 fully independent, simultaneous playout channels - HD-SDI, HD Component, SD-SDI, SD Component, Composite, or Y/C (BNC) - HDMI output - Dedicated HDMI multi-view output - Network output for over-the-network input to TriCaster
Video Formats	Multi-Standard: PAL 1080/25p, 1080/50i, 720/50p, 720/25p, 576/25i, NTSC-J NTSC: 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i Supports 16:9 and 4:3 aspect ratios
Audio Inputs	4 SDI Embedded - 3 x 2 Balanced 1/4" (Mic/Line) - 1 x 2 Balanced XLR (Mic/Line)
Audio Outputs	2 SDI Embedded - 1 x 2 Balanced XLR - 1 x 2 Balanced 1/4"
Audio Processing	Audio is uncompressed and sampled at 96kHz, 32-bit
Recording Capacity	More than 30 hours of combined 1080i storage across internal drive and removable drive (15+ hours per drive) - MPEG-2 all I-frame
Genlock	Locks to HD or SD analog signals - Supports either tri-level or bi-level sync sources
A/V Standards	HD-SDI video conforms to SMPTE 292M - SD video conforms to SMPTE 259M and ITU-R BT.656 - Analog audio levels conform to SMPTE RP-155



LightWave™ 11

MODEL ANIMATE RENDER

LightWave

MODEL • ANIMATE • RENDER

With a state-of-the-art renderer and powerful, intuitive modeling and animation tools, **NewTek LightWave 3D®** is VFX and animation software with a proven, award-winning track record. LightWave is designed to support the creative process, providing the artist with the ability to interact in real time with 3D content, to work seamlessly with the full range of software applications in production pipelines and to render on unlimited render nodes. LightWave is enjoyed worldwide as a complete 3D production solution for visual effects in film, television, broadcast graphics, print, games, visualization and the Web. LightWave artists have won more Emmy® Awards for visual effects and animation than any other CG artists.

A simple setup for replicating realistic skin with a proprietary model for the subsurface scattering shader that works fully with the VPR



LIGHTWAVE





CSI - Image courtesy of Zoic Studios



Image courtesy of Energia Productions / Blind Spot



Abiogenesis - ©2001 Fuzzy Realms Limited

Television

Feature film

Indie & Short film



Image courtesy of Fun Go Play



Khalid Al-Muharradi



Illustration and image by Joe Zeff Designs at Splashlight

Games & Software

Architecture & Design

Print graphics

Interactive Display and Rendering Tools

Viewport Preview Renderer (VPR) enhancements	Support for Clip Maps in the VPR render, Object Dissolve and Distance Dissolve in VPR and Nodal Shaders, plus Limited Region enhancements.
New Skin Shader node	Simple setup for replicating realistic skin with a proprietary model for the subsurface scattering shader that works fully with the VPR.
New Off-axis Camera Rig option	Supports all three of the major stereoscopic camera rig types (Parallel, Toe-in and Off-axis).
Linear Color Space Workflow	Supports consistent gamma, color space and custom Look Up Tables (LUTs) for more realistic lighting and to maximize compositing flexibility in a professional pipeline.

Data Interchange Enhancements

MDD with powerful new enhancements include support for Autodesk Geometry Cache	Freedom to move deformations and transforms between applications allowing for an extremely flexible, extensible pipeline for animation, dynamics, effects, and rendering.
FBX	Load and save camera data, lighting, objects with UV maps and image maps, parenting hierarchies, etc.
COLLADA	Easy transfer of camera data, lights, object placement, image maps, etc., from one application to another.
Improved ZBrush Interchange	Easy transfer and manipulation of UV maps from ZBrush.
Improved OBJ UV Support	Delivers the ability to import and export any number of UV maps.

New Immersive, Real-Time and Game Tools

Support for the InterSense VCam virtual camera system used in feature film Virtual Art Departments (VAD)	Gain a true "on location" experience through interaction with massive 3D scenes in real time with control of light placement and camera directly in your 3D application.
Support for 3Dconnexion line of 3D mouse	Move through the virtual world and interact with models and scenes controlling cameras and lights in real time.
SpriteGen	Automates creation of sprite animation images for real-time and game engines.

LightWave 11 Enhancements

Instancing	Mass duplication of objects in a scene, with very little overhead. Ability to have huge 'virtual' polygon counts.
Flocking	Calculate crowd avoidance, target alignment and cohesive attractions, to create realistic natural: Flocks of Birds, Schools of Fish, Swarms of Insects, Animal Herd Behaviors, Craft Maneuvers...
Fracture	Compliment Bullet dynamics in LightWave Layout. Pre-fracture objects ready for destruction. Create an Endomorph of the resulting fracture; animate the explosion, with or without using dynamics. Apply Weight maps to the source object to control the density
Bullet Dynamics	Bullet dynamics engine directly in Layout can be used with the new Fracture tool in Modeler to create compelling physics-based animation, like collapsing buildings, explosions...
Virtual Studio Tools	Use third party controllers to animate items in your scene such as Playstation® Move. These third party controllers use the new SDK available for the Virtual Studio Tools, to hook into the system directly. Using the Node Editor, the data can be edited in the Graph Editor, letting you hand edit any live-captured performances.
Interchange Tools	GoZ™ is an interchange technology from Pixologic®, that allows applications to send model and texture data to and from ZBrush™ for sculpting detail on a base mesh.
Render Buffer Enhancements	Saving and viewing the various buffers produced by the render engine to make up an image, Select which objects are to be included with the buffers, select which buffers are to be exposed for saving or viewing.
Python Scripting	Inclusion of Python in LightWave 11 for further integration of LightWave into studio pipelines.
FiberFX Enhancements	New volume rendering mode <ul style="list-style-type: none"> Instance Info node now works to change colour on FiberFX instances in Solid volume type Added support for nodal colour input to the stroke or ribbon type of volume rendering Add nodal colour UV texture mapping support for volume stroke rendering, including smoothing Add nodal colour UV texture mapping support for rasterized fibers, including smoothing Add alpha input into FiberFX node editor Add alpha mapping support for texture mapping



Christian Schrul



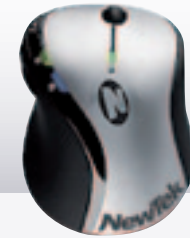
3D STORM

3D Storm, major actor in the broadcast and video industry, is the exclusive distributor of NewTek products for Europe, Middle-East, Africa, Turkey, Russia and Pakistan. **3D Storm** products include TriCaster, 3Play and LightWave as well as a wide range of accessories, titling and virtual creation tools.

Recognized by the cinema and television industry, **3D Storm** provides a wide range of production equipment as well as training services on NewTek solutions and softwares.

3D Storm expertise gives all the answers to audiovisual professionals' needs and always renewed expectations in streaming and 3D technology.

Services



Training program

A list of authorized LightWave 3D Training Centers is available on www.newtek-europe.com. 3D Storm offers high end bespoke training for 3D VirtualSets design for TriCaster and LightWave3D modeling, animation and rendering. Our trainings can be combined with production and while learning the techniques you may apply them to one of your projects. Contact our sales department to organize your next training session.

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All NewTek products come with a warranty. For detailed information check the "*warranties and return policy*" on NewTek website. Anytime during your original warranty coverage period, you may contact 3D Storm to inquire about extended service plan for an additional coverage period.

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For any inquiry about our products do not hesitate to use 3D Storm **FREE CALLBACK SERVICE** accessible from newtek-europe.com home page. Just enter your phone number and your preferred time to be contacted and we will call you back.

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Become a Certified TriCaster™ Operator and add a valuable asset to your business. The **NewTek TriCaster Certified Operator Exam** is an opportunity to test your skills at creating a live production with TriCaster. Your Certification gives producers and directors confidence that your skills meet the demands of today's fast-paced production environment. Contact 3D Storm for any enquiry regarding TriCaster Operator Certification.

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	TriCaster 850 Extreme	TriCaster 850	TriCaster 450 Extreme	TriCaster 450
Supported Standards	1080/25p, 1080i, 720p, 576i, 480i	1080/25p, 1080i, 720p, 576i, 480i	1080/25p, 1080i, 720p, 576i, 480i	1080/25p, 1080i, 720p, 576i, 480i
Number of inputs	8	8	4	4
Number of Virtual inputs	8	8	4	4
Video Projector output	DVI & HDMI	DVI & HDMI	DVI & HDMI	DVI & HDMI
Multi preview	Yes	Yes	Yes	Yes
Mix HD and SD sources	Yes	Yes	Yes	Yes
Web Streaming	Flash, WMV, up to 720p	Flash, WMV, up to 720p	Flash, WMV, up to 720p	Flash, WMV, up to 720p
Virtual sets	Yes, animated zoom	Yes, animated zoom	Yes, animated zoom	Yes, animated zoom
Chromakeyer	LiveMatte HD	LiveMatte HD	LiveMatte HD	LiveMatte HD
DSK with DVE3D	2+1	2+1	2+1	2+1
Animation store transitions	Yes	Option	Yes	Option
Real time Titling HD/SD	Yes	Yes	Yes	Yes
Video DDR	2	2	2	2
Record HD	Up to 8 channels - ISOCORDER	PGM or Aux	Up to 4 channels - ISOCORDER	PGM or Aux
Record Stream	Yes	Yes	Yes	Yes
External Computer display in PC & Mac	2 iVGA	2 iVGA	2 iVGA	2 iVGA
Apple Airplay Support	Yes	Yes	Yes	Yes
PGM freeze frame	Yes	Yes	Yes	Yes
Input PROC Amps	Yes, All Channels	Yes, All Channels	Yes, All Channels	Yes, All Channels
Vectorscope /Waveform	Yes (colour)	Yes (colour)	Yes (colour)	Yes (colour)
Editing Software	Yes	Yes	Yes	Yes
Multi-Standard PAL/NTSC	Yes	Yes	Yes	Yes
Time Code	Yes, LTC	Option	Yes, LTC	Option
Genlock in	Yes	Yes	Yes	Yes
Alpha channel	In/Out	In/ Out in option	In/Out	In/ Out in option
Tally	Yes (db15)	Yes (db15)	Yes (db15)	Yes (db15)
Audio Input	SDI embedded, AES and Analog	SDI embedded, AES and Analog	SDI embedded, AES and Analog	SDI embedded, AES and Analog
EQ / compressor /limiter	Yes	Option	Yes	Option
Rackmount (optional rack rails)	4U	4U	2U	2U
Weight	19 Kg / 42 lbs	19 Kg / 42 lbs	13 Kg / 28 lbs	13 Kg / 28 lbs
Dimensions	W 485 x H 180 x D 517 (mm)	W 485 x H 180 x D 517 (mm)	W 483 x H 85 x D 545 (mm)	W 483 x H 85 x D 545 (mm)

	3Play 820	3Play 425
Number of channels	8 In - 2 Out	4 In - 2 Out
Supported standards	1080/25p, 1080i, 720p, 576i, 480i	1080/25p, 1080i, 720p, 576i, 480i
Included Control Surface	820CS	425CS
Time Code	Yes, LTC	Yes, LTC
Record Formats	MPEG-2 VBR, I-Frame	MPEG-2 VBR, I-Frame
Record Capacity	200 hours	30 hours
Multi-format file import/export	Yes	Yes
Transitions	Yes	Yes
Soundtrack	Yes	Yes
Multi preview (DVI out)	Yes	Yes
Network	Gbit Ethernet	Gbit Ethernet
HD Removable bays	4	1
Multi-tiered Fail safe mode	Yes	Yes
Multi-standard PAL/NTSC	Yes	Yes
Audio	SDI embedded, AES and Analog	SDI embedded, AES and Analog
Genlock in	Yes	Yes
Rackmount (optional rack rails)	4U	2U
Weight	19 Kg / 42 lbs	13 Kg / 28 lbs
Dimensions	W 485 x H 180 x D 517 (mm)	W 483 x H 85 x D 545 (mm)



Specifications subject to change without notice.

NewTek TriCaster 450CS

NewTek TriCaster 850TW

NewTek TriCaster 850CS



www.newtek-europe.com



www.3dstorm.fr

Distributed in Europe, Middle East, Africa, Pakistan, Turkey - Russia by 3D Storm

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@newtek-europe.com

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