

LIVE MULTI-CAMERA VIDEO PRODUCTION AND STREAMING



NEWTEK OFFICIAL DISTRIBUTOR - SOLUTIONS FOR TELEVISION PRODUCTION & VIDEO STREAMING

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"Since 1999, the 3D Storm team is focused on products developed by NewTek. 3D Storm has become over the year the leading International NewTek Distributor. 3D Storm is also the first NewTek repair center outside north America, with an unrivalled service and support. With Service Plus, 3D Storm offers extended support and warranty giving NewTek customers peace of mind at no extra cost. We are delighted to present the 3D Storm IBC 2014 NewTek products catalog."

Franck Lafage
Managing Director - 3D Storm



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NewTek is transforming the way people create network-style television content and share it with the world. From sporting events, Web-based talk shows, live entertainment, classrooms, and corporate communications—to virtually any venue where people want to capture and publish live video, we give our customers the power to grow their audiences, brands and businesses, faster than ever before.

As we move forward, we're guided by a singular focus: To help creative professionals get their stories out of their heads and onto screens in ways that just weren't possible

a few years ago. The beauty of storytelling with NewTek is that there really aren't any boundaries that prevent people from touching the hearts and minds of today's digitally driven audience. At the end of the day, our success is based on the feedback we receive from the creative production community, and we welcome your insight as we reinvent the possibilities of storytelling. Let us know what's on your mind, and we'll do our part to make sure it only gets easier for your voice to be heard and be seen—anywhere and everywhere.

TriCaster™

Live productions that just fall into place

TriCaster is an all-in-one, integrated live production system that offers the power of a live network studio. When paired with live streaming over the Web, anyone can create and share a professional TV show. Students, premiere broadcast networks, major league sports networks and teams, along with some of the world's biggest corporations—all use TriCaster to produce and stream live events, and expand their audiences, faster than ever before.

The NewTek family of TriCaster products integrates everything you need into a single, elegant, cost-effective and easy-to-use system so you'll never have to buy and install separate components. With TriCaster in your studio, school, business or mobile van, you'll spend more time bringing your creative ideas to life, and less time worrying if things will actually work.



TriCaster 410



TriCaster 460



TriCaster 860



TriCaster 8000

TriCaster™ 8000



Monitor not included.

A force to be monetized

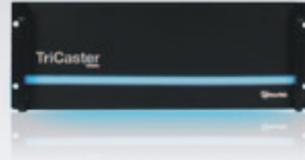
You work in a world where complex productions are the norm. And producing content at a superhuman pace is expected. **TriCaster 8000** lets you reach more viewers—on more screens and in more places—with incredibly sophisticated shows.

A highly configurable, broadcast-integrated content production platform, TriCaster 8000 allows you to dominate vastly scalable, creative live productions with access to all available content at your fingertips. You have total integration with existing gear, and the ability to move from the most straightforward, to the most complex events with ease. Publish to social media platforms during production, and adapt to any custom configuration—even extended ones with upstream routers and mirrored systems. With unprecedented capabilities for automation and control, the more complex your program, the easier you can make it all come together.

Operators can easily keep up with the higher demands of live production control, and the need to deliver live media to multiple outlets, behind the console of the TriCaster 8000 CS. With every function under fingertip control, it's the most practical and coolest way to handle the heat of a hot production.

- ✓ **Virtually Unlimited Scalability** - Add router control to multiply camera sources and deliver to more outputs without conversion, look even bigger with multi-input virtual sets; or downsize for a small-scale show, seamlessly.
- ✓ **Mirroring** - Support for synchronized, mirrored operation between multiple TriCaster 8000 systems connected to the same local network to provide fail-safe operation and expand programming opportunities.
- ✓ **Media Publishing** - Instantly publish content to popular social media sites; upload to FTP sites, or transfer to storage volumes and network locations; share clips and stills during production, or upload your entire show within minutes after production wraps.
- ✓ **Automation** - Streamline sophisticated operation sequences that are too complex for real-time action with custom Macro commands; extend control behind the scenes and in front of the camera with MIDI support and interactive Hot Spots; add robotic PTZ cameras that you can control remotely without the need for additional staff.
- ✓ **Holographic Live Virtual Sets** - Import custom, photorealistic virtual environments created from panoramic images captured with a smartphone, point-and-shoot, or DSLR camera, with support for 3D positioning of sources and live virtual camera movements (requires Virtual Set Editor 2.5, sold separately).



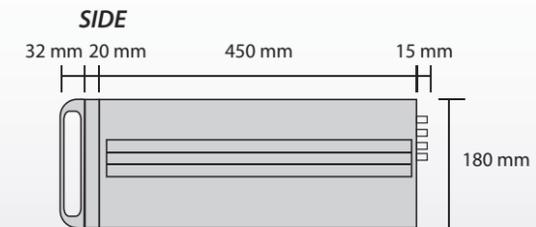
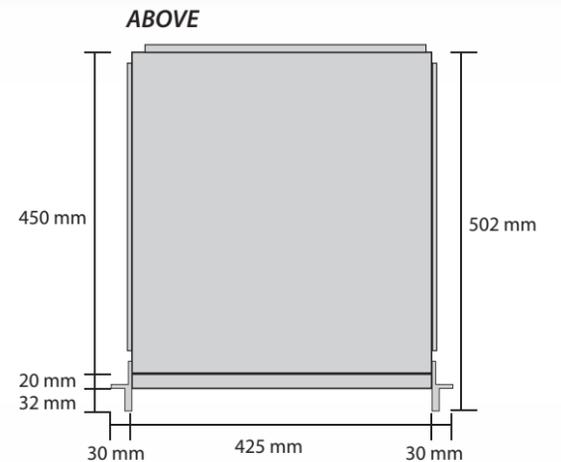
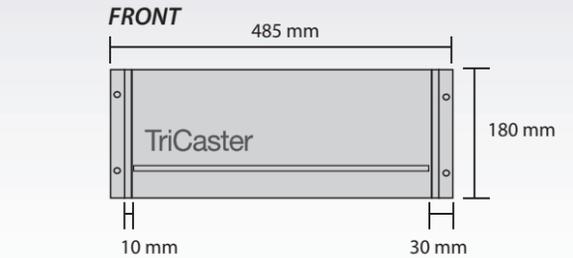


TriCaster™ 8000 Technical Specifications

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|--------------------------------------|--|
| Switcher Channels | 24 - 10 external, 6 internal, 8 M/E buses |
| Video Input | 8 simultaneous live video sources, in any combination of supported connection types, resolutions and frame rates (including PsF selections), with third-party video router support <ul style="list-style-type: none"> Direct input of cameras and video devices in any combination of HD-SDI, HD Component, SD-SDI, SD Component, Y/C or Composite connections Compatible with external video routers manufactured by AJA®, Blackmagic Design®, Ensemble Designs, Miranda, Utah Scientific, and brands supporting Grass Valley® Native Protocol Per-input format configuration, scaler (including 3:2 intelligent pull-down) and frame synchronizer enabling intermixing of formats Per-input color correction, crop and LiveMatte keyer controls Support for Key + Fill input pairing |
| Network Sources | 2 live inputs via Gigabit connection, selectable from any available network sources with support for video, audio and alpha channel Supported sources include networked computers via included NewTek iVGA client application: wireless Apple® AirPlay® devices, TriCaster 8000, 860, 460 or 410n, 3Play 4800, 820 or 425, USB video sources, video over IP sources, RTMP or RTSP streams, HTTP streaming video sources, and a variety of third-party partner solutions |
| Robotic Camera Support | Access up to 8 live Pan-Tilt-Zoom (PTZ) robotic cameras via standard serial and network protocols, with preset system and user interface control over camera orientation, zoom, focus and iris |
| Media | 5 integrated digital media sources for video, graphics and sounds (2 DDRs, 2 GFX and Sound) + 15 buffers |
| Buffers | 15 content buffers to store and playback video, animations, still images and graphics - 10 animation buffers and 5 still & title buffers, with multiviewer, animation preview, title editing and presets - Shareable across a network for watch folder application, with real-time edit and update of content |
| Mix/Effect Buses (M/E) | 8 freely configurable M/E channels with re-entry for video mixing, compositing, effects, real-time motion tracking and virtual sets, each supporting 4 independent Key layers, TransWarp effects, and Adobe® Photoshop® blending modes between layers <ul style="list-style-type: none"> Mix mode: Enables secondary switcher operation for output, submix or recording, with Program/Preview workflow and transitions Effects mode: Enables multi-layer compositing, effects generation and virtual set application, with per-source 3D DVE, scaling, cropping, edge feathering and keying |
| Macros | Record configurations and operation sequences, then attach to keyboard shortcuts, control surface actions, MIDI controllers, or on-screen hotspots for recall and automation <ul style="list-style-type: none"> Macro editor for modifying user-defined macro configurations and sequences Augment and extend TriCaster operation using macro plug-ins to control external devices and applications Enable cross-platform commands and automation between TriCaster and 3Play |
| DSKs | 4 primary DSK channels, plus 4 additional Key layer per M/E bus, each with independent transition controls, 3D DVE, edge feathering, scaling, cropping and integrated TransWarp effects |
| Effects and Transitions | Integrated TransWarp effects engine on all effects channels supports standard transitions, customizable animation store transitions with audio, and overlay effects - Animation Store Creator for custom animations - Supports per-pixel alpha blending between sources and real-time 3D warping of video or graphics |
| Virtual Sets | 30+ HD live virtual sets, with presets, multiple camera angles, real-time reflections, and specular highlights - Live pan and zoom of virtual camera and customizable virtual camera presets with animated pan, zoom and pedestal moves - Support for up to 4 switchable live sources and multi-box effects, with per-source 3D DVE, edge feathering, scaling, cropping and keying Supports custom-created virtual sets generated using NewTek Virtual Set Editor or third-party partner solutions |
| Holographic Live Virtual Sets | Support for custom virtual environments generated from panoramic smartphone, camera or DSLR images - Select sets included, custom sets require Virtual Set Editor 2.5 |
| Hotspots | Up to 8 freely configurable, interactive hotspots per input for macro control |
| Video Output | Configurable for up to 14 output connections, with support for key output and per-connection signal settings <ul style="list-style-type: none"> 3 x SDI • 3 x Analog (configurable for Component or Y/C + Composite) HDMI output • 2 x Display Ports for additional displays or projectors Network output for live streaming A/V output to network-connected TriCaster over local network |
| Recording | Multi-track, multi-format recording of up to 8 simultaneous channels via IsoCorder™ technology - Native recording in up to 1080p with timecode Encoding format selectable per source: QuickTime® (XDCAM HD compatible, 4:2:2 encoding, 24-bit audio), MPEG-2 (high or normal profile), AVI (SpeedHQ), and H.264 (high or Web quality) - Freely choose to add recordings to Publish queue and DDR destinations |
| Recording Capacity | Includes 3TB internal drive and 3 removable 2TB media drives accommodating a total of ~220 hours 1080i (varies by resolution and format; capacity expandable using additional supported storage) - 4 trayless SATA III removable drive bays with hot-swap support for unlimited storage and backup - Supports shared storage integration via third-party partner solutions |
| Grab | Grab full resolution, de-fielded still images from all inputs and outputs, and freely choose to add grabs to Publish queue, Media Player presets and Buffer destinations |
| Media Publishing | Supports direct content upload to YouTube™, Facebook, Twitter™, FTP, local or external volumes, and network servers |

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| Live Streaming | HD live streaming with simultaneous archive - Presets in up to 720p, supporting most common streaming profiles and custom multi-bitrate streaming profiles, including RTMP streaming using H.264 (ex. Adobe® Flash® Media Server), Microsoft® Windows Media® Push/Pull, and browser-based streaming applications, with Ustream® and Livestream® native integrated support - Streaming Profile Manager with integrated Web browser |
| Audio Inputs | 8 SDI Embedded - 8 AES3/EBU - 8 x 2 Balanced XLR (Mic/Line) - Phantom Power Support |
| Audio Outputs | 3 SDI Embedded - 2 AES3/EBU - 4 Balanced XLR - 4 Balanced XLR (AUX) - 1 Stereo 1/4" (phones) |
| Audio Mixing | Integrated multi-channel audio mixer for internal and external audio sources, outputs, stream and head-phones, with 4 fully independent stereo output mixes: 2 Master, 2 AUX <ul style="list-style-type: none"> Pan control, solo auditioning, seven-band equalizer and stereo compressor/limiter per input and output, with per-input audio delay control Multi-bus routing of audio source channels to any combination of outputs, with independent level control over channels 1/2 and 3/4 for quad sources AFV system enabling audio to follow multiple video sources, with support for unlimited audio grouping combinations Digital audio inputs equipped with audio time-base synchronizers Supports companion iPad® audio mixing app, Avid® Artist Mix audio control surface and LiveMixer remote audio control app. |
| Supported Session Formats | <ul style="list-style-type: none"> TriCaster 8000-MS (Multi-standard): PAL 1080/25p, 1080/24p, 1080/50i, 720/50p, 720/25p, 720/24p, 576/25i, NTSC, NTSC-J 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i TriCaster 8000 (North America): NTSC 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i |
| Playback Media Formats | AVI, DV, DVCPro, DVCProHD, FLV, F4V, H.263, H.264, MOV, MKV, MJPEG, MPEG (1, 2, all profiles, program or transport streams), MP4, WMV, WebM, PSD, PNG, TGA, BMP, JPEG, EXR, RAW, TIF, AIFF, MP3, WAV, and more, with Import Media application for batch import with optional transcoding of files (including Apple ProRes) |
| Export Media Formats | Export media application for batch copying with optional transcoding of files to compatible formats for different applications and devices: Apple ProRes, AVI, DV, DVCPro, DVD, H.264, MOV, MPEG-2, MJPEG, MP4, WebM and more |
| Post Production | NewTek SpeedEDIT 2 non-linear editor available via download for Add-On installation - NewTek SpeedHQ codecs for Mac and PC included for extended file compatibility |
| Monitoring | DVI monitor outputs for user interface and multiview preview displays - Preview all sources or select sources in a variety of layouts and dual-monitor display combinations via Workspaces control panel - Viewports freely configurable for any combination of input sources, Program, Preview, M/E buses, clocks or images - A/V indicator and guide overlays configurable per viewport |
| Signal Monitoring | Integrated Waveform and Vectorscope, full field rate with digital calibration, color preview and support for ITU-R Rec. 601 and 709 |
| Mirroring | Redundant operation and synchronized control supported between TriCaster 8000 systems connected to the same local network |
| Session Management | Setup and store session settings in reusable template sessions |
| Latency | Ultra-low, between 1 and 2 frames |
| Processing | Video: 4:4:4:4, 32-bit Floating Point - Audio: 4 channels, 96 kHz, 32-bit Floating Point |
| 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 |
| Control Surface | Includes TriCaster 8000 hardware control surface - Surface ~ 86.6 x 2.6 x 35.1 cm (34.1 x 1.0 x 13.8 in) - Base ~ 86.6 x 5.6 x 32.5 cm (34.1 x 2.2 x 12.8 in) |
| MIDI Control | Support for standard MIDI protocol enabling third-party MIDI device control of TriCaster operations via macros |
| GPI Support | Supports 2 x 24 GPI signals via JLCoper eBOX GPI system |
| System Physical | 4U Rack Mount, with 550W redundant, removable power supply and multi-tiered hardware and software fail-safe - 48.3 x 17.8 x 52.0 cm (19.0 x 7.0 x 20.5 in) - 20 kg (44 lbs) |

Subject to change without notice.



TriCaster™ 860



Optional control surface sold separately - Monitor not included.

Seize opportunity. Smash limitations.

Create more shows for a bigger audience with programs that make a bigger impact. All at once, **TriCaster 860** lets you deliver content where your viewers watch—broadcast on TV, streamed live online, and projected on the big screen—even posted in real time on social media sites where they can share the experience with others. Gear up your productions without adding more gear.

With TriCaster 860, you have a complete, media production solution for delivering bigger, more creative live productions. Produce more with the content you capture—more video, text, graphics, animations and virtual sets. Don't just keep up with ever-changing media strategies—invent your own. Create the attention-getting content that stands out from the crowd, and use that same content to discover fresh new streams of revenue opportunities.

Adapt to your growing program needs with incredibly flexible control, sophisticated automation, and 8 M/E submix potential. Fly solo with the optional hardware control surface—or assemble a team to crew a studio full of supported third-party audio, MIDI, and robotic camera devices.

✓ **Multi-Track ISO Source Recording** - Isolate the recording of multiple input and output sources with IsoCorder™ technology, including embedded timecode and four audio tracks; save racks and racks of space and resources that are typically allocated for capture, and post-production workflows.

✓ **Media Publishing** - Instantly publish content to popular social media sites; upload to FTP sites, or transfer to storage volumes and network locations; share clips and stills during production, or upload your entire show within minutes after production wraps.

✓ **Automation** - Streamline sophisticated operation sequences that are too complex for real-time action with custom memory presets and key commands; extend control behind the scenes and in front of the camera with MIDI support and interactive Hot Spots; and add robotic PTZ cameras that you can control remotely without the need for additional staff.

✓ **Holographic Live Virtual Sets** - Create custom, photorealistic virtual environments from panoramic images using a smartphone, point-and-shoot, or DSLR camera, with support for 3D positioning of sources and live virtual camera movements (requires Virtual Set Editor 2.5, sold separately).

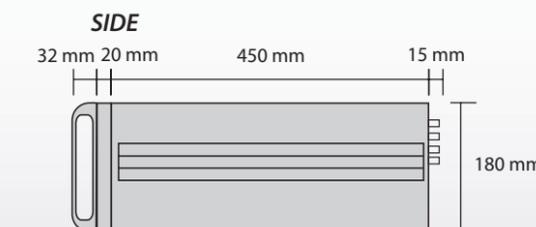
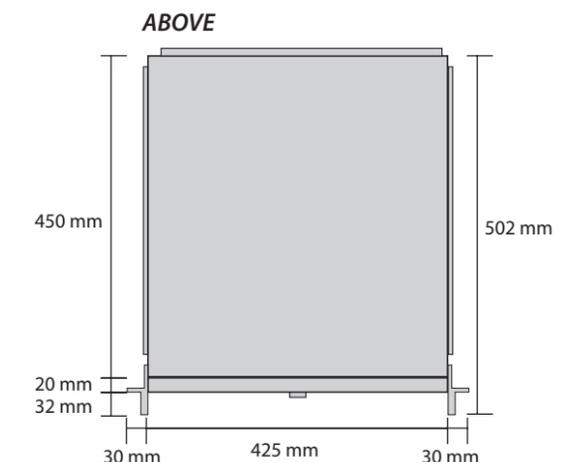
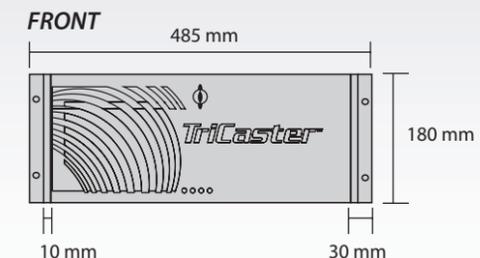
✓ **Multi-Channel Audio Mixer** - Deliver pristine sound with adjustable audio for all sources, plus 4 fully independent stereo output mixes; robust audio follow video and routing configuration; touchscreen and tactile remote control via the iPad® audio app and native support for Avid® Artist Mix audio control surfaces.





TriCaster™ 860 Technical Specifications

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| Switcher Channels | 24 - 10 external, 6 internal, 8 M/E buses |
| Video Input | 8 simultaneous live video sources, in any combination of supported connection types, resolutions and frame rates (including PsF selections) Direct input of cameras and video devices in any combination of HD-SDI, HD Component, SD-SDI, SD Component, Y/C or Composite connections Per-input format configuration, scaler (including 3:2 intelligent pull-down) and frame synchronizer enabling intermixing of formats Per-input color correction, crop and LiveMatte keyer controls Support for Key + Fill input pairing |
| Network Sources | 2 live inputs via Gigabit connection, selectable from any available network sources with support for video, audio and alpha channel Supported sources include networked computers via included NewTek iVGA client application, wireless Apple® AirPlay® devices, TriCaster 8000, 860, 460 or 410, 3Play 4800, 820 or 425, USB video sources, video over IP sources, RTMP or RTSP streams, HTTP streaming video sources, and a variety of third-party partner solutions |
| Robotic Camera Support | Access up to 8 live Pan-Tilt-Zoom (PTZ) robotic cameras via standard serial and network protocols, with preset system and user interface control over camera orientation, zoom, focus and iris |
| Media | 5 integrated digital media sources for video, graphics and sounds (2 DDRs, 2 GFX and Sound) + 15 buffers |
| Buffers | 15 content buffers to store and playback video, animations, still images and graphics 5 animation buffers and 10 still & title buffers, with multiviewer, animation preview, title editing and presets Shareable across a network for watch folder application, with real-time edit and update of content |
| Mix/Effect Buses (M/E) | 8 freely configurable M/E channels for video mixing, compositing, effects and virtual sets, each supporting independent Key layer, TransWarp effects, and Adobe® Photoshop® blending modes between layers • Mix mode: Enables secondary switcher operation for output, submix or recording, with Program/Preview workflow and transitions • Effects mode: Enables multi-layer compositing, effects generation and virtual set application, with per-source 3D DVE, scaling, cropping and keying |
| Macros | Record configurations and operation sequences, then attach to keyboard shortcuts, control surface actions, MIDI controllers, or on-screen hotspots for recall and automation • Macro editor for modifying user-defined macro configurations and sequences • Augment and extend TriCaster operation using macro plug-ins to control external devices and applications • Enable cross-platform commands and automation between TriCaster and 3Play |
| DSKs | 2 primary DSK channels, plus 1 additional Key layer per M/E bus, each with independent transition controls, 3D DVE, scaling, cropping and integrated TransWarp effects |
| Effects and Transitions | Integrated TransWarp effects engine on all effects channels supports standard transitions, customizable animation store transitions with audio, and overlay effects Animation Store Creator for custom animations Supports per-pixel alpha blending between sources and real-time 3D warping of video or graphics |
| Virtual Sets | 30+ HD live virtual sets, with presets, multiple camera angles, real-time reflections, and specular highlights Live pan and zoom of virtual camera and customizable virtual camera presets with animated pan, zoom and pedestal moves Support for up to 2 switchable live sources, with per-source 3D DVE, scaling, cropping and keying Supports custom-created virtual sets generated using NewTek Virtual Set Editor or third-party partner solutions |
| Holographic Live Virtual Sets | Support for custom virtual environments generated from panoramic smartphone, camera or DSLR images Select sets included, custom sets require Virtual Set Editor 2.5 |
| Hotspots | Up to 8 freely configurable, interactive hotspots per input for macro control |
| Video Output | Configurable for up to 14 output connections, with support for key output and per-connection signal settings • 3 x SDI • 3 x Analog (configurable for Component or Y/C + Composite) • HDMI output • 2 x Display Ports for additional displays or projectors • Network output for live streaming • A/V output to network-connected TriCaster over local network |
| Recording | Multi-track, multi-format recording of up to 8 simultaneous channels via IsoCorder™ technology - Native recording in up to 1080p with timecode - Encoding format selectable from: QuickTime® (XDCAM HD compatible, 4:2:2 encoding, 24-bit audio), MPEG-2 (high or normal profile), AVI (SpeedHQ), and H.264 (high or Web quality) - Freely choose to add recordings to Publish queue and DDR destinations |
| Recording Capacity | Includes 3TB internal drive accommodating ~70 hours 1080i (varies by resolution and format; capacity expandable using additional supported storage) • 4 trayless SATA III removable drive bays with hot-swap support for unlimited storage and backup • Simultaneous recording of up to 2 channels to internal drive; support for up to 8 channels with removable drives, external or shared storage connected • eSATA port for recording to external storage • Supports shared storage integration via third-party partner solutions |
| Grab | Grab full resolution, de-fielded still images from inputs and outputs, and freely choose to add grabs to Publish queue, Media Player presets and Buffer destinations |
| Media Publishing | Supports direct content upload to YouTube™, Facebook, Twitter™, FTP, local or external volumes, and network servers |



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| Live Streaming | HD live streaming with simultaneous archive - Presets in up to 720p, supporting most common streaming profiles and custom multi-bitrate streaming profiles, including RTMP streaming using H.264 (ex. Adobe® Flash® Media Server), Microsoft® Windows Media® Push/Pull, and browser-based streaming applications, with Ustream® and Livestream® native integrated support - Streaming Profile Manager with integrated Web browser |
| Audio Inputs | 8 SDI Embedded - 8 AES3/EBU - 8 x 2 Balanced XLR (Mic/Line) - Phantom Power Support |
| Audio Outputs | 3 SDI Embedded - 2 AES3/EBU - 4 Balanced XLR - 4 Balanced XLR (AUX) - 1 Stereo 1/4" (phones) |
| Audio Mixing | Integrated multi-channel audio mixer for internal and external audio sources, outputs, stream and headphones, with 4 fully independent stereo output mixes: 2 Master, 2 AUX Pan control, solo auditioning, seven-band equalizer and stereo compressor/limiter per input and output, with per-input audio delay control Multi-bus routing of audio source channels to any combination of outputs, with independent level control over channels 1/2 and 3/4 for quad sources AFV system enabling audio to follow multiple video sources, with support for unlimited audio grouping combinations Digital audio inputs equipped with audio time-base synchronizers Supports companion iPad® audio mixing app, Avid® Artist Mix audio control surface and LiveMixer remote audio control app. |
| Supported Session Formats | <ul style="list-style-type: none"> TriCaster 860-MS (Multi-standard): PAL 1080/25p, 1080/24p, 1080/50i, 720/50p, 720/25p, 720/24p, 576/25i, NTSC, NTSC-J: 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i TriCaster 860 (North America): NTSC 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i |
| Playback Media Formats | AVI, DV, DVCPRO, DVCPROHD, FLV, F4V, H.263, H.264, MOV, MKV, MJPEG, MPEG (1, 2, all profiles, program or transport streams), MP4, WMV, WebM, PSD, PNG, TGA, BMP, JPEG, EXR, RAW, TIF, AIFF, MP3, WAV, and more, with Import Media application for batch import with optional transcoding of files (including Apple ProRes) |
| Export Media Formats | Export media application for batch copying with optional transcoding of files to compatible formats for different applications and devices: Apple ProRes, AVI, DV, DVCPRO, DVD, H.264, MOV, MPEG-2, MJPEG, MP4, WebM and more |
| Post Production | NewTek SpeedEDIT 2 non-linear editor available via download for Add-On installation NewTek SpeedHQ codecs for Mac and PC included for extended file compatibility |
| Monitoring | DVI monitor outputs for user interface and multiview preview displays • Preview all sources or select sources in a variety of layouts and dual-monitor display combinations via Workspaces control panel • Viewports freely configurable for any combination of input sources, Program, Preview, M/E buses, clocks or images • A/V indicator and guide overlays configurable per viewport |
| Signal Monitoring | Integrated Waveform and Vectorscope, full field rate with digital calibration, color preview and support for ITU-R Rec. 601 and 709 |
| Latency | Ultra-low, between 1 and 2 frames |
| Processing | Video: 4:4:4:4, 32-bit Floating Point - Audio: 4 channels, 96 kHz, 32-bit Floating Point |
| Processing | Video: 4:4:4:4, 32-bit Floating Point - Audio: 4 channels, 96 kHz, 32-bit Floating Point |
| 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 |
| Control Surface | Optional TriCaster 860 hardware control surface - Surface ~ 72.4 x 1.3 x 29.5 cm (28.5 x 0.5 x 11.6 in) - Base ~ 69.9 x 5.1 x 27.4 cm (27.5 x 2.0 x 10.8 in) 8.2 kg (18.1 lbs) |
| MIDI Control | Support for standard MIDI protocol enabling third-party MIDI device control of TriCaster operations via macros |
| GPI Support | Supports 2 x 24 GPI signals via JLC Cooper eBOX GPI system |
| System Physical | 4U Rack Mount, with 550W power supply and multi-tiered hardware and software fail-safe 48.3 x 17.8 x 52 cm (19.0 x 7 x 20.5 in) 20 kg (44 lbs) |

Subject to change without notice.

TriCaster™ 460



Optional control surface sold separately - Monitor not included.

Mobile production that will make you look like a television giant.

Raise the level of your mobile production without raising the budget.

TriCaster 460 gives you professional-grade gear in a compact, easy to use system so you can quickly reach your audience from anywhere—booth, studio, van or small control room.

TriCaster 460 provides incredible flexibility to producers on the road and in small spaces for everything from connectivity and program output, to source footage access after the fact, and available media sources. Elevate everyday productions to network-style compositions with real-time, 4 M/E compositing, virtual sets, transitions, brand elements, and more—all integrated within a compact 2U frame. Quickly capture and create compelling live and post-produced content with on-board tools that save space and costs. Go live. Go big. On the road or onsite.

With an optional hardware control surface and support for a range of external control devices for audio mixing, robotic camera operation, sequence commands, and even gesture-based talent triggers, TriCaster 460 gives you complete control of your content, whether you're producing for broadcast, streaming live to the Web, projecting to a big screen, creating an engaging second-screen experience—or all of the above.

✓ **Multi-Track ISO Source Recording** - Record up to four isolated, simultaneous feeds during live production with IsoCorder™ technology built into the system, replacing racks and racks of space-wasting gear – without the expense.

✓ **Media Publishing** - Instantly publish content to popular social media sites; upload to FTP sites, or transfer to storage volumes and network locations; share clips and stills during production, or upload your entire show within minutes after production wraps.

✓ **Automation** - Streamline sophisticated operation sequences that are too complex for real-time action with custom memory presets and key commands; extend control behind the scenes and in front of the camera with MIDI support and interactive Hot Spots; and add robotic PTZ cameras that you can control remotely without the need for additional staff.

✓ **Holographic Live Virtual Sets** - Create custom, photorealistic virtual environments from panoramic images using a smartphone, point-and-shoot, or DSLR camera, with support for 3D positioning of sources and live virtual camera movements (requires Virtual Set Editor 2.5, sold separately).

✓ **Multi-Channel Audio Mixer** - Deliver pristine sound with adjustable audio for all sources, plus 4 fully independent stereo output mixes; robust audio follow video and routing configuration; touchscreen and tactile remote control via the iPad® audio app and native support for Avid® Artist Mix audio control surfaces.



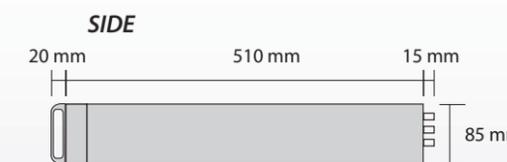
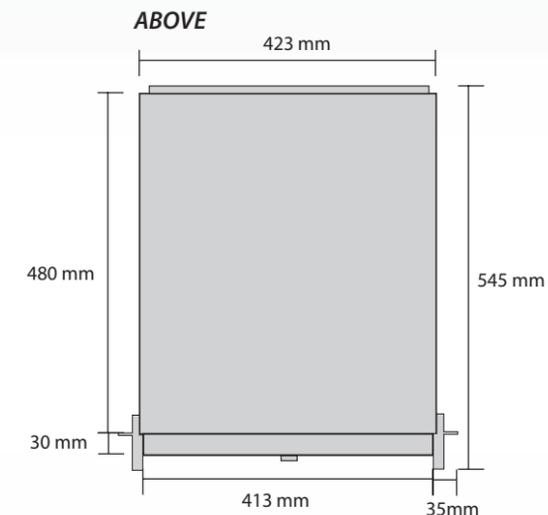
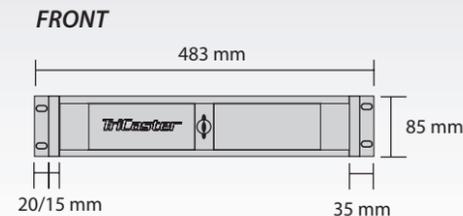


TriCaster™ 460 Technical Specifications

| | |
|--------------------------------------|---|
| Switcher Channels | 15 – 6 external, 5 internal, 4 M/E buses |
| Video Input | 4 simultaneous live video sources, in any combination of supported connection types, resolutions and frame rates (including PsF selections) - Direct input of cameras and video devices in any combination of HD-SDI, HD Component, SD-SDI, SD Component, Y/C or Composite connections - Per-input format configuration, scaler (including 3:2 intelligent pull-down) and frame synchronizer enabling intermixing of formats - Per-input color correction, crop and LiveMatte keyer controls - Support for Key + Fill input pairing |
| Network Sources | 2 live inputs via Gigabit connection, selectable from any available network sources with support for video, audio and alpha channel Supported sources include networked computers via included NewTek iVGA client application, wireless Apple® AirPlay® devices, TriCaster 8000, 860, 460 or 410, 3Play 4800, 820 or 425, USB video sources, video over IP sources, RTMP or RTSP streams, HTTP streaming video sources, and a variety of third-party partner solutions |
| Robotic Camera Support | Access up to 4 live Pan-Tilt-Zoom (PTZ) robotic cameras via standard serial and network protocols, with preset system and user interface control over camera orientation, zoom, focus and iris |
| Media | 4 integrated digital media sources for video, graphics and sounds (2 DDRs, GFX and Sound) + 15 buffers |
| Buffers | 15 content buffers to store and playback video, animations, still images and graphics - 5 animation buffers and 10 still & title buffers, with multiviewer, animation preview, title editing and presets - Shareable across a network for watch folder application, with real-time edit and update of content |
| Mix/Effect Buses (M/E) | 4 freely configurable M/E channels for video mixing, compositing, effects and virtual sets, each supporting independent Key layer, TransWarp effects, and Adobe® Photoshop® blending modes between layers • Mix mode: Enables secondary switcher operation for output, submix or recording, with Program/Preview workflow and transitions • Effects mode: Enables multi-layer compositing, effects generation and virtual set application, with per-source 3D DVE, scaling, cropping and keying |
| Macros | Record configurations and operation sequences, then attach to keyboard shortcuts, control surface actions, MIDI controllers, or on-screen hotspots for recall and automation • Macro editor for modifying user-defined macro configurations and sequences • Augment and extend TriCaster operation using macro plug-ins to control external devices and applications • Enable cross-platform commands and automation between TriCaster and 3Play |
| DSKs | 2 primary DSK channels, plus 1 additional Key layer per M/E bus, each with independent transition controls, 3D DVE, scaling, cropping and integrated TransWarp effects |
| Effects and Transitions | Integrated TransWarp effects engine on all effects channels supports standard transitions, customizable animation store transitions with audio, and overlay effects Animation Store Creator for custom animations - Supports per-pixel alpha blending between sources and real-time 3D warping of video or graphics |
| Virtual Sets | 30+ HD live virtual sets, with presets, multiple camera angles, real-time reflections, and specular highlights Live pan and zoom of virtual camera and customizable virtual camera presets with animated pan, zoom and pedestal moves Support for up to 2 switchable live sources, with per-source 3D DVE, scaling, cropping and keying Supports custom-created virtual sets generated using NewTek Virtual Set Editor or third-party partner solutions |
| Holographic Live Virtual Sets | Support for custom virtual environments generated from panoramic smartphone, camera or DSLR images - Select sets included, custom sets require Virtual Set Editor 2.5 |
| Hotspots | Up to 8 freely configurable, interactive hotspots per input for macro control |
| Video Output | Configurable for up to 11 output connections, with support for key output and per-connection signal settings • 2 x SDI • 2 x Analog (configurable for Component or Y/C + Composite) • HDMI output • 2 x Display Ports for additional displays or projectors • Network output for live streaming • A/V output to network-connected TriCaster over local network |
| Recording | Multi-track, multi-format recording of up to 4 simultaneous channels via IsoCorder™ technology Native recording in up to 1080p with timecode - Encoding format selectable from: QuickTime® (XDCAM HD compatible, 4:2:2 encoding, 24-bit audio), MPEG-2 (high or normal profile), AVI (SpeedHQ), and H.264 (high or Web quality) - Freely choose to add recordings to Publish queue and DDR destinations |
| Recording Capacity | Includes 3TB internal drive accommodating ~70 hours 1080i (varies by resolution and format; capacity expandable using additional supported storage) • Trayless SATA III removable drive bay with hot-swap support for unlimited storage and backup • Simultaneous recording of up to 2 channels to internal drive; support for up to 4 channels with removable drive, external or shared storage connected • eSATA port for recording to external storage • Supports shared storage integration via third-party partner solutions |
| Grab | • Trayless SATA III removable drive bay with hot-swap support for unlimited storage and backup |
| Media Publishing | • Simultaneous recording of up to 2 channels to internal drive; support for up to 4 channels with removable drive, external or shared storage connected |
| Live Streaming | • eSATA port for recording to external storage |

| | |
|----------------------------------|--|
| Audio Inputs | 4 SDI Embedded - 3 x 2 Balanced 1/4" (Mic/Line) - 1 x 2 Balanced XLR (Mic/Line) - Phantom Power Support |
| Audio Outputs | 2 SDI Embedded - 1 x 2 Balanced XLR - 1 x 2 Balanced 1/4" (AUX) - 1 Stereo 1/4" (phones) |
| Audio Mixing | Integrated multi-channel audio mixer for internal and external audio sources, outputs, stream and headphones, with 4 fully independent stereo output mixes: 2 Master, 2 AUX Pan control, solo auditioning, seven-band equalizer and stereo compressor/limiter per input and output, with per-input audio delay control Multi-bus routing of audio source channels to any combination of outputs, with independent level control over channels 1/2 and 3/4 for quad sources Audio Follow Video system enabling audio to follow multiple video sources, with support for unlimited audio grouping combinations Digital audio inputs equipped with audio time-base synchronizers Supports companion iPad® audio mixing app, Avid® Artist Mix audio control surface and LiveMixer remote audio control app. |
| Supported Session Formats | <ul style="list-style-type: none"> TriCaster 460-MS (Multi-standard): PAL 1080/25p, 1080/24p, 1080/50i, 720/50p, 720/25p, 720/24p, 576/25i, NTSC, NTSC-J: 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i TriCaster 460 (North America): NTSC 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i |
| Playback Media Formats | AVI, DV, DVCPRO, DVCPROHD, FLV, F4V, H.263, H.264, MOV, MKV, MJPEG, MPEG (1, 2, all profiles, program or transport streams), MP4, WMV, WebM, PSD, PNG, TGA, BMP, JPEG, EXR, RAW, TIF, AIFF, MP3, WAV, and more, with Import Media application for batch import with optional transcoding of files (including Apple ProRes) |
| Export Media Formats | Export media application for batch copying with optional transcoding of files to compatible formats for different applications and devices: Apple ProRes, AVI, DV, DVCPRO, DVD, H.264, MOV, MPEG-2, MJPEG, MP4, WebM and more |
| Post Production | NewTek SpeedEDIT 2 non-linear editor available via download for Add-On installation NewTek SpeedHQ codecs for Mac and PC included for extended file compatibility |
| Monitoring | DVI and HDMI monitor outputs for user interface and multiview preview displays • Preview all sources or select sources in a variety of layouts and dual-monitor display combinations via Workspaces control panel • Viewports freely configurable for any combination of input sources, Program, Preview, M/E buses, clocks or images • A/V indicator and guide overlays configurable per viewport |
| Signal Monitoring | Integrated Waveform and Vectorscope, full field rate with digital calibration, color preview and support for ITU-R Rec. 601 and 709 |
| Session Management | Setup and store session settings in reusable template sessions |
| Latency | Ultra-low, between 1 and 2 frames |
| Processing | Video: 4:4:4:4, 32-bit Floating Point Audio: 4 channels, 96 kHz, 32-bit Floating Point |
| 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 |
| Control Surface | Optional TriCaster 460 hardware control surface • Surface ~ 59.7 x 1.3 x 29.5 cm (23.5 x 0.5 x 11.6 in) • Base ~ 57.2 x 5.1 x 27.4 cm (22.5 x 2.0 x 10.8 in) • 14.6 lbs (6.6 kg) |
| GPI Support | Supports 2 x 24 GPI signals via JCooper eBOX GPI system |
| MIDI Control | Support for standard MIDI protocol enabling third-party MIDI device control of TriCaster operations via macros |
| System Physical | 2U Rack Mount, with 430W power supply and multi-tiered hardware and software fail-safe 48.3 x 8.9 x 54.6 cm (19.0 x 3.5 x 21.5 in) 11.8 kg (26 lbs) |

Subject to change without notice.



TriCaster™ 410



Optional control surface sold separately - Monitor not included.

Enter live webcasting. Emerge victorious

Streamline your production setup and keep your business moving from one event to the next with the turnkey power of **TriCaster 410™**. Forget the costly investment in racks and racks of equipment - you get all the gear you need in an all-in-one, compact system that's easy to use and flight-case friendly.

Built for live event producers and webcasters on the move and on a tight budget, TriCaster 410 delivers the definitive live production experience with total confidence. Create a bigger looking show, custom branded with supercharged visuals like 3D holographic virtual sets, and a whole slew of productivity-enhancing tools. Overflowing with creative flexibility, but free of workflow and post-production extras outside the scope of what you do, TriCaster 410 cuts down equipment expenditure to fit your business the way you envisioned it—and adds professional good looks without the frills and extra costs.

You have a world of choices for handling live operations, with compatible TriCaster control surfaces along with support for breakout control of audio, camera, key commands, and even on-camera sequence triggering. TriCaster 410 gives you complete control, whether you're producing for broadcast, streaming live to the Web, projecting to a big screen, creating an engaging second-screen experience—or all of the above.

- ✓ **Turnkey Production** - Multiple turnkey functions do the work that usually requires racks of costly gear. Save space, setup time and expense with just one system; record, encode, switch, submix, playback, mix audio, and create advanced graphics, titling, and more.
- ✓ **Streamlined SDI I/O** - Keep your productions professional and standardized to your predictable infrastructure and workflow with SDI connectivity; input up to four cameras with varying SD and HD resolutions; send your program out to multiple destinations and displays – even to another TriCaster over the network.
- ✓ **Automation** - Streamline sophisticated operation sequences that are too complex for real-time action with custom memory presets and key commands; extend control behind the scenes and in front of the camera with MIDI support and interactive Hot Spots; and add robotic PTZ cameras that you can control remotely without the need for additional staff.
- ✓ **Live Virtual Sets** - Take your multi-purpose room or a corner of a studio and turn it into any world you want to create, without the high cost or construction; our live virtual sets let you elevate your look with realistic foregrounds and moving backgrounds; or create a panoramic 3D location with our holographic LiveSet capability.



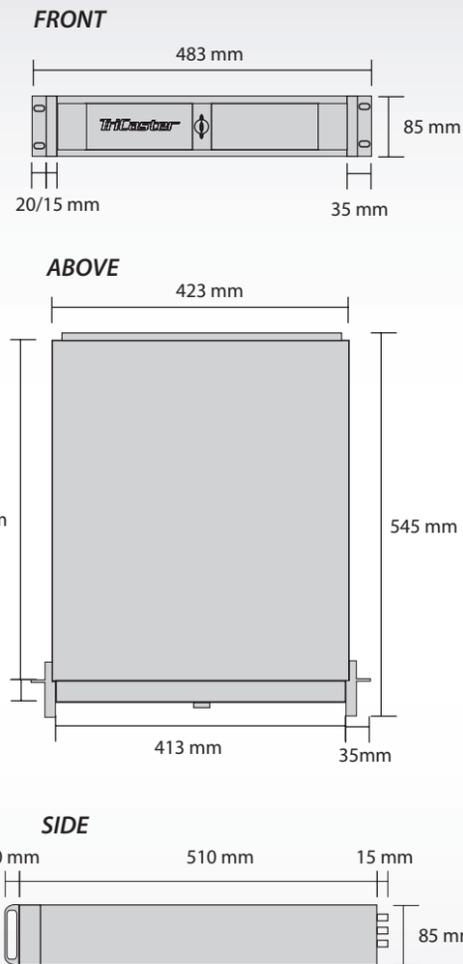


TriCaster™ 410 Technical Specifications

| | |
|--------------------------------------|--|
| Switcher Channels | 15 – 6 external, 5 internal, 4 M/E buses |
| Video Input | 4 simultaneous live video sources over SDI, in any combination of supported resolutions and frame rates (including PsF selections) <ul style="list-style-type: none"> Per-input format configuration, scaler (including 3:2 intelligent pull-down) and frame synchronizer enabling intermixing of formats Per-input color correction, crop and LiveMatte keyer controls Support for Key + Fill input pairing |
| Network Sources | 2 live inputs via Gigabit connection, selectable from any available network sources with support for video, audio and alpha channel <ul style="list-style-type: none"> Supported sources include networked computers via included NewTek iVGA client application; wireless Apple® AirPlay® devices; TriCaster 8000, 860, 460 or 410; 3Play 4800, 820 or 425; USB video sources; video over IP sources; RTMP or RTSP streams; HTTP streaming video sources; and a variety of third-party partner solutions |
| Robotic Camera Support | Access up to 4 live Pan-Tilt-Zoom (PTZ) robotic cameras via standard serial and network protocols, with preset system and user interface control over camera orientation, zoom, focus and iris |
| Media | 4 integrated digital media sources for video, graphics and sounds (2 DDRs, GFX and Sound) + 15 buffers |
| Buffers | 15 still & title buffers, with multiviewer, title editing and presets • Shareable across a network for watch folder application, with real-time edit and update of content |
| Mix/Effect Buses (M/E) | 4 freely configurable M/E channels for video mixing, compositing, effects and virtual sets, each supporting independent Key layer, TransWarp effects, and Adobe® Photoshop® blending modes between layers <ul style="list-style-type: none"> Mix mode: Enables secondary switcher operation for output, submix or recording, with Program/Preview workflow and transitions Effects mode: Enables multi-layer compositing, effects generation and virtual set application, with per-source 3D DVE, scaling, cropping and keying |
| Macros | Record configurations and operation sequences, then attach to keyboard shortcuts, control surface actions, MIDI controllers, or on-screen hotspots for recall and automation <ul style="list-style-type: none"> Macro editor for modifying user-defined macro configurations and sequences Augment and extend TriCaster operation using macro plug-ins to control external devices and applications Enable cross-platform commands and automation between TriCaster and 3Play |
| DSKs | 2 primary DSK channels, plus 1 additional Key layer per M/E bus, each with independent transition controls, 3D DVE, scaling, cropping and integrated TransWarp effects |
| Effects and Transitions | Integrated TransWarp effects engine on all effects channels supports standard transitions, customizable animation store transitions with audio, and overlay effects <ul style="list-style-type: none"> Animation Store Creator for custom animations Supports per-pixel alpha blending between sources and real-time 3D warping of video or graphic |
| Virtual Sets | 30+ HD live virtual sets, with presets, multiple camera angles, real-time reflections, and specular highlights <ul style="list-style-type: none"> Live pan and zoom of virtual camera and customizable virtual camera presets with animated pan, zoom and pedestal moves Support for up to 2 switchable live sources, with per-source 3D DVE, scaling, cropping and keying Supports custom-created virtual sets generated using NewTek Virtual Set Editor or third-party partner solutions |
| Holographic Live Virtual Sets | Support for custom virtual environments generated from panoramic smartphone, camera or DSLR images <ul style="list-style-type: none"> Select sets included; custom sets require Virtual Set Editor 2.5 |
| Hotspots | Up to 8 freely configurable, interactive hotspots per input for macro control |
| Video Output | Configurable for up to 7 output connections, with support for key output and per-connection signal settings • 2 x SDI • HDMI output • 2 x Display Ports for additional displays or projectors • Network output for live streaming • A/V output to network-connected TriCaster over local network |
| Recording | Multi-track, multi-format recording of up to 4 simultaneous channels via IsoCorder™ technology • Native recording in up to 1080p with timecode • Encoding format selectable from: QuickTime® (XDCAM HD compatible, 4:2:2 encoding, 24-bit audio), MPEG-2 (high or normal profile), AVI (SpeedHQ), and H.264 (high or Web quality) <ul style="list-style-type: none"> Freely choose to add recordings to Publish queue and DDR destinations |
| Recording Capacity | Includes 3TB internal drive accommodating ~70 hours 1080i (varies by resolution and format; capacity expandable using additional supported storage) <ul style="list-style-type: none"> Simultaneous recording of up to 2 channels to internal drive; support for up to 4 channels with external or shared storage connected eSATA port for recording to external storage Supports shared storage integration via third-party partner solutions |
| Grab | Grab full resolution, de-fielded still images from Program output, and freely choose to add grabs to Publish queue, Media Player presets and Buffer destinations |

| | |
|----------------------------------|---|
| Media Publishing | Supports direct content upload to YouTube™, Facebook, Twitter™, FTP, local or external volumes, and network servers |
| Live Streaming | HD live streaming with simultaneous archive • Presets in up to 720p, supporting most common streaming profiles and custom multi-bitrate streaming profiles, including RTMP streaming using H.264 (ex. Adobe® Flash® Media Server), Microsoft® Windows Media® Push/Pull, and browser-based streaming applications, with Ustream® and Livestream® native integrated support • Streaming Profile Manager with integrated Web browser |
| Audio Inputs | 4 SDI Embedded - 1 x 2 Balanced XLR (Mic/Line) - 1 x 2 Balanced 1/4" (Mic/Line) |
| Audio Outputs | 2 SDI Embedded - 1 x 2 Balanced XLR - 1 x 2 Balanced 1/4" (AUX) - 1 Stereo 1/4" (phones) |
| Audio Mixing | Integrated multi-channel audio mixer for internal and external audio sources, outputs, stream and headphones, with 4 fully independent stereo output mixes: 2 Master, 2 AUX • Pan control, solo auditioning, seven-band equalizer and stereo compressor/limiter per input and output, with per-input audio delay control • Multi-bus routing of audio source channels to any combination of outputs, with independent level control over channels 1/2 and 3/4 for quad sources • Audio Follow Video system enabling audio to follow multiple video sources, with support for unlimited audio grouping combinations • Digital audio inputs equipped with audio time-base synchronizers • Supports companion iPad® audio mixing app and Avid® Artist Mix audio control surface • LiveMixer remote audio control app |
| Supported Session Formats | <ul style="list-style-type: none"> TriCaster 410-MS (Multi-standard): PAL 1080/25p, 1080/24p, 1080/50i, 720/50p, 720/25p, 720/24p, 576/25i; NTSC, NTSC-J 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i TriCaster 410 (North America): NTSC 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i |
| Playback Media Formats | AVI, DV, DVCPRO, DVCPROHD, FLV, F4V, H.263, H.264, MOV, MKV, MJPEG, MPEG (1, 2, all profiles, program or transport streams), MP4, WMV, WebM, PSD, PNG, TGA, BMP, JPEG, EXR, RAW, TIF, AIFF, MP3, WAV, and more, with Import Media application for batch import with optional transcoding of files (including Apple ProRes) |
| Export Media Formats | Export media application for batch copying with optional transcoding of files to compatible formats for different applications and devices: Apple ProRes, AVI, DV, DVCPRO, DVD, H.264, MOV, MPEG-2, MJPEG, MP4, WebM and more |
| Post Production | NewTek SpeedEDIT 2 non-linear editor available via download for Add-On installation -NewTek SpeedHQ codecs for Mac and PC included for extended file compatibility |
| Monitoring | DVI and HDMI monitor outputs for user interface and multiview preview displays • Preview all sources or select sources in a variety of layouts and dual-monitor display combinations via Workspaces control panel • Viewports freely configurable for any combination of input sources, Program, Preview, M/E buses, clocks or images • A/V indicator and guide overlays configurable per viewport |
| Signal Monitoring | Integrated Waveform and Vectorscope, full field rate with digital calibration, color preview and support for ITU-R Rec. 601 and 709 |
| Session Management | Setup and store session settings in reusable template sessions |
| Latency | Ultra-low, between 1 and 2 frames |
| Processing | Video: 4:4:4:4, 32-bit Floating Point - Audio: 4 channels, 96 kHz, 32-bit Floating Point |
| 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 |
| MIDI Control | Support for standard MIDI protocol enabling third-party MIDI device control of TriCaster operations via macros |
| GPI Support | Supports 2 x 24 GPI signals via JLCooper eBOX GPI system |
| System Physical | 2U Rack Mount, with 430W power supply and multi-tiered hardware and software fail-safe 48.3 x 8.9 x 54.6 cm (19.0 x 3.5 x 21.5 in) |

Subject to change without notice.



Control Surfaces

Master Control

TriCaster™ 8000 CS



For the most sophisticated, high-performance live productions, you need total control. Included with every TriCaster 8000 system, the **TriCaster 8000 CS** is a natural extension of the platform's remarkable innovation, with a user-focused, industrial design and fresh, new take on familiar production controls. With the introduction of TriCaster 8000 CS to your workflow, you have a seamless, physical connection to the powerful capabilities of TriCaster 8000, with a whole new dimension of speed and control.

✓ Intuitive layout mapped directly to the TriCaster 8000 interface for maximum interaction, including operation of the main switcher, all 8 M/E rows and TransWarp effects.

- ✓ Practical lighting and backlighting of controls and control groups for heightened visibility of control surface activity under any environmental lighting conditions.
- ✓ Dynamically variable lighting integrated into T-Bars for precision, at-a-glance status and progress of effects, zooms and transitions.
- ✓ Instant triggering of complex operation sequences, with support for user-configurable macros.
- ✓ Seamless, simultaneous changeover of multiple production elements with versatile, multi-select delegate controls.
- ✓ Sleek, cockpit styling and state-of-the-art design that speaks to operators and executives alike.

TriCaster™ 860 CS



Big live productions demand big-time control. Part of the complete TriCaster 860 solution and available as an optional add-on, the **TriCaster 860 CS** shines as a function-for-function companion. With an intuitive layout and familiar live production controls at your command, adding TriCaster 860 CS to your control room or live truck puts you in touch with your live production like never before.

- ✓ Intuitive layout mapped directly to TriCaster 860 interface for maximum interaction.
- ✓ Full-featured workflow for optimal live production performance.
- ✓ Illuminated buttons for heightened visibility of control surface activity under any environmental lighting conditions.
- ✓ Premium T-Bar and three-axis joystick for precision control of effects, zooms and transitions.
- ✓ Seamless, simultaneous changeover of multiple production elements with versatile, multi-select delegate controls.
- ✓ Durable, ergonomic design for confident, comfortable performance.

TriCaster 860 CS is also backwards compatible with TriCaster 855, 850 EXTREME and 850 models.

TriCaster™ 460 CS



Producing on-location doesn't mean leaving the comforts of the control room behind. The **TriCaster 460 CS**, part of the complete TriCaster 460 solution and available as an optional add-on, lets you maintain a small production footprint without sacrificing manual control. With an intuitive layout, familiar live production controls and compact frame, TriCaster 460 CS is a perfect fit for mobile production or tight spaces.

- ✓ Intuitive layout, ideal for both TriCaster 460 and TriCaster 410, mapped directly to the user interface for maximum interaction.
- ✓ Full-featured workflow for optimal live production performance.
- ✓ Illuminated buttons for heightened visibility of control surface activity under any environmental lighting conditions.
- ✓ Premium T-Bar and three-axis joystick for precision control of effects, zooms and transitions.
- ✓ Seamless, simultaneous changeover of multiple production elements with versatile, multi-select delegate controls.
- ✓ Durable, ergonomic design for confident, comfortable performance.

TriCaster 460 CS is also backwards compatible with TriCaster 455, 450 EXTREME and 450 models.

TriCaster™ 40 CS



Exclusively for the TriCaster 40 system, add the **TriCaster 40 Control Surface** for fast, full access to hardware operation of all live-production functions – and still keep your small desktop footprint. Or augment your crew with an additional operator, and split the production tasks between console and user interface.

- ✓ Studio-style control in durable, compact design perfect for desktop or portable use.
- ✓ Intuitive layout mapped to TriCaster 40 for maximum manual interaction.
- ✓ Large, backlit buttons and premium T-Bar for confident, comfortable performance.
- ✓ Multi-purpose control over production elements with versatile delegate buttons.
- ✓ Instant setup and integration for fixed or on-the-fly production workflows.

TriCaster 40 CS is also backwards compatible with TriCaster 410, 460, 860 and 8000.



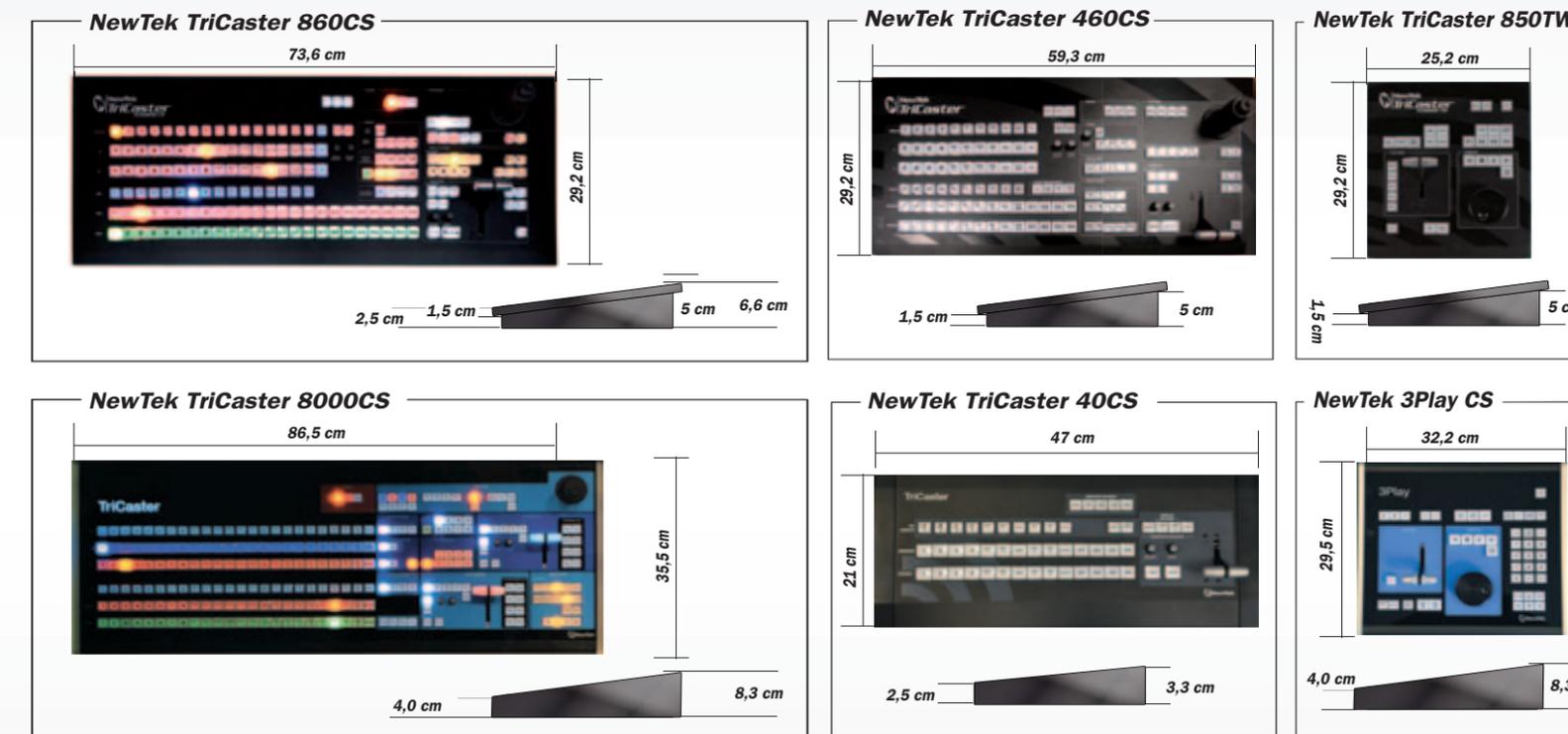
TriCaster™ 850 TW

Add dedicated, single-channel playback control to your live production workflow with **TriCaster 850 TW**. Share the workload with a second operator, focused exclusively on playing back stored clips and graphics. Slow down or speed up playback of the dedicated channel, and with jog-wheel and transport controls, you can forward, reverse, and replay any clip with a touch.

- ✓ Intuitive layout for manual control of TriCaster media players.
- ✓ Dedicated operation for instant replay and slow motion playback of a selected DDR.
- ✓ Illuminated buttons for heightened visibility of control surface activity under any environmental lighting conditions.
- ✓ Premium T-Bar and jog wheel for precision control of clip creation and playback.
- ✓ Durable, ergonomic design for confident, comfortable performance.
- ✓ Compatible with TriCaster 8000, TriCaster 860, TriCaster 460, TriCaster 410 and TriCaster 40.

TriCaster 850 TW is also backwards compatible with TriCaster 855, 455, 850 series, 450 series and 300 models.

Control Surfaces Dimensions



Software

That makes every production easier



Virtual Set Editor 2.5

Sets just got real

Your vision for a professional-looking studio can come to life—wherever you want it. With a plain backdrop, a few square feet of space, a panoramic camera shot from your smartphone, and **NewTek Virtual Set Editor (VSE)**, now you can wildly transform any location into a professional, virtual environment that wraps your presenters in a 360-degree holographic vista, dramatically raises your production value and upgrades your presentation with dazzling visual effects that make an impact your audience can practically touch.

Don't bother with knockoff virtual set programs that only provide basic layering applications, or spend more than you have to on expensive hardware that limits your vision and lacks creative tool integration. Your space will transform into a live-looking locale (the actual location you photographed) or a professional set with totally realistic, free-form camera movements, foreground furniture and moving backgrounds, reflective surfaces that respond to real-time movement, and the appearance of multiple on-set stages so your

presenters can deliver the news, the weather, and the sports from their own places, even if they're standing just feet apart.

Creating sets is only half of it. VSE also includes the software for Animation Store Creator with its powerful TransWarp effects engine to create your brand's customized full-color, animated transitions with alpha channel and embedded audio. Add real-time cloth dynamics (live video that folds like paper or waves like a flag), warped animated 3D effects and transformations, or motion overlays. And build sleek animated buffer effects to loop continuously or on demand, adding the polished look of global network programming to your own show. Don't just elevate your brand – reinvent it.



- ✓ Generate custom, 3D holographic virtual sets from panoramic images taken with a smartphone or camera, or from models designed in any 3D application.
- ✓ Realistic virtual camera operation, with adjustable shots and animated movements—even while live.
- ✓ Customizable starter sets with multiple angles, real-time reflections and specular highlights.
- ✓ Effortless import of layered PSD files—including keyed out areas—to support composition of sets using virtually any graphics creation tool.
- ✓ Collaborative workflow between artist and TriCaster operator, with dual installation on both a TriCaster XD system and an external Microsoft® Windows® workstation.
- ✓ User-friendly controls for quick and easy creation, right out of the box.
- ✓ Export as executable LiveSet installer for use with any TriCaster XD system.
- ✓ Instant availability of new virtual sets and effects, with support for output and update over the network to any TriCaster XD model.



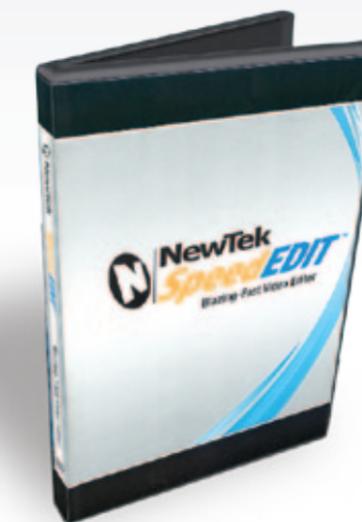
LiveText 2

Think visually

LiveText™ 2 gives you the flexibility to add a dedicated title station to your live production. Build titles and graphics on any laptop or computer and send over the network to any TriCaster™ portable live production system. Make your production pop with network-style scrolls, crawls, title pages and lower thirds. And use the integrated DataLink™ application to display real-time data with instant updates. Scores, times, prices, countdown clocks and more. Add another set of hands. Share the workload. Go team.

LiveText 2 provides these benefits:

- ✓ Network-style production workflow with dedicated HD titles and graphics operation.
- ✓ Integrated DataLink application to display real-time data and instant updates.
- ✓ Real-time clock and date displays embedded in title pages.
- ✓ Remote control over title creation and management.
- ✓ Hundreds of preloaded templates ready for use, including lower third, OSB and full page graphics.
- ✓ Powerful vector-based drawing tools and extensive text options for designing custom graphics.



NewTek SpeedEDIT™ 2 is a resolution-independent nonlinear video editor designed to work quickly and efficiently on any project. HD, SD or Web. With a streamlined workflow and powerful, professional tools that will enhance any post production pipeline. And native support for most popular file formats - ready to use the moment you drop them in. No transcoding necessary. Save valuable time by mixing formats and resolutions in the same timeline. SpeedEDIT gets the job done faster than any NLE out there. Burn.

SpeedEDIT

Blazing fast

SpeedEDIT 2 provides these benefits:

- ✓ Mix multi-definition video on the same timeline, in real time.
- ✓ Edit directly on native clips, including DVCPro HD, MPEG-2, QuickTime®, and AVI, without transcoding or conversion.
- ✓ Render and export files and completed projects in multiple formats, with real-time up and down conversion.
- ✓ Customize clips with size, crop and real-time 3D position and rotation tools.
- ✓ Set the playback speed of your clips, including smooth, interpolated slow motion with enhanced image sharpness.
- ✓ Create complex effects, including motion graphics and animated titles.
- ✓ Replace clips and transitions with the convenient Inherit tool.
- ✓ Dynamically-linked Storyboard and Timeline to perform common functions in fewer steps.
- ✓ Playback image sequences for review, instantly.
- ✓ Retrace every action with unlimited project undo.
- ✓ Project Backup Wizard to transfer assets to another drive for easy transport or archive.
- ✓ HD render presets to export your final project, quickly and easily.
- ✓ Full-featured color correction, animated positioning, rotation and size sub-projects with Overlay and Control Tree options.
- ✓ Targeted playback of an area of interest using the convenient Play Range function.

And many more.

3Play™

The big thrill of live sports coverage in your ballpark

Slow motion and instant replay system for sports producers at all levels. Easy to use, with a very small footprint, and at a fraction of the cost of other replay systems, **3Play** allows field crews, vans and trucks, local broadcasters, smaller facilities, collegiate and educational athletic departments to produce energetic highlight recaps, with play-by-play commentary that turns average spectators into passionate fanatics.

NewTek's 3Play slow motion instant replay systems allow you to deliver World Cup-style coverage on a budget. Field crews, vans and trucks, local broadcasters, smaller facilities, collegiate and educational athletic departments can afford mobile live sports coverage, whether in the stadium, open field, or tight places with limited access. And best of all, with superior production quality and an enriched experience, you can keep up with national coverage, attract more headliners to your venue, and expand sponsorship opportunities for new revenue streams.



3Play® 4800



3Play® 440



3Play® 425

3Play™ 4800



Monitor not included.

World-class sports shows for complex sporting events

3Play™ 4800, is the most complete, integrated sports production solution available for broadcasters, pro leagues and teams, and large venues.

No other product combines as wide a range of live sports capabilities in one turnkey system, including slow motion, instant replay, multi-angle preview, in-game highlights and instant social media publishing – with the push of a button. This powerful, facility-class 4U system enables producers to engage stadium fans, online viewers and broadcast audiences with greater ease and simplicity – no matter where they watch.

With 3Play 4800, it's now possible for producers of larger, more complex events to produce an epic live experience that attracts new fans, bigger audiences, and more sponsors to any sporting event, with total game production in standalone environments where a switcher isn't available.

At just a fraction of the cost of other replay systems, producers of major sporting events can say goodbye to over-inflated pricing, and hello to new revenue opportunities – delivering a winning fan experience in every game.

- ✓ **All-in-one Replay Switching** - 8-camera capture, replay, switching, slow motion, highlights, effects, color correction, social media publishing, playback – all in the same system.
- ✓ **ISO Recording** - Record up to 8 discrete camera feeds (or 4 redundant) for complete access to source footage.
- ✓ **HD Storage** - Higher capacity media storage (200 hours of HD media).
- ✓ **Flexible Integration** - Incredibly flexible large-facility integration.
- ✓ **Automated Features** - Vast automation and control options to expand production without adding more personnel.
- ✓ **Built-in Protection** - Software and hardware failsafes and redundancy.



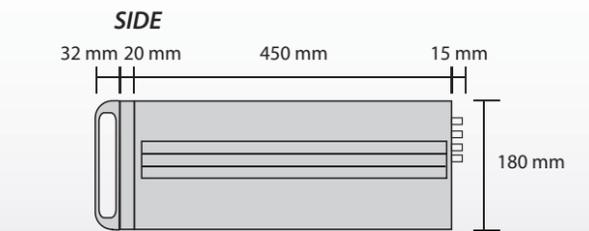
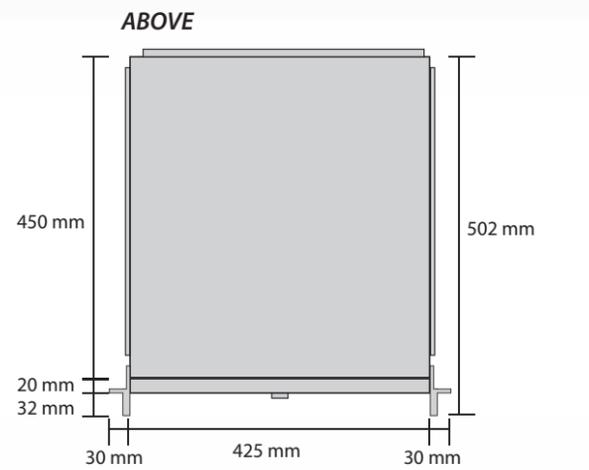
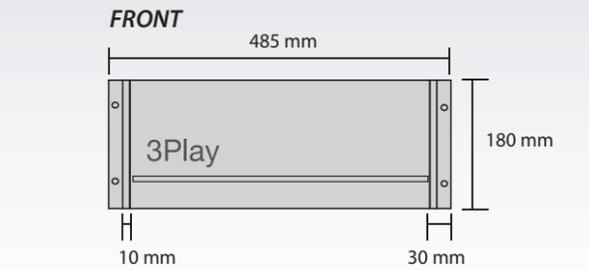


3Play™ 4800 Technical Specifications

| | |
|--------------------------------|--|
| Video Inputs | Up to 8 simultaneous live video sources, or up to 4 with fully redundant capture, in any combination of supported connection types, resolutions and frame rates (including PsF selections), with third-party video router support <ul style="list-style-type: none"> • Direct input of cameras and video devices in any combination of HD-SDI, HD Component, SD-SDI, SD Component, Y/C (BNC) or Composite connections • Compatible with external video routers manufactured by AJA, Blackmagic Design, Ensemble Designs, Miranda, Utah Scientific, and brands supporting Grass Valley Native Protocol • Per-input format configuration, scaler (including 3:2 intelligent pull-down) and frame synchronizer enabling intermixing of formats • Optionally enable automatic color correction and shading to dynamically match color characteristics between inputs |
| Video Outputs | 2 fully independent playout channels, individually configurable for output via SDI or Analog (configurable for Component or Y/C + Composite) <ul style="list-style-type: none"> • AUX output that follows the actively-controlled playout channel • HDMI output that follows the actively-controlled playout channel • 2x VGA display ports for auxiliary monitoring or display, with independent color control • Ethernet connection for A/V output over a local network to TriCaster |
| Output Modes | A; B; A+B with transitions between playout channels |
| Recording | 8 simultaneous recording channels - Standard mode captures 8 live video sources - Redundant mode captures 4 live video sources, with 4 channels of simultaneous backup recording |
| Recording Format | Native recording up to 1080p resolution in high-quality QuickTime format (XDCAM-HD at 100Mbps) |
| Recording Capacity | Accommodates ~200 hours 1080i via 4 removable 2TB media drives (included) - 4 trayless SATA III removable drive bays with hot-swap support for unlimited storage and backup - Simultaneous recording of 2 channels per media drive |
| Playback | Multi-speed playback via T-Bar or transport buttons - Dual range modes for 0% to 100% playback speed or -200% to 200% playback speed (supports fast reverse) |
| Grab | Grab still images from output or all inputs and outputs |
| Media Publishing | Integrated application for content upload to YouTube, Facebook, Twitter, FTP, local volumes, or network servers |
| Overlays | 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 and more |
| Network Inputs | 2 live inputs for overlay application via Gigabit connection, selectable from any available network sources with support for video, audio and alpha channel <ul style="list-style-type: none"> • Supported sources include networked computers via NewTek iVGA client application; wireless Apple AirPlay devices; NewTek LiveText remote titling software; and a variety of third-party partner solutions |
| Buffers | Content buffers to store and playback animations, still images and graphics for overlay application - Shareable across local network for watch folder application, with real-time edit and update of content |
| Effects and Transitions | Standard transitions and customizable animation store transitions supported for transitioning between playout channels and playlist clips - Animation Store Creator application included for custom transitions and effects - Integrated TransWarp effects engine supports per-pixel alpha blending between sources, real-time 3D warping of video or graphics, and embedded audio |
| Asset Management | FastClip information window displays asset data and collects keyboard and control surface input for data entry, editing, navigation, search and management <ul style="list-style-type: none"> - Tags system to enter and organize metadata via user-defined codes, with support for Microsoft Excel list import - Bookmarks to define and transport to action points - Supports integration with external MAM platforms, including axle Gear and Square Box Systems CatDV |
| Scoreboard Integration | Display real-time scoreboard data in on-screen graphics over local network via NewTek LiveText or third-party partner solutions |

| | |
|----------------------------------|--|
| Monitoring | Resizable, full field rate preview monitors for all live sources and playout channels, with optional overlays for audio VU meters and safe areas <ul style="list-style-type: none"> - Optionally display DSK monitors to preview overlay sources - Clip Monitors to preview all angles of a recorded event simultaneously in the Clips List or multi-viewer display - Single or dual pane operation of Clips List and Playlist, with undo/redo commands |
| Multi-Viewer | Supported with 2nd display, including playback data |
| Audio Inputs | 8 SDI Embedded - 8 AES3/EBU - 8 x 2 Balanced XLR - Phantom Power Support |
| Audio Outputs | 3 SDI Embedded 2 AES3/EBU 4 x 2 Balanced XLR 1 Stereo 1/4" (phones) |
| Supported Session Formats | <ul style="list-style-type: none"> • 3Play 4800 Multi-Standard: PAL 1080/25p, 1080/24p, 1080/50i, 720/50p, 720/25p, 720/24p, 576/25i, NTSC 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i; NTSC-J 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i; • 3Play 4800 NTSC model (North America): 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i |
| Session Management | Set up and store session settings in reusable template sessions |
| Processing | Video: 4:4:4:4, 32-bit Floating Point • Audio: 4 channels, 96 kHz, 32-bit Floating Point |
| 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 |
| Time Code | External LTC source or internal system clock |
| Genlock | Locks to HD or SD analog signals • Supports either tri-level or bi-level sync sources |
| Tally Display | Supports tally display from NewTek TriCaster system (or other supported system via NewTek SDK) over local network |
| Macros | Record commands and operation sequences for recall and automation using keyboard, mouse or compatible controller supporting macro assignment <ul style="list-style-type: none"> - Macro editor for modifying user-defined macro configurations and sequences - Augment and extend 3Play operation using macro plug-ins to control external devices |
| External Control | Support for standard MIDI protocol enabling third-party MIDI device control of 3Play operations via macros <ul style="list-style-type: none"> - Support for Advanced Media Protocol (AMP), enabling remote operation of 3Play functions by compatible third-party production systems - Support for remote operation of 3Play functions by a companion NewTek TriCaster system |
| Controller | Includes 3Play hardware control surface <ul style="list-style-type: none"> - Surface ~ 32.3 x 2.5 x 29.7 cm (12.7 W x 1.0 H x 11.7 D in) - Base ~ 32.3 x 27.4 cm (12.7 W x 10.8 D in) - Base Height ~ 1.8-6.9 cm (0.7-2.7 in) - 3.4 kg (7.5 lbs) |
| System Physical | 4U Rack Mount, with 550W redundant, removable power supply and multi-tiered hardware and software fail-safe 48.3 x 17.8 x 52.0 cm (19.0 x 7.0 x 20.5 in) - 20 kg (44 lbs) |

Subject to change without notice.



3Play™ 440



Monitor not included.

Full sports coverage for small and mid-sized productions

The same set of live sports production tools as 3Play 4800 – but sized and priced for smaller programs – makes **3Play 440** a complete, integrated sports production system for mobile and regional producers who deliver small to mid-sized live sports.

With more real-time capabilities than any other multi-camera replay server around, this single turnkey solution raises the bar for visual quality, format flexibility and revenue opportunities – even in standalone environments where a traditional production switcher isn't available.

Now, it is not only possible for mobile and regional producers, colleges and conferences, and mid-size venues to deliver slow motion, instant replay, and social media publishing – it's necessary, in order to meet the expectations of today's viewers.

Compact and highly flexible, 3Play 440 lets producers experience greater creative freedom, integrate smoothly into any location, and produce stunning slow motion, instant replay, in-game highlights, and social media sports - on any screen – serving officials, fans and sponsors alike.

- ✓ **All-in-one Solution** - 4-camera capture, replay, switching, slow motion, highlights, effects, color correction, social media publishing, playback – all in the same system.
- ✓ **ISO Recording** - Multi-track ISO capture of up to 4 sources allows for immediate delivery to post-production.
- ✓ **HD Storage** - Up to 140 hours of hot-swappable HD storage.
- ✓ **Space-saving Mobility** - Highly flexible mobile and small-space integration.
- ✓ **Automated Features** - Extensive automation for simplified production when using a smaller crew.
- ✓ **Built-in Protection** - Software and hardware fail-safe protection.



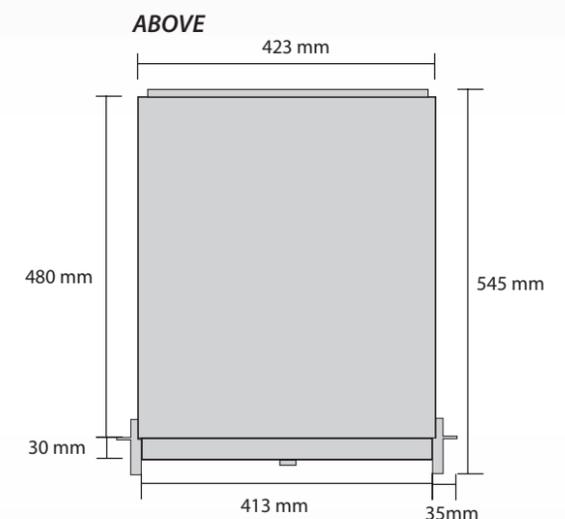
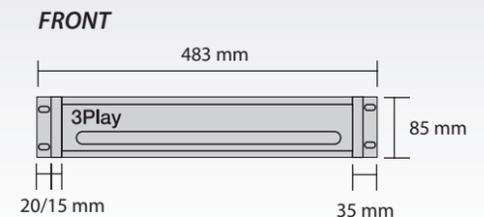


3Play™ 440 Technical Specifications

| | |
|--------------------------------|---|
| Video Inputs | Up to 4 simultaneous live video sources, in any combination of supported connection types, resolutions and frame rates (including PsF selections), with third-party video router support <ul style="list-style-type: none"> • Direct input of cameras and video devices in any combination of HD-SDI, HD Component, SD-SDI, SD Component, Y/C (BNC) or Composite connections • Compatible with external video routers manufactured by AJA, Blackmagic Design, Ensemble Designs, Miranda, Utah Scientific, and brands supporting Grass Valley Native Protocol • Per-input format configuration, scaler (including 3:2 intelligent pull-down) and frame synchronizer enabling intermixing of formats • Optionally enable automatic color correction and shading to dynamically match color characteristics between inputs |
| Video Outputs | 2 fully independent playout channels, individually configurable for output via SDI or Analog (configurable for Component or Y/C + Composite) <ul style="list-style-type: none"> • HDMI output that follows the actively-controlled playout channel • 2x VGA display ports for auxiliary monitoring or display, with independent color control • Ethernet connection for A/V output over a local network to TriCaster |
| Output Modes | A; B; A+B with transitions between playout channels |
| Recording | Simultaneous recording of up to 4 live video sources |
| Recording Format | Native recording up to 1080p resolution in high-quality QuickTime format (XDCAM-HD at 100Mbps) |
| Recording Capacity | Accommodates ~140 hours 1080i via 3TB internal drive and 3TB removable media drive (included) <ul style="list-style-type: none"> • Trayless SATA III removable drive bay with hot-swap support for extended storage and backup • Simultaneous recording of 2 channels per drive |
| Playback | Multi-speed playback via T-Bar or transport buttons <ul style="list-style-type: none"> • Dual range modes for 0% to 100% playback speed or -200% to 200% playback speed (supports fast reverse) |
| Grab | Grab still images from output or all inputs and outputs |
| Media Publishing | Integrated application for content upload to YouTube, Facebook, Twitter, FTP, local volumes or network servers |
| Overlays | 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 and more |
| Network Inputs | 2 live inputs for overlay application via Gigabit connection, selectable from any available network sources with support for video, audio and alpha channel <ul style="list-style-type: none"> • Supported sources include networked computers via NewTek iVGA client application; wireless Apple AirPlay devices; NewTek LiveText remote titling software; and a variety of third-party partner solutions |
| Buffers | Content buffers to store and playback animations, still images and graphics for overlay application <ul style="list-style-type: none"> • Shareable across local network for watch folder application, with real-time edit and update of content |
| Effects and Transitions | Standard transitions and customizable animation store transitions supported for transitioning between playout channels and playlist clips <ul style="list-style-type: none"> • Animation Store Creator application included for custom transitions and effects • Integrated TransWarp effects engine supports per-pixel alpha blending between sources, real-time 3D warping of video or graphics and embedded audio |
| Asset Management | <ul style="list-style-type: none"> • FastClip information window displays asset data and collects keyboard and control surface input for data entry, editing, navigation, search and management • Tags system to enter and organize metadata via user-defined codes, with support for Microsoft Excel list import • Bookmarks to define and transport to action points • Supports integration with external MAM platforms, including axle Gear and Square Box Systems CatDV |
| Scoreboard Integration | Display real-time scoreboard data in on-screen graphics over local network via NewTek LiveText or third-party partner solutions |
| Monitoring | <ul style="list-style-type: none"> • Resizable, full field rate preview monitors for all live sources and playout channels, with optional overlays for audio VU meters and safe areas • Optionally display DSK monitors to preview overlay sources • Clip Monitors to preview all angles of a recorded event simultaneously in the Clips List or multi-viewer display • Single or dual pane operation of Clips List and Playlist, with undo/redo commands |

| | |
|----------------------------------|---|
| Multi-Viewer | Supported with 2nd display, including playback data |
| Audio Inputs | 4 SDI Embedded 3 x 2 Balanced 1/4" 1 x 2 Balanced XLR |
| Audio Outputs | 2 SDI Embedded 1 x 2 Balanced XLR 1 x 2 Balanced 1/4" |
| Supported Session Formats | <ul style="list-style-type: none"> • 3Play 440 Multi-Standard model: PAL 1080/25p, 1080/24p, 1080/50i, 720/50p, 720/25p, 720/24p, 576/25i; NTSC 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i; NTSC-J 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i; • 3Play 440 NTSC model (North America): 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i |
| Session Management | Set up and store session settings in reusable template sessions |
| Processing | Video: 4:4:4:4, 32-bit Floating Point Audio: 4 channels, 96kHz, 32-bit Floating Point |
| 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 |
| Time Code | External LTC source or internal system clock |
| Genlock | Locks to HD or SD analog signals Supports either tri-level or bi-level sync sources |
| Tally Display | Supports tally display from NewTek TriCaster system (or other supported system via NewTek SDK) over local network |
| Macros | Record commands and operation sequences for recall and automation using keyboard, mouse or compatible controller supporting macro assignment <ul style="list-style-type: none"> • Macro editor for modifying user-defined macro configurations and sequences • Augment and extend 3Play operation using macro plug-ins to control external devices |
| External Control | <ul style="list-style-type: none"> • Support for standard MIDI protocol enabling third-party MIDI device control of 3Play operations via macros • Support for Advanced Media Protocol (AMP), enabling remote operation of 3Play functions by compatible third-party production systems • Support for remote operation of 3Play functions by a companion NewTek TriCaster system |
| Controller | Includes 3Play hardware control surface <ul style="list-style-type: none"> • Surface ~ 32.3 x 2.5 x 29.7 cm (12.7 W x 1.0 H x 11.7 D in) • Base ~ 32.3 x 27.4 cm (12.7 W x 10.8 D in) • Base Height ~ 1.8-6.9 cm (0.7-2.7 in) • 3.4 kg (7.5 lbs) |
| Dimensions & Weight | 2U Rack Mount, with 430W power supply and multi-tiered hardware and software fail-safe <ul style="list-style-type: none"> • 48.3 x 8.9 x 54.6 cm (19.0 x 3.5 x 21.5 in) • 11.8 kg (26 lbs) |

Subject to change without notice.



3Play™ 425



Welcome to the world of replay

For years, the extremely high cost of live sports production tools has made it nearly impossible for smaller organizations to deliver a better viewing experience.

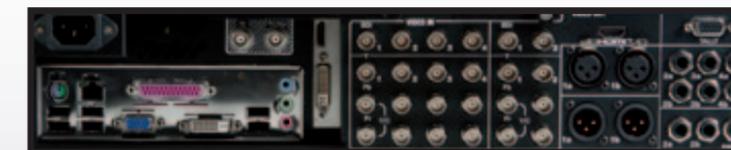
Now, **NewTek 3Play 425** – at a newly reduced price, eliminates the barrier of costly live sports production tools by making professional instant replay and slow motion available to everyone who previously thought it was out of their reach.

Local broadcasters, school teams and emerging leagues now have a multi-camera, live sports solution that makes it easy to move up to full-tilt live sports production, in network-quality HD. 3Play 425 helps level the playing field, with a system compact enough to go anywhere.

Producers now have the power to deliver more than replay, with real-time highlights, show-stopping slow motion and game-winning moves that put fans right in the middle of the action.

Creating high-impact sports programs does much more than grow audiences. Producers can build their brands with the look of a major league sports show.

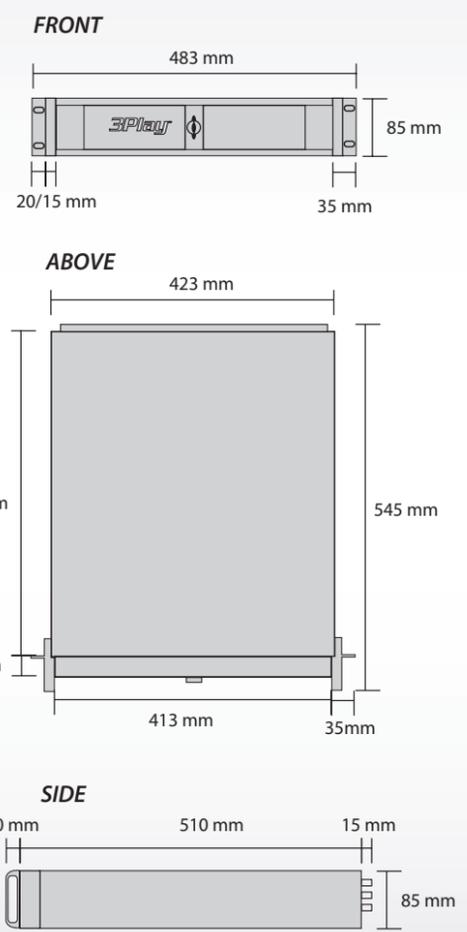
- ✓ **Big Look for Local Sports** - Multi-camera instant replay, slow motion and real-time highlights editing.
- ✓ **Mobile Replay** - 4-camera replay solution scaled for mobility to produce high-impact local sports anywhere.
- ✓ **Space-saving Form Factor** - Compact 2U frame for live sports in small spaces.
- ✓ **Mix-and-Match HD/SD** - Flexible I/O with mix-and-match HD and SD component, composite, and SDI connectivity for any resolution.
- ✓ **ISO Recording** - Multi-track ISO recording of each camera feed for complete access to source footage.
- ✓ **Full Control** - Optional countertop or counter-sunk control console for maximum tactile control.





3Play™ 425 Technical Specifications

| | |
|----------------------------------|---|
| Video Inputs | Up to 4 simultaneous live video sources, in any combination of supported connection types, resolutions and frame rates •Direct input of cameras and video devices in any combination of HD-SDI, HD Component, SD-SDI, SD Component, Y/C (BNC) or Composite connections •Per-input format configuration, scaler and frame synchronizer enabling intermixing of formats |
| Video Outputs | 2 fully independent playout channels, individually configurable for output via SDI or Analog (configurable for Component or Y/C + Composite) •HDMI output that follows the actively-controlled playout channel •Ethernet connection for A/V output over a local network to TriCaster |
| Output Modes | A;B; A+B |
| Recording | Simultaneous recording of up to 4 live video sources |
| Recording Formats | Native recording up to 1080p resolution in MPEG-2 all I-frame format |
| Recording Capacity | Accommodates ~40 hours 1080i via internal drive and 1TB removable media drive (included) •Trayless SATA III removable drive bay with hot-swap support for extended storage and backup •Simultaneous recording of 2 channels per drive |
| Playback | 0% to 100% variable-speed playback |
| Monitoring | Resizable, full field rate preview monitors for all live sources and playout channels |
| Multi-Viewer | Supported with 2nd display, including HUD |
| 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" |
| Supported Session Formats | 3Play 425 Multi-Standard: PAL 1080/25p, 1080/24p, 1080/50i, 720/50p, 720/25p, 720/24p, 576/25i - NTSC 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i; NTSC-J 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i; - 3Play 425 (North America) NTSC model: 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i |
| Processing | Video: 4:4:4:4, 32-bit Floating Point Audio: 4 channels, 96kHz, 32-bit Floating Point |
| 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 |
| Time Code | External LTC source or internal system clock |
| Genlock | Locks to HD or SD analog signals - Supports either tri-level or bi-level sync sources |
| Controller | Optional 3Play hardware control surface •Surface ~ 25.4 x 1.3 x 29.5 cm (10.0 W x 0.5 H x 11.6 D in) •Base ~ 22.9 x 27.2 cm (9.0 W x 10.7 D in) •Base Height ~ 1.3-5.1 cm (0.5-2.0 in) •2.7 kg (5.9 lbs) |
| System Physical | 2U Rack Mount, with 430W power supply and multi-tiered hardware and software fail-safe - 48.3 x 8.9 x 57.2 cm (19 x 3.5 x 22.5 in) - 12.7 kg (28 lbs) |



| Feature | 3Play 4800 | 3Play 440 | 3Play 425 |
|---|---|---|---|
| Video Format | HD/SD | HD/SD | HD/SD |
| Video Inputs | 8 | 4 | 4 |
| Playout Channels | 2 simultaneous, switchable; fully independent | 2 simultaneous, switchable; fully independent | 2 simultaneous, switchable; fully independent |
| Recording Channels | 4 Channels (redundant) 8 Channels | 4 Channels | 4 Channels |
| Base Recording Capacity (HD) | ~ 200 HRS | ~ 140 HRS | ~ 40 HRS |
| Recording Format | HQ QuickTime | HQ QuickTime | MPEG-2 all I-frame |
| Multi-Speed Live Playback | -200% to 200% | -200% to 200% | 0% to 100% |
| External Video Router Support | ✓ | ✓ | — |
| Media Publishing | ✓ | ✓ | — |
| Network Output to TriCaster | ✓ | ✓ | ✓ |
| HDMI Output | ✓ | ✓ | ✓ |
| AUX Output | ✓ | — | — |
| Grab Stills | All inputs and outputs | All inputs and outputs | — |
| Transition Between Playout Channels | ✓ | ✓ | — |
| Animation Store Transitions | ✓ | ✓ | — |
| TransWarp Effects | ✓ | ✓ | — |
| Animation Store Creator | Yes | Yes | — |
| Playlist Transitions | All supported transitions | All supported transitions | Crossfade only |
| Playlist Music Track | ✓ | ✓ | ✓ |
| DSK Overlays | ✓ | ✓ | — |
| Network Inputs | ✓ | ✓ | — |
| Animation Buffers | ✓ | ✓ | — |
| Watch Folders | ✓ | ✓ | — |
| Metadata Entry | ✓ | ✓ | ✓ |
| Keyword Tagging Engine | ✓ | ✓ | — |
| FastClip Asset Management | ✓ | ✓ | — |
| Macros | ✓ | ✓ | — |
| MIDI Support | ✓ | ✓ | — |
| TriCaster Workflow Integration | ✓ | ✓ | — |
| Advanced Media Protocol (AMP) Support | ✓ | ✓ | — |
| Scoreboard Data Feed Support | ✓ | ✓ | — |
| External Asset Management Platform Integration | ✓ | ✓ | — |
| Multi-View Monitoring | ✓ | ✓ | ✓ |
| Auxiliary Display Ports | 2x VGA | 2x VGA | — |
| Multi-Angle Clip Preview | Preview all clip angles during playback | Preview all clip angles during playback | — |
| Clip Bookmarks | ✓ | ✓ | — |
| Automatic Input Color Correction | ✓ | ✓ | — |
| Advanced Color Correction and Shading | ✓ | ✓ | — |
| External Monitor Color Control | ✓ | ✓ | — |
| Template Sessions | ✓ | ✓ | — |
| Batch Media Import/Export | ✓ | ✓ | ✓ |
| Single Pane Operation | ✓ | ✓ | — |
| Undo/Redo Commands | ✓ | ✓ | — |
| Genlock | ✓ | ✓ | ✓ |
| Downstream System Tally Support | ✓ | ✓ | — |
| SDK Support | ✓ | ✓ | — |
| Hardware Fail-Safe | ✓ | ✓ | ✓ |
| Software Fail-Safe | ✓ | ✓ | ✓ |
| Redundant Power Supply | ✓ | — | — |
| Removable Storage | Four 2TB Media Drives | 3TB Media Drive | 2TB Media Drive |
| Control Surface | Included | Included | Not Included |
| Form Factor | 4U Rack Mount | 2U Rack Mount | 2U Rack Mount |

Subject to change without notice.

TriCaster

Systems Comparative Tables



Notes

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| Features | TriCaster 40 | TriCaster 410 | TriCaster 460 | TriCaster 860 | TriCaster 8000 |
|--|--------------|---------------|---------------|---------------|----------------|
| Video Format | HD/SD | HD/SD | HD/SD | HD/SD | HD/SD |
| Digital I/O (SDI) | — | ✓ | ✓ | ✓ | ✓ |
| Analog I/O (Component, Composite, Y/C) | ✓ | — | ✓ | ✓ | ✓ |
| Pan-Tilt-Zoom (PTZ) Camera Support | — | ✓ | ✓ | ✓ | ✓ |
| External Video Router Support | — | — | — | — | ✓ |
| Switcher Channels | 14 | 15 | 15 | 24 | 24 |
| External Switcher Video Sources | 6 | 6 | 6 | 10 | 10 |
| Internal Switcher Video Sources | 3 + Black | 4 + Black | 4 + Black | 5 + Black | 5 + Black |
| Re-Entrant M/E Buses | — | — | — | — | 8 |
| Standard M/E Buses | — | 4 | 4 | 8 | — |
| M/E-Style Virtual Inputs | 4 | — | — | — | — |
| Output Connections (max) | 5 | 7 | 11 | 14 | 14 |
| Recording Channels (max) | 1 | 2 - Up to 4 | 2 - Up to 4 | 2 - Up to 8 | 8 |
| Recording Capacity (Hours) | 20 in HD | 20 in HD | 40 in HD | 200 in HD | 200 in HD |
| Animation Buffers | — | — | 5 | 5 | 10 |
| Still & Title Buffers | — | 15 | 10 | 10 | 5 |
| Live Virtual Sets | 24 | 30+ | 30+ | 30+ | 30+ |
| Live Streaming | ✓ | ✓ | ✓ | ✓ | ✓ |
| Media Publishing | — | ✓ | ✓ | ✓ | ✓ |
| IsoCorder™ Recording Technology | — | ✓ | ✓ | ✓ | ✓ |
| TransWarp Effects | ✓ | ✓ | ✓ | ✓ | ✓ |
| Animation Store Transitions | ✓ | ✓ | ✓ | ✓ | ✓ |
| Holographic Live Virtual Set Support | — | ✓ | ✓ | ✓ | ✓ |
| Macros | — | ✓ | ✓ | ✓ | ✓ |
| Hot Spots | — | ✓ | ✓ | ✓ | ✓ |
| Real-Time Motion Tracking | — | — | — | — | ✓ |
| MIDI Support | — | ✓ | ✓ | ✓ | ✓ |
| Avid® Artist Mix Audio Control Support | — | ✓ | ✓ | ✓ | ✓ |
| Apple® AirPlay® Device Support | ✓ | ✓ | ✓ | ✓ | ✓ |
| Multi-View Monitoring | ✓ | ✓ | ✓ | ✓ | ✓ |
| Individually Configurable Multi-View Monitor Viewports | — | ✓ | ✓ | ✓ | ✓ |
| Frame Sync Toggle (Ultra-Low Latency) | — | — | — | ✓ | ✓ |
| Genlock | — | — | ✓ | ✓ | ✓ |
| Tally | — | ✓ | ✓ | ✓ | ✓ |
| System Hard Drive Type | HD | SSD | SSD | SSD | SSD |
| Removable Storage | — | — | ✓ | ✓ | ✓ |
| Hardware Fail-Safe | — | ✓ | ✓ | ✓ | ✓ |
| Redundant PSU | — | — | — | ✓ | ✓ |
| Software Fail-Safe | ✓ | ✓ | ✓ | ✓ | ✓ |
| System Mirroring | — | — | — | — | ✓ |
| Form Factor | Desktop | 2U Rack Mount | 2U Rack Mount | 4U Rack Mount | 4U Rack Mount |

Virtual Sets Templates

| Virtual sets | Arena Report | City Hall | Downtown Church | Keynote | Power Play | Space News Holoset | Sports Net | Starship Bridge A | Starship Bridge B | Metropolis A | Metropolis B | 3D | Alignment |
|----------------|--------------|-----------|-----------------|---------|------------|--------------------|------------|-------------------|-------------------|--------------|--------------|----|-----------|
| | | | | | | | | | | | | | |
| TriCaster 8000 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TriCaster 860 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TriCaster 460 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TriCaster 410 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | v | ✓ | ✓ | ✓ |

| Virtual sets | Alpha | City Loft | Corner Talk | Default | Demo Studio | Helix | Midday Report | News Line | Night Beat | Nightly show A | Nightly show B | Open Book | Optima |
|----------------|-------|-----------|-------------|---------|-------------|-------|---------------|-----------|------------|----------------|----------------|-----------|--------|
| | | | | | | | | | | | | | |
| TriCaster 8000 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TriCaster 860 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TriCaster 460 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TriCaster 410 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| Virtual sets | Plaza | Prime Time | Randomize | Rock Stage | SciTech | SkyBox | Space News | Split Screen | Stadium | World Update |
|----------------|-------|------------|-----------|------------|---------|--------|------------|--------------|---------|--------------|
| | | | | | | | | | | |
| TriCaster 8000 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TriCaster 860 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TriCaster 460 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TriCaster 410 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |



SERVICES

3D Storm Exclusive "Services Plus"

- ✓ Free additional 6-month warranty extension on top of the 12-month NewTek manufacturer warranty.
- ✓ Priority Technical support by phone or email and a free call back service
- ✓ Free Pick-up & Return of defective equipment during warranty period
- ✓ Free Loaner if repair shall take more than 10 business days

For product eligibility and more information about 3D Storm Free Exclusive Services Plus, visit www.3dstorm.com

NewTek manufacturer warranty

The original warranty period for NewTek TriCaster and 3Play new equipment is twelve (12) months from the date of product purchase. This warranty includes parts and labour.

Find NewTek manufacturer warranty information on: <http://www.3dstorm.com/en/warranty>

Extend Your Warranty and Protect Your Investment with 3D Storm!

Extended Services – Services Plus Gold Star Program

On top of the 12-month NewTek manufacturer warranty, 3D Storm offers NEW services, the **Services Plus Gold Star Program**. This 3D Storm Warranty Extension Program safeguards your NewTek equipment investment for an additional year, or two, providing the reliability and convenience benefits of your original warranty.

Key Benefits

- ✓ Extend the original warranty for an additional 12- or 24-months.
- ✓ Free Callback service.
- ✓ "Express pick-up and loan within 24h" available option.
- ✓ Priority repair service.
- ✓ Priority Tech support during the warranty time
- ✓ The Warranty Extension is transferable and adds to the resale value.

This program is available through 3D Storm "Specialist" and "Authorized" NewTek resellers in Europe (EEC) (including Switzerland, except United Kingdom and Nordic countries).

With Services Plus and Services Plus Gold Star program, your warranty is extended from 18 months to 30 months on top of manufacturer warranty.

Contact 3D Storm to know more about Services Plus and Services Plus Gold Star Program. <http://www.3dstorm.com/en/warranty>



Authorized Repair Center

3D Storm is a NewTek international Authorized Repair Center. Located in France, 3D Storm service center handles under warranty and out of warranty repairs and maintenance for all NewTek TriCaster and 3Play models, using certified NewTek spare parts.



Dealer Locator

3D Storm is working with an extended network of selected and skilled AV companies throughout Europe, Middle East, Africa and Russia. You can easily find the nearest NewTek Authorized and Specialist Dealer in your country using our on-line dealer locator.



Training program

3D Storm offers high end bespoke training for TriCaster, 3Play and 3D Virtual Sets design for TriCaster. 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.



Call Back

For any inquiry about our products do not hesitate to use 3D Storm FREE CALLBACK SERVICE accessible from 3dstorm.com Contact page. Enter your phone number and your preferred time to be contacted and we will call you back!



NewTek TriCaster Operator Certification

Becoming a NewTek Certified Operator is important. Certification increases your confidence, as well as your credibility. It's also a very valuable attribute for your business. You'll feel at ease and comfortable as an operator, doing whatever the production requires of you. The Exams are an opportunity to test your skills at creating a live production using NewTek products—prove to yourself that you have what it takes. Currently, we administer exams for the TriCaster Professional Line (410/460/860/8000v2), TriCaster 8000, TriCaster 855/455, and TriCaster 40 models, as well as for the 3Play 4800.

Benefits

Obtaining Operator certification gives you many benefits and sets you apart from the pack. It gives producers and directors confidence that your skills meet the demands of today's fast-paced production environment and put you in high demand. If you have your own business, certification tells your clients and customers they'll get a high-quality production with you at the controls.

Benefits of certification include:

- ✓ Get hired for better jobs, by proving you know your stuff
- ✓ Differentiate yourself in the job pool
- ✓ Generate more customer interest in your business and services
- ✓ Be recognized by industry professionals
- ✓ Become qualified to teach TriCaster and 3Play skills to others

If you are a producer, you want to know your operators can handle any task. Be sure to ask for "NewTek Certified Operators" in your job postings.

Benefits of hiring Certified Operators include:

- ✓ Certified Operators have the competencies you need to get the job done
- ✓ Certified Operators take an exam created by NewTek that is specifically designed to test operational knowledge
- ✓ Produce live events with confidence, knowing you've got a quality production team at your disposal
- ✓ Use the Certification to benchmark your employee and candidate's skills

Who should take an exam

If you've been working in live event production for years and have some experience with NewTek products, you may be ready to take an exam today. If your experience is more limited, but you've been through a school or training program that included significant experience operating the TriCaster or 3Play, you may also be ready to take an exam. Review the exam topics in the Study Guides to assess your level of knowledge in each of the areas and decide if you're ready. If you think you need more study or practice, a number of learning resources are available to increase your skills.

When you're ready to take an exam, contact one of the many testing centers to know the next certification schedule. No prerequisites or specific training courses are required to take a Certification Exam. You will need an email account that you can access from a Web browser, such as Gmail, Hotmail, etc.



Contact 3D Storm for any enquiry regarding NewTek TriCaster Operator Certification. info@3dstorm.com



3D STORM

3D Storm, Master Distributor of NewTek products since 1999, is a leading player in the convergence of IT & the video broadcast industries.

3D Storm professional team supports a network of Specialist and Authorized Dealers, providing the most innovative solutions for live production such as TriCaster and 3Play.

3D Storm is a highly specialized distributor offering a unique range of services:

- ✓ **Maintenance and repair center:** located in France, 3D Storm service center handles under warranty and out of warranty repairs and maintenance for all NewTek TriCaster and 3Play models.
- ✓ **Training center:** ask for the full training programs delivered by 3D Storm covering how to use a TriCaster or 3Play, how to create virtual sets.

3D Storm clients include, Sky, Mediaset, RAI, Radio RAI, CNBC, Telenova, RTP, ERTU, TF1, France Televisions, BFMTV, RTL, WDR, MDR, RTBF, SBC Seychelles, Super Sport South Africa, TVGA, TV3, Banco Santander, Real Madrid F.C, RTP, Olympiakos, Paris Parc des Princes Stadium, European Judo Federation, City of Paris, European Parliament, Metropole Orchestra Hilversum...

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www.3dstorm.com



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