TriCaster 8000 Tech Specs

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 • 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 410; 3Play 4800, 440 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 • *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 • 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 • 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
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
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 and Avid® Artist Mix audio control surface
Supported Session Formats	• NTSC: 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i • Multi-Standard model: 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; PAL 1080/25p, 1080/24p, 1080/50i, 720/50p, 720/25p, 720/24p, 576/25i
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 add-on available via download • NewTek SpeedHQ codecs (Mac and PC) included for extended file support
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 ~ 34.1 x 1.0 x 13.8 in (86.6 x 2.6 x 35.1 cm) • Base ~ 34.1 x 2.2 x 12.8 in (86.6 x 5.6 x 32.5 cm)
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	4U Rack Mount, with 550W redundant, removable power supply and multi-tiered hardware and software fail-safe • 19.0 x 7.0 x 20.5 in (48.3 x 17.8 x 52.0 cm) • 44 lbs (20 kg)