

# TriCaster 860 Tech Specs

<b>Switcher Channels</b>	24 - 10 external, 6 internal, 8 M/E buses
<b>Video Input</b>	<p>8 simultaneous live video sources, in any combination of supported connection types, resolutions and frame rates (including PsF selections)</p> <ul style="list-style-type: none"> <li>• Direct input of cameras and video devices in any combination of HD-SDI, HD Component, SD-SDI, SD Component, Y/C or Composite connections</li> <li>• Per-input format configuration, scaler (including 3:2 intelligent pull-down) and frame synchronizer enabling intermixing of formats</li> <li>• Per-input color correction, crop and LiveMatte keyer controls</li> <li>• Support for Key + Fill input pairing</li> </ul>
<b>Network Sources</b>	<p>2 live inputs via Gigabit connection, selectable from any available network sources with support for video, audio and alpha channel</p> <ul style="list-style-type: none"> <li>• Supported sources include networked computers via included NewTek iVGA client application; wireless Apple® AirPlay® devices; TriCaster 8000, 860, 460, 410 or Mini; 3Play 4800, 440, 425 or Mini; TalkShow; USB video sources; video over IP sources; RTMP or RTSP streams; HTTP streaming video sources; and a variety of third-party partner solutions</li> </ul>
<b>Robotic Camera Support</b>	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
<b>Media</b>	5 integrated digital media sources for video, graphics and sounds (2 DDRs, 2 GFX and Sound) + 15 buffers
<b>Buffers</b>	<p>15 content buffers to store and playback video, animations, still images and graphics</p> <ul style="list-style-type: none"> <li>• 5 animation buffers and 10 still &amp; title buffers, with multiviewer, animation preview, title editing and presets</li> <li>• Shareable across a network for watch folder application, with real-time edit and update of content</li> </ul>
<b>Mix/Effect Buses (M/E)</b>	<p>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</p> <ul style="list-style-type: none"> <li>• <i>Mix mode</i>: Enables secondary switcher operation for output, submix or recording, with Program/Preview workflow and transitions</li> <li>• <i>Effects mode</i>: Enables multi-layer compositing, effects generation and virtual set application, with per-source 3D DVE, scaling, cropping and keying</li> </ul>
<b>Macros</b>	<p>Record configurations and operation sequences, then attach to keyboard shortcuts, control surface actions, MIDI controllers, or on-screen hotspots for recall and automation</p> <ul style="list-style-type: none"> <li>• Macro editor for modifying user-defined macro configurations and sequences</li> <li>• Augment and extend TriCaster operation using macro plug-ins to control external devices and applications</li> <li>• Enable cross-platform commands and automation between TriCaster and 3Play</li> </ul>
<b>DSKs</b>	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
<b>Effects and Transitions</b>	<p>Integrated TransWarp effects engine on all effects channels supports standard transitions, customizable animation store transitions with audio, and overlay effects</p> <ul style="list-style-type: none"> <li>• Animation Store Creator for custom animations</li> <li>• Supports per-pixel alpha blending between sources and real-time 3D warping of video or graphics</li> </ul>
<b>Virtual Sets</b>	<p>30+ HD live virtual sets, with presets, multiple camera angles, real-time reflections, and specular highlights</p> <ul style="list-style-type: none"> <li>• Live pan and zoom of virtual camera and customizable virtual camera presets with animated pan, zoom and pedestal moves</li> <li>• Support for up to 2 switchable live sources, with per-source 3D DVE, scaling, cropping and keying</li> <li>• Supports custom-created virtual sets generated using NewTek Virtual Set Editor or third-party partner solutions</li> </ul>

<b>Holographic Live Virtual Sets</b>	<p>Support for custom virtual environments generated from panoramic smartphone, camera or DSLR images</p> <ul style="list-style-type: none"> <li>Select sets included; custom sets require Virtual Set Editor 2.5</li> </ul>
<b>Hotspots</b>	<p>Up to 8 freely configurable, interactive hotspots per input for macro control</p>
<b>Video Output</b>	<p>Configurable for up to 14 output connections, with support for key output and per-connection signal settings</p> <ul style="list-style-type: none"> <li>3 x SDI</li> <li>3 x Analog (configurable for Component or Y/C + Composite)</li> <li>HDMI output</li> <li>2 x supplemental display ports (1 x VGA and 1 x video-only HDMI) for additional displays or projectors</li> <li>Network output for live streaming</li> <li>A/V output to network-connected TriCaster over local network</li> </ul>
<b>Recording</b>	<p>Multi-track, multi-format recording of up to 8 simultaneous channels via IsoCorder™ technology</p> <ul style="list-style-type: none"> <li>Native recording in up to 1080p with timecode</li> <li>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)</li> <li>Freely choose to add recordings to Publish queue and DDR destinations</li> </ul>
<b>Recording Capacity</b>	<p>Includes 3TB internal drive accommodating ~70 hours 1080i (varies by resolution and format; capacity expandable using additional supported storage)</p> <ul style="list-style-type: none"> <li>4 trayless SATA III removable drive bays with hot-swap support for unlimited storage and backup</li> <li>Simultaneous recording of up to 2 channels to internal drive; support for up to 8 channels with removable, external or shared storage connected</li> <li>Supports recording to external storage via USB 3.0</li> <li>Supports shared storage integration via third-party partner solutions</li> </ul>
<b>Grab</b>	<p>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</p>
<b>Media Publishing</b>	<p>Supports direct content upload to YouTube™, Facebook, Twitter™, FTP, local or external volumes, and network servers</p>
<b>Live Streaming</b>	<p>HD live streaming with simultaneous archive</p> <ul style="list-style-type: none"> <li>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</li> <li>Streaming Profile Manager with integrated Web browser</li> </ul>
<b>Audio Inputs</b>	<p>8 x SDI Embedded 8 x AES3/EBU 8 x 2 Balanced XLR (Mic/Line) Phantom Power Support</p>
<b>Audio Outputs</b>	<p>3 x SDI Embedded 2 x AES3/EBU 4 x Balanced XLR 4 x Balanced XLR (AUX) 1 x Stereo 1/4" (phones)</p>
<b>Audio Mixing</b>	<p>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</p> <ul style="list-style-type: none"> <li>Pan control, solo auditioning, seven-band equalizer and stereo compressor/limiter per input and output, with per-input audio delay control</li> <li>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</li> <li>AFV system enabling audio to follow multiple video sources, with support for unlimited audio grouping combinations</li> <li>Digital audio inputs equipped with audio time-base synchronizers</li> <li>Supports hardware control via Avid® Artist Mix audio control surface (sold separately)</li> </ul>

<b>Supported Session Formats</b>	<ul style="list-style-type: none"> <li>• NTSC model: 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i</li> <li>• 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</li> </ul>
<b>Playback Media Formats</b>	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)
<b>Export Media Formats</b>	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
<b>Post Production</b>	<ul style="list-style-type: none"> <li>• NewTek SpeedEDIT 2 add-on available via download</li> <li>• NewTek SpeedHQ codecs (Mac and PC) included for extended file support</li> </ul>
<b>Monitoring</b>	<p>DVI monitor outputs for user interface and multiview preview displays</p> <ul style="list-style-type: none"> <li>• Preview all sources or select sources in a variety of layouts and dual-monitor display combinations via Workspaces control panel</li> <li>• Viewports freely configurable for any combination of input sources, Program, Preview, M/E buses, clocks or images</li> <li>• A/V indicator and guide overlays configurable per viewport</li> </ul>
<b>Signal Monitoring</b>	Integrated Waveform and Vectorscope, full field rate with digital calibration, color preview and support for ITU-R Rec. 601 and 709
<b>Session Management</b>	Setup and store session settings in reusable template sessions
<b>Latency</b>	Ultra-low, between 1 and 2 frames
<b>Processing</b>	<p>Video: 4:4:4:4, 32-bit Floating Point</p> <p>Audio: 4 channels, 96 kHz, 32-bit Floating Point</p>
<b>A/V Standards</b>	<p>HD-SDI video conforms to SMPTE 292M</p> <p>SD video conforms to SMPTE 259M and ITU-R BT.656</p> <p>Analog audio levels conform to SMPTE RP-155</p>
<b>Control Surface</b>	<p>Optional TriCaster 860 hardware control surface</p> <ul style="list-style-type: none"> <li>• Surface ~ 28.5 x 0.5 x 11.6 in (72.4 x 1.3 x 29.5 cm)</li> <li>• Base ~ 27.5 x 2.0 x 10.8 in (69.9 x 5.1 x 27.4 cm)</li> <li>• 18.1 lbs (8.2 kg)</li> </ul>
<b>MIDI Control</b>	Support for standard MIDI protocol enabling third-party MIDI device control of TriCaster operations via macros
<b>GPI Support</b>	Supports 2 x 24 GPI signals via JLCooper eBOX GPI system
<b>System Physical</b>	<p>4U Rack Mount, with 550W redundant, removable power supply and multi-tiered hardware and software fail-safe</p> <ul style="list-style-type: none"> <li>• 19.0 x 7 x 20.5 in (48.3 x 17.8 x 52 cm)</li> <li>• 44 lbs (20 kg)</li> </ul>

*Technical specifications are current as of 10/15/2015 and subject to change without notice. For more information, visit [www.newtek.com](http://www.newtek.com).*