

TriCaster 410 Tech Specs

Switcher Channels	15 – 6 external, 5 internal, 4 M/E buses
Video Input	<p>4 simultaneous live video sources over SDI, in any combination of supported resolutions and frame rates (including PsF selections)</p> <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	<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"> 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	<p>15 still & title buffers, with multiviewer, title editing and presets</p> <ul style="list-style-type: none"> Shareable across a network for watch folder application, with real-time edit and update of content
Mix/Effect Buses (M/E)	<p>4 freely configurable M/E channels for video mixing, compositing, effects and virtual sets, each with independent Key layer and support for TransWarp effects</p> <ul style="list-style-type: none"> <i>Mix mode</i>: Enables secondary switcher operation for output, submix or recording, with Program/Preview workflow and transitions <i>Effects mode</i>: Enables multi-layer compositing, effects generation and virtual set application, with per-source 3D DVE, scaling, cropping and keying
Macros	<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"> Macro editor for modifying user-defined macro configurations and sequences Augment and extend TriCaster operation using macro plug-ins to control external devices
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	<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"> Animation Store Creator for custom animations Supports per-pixel alpha blending between sources and real-time 3D warping of video or graphic
Virtual Sets	<p>30+ HD live virtual sets, with presets, multiple camera angles, real-time reflections, and specular highlights</p> <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	<p>Support for custom virtual environments generated from panoramic smartphone, camera or DSLR images</p> <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	<p>Configurable for up to 5 output connections, with support for key output and per-connection signal settings</p> <ul style="list-style-type: none"> 2 x SDI HDMI output Network output for live streaming A/V output to network-connected TriCaster over local network
Recording	<p>Native recording in up to 1080p</p> <ul style="list-style-type: none"> 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
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	<p>HD live streaming with simultaneous archive</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 4 SDI Embedded 1 x 2 Balanced XLR (Mic/Line) 1 x 2 Balanced 1/4" (Mic/Line)
Audio Outputs	<ul style="list-style-type: none"> 2 SDI Embedded 1 x 2 Balanced XLR 1 x 2 Balanced 1/4" (AUX) 1 Stereo 1/4" (phones)
Audio Mixing	<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"> • 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
Supported Session Formats	<ul style="list-style-type: none"> • NTSC model: 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	<p>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)</p>
Export Media Formats	<p>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</p>
Post Production	<ul style="list-style-type: none"> • 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	<p>DVI and HDMI monitor outputs for user interface and multiview displays</p> <ul style="list-style-type: none"> • Preview all sources or select sources in a variety of layouts and dual-monitor display combinations via Workspaces control panel • A/V indicator and guide overlays configurable per viewport
Signal Monitoring	<p>Integrated Waveform and Vectorscope, full field rate with digital calibration, color preview and support for ITU-R Rec. 601 and 709</p>
Session Management	<p>Setup and store session settings in reusable template sessions</p>
Processing	<p>Video: 4:4:4:4, 32-bit Floating Point</p>
Latency	<p>Audio: 4 channels, 96 kHz, 32-bit Floating Point</p>
A/V Standards	<p>Ultra-low, between 1 and 2 frames</p> <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>
MIDI Control	<p>Support for standard MIDI protocol enabling third-party MIDI device control of TriCaster operations via macros</p>
System Physical	<p>2U Rack Mount, with 430W power supply and multi-tiered hardware and software fail-safe</p> <ul style="list-style-type: none"> • 19.0 x 3.5 x 21.5 in (48.3 x 8.9 x 54.6 cm)

Technical specifications are current as of 09/03/2013 and subject to change without notice.