

TriCaster® 410 Technical Specifications

Switcher Channels	16 – 6 external, 6 internal, 4 M/E buses
Video Input	4 simultaneous live video sources via SDI, in any combination of supported resolutions and frame rates <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 NDI®-compatible and AirSend™-compatible systems, devices and applications, networked computers via iVGA™, USB video sources, video over IP sources, RTMP and RTSP streams, HTTP streaming video sources, and video and CG sources from compatible 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	5 integrated digital media players for video, graphics and sounds <ul style="list-style-type: none"> • 2 x DDR • 2 x GFX • 1 x Sound
Buffers	15 still & title buffers, with multiviewer, title editing and presets <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)	4 freely configurable M/E buses 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"> • <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	Record configurations and operation sequences, then attach to control surface buttons, keyboard shortcuts, MIDI buttons, GPI triggers 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 supported systems
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 supporting standard transitions, customizable animation store transitions with audio, and overlay effects <ul style="list-style-type: none"> • Supports per-pixel alpha blending between sources and real-time 3D warping of video or graphics • Includes Animation Store Creator for custom animations
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 (sold separately)
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 <ul style="list-style-type: none"> • 2 x SDI • 1 x HDMI output • 2 x supplemental Display outputs (1 x VGA and 1 x video-only HDMI) for additional screens or projectors • 1 x Stream output • 1 x Network output via NDI® or AirSend to compatible receiving device(s)
Recording	Multi-track, multi-format recording of up to 4 simultaneous channels via IsoCorder™ technology <ul style="list-style-type: none"> • 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) <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 • Supports recording to external storage via USB 3.0 • 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 Facebook, Twitter™, YouTube™, FTP, local or external volumes, and network servers
Live Streaming	HD live streaming with simultaneous stream file archive <ul style="list-style-type: none"> • Support for RTMP streaming, Microsoft® Windows Media® Push/Pull, and browser-based streaming applications • Support for most common streaming profiles and custom multi-bitrate streaming profiles, including presets up to 720p • Streaming Profile Manager with integrated Web browser
Audio Inputs	4 x SDI embedded 1 x 2 Balanced XLR (Line) 1 x 2 Balanced 1/4" (Line)
Audio Outputs	2 x SDI embedded 1 x 2 Balanced XLR 1 x 2 Balanced 1/4" (AUX) 1 x 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 <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 hardware control via Avid® Artist Mix audio control surface (sold separately)
Supported Session Formats	NTSC model: <ul style="list-style-type: none"> • 1080/30p, 1080/24p, 1080/60i, 720/60p, 720/30p, 720/24p, 480/60i Multi-Standard model: <ul style="list-style-type: none"> • 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
Supported Media File Formats	<ul style="list-style-type: none"> • Video: AVI, DV, DVCPPro, DVCPProHD, FLV, F4V, H.263, H.264, MOV, MKV, MJPEG, MPEG (1, 2, all profiles, program or transport streams), MP4, WMV, WebM, and more • Image: PSD, PNG, TGA, BMP, JPEG, EXR, RAW, TIF, and more • Audio: AIFF, MP3, WAV, and more

Media Import	Import Media application for batch import of files with optional transcoding to file formats suitable for live production use
Media Export	Export Media application for batch export of files with optional transcoding to compatible formats for different applications and devices
Monitoring	DVI and HDMI monitor outputs for user interface and multiviewer displays <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• 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
Throughput Latency	~1.0-2.0 frames
Processing	Video: 4:4:4:4, 32-bit Floating Point Audio: Floating Point, 96 kHz
A/V Standards	<ul style="list-style-type: none">• 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
Tally	Support for hardware tally via HD15 GPI connector, network tally via NDI®, and Blackmagic Design® SDI tally standard
MIDI	Support for standard MIDI protocol enabling third-party device control of TriCaster operations via macros
GPI	Supports GPI signals via JLC Cooper Electronics eBOX GPI interface
System Physical	2RU chassis with 430W PSU and multi-tiered hardware and software fail-safe <ul style="list-style-type: none">• 19.0 x 3.5 x 21.5 in (48.3 x 8.9 x 54.6 cm)• 26 lbs (11.8 kg)

Subject to change without notice.