



NewTek

TriCaster[™]

TCXD300



HD PORTABLE LIVE PRODUCTION



**HD LIVE
TELEVISION TRUCK
SMALL ENOUGH TO
FIT IN A BACKPACK**



High definition (HD), live, multi-camera video production no longer exists only in the realm of big television studios or giant production trucks with banks of monitors, miles of cables, tape machines, video recorders, video effects generators, titling stations, audio mixers and more. Today, all of that power, quality and potential exists in a 20-pound box small enough to fit in a backpack with the flexibility for one person or a small team to deliver network-quality video. **TriCaster™ TCXD300** makes it possible for you to broadcast, project, live stream or record full HD programming.

TriCaster TCXD300 is a high definition, network-quality portable live production solution. In one small box you gain multi-channel HD switching, HD network-style virtual sets, HD titling, HD digital disk recording, audio mixing, HD editing, full HD streaming and more.

Live video is a dominant force in our world from the Internet to digital billboards to traditional television broadcasting. Everyone knows what television is supposed to look like. Viewers immediately recognize the difference between well-crafted, network-style programs and simple webcam streams. This is why producers and sponsors worldwide choose TriCaster productions where they can achieve professional results that match their brand.

"I am now doing by myself what 22 people and a half million dollar control room did, thanks to NewTek TriCaster."
- Leo Laporte, TWIT, Technology Journalist



As the worldwide leader in portable live production, NewTek has empowered thousands of TriCaster users from major players like CBS Radio, ESPN X Games, Fox News, Fox Sports, NBA D-League, NHL, MTV, Sky News, TWIT, VH1 and WNBA to elementary schools, high school and college sports teams/leagues, local governments and more. Each of these organizations has used TriCaster portable live production to build their brands and extend their reach through the power of network-quality video streamed live to the Web.

"NewTek TriCaster is one of the pioneers of Internet streaming."
- Richard Hart, ABC News

STREAM OR DIE

For the first time the ability to produce and deliver live HD network-quality television is open to everyone. You no longer need a television network to broadcast. **TriCaster TCXD300** is the studio. The Internet is the network.

As more viewers migrate to the Web, producers are seeing the value in developing unique content for live webcasts. Streaming with TriCaster can increase advertising inventory and sponsorship revenue by providing extended, alternative and simulcast programming in addition to regular broadcasts. Further, live streaming with **TriCaster TCXD300** allows producers and sponsors to reach a more diverse, global audience, or dive deeper into a hyper-local market.

Streaming provides the ability to deepen the relationship with fans, viewers and listeners by providing "behind the velvet rope access" and "back stage passes" to events and activities where public admission is not feasible.

TRICASTER USERS



▶ INTUITIVE INTERFACE



1 LIVE PRODUCTION provides control of an entire multi-channel HD production. Connect up to three HD or standard definition (SD) cameras, digital or analog audio, and go live with simultaneous output to video, projector and the Web.

2 LIVE VIRTUAL SETS in HD give you the flexibility of expansive, professional sets even though your location may have limited space. With live, multi-camera smooth zooming, show your talent in a network-style studio without the need for a camera operator or expensive motion control system. Sets include double box effects with options for stand-up and one or two presenters.

3 ON-SCREEN MONITORS let you select shots with confidence. Displaying cameras, clips and iVGA™ networked computer inputs, **TriCaster TCXD300** allows you to send all monitors to a second display, and enlarge your workspace.

4 PREVIEW AND PROGRAM MONITORS let you display titles or a transition on-screen, while showing what source is up next. Innovative color Waveform Monitors and Vectorscopes ensure perfect signal quality for your live production.

5 ADVANCED VIDEO SWITCHER gives you unprecedented control over all inputs. Select a live output on Preview, and use either the on-screen T-bar or the optional LiveControl™ LC-11 hardware to transition easily from one source to another. Versatile production tools such as Virtual Inputs and dual downstream keys provide the ability to easily create dynamic overlays and graphics.

6 VIDEO TRANSITIONS add interest and impact to your live production. Use any of the 200-plus HD broadcast-quality effects to transition from one source to another and fly titles and inserts on and off screen.

7 LIVE TITLES give you a broadcast look with graphics, titles and animated overlays on top of your live video. Lock a title or bug to a camera or Virtual Input and set the in and out motion for each.

8 ONE-BUTTON INTERNET STREAMING allows you to use Adobe® Flash® or Windows Media® to deliver a live stream directly to the Web, in 720p HD and other streaming profiles with simultaneous archive for later viewing. ONE-BUTTON RECORDING captures your live production as a full HD resolution video file.

9 AUDIO MIXING gives you complete control over microphones, line inputs and clip playback levels, you can also adjust input trim levels for the best possible audio. In addition, **TriCaster TCXD300** provides both AES and embedded digital audio for pristine sound.

10 DDR allows you to easily add video clips to your production, as well as auto-insert clips captured during a live event for immediate playback. HD and SD resolutions are supported in a variety of popular file formats

11 VIRTUAL INPUTS provide five customized inputs to configure virtual sets, layer live elements, assign titles, set upstream picture-in-picture effects and much more. These settings can be used as templates for easy creation of other mix effects and are instantly available in the playlist along the left.

HD LIVE SWITCHING



TriCaster TCXD300 represents the state-of-the-art in portable live production systems with the highest quality 32-bit floating point, 4:4:4:4 video processing. **TriCaster TCXD300** accepts high definition video in both 1080i and 720p along with SDI, Y/C, component and composite. **TriCaster TCXD300** makes live switching fast and seamless with:

- ✓ Proc Amp controls for quick color balance
- ✓ LiveMatte™ controls for clean keying
- ✓ Multi-channel audio mixer for full audio mixing with audio follow video
- ✓ Ability to add networked PCs or Macs as an input source using iVGA
- ✓ Multi-view monitor option for complete display of the entire production
- ✓ Hundreds of HD transitions with forward/reverse options and speed controls



"TriCaster allows us to compete immediately with the best visuals and the best sound."

- Peter Himmelman, Furious World
Emmy® and Grammy® nominated composer and performer

YOU'VE GOT THE CONTENT TRICAST IT

Deliver your program simultaneously to video, projectors and the Web with **TriCaster TCXD300**.



- ✓ End-to-end HD 1080i video pipeline, including effects, keying and virtual sets
- ✓ Output HD and SD at the same time
- ✓ Send live video to projector or digital signs for image magnification at concerts and presentations
- ✓ One-button full HD streaming to Flash or Windows Media push/pull in superior quality 720p, the highest streaming resolution in the industry

"Last year, before TriCaster, we produced about 50 live events. This year, with TriCaster we've done over 600."

- Chuck Muncie, KadyTV, former San Diego Chargers Pro Bowl running back

HD TITLES AND GRAPHICS

Great-looking titles and graphics significantly enhance any project. **TriCaster TCXD300** titling allows you to easily create and update titles and graphics on-the-fly during your live production. Multiple channels of overlays and the ability to pre-assign individual transitions to any source make it fast and simple to create sophisticated graphics.

"TriCaster brings a whole new professionalism to the Web; it makes it easy for anyone to do live production."

- Mike Rotman, director, Kevin Pollak Chat Show

- ✓ Overlay channels of upstream and downstream keying provide multiple layers of graphics and titles
- ✓ Titles and graphics can be easily resized and positioned to suit your needs
- ✓ Title templates can be updated live
- ✓ Easily change font, font size and add bold, italic or underline
- ✓ Add pictures to title templates for total customization
- ✓ Spell check assures that titles are accurate

City Lights



Election Day

Cast Your Vote

Edwards	Quarterback
Jackson	Tackle
Smith	Tight End
Johnson	Safety
Williams	Wide Receiver
Jones	Half Back
Washington	Full Back
Davis	Guard



Geraldo Jones
Star Player

HD NETWORK-STYLE VIRTUAL SETS

Live virtual sets are no longer complicated or expensive. With NewTek LiveSet™ virtual set technology you can achieve the look of a sophisticated studio setting in a small space without the need for complex external equipment. Virtual Inputs make it easy to pre-assign your saved **TriCaster TCXD300** set effects. With lights, a simple camera setup and a green or blue backdrop, your on-camera talent can be placed in any one of the 15 included HD virtual sets.

- ✔ Set designs include two-person and stand-up for versatility
- ✔ Double box effects are included for most virtual sets
- ✔ Animate zoom option provides smooth live zoom from shot to shot
- ✔ Adjust zoom speed with slow, medium and fast presets or manually set the speed
- ✔ Easily resize and position camera inputs – camera never needs to be physically repositioned or adjusted
- ✔ Each Virtual Input provides an overlay channel for an additional layer of effects
- ✔ Add video, graphics and branding to virtual monitors in the live virtual sets
- ✔ Professional sets designed with Emmy® Award-winning NewTek LightWave 3D® with reflections and refractions for complete realism

"Just because it's the Internet, it doesn't have to be compromised. TriCaster delivers the professionalism we require."
 - Robin Ruzan,
 The Room Live,
 actress/comedian/writer,
 credits include "SNL", and
 "Curb Your Enthusiasm"



▶ BLAZING-FAST HD EDITING

Prepare video content for your live production with NewTek's resolution-independent video editor designed to work quickly and efficiently on any project.

- ✔ Mix both HD and SD on the same timeline in real-time for complete flexibility
- ✔ Provides real-time up and down-conversion
- ✔ Offers real-time 3D position, size and rotation
- ✔ Delivers real-time, interpolated slow motion
- ✔ Instantly play back sequenced images for quick review
- ✔ Storyboard and timeline views are linked so that you can review your progress in the most suitable form
- ✔ Clip inherit provides instant replacement of selected clips
- ✔ Unlimited project undo saves for easy edit revisions
- ✔ Animated titling provides complex motion graphics



▶ LIVECONTROL™ LC-11

LiveControl LC-11 hardware offers a physical connection to each input during your live presentation. Large, backlit, easy-to-read buttons enable quick transition from one source to the next, along with zoom control for live virtual sets. LiveControl eliminates the need to use a keyboard or mouse and provides the flexibility to add members to the production team.

"We've always wanted to do Web streaming and it's always been difficult – now we've discovered NewTek TriCaster and it's incredible."
 Geoff Petrusis, director, Internet operations,
 96.3 KSCS Radio



SPECIFICATIONS

Dimensions	17.5" D x 8.5" H x 10.4" W	Weight	20 lbs
Video Input	3 Simultaneous Inputs. Any combination of: HD-SDI, HD Component, SD-SDI, SD Component, Y/C (BNC) and Composite	Audio Input	2 Balanced Combination XLR/Phone Jacks 2 x 4 Balanced Phone Jacks 3 x 2 AES3/EBU BNC Connectors 3 x SDI Embedded Phantom Power Option
Video Output ¹	3 HD/SD-SDI 3 HD/SD-Component	Audio Output	4 Balanced Phone Jacks (Program Out) 4 Balanced Phone Jacks (Auxiliary Out) 2 AES/EBU (Program Out) 2 AES/EBU (Auxiliary Out) 3 SDI Embedded 1 Stereo Headphone Jack
Video Processing	32-Bit Floating Point, YCbCrA 4:4:4:4	Audio Quality	24-bits, 48 kHz, 4 Channels
Supported Formats	Standard: 1080i 59.94, 720p 59.94, 480i 59.94 (16:9 and 4:3) Multi-Standard: 1080i 50, 720p 50, 576i 50 (16:9 and 4:3)	Recording Capacity	~ 18 Hours 1080i HD
Presets	Numerous Preset Bins Including Individual Production Session	Mix HD/SD Sources	Yes
Video Ingest	1, 6-pin IEEE FireWire®	Tally	3 Tally Light Connections (Program, Preview and both)
iVGA™ Network Import	Unlimited	16:9 Video Support	Yes
Virtual Set Support	Yes; 15 HD Virtual Sets Included. (can be positioned and scaled)	iVGA™ Input	1 Ethernet Network Connection
Virtual Input Overlay	1 Channel with Transitions	Virtual Inputs (M/E - Style)	5 with Presets
On-screen ISO Preview Monitors	"All Sources," or "Preview and FX" or "Scopes with Preview" (full-time, tabbed)	Main Overlay	2 Downstream Key Channels with Independent Transitions
Projector Output	Yes; 16:9 and 4:3 Aspects	Integrated Character Generator	Yes
Full HD 720p 16:9 streaming	Yes	Projector Resolutions	Up to 1920 x 1200
Media Player	1 Each DDR, Stills, Titles with Alpha Channel Assignable to Downstream Key	Live Webcasting	Yes; Adobe Flash and Push or Pull Windows Media with VC-1 support
Waveform Monitor	Yes	Recorder	Simultaneous Full Resolution MPEG-2 + Stream
Nonlinear Editor	Yes	Vectorscope	Yes
File Formats	AVI, DV, MPEG-2, QuickTime, HDV, JPG, PNG, and More ...	Render Outputs	AVI, DV, MPEG-2, DVD, QuickTime, MP4 (iPod and PSP)
Accessory Options	LiveControl™ LC-11		

¹ Both digital (SDI) and analog video output connectors are active at all times.

- HD rows output HD-SDI and HD Component
- SD rows can be configured as "SDI + Component" or "SDI + Composite + Y/C".
- For live productions:
 - Output Row 1 and 2 run at the session resolution
 - Output Row 3 always provides an SD output
 - SD output is always 16:9 for 16:9 sessions, 4:3 for 4:3 sessions (HD or SD)

For post productions:

- For HD projects, all outputs are HD, output consists of 3 HD-SDI and 3 HD Component.
- For SD Projects, output consists of 3 SD-SDI connections, 1 SD-Component, 2 Composite and 2 Y/C

Specifications subject to change without notice

The logo features a stylized blue 'N' inside a circle on the left. To its right, the word 'NewTek' is written in a bold, sans-serif font. Below 'NewTek', the word 'TriCaster' is written in a large, bold, italicized sans-serif font. Underneath 'TriCaster', the model number 'TCXD300' is written in a smaller, bold, italicized sans-serif font.

NewTek
TriCaster™
TCXD300

FOR A COMPREHENSIVE OVERVIEW VISIT: WWW.NEWTEK.COM/TRICASTER



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