



NewTek

TriCaster™

HD
PORTABLE
LIVE
PRODUCTION



NewTek *TriCaster*TM

**HD
LIVE**
TELEVISION TRUCK
SMALL ENOUGH TO
FIT IN A BACK PACK

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**TM makes it possible for you to broadcast, project, live stream or record full HD programming.

TriCaster 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.

"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



Live video is a dominant force in our world, from the Internet and 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.

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, MTV, NBA D-League, NHL, 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.

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** 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 allows producers and sponsors to reach a more diverse, global audience, or dive deeper into a hyper-local market.

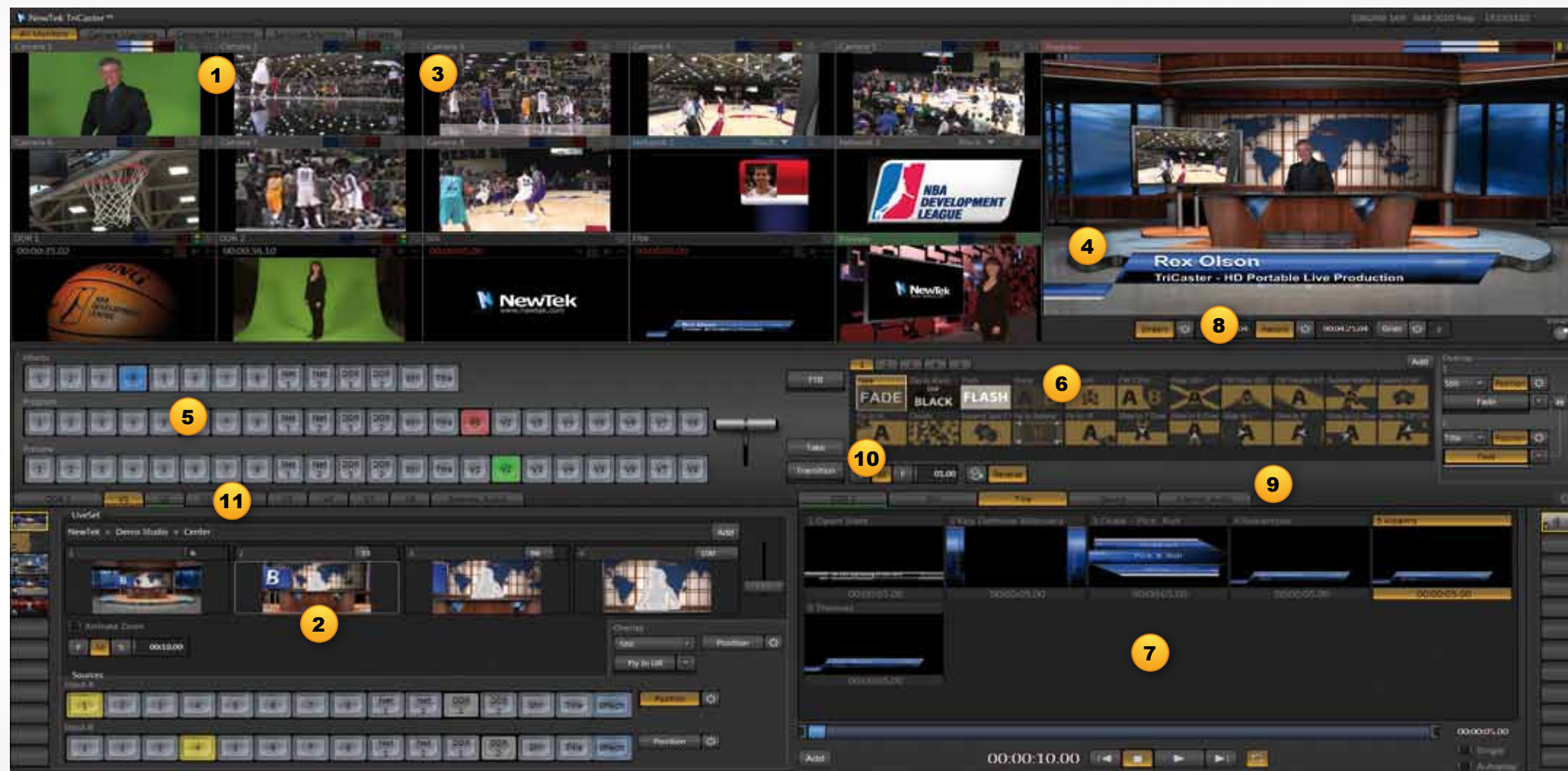
Live streaming with **TriCaster** provides the ability to deepen the relationship with fans, viewers and listeners, by providing "behind the velvet rope access" and "back stage passes" to events and activities where public admission is not feasible.

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

TRICASTER USERS



INTUITIVE INTERFACE



Images courtesy of the NBA D-League

- 1 **LIVE PRODUCTION** provides control of an entire multi-channel HD production. Connect up to eight 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. Displays include cameras, clips and iVGA™ networked computer inputs, along with the ability 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 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, the system provides both AES and embedded digital audio for pristine sound.
- 10 **DIGITAL MEDIA PLAYERS** include two DDRs for video playback, titles, stills, music and sound, making it easy to add video clips and imagery to your production, as well as auto-insert clips captured during a live event for immediate playback. HD and SD resolutions are supplied in a variety of popular file formats.
- 11 **VIRTUAL INPUTS** provide eight customized inputs to configure virtual sets, layer live elements, assign titles, set upstream picture-in-picture elements and much more. These settings can be used as templates for easy creation of other mix effects, and are instantly available in the preset bin along the left.

"If you were impressed when manufacturers began putting home theatres in boxes, wait until you feast your eyes on NewTek TriCaster, which packs an entire live television production studio into a comparable cube of space." - Eliot Van Buskirk, WIRED

**HD
PORTABLE
LIVE
PRODUCTION**

TriCaster TCXD850

NewTek *TriCaster*[™] TCXD850



TriCaster TCXD850 is the latest addition to the NewTek HD portable live production family. This durable rack mount system provides the highest quality, 32-bit floating point with 4:4:4:4 video processing. **TriCaster TCXD850** accepts HD video in all common video formats and sources, including HD-SDI, SDI, component, Y/C, or composite. Whether you work with a team or operate on your own, **TriCaster TCXD850** is easy to learn and provides the following benefits:

- 22-channel switcher with eight HD-SDI or analog inputs, two DDRs, two network inputs, titles, stills and eight virtual/mix channels
- Five digital Media Players for video playback, titles, stills, music and sound
- Overlay with rotation, positioning and scaling in 3D plus animated effects
- Two network inputs deliver graphics from LiveText, presentations from a PC or Mac® using iVGA or other computer sources to the switcher or overlay channels
- Simultaneously monitor all switcher inputs at full field-rate and verify signal integrity with color Waveform/Vectorscopes
- Use any combination of either embedded digital, AES or the 16 balanced analog XLR audio inputs to bring in microphones, stereo or quad line level sources

- Audio mixing capabilities with audio follows video support and auxiliary routing to integrate into an external audio setup
- HDMI and VGA program outputs for projector (IMAG) or other monitoring applications
- 36 hours of 1080i recording capacity that can be extended by using the three removable drive bays
- Three video output rows provide flexible simultaneous HD and SD video output
- Durable rack mount 4U case with redundant power supply



Dimensions	19" D x 7.25" H x 21.5" W	Weight	43 lbs
Video Input	8 Simultaneous Inputs. Any Combination of: HD-SDI, HD Component, SD-SDI, SD Component, Y/C (BNC) or Composite. HD-SDI Video Conforms to SMPTE 292M and SD Video Conforms to SMPTE 259M and ITU-R BT.656.	Audio Input	8 x 2 Balanced XLR at Line and Mic Level 8 AES/EBU BNC Connectors 8 SDI Embedded Analog Audio Levels Conform to SMPTE RP-155 Phantom Power Option
Video Output ¹	3 HD/SD-SDI 3 HD/SD Component HDMI Output Aux VGA/DVI Output User Interface VGA/DVI Output	Audio Output	4 Balanced XLR (Program Out) 4 Balanced XLR (Auxiliary Out) 2 AES/EBU (Program Out) 3 SDI Embedded (Program Out) 1 Stereo 1/4" Headphone Jack
Video Processing	32-Bit Floating Point, YCbCrA 4:4:4:4	Audio Processing	32-Bit Floating Point, 96 kHz, 4 Channels
Supported Formats	NTSC: 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	~ 36 Hours 1080i 59.94 Removable Drive Bays for Unlimited Record Time and Backup Capability
Presets	Numerous Preset Bins (includes individual production sessions)	Mix HD/SD Sources	Yes
Video Ingest	1, 6-pin IEEE FireWire®	Tally	DB15 Connector for 8 PGM Row Tally Lights
iVGA™ Network Selections	2 Channels Dedicated to Separate iVGA™ Sources (select instantly from unlimited network sources)	Network Connection	1Gbit Connection for Network Inputs and Streaming Output
Virtual Set Support	Yes - 18 HD Virtual Sets Included (can be positioned, scaled, and rotated in 3D)	Per Virtual/Mix Channel Overlay	1 Channel with Keying, Effects with Positioning, Scaling, Cropping, and 3D Rotation
Virtual/Mix Channels	8 Independent Channels with Presets	Main Overlay	2 Downstream Keys with Independent Effects with Keying, Positioning, Scaling, Cropping and 3D Rotation
Media Player	2 DDRs, Stills, Titles, Audio Player (all video sources provide output with alpha channel, for use in overlays, virtual sets, etc.)	On-Screen Preview Monitors	"All Sources," "Computer Sources," "Camera Inputs," "Preview and FX" or "Scopes with Switchable Input" (full-time, tabbed - all run at full field rate)
Projector Output	Yes - 16:9 and 4:3 Aspects	Projector Resolutions	Up to 1920 x 1200
Full HD 720p 16:9 Streaming	Yes	Live Webcasting	Yes - Adobe Flash, Windows Media Push/ Pull and VC-1 Codec Support
Waveform Monitor and Vectorscopes	Yes - Full Field Rate with Color Preview	Record to Disk	Simultaneous Recording of Full Resolution MPEG-2 and Archive of Web Stream
Integrated Character Generator	Yes	Nonlinear Editor	Yes
File Formats	AVI, DNxHD, DV, M4V, MPEG-2, QuickTime, H264, HDV, JPG, PNG, PSD and More	Render Outputs	AVI, DV, MPEG-2, MP4 (iPod and PSP), QuickTime
Form Factor	Rack Mount (4U with optional rails)	Redundant Power Supply	Yes
Drive Bays	3 Trayless SATA II Removable Drive Bays	Accessory Options	LC-11, TimeWarp™ and LiveText™

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, which can either be 16:9 or 4:3 aspect

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

**HD
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NewTek TriCaster™ TCXD300



TriCaster TCXD300 is a high definition, network-quality portable live production solution. In one small box, you have multi-channel HD switching, HD network-style virtual sets, HD titling, HD digital disk recording, audio mixing, HD editing, full HD streaming and more. This compact system is easy to set up, and delivers the following benefits:

- 13-channel switcher with 3 HD-SDI or analog inputs, 1 DDR, 1 network input, titles, stills and 5 virtual/mix channels
- Two digital Media Players for video playback, titles, stills, music and sound
- Two network inputs deliver graphics from LiveText, presentations from a PC or Mac using iVGA or other computer sources to the switcher or overlay channels

- Audio mixing capabilities with audio follows video support and auxiliary routing to integrate into an external audio setup
- Three simultaneous HD/SD inputs
- LiveMatte™ controls for clean key generation
- 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

"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

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 Output¹	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 1/4" Headphone Jack
Video Processing	32-Bit Floating Point, YCbCrA 4:4:4:4	Audio Processing	32-Bit Floating Point, 48 kHz, 4 Channels
Supported Formats	NTSC: 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 59.94
Presets	Numerous Preset Bins (including individual production sessions)	Mix HD/SD Sources	Yes
Video Ingest	1, 6-pin IEEE FireWire®	Tally	3 Tally Light Connections (Program, Preview and both)
iVGA™	Unlimited Connections via Ethernet	Network Connection	1Gbit Connection for Network Inputs and Streaming Output
Virtual Set Support	Yes - 15 HD Virtual Sets Included (can be positioned and scaled)	Per Virtual/Mix Channel Overlay	1 Channel with Keying, Effects with Positioning and Scaling
Virtual/Mix Channels	5 Inputs with Keying, Effects with Positioning, Scaling and Cropping	Main Overlay	2 Downstream Keys with Independent Effects with Keying, Positioning, Scaling and Cropping
Media Player	1 Each DDR, Stills, Titles (with Alpha Channel assignable to Downstream Key)	On-Screen Preview Monitors	"All Sources," or "Preview and FX" or "Scopes with Preview" (full-time, tabbed)
Projector Output	Yes - 16:9 and 4:3 Aspects	Projector Resolutions	Up to 1920 x 1200
Full HD 720p 16:9 Streaming	Yes	Live Webcasting	Yes - Adobe Flash, Windows Media Push/ Pull and VC-1 Codec Support
Waveform Monitor	Yes	Vectorscope	Yes
Integrated Character Generator	Yes	Nonlinear Editor	Yes
File Formats	AVI, DV, MPEG-2, QuickTime, HDV, JPG, PNG, and More	Render Outputs	AVI, DV, MPEG-2, MP4 (iPod and PSP), QuickTime
Record to Disk	Simultaneous Recording of Full Resolution MPEG-2 and Archive of Web Stream	Accessory Options	LC-11, TimeWarp™ and LiveText™

**HD
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HD NETWORK-STYLE VIRTUAL SETS

Live virtual sets are no longer complicated or expensive. With 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** 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 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, position and rotate 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"



HD TITLES AND GRAPHICS

Great-looking titles and graphics significantly enhance any project. **TriCaster** 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.



Geraldo Jones
Star Player

You Make The Call



Bat Night

Next Tuesday

Tonight's Lineup

Adams	Pitcher
Hurt	Catcher
Lara	Shortstop
Blahut	Left Field
Driggers	Center Field
Berrie	Right Field

- Overlay channels of upstream and downstream keying provide multiple layers of graphics and titles
- Titles and graphics can be easily resized, repositioned and rotated 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

Lectures

Ms. Lara	English
Mr. Adams	History
Mr. Nassour	Economics
Ms. Todd	Science

Pep Rally

GO YELLOWJACKETS

MONROE MORNING NEWS
PERMISSION SLIPS
DUE TOMORROW

Scholarship Winner



Morning Announcements

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 playback 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 lets you retrace every action
- Animated titling provides complex motion graphics



"TriCaster TCXD300 handled I/O and mixing so well and was so simple to operate that, even as a rank beginner, I was able to focus on the art of the edit rather than making the equipment work. And that, my friends, is the sign of a great piece of gear." - Jan Ozer, EventDVLive

TRICASTER
ADD-ONS



"TriCaster is an exceptionally well-designed and constructed portable multi-camera production system." - TV Technology

ON YOUR OWN OR WITH A TEAM
BOOST YOUR LIVE PRODUCTION POWER

"We call it a truck in a box. The advent of the NewTek TriCaster changes the format of how the entire country can access content either online or on TV." - Shawn H. Smith, vice president of business development and chief marketing officer, NBA Development League

LC-11



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. **LC-11** eliminates the need to use a keyboard or mouse, and provides the flexibility to add members to the production team.



TimeWarp™

TimeWarp™ brings slow motion replay to your fingertips. Connected to your TriCaster, **TimeWarp** allows you to select, mark and playback clips at various motion speeds. Expand your team with a TimeWarp operator, and amaze your audience with instant replay. With **TimeWarp**, you can take your sports and event production to a whole new level.



"[NewTek TriCaster] put us right in the mix of the live action and you can't do that from a production truck, even if you could park it on the side of a mountain." - Kate Nelligan programming producer, Global X Events and Development for ESPN

LiveText™



LiveText™ is HD remote titling and graphics software that runs independently on a computer that is networked with **TriCaster**, during a live production. This allows the director to keep an eye on the action, and the graphics operator to focus on titles.

Use the integrated DataLink™ to update scores, times or changing information during fast-paced, live productions. Whether preparing a large number of titles in pre-production or making last-minute changes during the show, **LiveText** makes your production run fast and smooth.



"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

**SD
PORTABLE
LIVE
PRODUCTION**

NewTek *TriCaster*[™] BROADCAST

TriCaster BROADCAST[™], with SDI support, delivers efficiency and reliability. With audio embedded in the video signal, you can depend on a fast, professional setup.

TriCaster BROADCAST makes it possible for you to deliver network-quality programs to video, projector and the Web. The full range of professional tools includes six camera inputs, live virtual sets, double box effects and much more.



NewTek *TriCaster*[™] STUDIO

TriCaster STUDIO[™] is a live production workhorse that offers the ability to switch six cameras and includes real-time key generation, live titling, audio mixing, live streaming, virtual sets and more.

With **TriCaster STUDIO** you have the power of a live television truck in one simple-to-use portable system.



NewTek *TriCaster*[™] PRO

TriCaster PRO[™] provides a complete portable studio and offers the flexibility to mix component, composite and S-Video camera sources.

Produce your show with a network-style virtual set, balanced audio, and integrated character generator, broad file format support and more.



NewTek *TriCaster*[™]

At just under 10-pounds, and the size of a shoe box, **TriCaster** can be taken anywhere. Connect three cameras, and live mix your camera sources with video from TriCaster's virtual DDRs.

Use cut and fade transitions, or any one of the 200-plus video effects. Use the built-in titling system to complete and polish your production with opening titles, closing credits and graphics.





NewTek TriCaster™

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



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