

NewTek TriCaster™ TCXD300 Frequently Asked Questions

What is TriCaster™ TCXD300?

NewTek TriCaster TCXD300 is the latest model in the TriCaster family of portable live production products. It provides anyone wanting to produce network-style productions and streams with an end-to-end HD 1080i video pipeline, including effects, keying and virtual sets. This HD portable live production appliance allows you to create, broadcast, stream and project HD video with the flexibility of one-person or small team operation. TriCaster TCXD300 weighs only 20-pounds, and is small enough to fit in a backpack.

Why do I need TriCaster TCXD300?

NewTek TriCaster TCXD300 represents a breakthrough in portable live production, allowing you to more successfully engage audiences, deliver messages and events, build brands and create new revenue streams. You can now produce network-quality HD or SD output, access unprecedented effects and layering capabilities, and take advantage of the most powerful virtual set technology available.

TriCaster is used by sports organizations, broadcasters, schools, government agencies and others to provide a new level of extended programming and content to their audiences.

What does the system include?

TriCaster TCXD300 includes a multi-channel switcher that allows you to connect up to three cameras and provides HD network-style virtual sets, HD titling, HD digital disk recording, audio mixing, HD editing, full HD streaming and more. TriCaster TXCD300 supports recording, broadcasting and streaming of full HD 16:9 or 4:3 productions.

You can input both HD and SD cameras for your production with simultaneous HD and SD video output. Cameras can be HD-SDI, HD Component, SD-SDI, SD component, Y/C or composite analog inputs, with support for four channels of analog or AES audio per camera. Each camera also offers SDI embedded audio in either HD or SD production.

TriCaster TCXD300 one-button live stream option delivers full HD live streams, including superior quality 720p, the highest resolution output in the industry. The system supports Adobe® Flash® or Windows Media® in either push or pull. TriCaster TCXD300 will also simultaneously live stream your production while recording to the internal hard drive in full 1080i HD. In addition, your live stream is also preserved as a Flash stream file.

The integrated DDR allows automatic insertion of clips in a wide variety of formats, as well as scrolls, crawls and motion graphics. The workflow is streamlined with the addition of playlists right next to the DDR. You can create as many playlists as needed for the show, simply clicking on a playlist instantly loads those clips. This essentially provides an unlimited number of custom lists at any time.

ISO modes for all three cameras, clips, network inputs and titles allow you to keep an eye on upcoming production elements. An optional second bridge monitor allows you to send all monitors and scopes to a second DVI or HDMI monitor, which creates a larger workspace. NewTek iVGA™ network provides import of an unlimited number of displays (Macs and PCs).

What makes TriCaster TCXD300 so different?

TriCaster represents an innovative breakthrough in portable live video production and live web streaming. TriCaster leverages NewTek's latest technology, making it possible for producers to have a tool that is portable, affordable and easy-to-use by one operator or a small team.

Is TriCaster TCXD300 native HD?

Yes. In TriCaster TCXD300, NewTek has designed a revolutionary new switcher engine that fully supports:

- all fielding formats
- all aspect ratios
- all frame-rates
- all color spaces.

This means that TriCaster TCXD300 allows SD and HD video signals to be used with no destructive operations of any kind before they are transformed into the output format. This results in far higher image quality.

TriCaster TCXD300 switcher natively mixes images from any formats out of:

- YCbCr 4:2:2
- YCbCrA 4:4:4:4
- YCbCr 4:2:2 plus Alpha
- RGBA
- YCbCr 4:2:0

The final switcher output is YCbCrA 4:4:4:4 floating-point, which ensures that TriCaster TCXD300 is doing all image composition in the same color space as the output and therefore preserves out-of-range colors, such as super black, super white and out-of-range chroma.

Can I stream in HD resolutions higher than 720p?

TriCaster TCXD300 is an industry leader in providing HD streaming capabilities. While TriCaster TCXD300 supports full 1080i HD video recording and distribution, for streaming the system delivers the maximum resolution available in the industry of 720p.

What sources does TriCaster TCXD300 support?

You can seamlessly use any of the following sources in your live production:

- HD SDI and HD component
- SD SDI and component, Y/C over BNC and composite
- Video roll ins
- Full screen text
- Titles over live cameras with custom motions in and out
- PowerPoint™ or any other PC or Mac screen sent across the local network
- Talent keyed within live virtual sets
- Five Virtual Input functions, each similar to advanced mix/effects bus with positioning and overlay

Is TriCaster TCXD300 multi-standard?

Yes. There is an NTSC version and an International version that supports NTSC, NTSC-J and PAL formats

Is TriCaster TCXD300 portable?

Yes. TriCaster TCXD300 weighs 20 lbs and is only 17.5" deep, by 8.5" high and 10.4" wide – small enough to fit in a backpack or in carryon luggage.

Is there a controller surface?

Yes. LiveControl™ LC-11 is compatible with TriCaster TCXD300 and employs the joystick controls to position and zoom virtual sources and LiveSets.

What is the TriCaster TCXD300 storage capacity?

There is capacity for more than 18 hours storage for HD video, and about 30 hours of SD video.

Can I import Skype or webcam video into my production?

Yes, you can run NewTek iVGA™ on a network-connected laptop and send that image to TriCaster across the network for remote interviews, capitalizing on TriCaster double-box LiveSet™ display.

What are the live recording file specifications?

TriCaster TCXD300 writes I-Frame only MPEG-2 files at approximately 100mbps in HD, and 50mbps in SD. It supports "standard" profile MPEG-2 which is 4:2:0 encoding and is widely compatible and "high" profile that has 4:2:2 encoding but lesser compatibility.

What are the supported resolutions and frame rates?

NTSC: 1080i 59.94Hz, 720p 59.94Hz, 480i 59.94Hz
Multi-Standard adds: 1080i 50Hz, 720p 50Hz, 576i 50Hz

What is the audio/video format?

Video is compressed using MPEG-2, constant quality, 100Mb, I-Frame only.
Audio is sampled at 48 kHz with, 24-bit precision.

What are the supported video formats?

The system supports: dnxhd, dv, dif, flv, h261, h263, h264, m4v, mkv, mjpeg, mjpg, mov, mp4, m4a, 3pg, 3g2, mpeg, mpg, m2p, ts, m2t, m2ts, mxf, asf, wmv, avi

What are the supported Audio formats?

Support for audio formats include: wav, mp3, aiff, wma

What are the supported still image formats?

Almost all image formats are supported including: BMP, Dr. Halo CUT, DDS, EXR, Raw Fax G3, GIF, HDR, ICO, IFF, JNG, JPEG, JIF, JPEG-2000, KOALA, Kodak PhotoCD MNG, PCX, PBM, PGM, PPM, PFM, PNG, Macintosh PICT, Photoshop PSD, RAW camera, Sun RAS, SGI, TARGA, TIFF, WBMP, XBM, XPM

Is there genlock in?

Yes. NewTek recommends that TriCaster TCXD300 and all inputs are genlocked to the same reference signal. As TCXD300 is HD native, there is full support for both tri-level and regular sync sources.

Is SpeedEDIT compatible with TriCaster TCXD300?

Yes, TriCaster TCXD300 includes an HD editor based on NewTek SpeedEDIT technology for full-featured pre-production and post production.

Do the current TriCaster accessories, graphics packages and add-ons work with TriCaster TCXD300?

TriCaster TCXD300 is based on an entirely new real-time architecture; therefore the current TriCaster add-ons are generally not compatible. There are a few exceptions: the previously mentioned LiveControl LC-11 hardware surface works with TriCaster TCXD300, and there is a new compatible version of LiveText that will be released soon. It is NewTek's plan to create an entirely new family of TriCaster TCXD300 compatible accessories and add-ons in the future. We will share more information on those plans as they develop further.

NOTE: Specifications are subject to change without notice.