

CERTIFIED TRAINING CURRICULUM

for the TriCaster 850 EXTREME, 850, 450 EXTREME and 450



Video Notes

Certified Training Curriculum Video Notes

for the TriCaster 850 EXTREME, 850, 450 EXTREME and 450

This is the Video Notes for the Certified Training Curriculum for the TriCaster 850 EXTREME, 850, 450 EXTREME and 450. It contains an outline of the instructional videos, important notes from the videos content, a selected list of keyboard shortcuts, and a list of acronyms used in the curriculum.

These notes are intended as a supplement to the instructional videos, not to stand on their own. They are not a complete set of notes, but rather contain the ideas from the videos that call for special emphasis or which may not have been completely clear. The learner is encouraged to add their own notes based on what they find the most useful content from the videos.

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Revised March 2012.

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Video Outline

The videos consist of 11 modules with a total of 69 subsections. The total running time of all videos is 3:07:16. Each video lists its total running time with each subsection listing its start time within that video. All times are rounded to the nearest second.

- | | | | |
|---|----------------------|--|----------------------|
| 1) <u>Module 1: Physical Setup</u> | (total 6:57) | 4) <u>Module 4: Media Management</u> | (total 12:28) |
| a) Computer Connections | 0:37 | a) Manually Importing Media | 0:25 |
| b) Video Inputs | 2:20 | b) The Import Media Browser | 3:54 |
| c) Video Output and Genlock | 3:37 | c) Importing Media from Another Session | 6:20 |
| d) Audio Inputs | 4:45 | d) Media Drives | 8:14 |
| e) Audio Output | 5:41 | e) Exporting Media | 9:44 |
| f) Tally Light and eSATA | 6:28 | | |
| 2) <u>Module 2: Registration</u> | (total 6:05) | 5) <u>Module 5: LiveText</u> | (total 8:03) |
| a) Activate Windows™ | 0:30 | a) Create a LiveText Project | 0:21 |
| b) Register The TriCaster | 1:05 | b) Interface Orientation | 1:06 |
| c) Performing a System Restore | 1:54 | c) Create Title Page | 2:43 |
| d) Software Update | 3:57 | d) Edit Title Page | 6:56 |
| 3) <u>Module 3: Session Setup</u> | (total 45:21) | 6) <u>Module 6: Playlists and Media Players</u> | (total 27:01) |
| a) The Home Screen | 0:31 | a) Adding Media | 0:28 |
| b) Create a Session | 1:44 | b) Organize Media | 4:55 |
| c) The Session Page | 5:58 | c) Media Player Controls | 7:31 |
| d) Interface Overview | 7:18 | d) Presets | 16:13 |
| e) Camera Configuration | 12:53 | e) Framebuffer | 20:12 |
| f) Proc Amp and Scopes | 15:09 | f) LiveText Title Pages | 21:59 |
| g) Switching Overview | 21:23 | | |
| h) Output Configuration | 24:16 | | |
| i) Record Settings | 32:46 | | |
| j) Grabbing Stills | 39:05 | | |
| k) Session Management | 40:51 | | |

7) Module 7: LiveMatte and Virtual Inputs

(total 17:36)

- a) Setting Up LiveMatte 0:29
- b) Factors to Make a Better Key 4:08
- c) Cropping an Input 5:14
- d) Setting Up a Virtual Input 7:09
- e) LiveSets 9:28
- f) Using LiveSets 14:23
- g) Virtual Input Framebuffer 16:07

8) Module 8: Audio Setup **(total 14:05)**

- a) Source Types and Levels 0:25
- b) Balance, Mono, Mute, Pan, Trim, Solo, and Talk 2:32
- c) Using Solo with the Headphone Out 5:58
- d) Follow 7:09
- e) Using Follow with Grouping 8:48
- f) Audio Outputs 10:12
- g) Auxiliary Out 11:27
- h) Audio Sweetening and Presets 12:47

9) Module 9: Network Inputs **(total 8:56)**

- a) Network Setup 0:23
- b) iVGA Setup 0:58
- c) iVGA for Windows™ 2:36
- d) iVGA for Macintosh™ 5:03
- e) Connecting to iVGA 6:15
- f) Skype™ Setup 7:00

10) Module 10: Streaming **(total 10:29)**

- a) Streaming Setup 0:38
- b) Start Streaming 8:58

11) Module 11: Live Operation **(total 35:15)**

- a) Live Desktop Overview 0:34
- b) Switching Basics 2:14
- c) Take, Fade, and Transitions 6:13
- d) The Background Layer 10:31
- e) The Downstream Keys (DSKs) 11:28
- f) Fade to Black (FTB) 15:49
- g) Utility Delegate 16:45
- h) Transition Delegate 18:18
- i) Record, Stream, and Grab 20:30
- j) Control Surface 21:58

Video Notes

1) Module 1: Machine Physical Setup

You can mix HD and SD video in both digital and analog formats. Be careful to correctly attach the input and output cables as this is likely to be difficult to change once your live production has started.

a) Computer Connections

NewTek recommends you connect the TriCaster to two separate power supplies. The TriCaster emits a beeping sound when one of the power supplies is lost. If you wish, you can mute the alert by pressing the green button on the back of the unit.

b) Video Inputs

You can mix and match any combination of HD and SD in both digital and analog formats for a live production. When plugging in YUV component, the Red cable attaches to the connection labeled Pr; the Green cable goes on the connection labeled Y; and the Blue cable goes on the connection labeled Pb. A composite connection is attached to the connector labeled Y. The TriCaster will successfully scale up an SD composite signal for an HD production, but the video may look a bit "soft".

An SDI connection carries both audio and video.

For a fill and matte configuration, the fill goes in an odd numbered input, and the matte goes in the next higher-numbered input.

c) Video Output and Genlock

Output rows 1 and 2 are locked to the session resolution, but the Auxiliary output (Row 3) is configurable by the operator. Both the digital and analog outputs for every row are "hot" during a production so you can hook more than one device to the same output row.

The HDMI output is another program out from the session.

The TriCaster accepts Tri-level and Bi-level genlock signals.

d) Audio Inputs

The TriCaster reads the first four channels of audio from an SDI signal.

External linear time code is attached to audio input #7.

The Line Quad option enables you to embed four-line level analog audio channels into one output.

e) Audio Output

The headphone output has its own volume control in the audio mixer.

f) Tally Light and eSATA

The pin-out for the tally lights is in the User Guide.

Notes: _____

2) Module 2: Registration

It is important to register the TriCaster since the output is watermarked until it is registered. It is important to periodically update the TriCaster to ensure it has the latest features and bug-fixes. However, it is not recommended to perform an update immediately before a live production because the interface may change or features may be added, and you'll want to have time to get used to any changes before beginning the production.

a) Activate Windows™

It's a good idea to write down the Window product key, the TriCaster serial number, and TriCaster registration code. Keep these numbers in a safe place in case you need them in the future.

b) Register The TriCaster

When you register the TriCaster, you'll end up with a password protected NewTek account which you can visit periodically to get TriCaster updates and other information.

c) Performing a System Restore

You should only do a system restore on the advice of NewTek technical support. When you restore the TriCaster, the system drive is completely overwritten; this erases any updates you've done, as well as any add-on software you've installed such as Virtual Set Editor. These will need to be reinstalled and the system updated after the restore is done. None of the content on the media drives is affected by doing a system restore.

d) Software Update

You should check for updates frequently and always immediately after doing a system restore.

Notes: _____

3) Module 3: Session Setup

There are numerous session settings to set up before your production. Managing your sessions carefully will save you a lot of time and headaches.

a) The Home Screen

The Home Screen is the command center for the TriCaster where you access the different hard drives, previous sessions, and start new sessions. This is also where you find the add-on software, user guide, and a set of TriCaster utilities.

b) Create a Session

Start a new session when doing a unique event; re-use an existing session for shows that have the same format, cameras, and media. It's always a good idea to use meaningful file names for all your media, and the sessions you create as well. If you don't type a name for a new session, the current date becomes the name.

If setting up a session intended for distribution by a traditional media broadcast, create an interlaced session. If the event is primarily intended for distribution over the Internet, create a progressive session.

c) The Session Page

The Session page is where you access LiveText, SpeedEdit, and manage media for the current session.

d) Interface Overview

Holding down the Shift key and double-clicking on an adjustable parameter returns that parameter to its default value.

To change most button labels, right-click on the button, then choose Rename from the context menu.

Throughout the TriCaster interface, clicking a gear icon brings up a configuration panel for a control.

e) Camera Configuration

The TriCaster automatically scales the external inputs to match the session resolution, but you must set the resolution coming in to that input on the configuration panel.

When using Fill and Matte inputs (also known as Key and Fill), connect the Fill to an odd numbered input and the Matte to the next higher numbered input. Then configure the Matte input to be the Alpha for the appropriate input on the configuration panel.

f) Proc Amp and Scopes

When viewing the Scopes tab, the source window being monitored has a drop-down allowing you to choose whether you want to calibrate the source on the Program, Preview, or FX bus.

The waveform monitor shows the luminance information of the video frame. The vectorscope shows the color information.

The Brightness control moves the waveform monitor graph up and down on its scale. The Contrast control expands or compresses the waveform graph. The Hue control rotates the color graph around the vectorscope scale. The Saturation control expands or compresses the graph on the vectorscope.

It's always better to adjust color or brightness at the source of the input, such as the camera, rather than trying to fix problems with the proc amps. Most professional cameras are able to output color bars for the purpose of calibrating the video signal.

g) Switching Overview

On the input monitors, red indicates that source is on Program, green indicates the source is on the Preview bus, and blue indicates the Utility bus.

Generally, you want to preview a source on the Preview bus before switching that source to Program out.

h) Output Configuration

When in an SD session, the SD analog connections are configurable as either YUV component or Y/C and composite. When configuring these, Rows 1 and 2 can be set differently.

The Row 3 output (Auxiliary out) is configurable to a different output resolution than the session. It is also possible to output the alpha matte of a source which has been keyed with LiveMatte. The audio sent out the Auxiliary out can be either the Main or Aux audio.

The Multiview output can be configured to show All monitors, External monitors, Internal monitors, Program, Preview, FX, Program and Preview, and Preview with the Waveform monitor and Vectorscope.

If you're sending the Multiview output to an IMAG projector, it's best to set the output resolution to match the native resolution of the projector. This prevents the projector from having to scale the video signal which can introduce latency.

Using genlocking is always advised when available.

Internal time code (also called TOD, Time of Day) is generated by the system clock. External timecode (also called LTC, Linear Time Code) comes in through audio input #7.

i) Record Settings

When you record your production, the default record location for video clips is on the session media drive is: `Media\Clips\{the name of the session}\Capture`.

Recording more than two streams per media drive is not recommended. Also, H.264 encoding is processor intensive. We recommend this format be used to encode just one video stream, to avoid dropped frames or other glitches.

The High Profile encoding option is mainly used only when you intend to chroma-key the clips after recording.

j) Grabbing Stills

Grabbed stills are saved as JPGs and are by default stored on the session media drive in: `Media\Stills\{the name of the session}\Capture`.

Typically, when grabbing stills from interlaced video, you'll want to use the De-Interlace option.

k) Session Management

To rename or delete an already existing session, right-click on the session name and choose that option from the context menu. Deleting a session also deletes any media that is internal to that session.

When you back up a session, all the media and settings for that session are saved automatically. If any media not internal to that session are used in a playlist, the TriCaster offers you the option to import that media and include those files in the backed up session, or to ignore them.

Backing up a session is a good way to duplicate that session.

Notes: _____

4) Module 4: Media Management

Proper media management is important because it ensures you have compatible media stored for easy access during a live production. The TriCaster Manage Media page is where you manage the four playable types of media files: video clips, still images, title graphics, and audio files. SpeedEdit and LiveText project files are also managed from this page. Those project files are not playable in one of the TriCaster's media players, but their output files (video clips and title graphics) are. The Import Media function is generally the best way to import media

a) Manually Importing Media

The top level of a removable media hard drive has folders for the session settings, SpeedEdit projects, LiveText projects, and the media. Inside the Media folder are folders for each of the four media types: video clips, still images, title graphics, and audio files. Within each of these are folders for each session created on that removable media drive. Within a given session's folder are two folders, one for those files that have been imported and another for those that have been captured

Media files in a playlist which are referenced from one of the folders inside the current session folder are referred to as "internal" or "local" to that session. Media referenced from folders outside the current session are referred to as "external" to that session.

b) The Import Media Browser

The Import Media browser is a better alternative to manually importing media because it puts each media file in the proper place. You can add multiple media types at once from multiple locations at once—including from a USB drive, a media drive, across a network, or even from another session on the same media drive.

Transcoding converts video clips from their native format to one that guarantees reliable playback on the TriCaster. Some files must be transcoded when imported; for others, transcoding is optional.

c) Importing Media from Another Session

You can open more than one browser window at a time.

d) Media Drives

You can have up to four hot-swappable drives installed in the drive bays. You can only eject a currently mounted drive if the current session is not stored on that drive. Always remove the media drives when shipping the TriCaster.

According to the User Guide, a 2TB drive holds about 50 hours of 1080i video and about 155 hours of SD video.

e) Exporting Media

The Target column is where you choose the format for the converted media. The Preset column has a number of useful presets for those formats. You can multi-select files when choosing a destination for export.

If you're trying to export clips to a drive and you get an error message saying the drive is full when you know it has enough room to hold the clip, check to see if the drive is formatted as FAT32. If it is, you can only transfer clips smaller than 4 GB to that drive. To put larger clips on that drive, reformat it as NTFS.

Notes: _____

5) **Module 5: LiveText**

You must leave the live production environment to create new LiveText projects and Title pages, so you'll want to have all the Title pages ready before your live event begins.

It is possible to run LiveText on a networked computer and bring Title pages in to the TriCaster via a Network input. This method gives you much more flexibility with what page elements can be edited during a live production.

a) Create a LiveText Project

Creating your own custom Title pages requires leaving the live desktop and entering the LiveText software. You can have more than one LiveText project in one TriCaster session.

b) Interface Orientation

You can keep all the Title pages you need for one session in the page control area on the right.

c) Create Title Page

When sending pages to the live desktop, you will usually want to choose the "Title Page" option, rather than "Still Image" so that you can edit the pages in the live environment.

d) Edit Title Page

When editing a Title page, words with questionable spelling have a wavy red line under them. Right-click on the word to get a context menu with suggested spellings.

Notes: _____

6) Module 6: Playlists and Media Player Operation

The DDRs can playback all types of supported media, not just video clips.

a) Adding Media

You can add media locations to the load media browser using the Add Location button. The Filter field allows you to search for a specific piece of media and works with partial file names. You can also browse to other hard drives (or over the network) using the Browse button.

Media added from outside the current session is referred to as "external" to the session; media added from within the current session is referred to as "local" or "internal" to the session. External content is not automatically backed up when performing a session back up. It is likewise not deleted when deleting a session.

The DDRs can play all types of media. The Stills and Titles players can play images and graphics with alpha channels. The Sounds media player can only play sounds.

You can load HD media into an SD session and vice versa. The TriCaster will scale the media as needed.

b) Organize Media

Media in playlists can be dragged to reorder or moved between media players. Yellow highlighting indicates a clip is cued for playback. Renaming a media file in a playlist does not rename it on the hard drive. Media can also be copied using the right-click context menu.

c) Media Player Controls

Clips can be played between 25% and 400% of normal speed. The In and Out points are changed by dragging the bracket controls at each end of the scrub bar.

When the Single box is checked, each clip plays individually; when it's not checked, the whole playlist plays. When Autoplay is checked, the media player plays automatically when it is transitioned to Program out, then automatically transitions back to whatever is on Preview and cues the next clip when the media is done playing.

To set the duration of a still or title, use the right-click context menu. The default duration is 15 seconds.

Use the right-click context menu to set whether the media player time clock counts up or down and to enable or disable the warning colors.

On each clip with audio, the audio headroom is set on the right-click context menu. For EXTREME TriCaster models, the icons of files with audio will display a small configure (gear) icon at lower right. Click this icon to pop up a small level slider.

d) Presets

Each media player has 20 presets. They can be renamed, deleted, exported, and imported. They can be exported from one session, then imported to another session. By default, when they are exported, they are saved to the system drive in `C:\TriCaster\Bin64\Saved Presets`.

Switching to another preset while that media player is currently on air will interrupt playback.

e) Framebuffer

There is one “main” framebuffer and one for each virtual input. They can only hold still images and graphics, not video clips or audio files. The main framebuffer can be updated over the network.

f) LiveText Title Pages

New LiveText Title pages are made in the LiveText software, not in the live desktop. For an already existing Title page, font, font size, bold, underline, and italics can be edited within the live desktop. All other page attributes must be edited from within a LiveText project. Any updates made to the Title page are updated immediately, even if the page is live on Program out. When putting images in a Title page, be aware of the aspect ratio of the target location.

Notes: _____

7) Module 7: LiveMatte and Virtual Input Setup

Virtual Inputs are not just useful for virtual sets. Many creative workflows incorporate Virtual Inputs to help simplify a live switch.

a) Setting Up LiveMatte

LiveMatte can key any color, not just green or blue. Increasing the Tolerance value increases the number of colors that are keyed out. Smoothness defines a further tolerance factor at the edges of the key. Luma Limit restricts the keying operation based on luminance (brightness) values.

Spill suppression removes key color spill in your scene by reducing the amount of that color in the foreground where it doesn't belong. The net result is that it is eliminated, or at least reduced to the point where it is not objectionable. Use the Tolerance and Smoothness controls under Spill Suppression in similar fashion to the controls for the color key. Try to subdue spill without overdoing it, which could result in an unsightly gray fringe around offending edges of your foreground.

b) Factors to Make a Better Key

To get the best key possible, use a moderate, even lighting on the green (or whatever color) screen. Brighter lighting is not necessarily better since the brighter the lighting, the more color spill there will be on the talent. Use the best quality video signal for that camera that you can: HD is better than SD; digital is better than analog; and component is better than composite. Keep the talent as far away from the green screen as possible to minimize spill.

c) Cropping an Input

The blue indicator light on the input monitor means that a crop has been applied to that input. The green light means a LiveMatte key has been applied. The yellow indicator light means the input has the Proc Amp applied. You can toggle on and off those controls by clicking the indicator light.

d) Setting Up a Virtual Input

Virtual Inputs allow you to set up complete compositions.

e) LiveSets

Some virtual sets are intended for a shot with a keyed talent standing in the environment. Others are intended for the talent to be sitting behind a desk. Some

are double box effects. You can create your own virtual sets using Virtual Set Editor which can be purchased from NewTek.

Many virtual sets have three versions labeled "left", "right", and "center." These are for using with a three-camera shoot.

Ease-in and ease-out is the default behavior of virtual set zooming.

Virtual set inputs can be sized, positioned, and rotated. When any of these controls are applied, the yellow indicator light is lit beside the positioning control button.

f) Using LiveSets

Each of the eight virtual inputs has 20 presets which can be named, exported, imported, and deleted.

It is easy to become confused about which Virtual Input you are adjusting. Develop the habit of checking which Virtual Input tab is active before adjusting its controls.

Several of the virtual input parameters (such as the zoom preset value, overlay transition, overlay speed) can be adjusted while that input is live without interrupting Program out, but be careful not to select another preset while live because that *will* interrupt Program out.

g) Virtual Input Framebuffer

Each virtual input has its own framebuffer. Items placed in a framebuffer stay in memory even if the original media file is deleted from the playlist.

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8) Module 8: Audio Setup

Audio is an often overlooked, yet critical part of a live production. It's a good idea to plan out your audio workflow before the production starts so you have a good idea of how you want to set up and operate the audio mixer.

a) Source Types and Levels

Be careful to only use the Mic option on the source Type selector drop-down for microphones and the Line option for line-level inputs. Line-level inputs are generally already amplified, so if you choose Mic for that type of input (such as the output of an audio mixing board), the audio will be too loud and distorted. Likewise, if you choose Line for an input when a microphone is plugged in, the audio will be far too soft, even when the audio mixer volume slider is all the way up.

Typically, the VU meter for an input should almost, but not quite, touch the red area of the scale.

b) Balance, Mono, Mute, Pan, Trim, Solo, and Talk

The Mono switch has no effect on channels 3 and 4 of a 4-channel source. These two channels are never blended with channels 1 and 2 on output.

Pan is not the same as Balance. The balance control for a stereo source varies the relative level of the left and right channels, but the sound from the left channel will never come out of the right speaker, or vice versa whereas Pan does do this.

c) Using Solo with the Headphone Out

You can use Solo with Mute to check a sound source (such as a microphone) in the headphone jack without interrupting Program out.

d) Follow

When an input is muted due to Follow being on for that input, the VU meter on the Audio tab is shown in black and white.

e) Using Follow with Grouping

When several inputs are placed in the same group and Follow is on for *any* of them, if *any* of those inputs is brought to Program out, then *all* of the sources in that group are heard on Program out. In other words, if Follow is on for *any* input in a group, it is on for *all* of the inputs in that group whether or not the Follow button is selected.

f) Audio Outputs

Notice that the audio outputs are oriented horizontally, not vertically like the inputs are.

g) Auxiliary Out

When Internal is the selected source, the first two channels from DDR 1 are blended with output from the Sounds player and placed on the left Aux output pair 2a and 2b, and the first two channels from DDR 2 are placed on Aux outputs 2c and 2d.

h) Audio Sweetening and Presets

The presets on the External Audio tab are a mirror of those on the Internal Audio tab.

Notes: _____

9) Module 9: Network Inputs

iVGA is a powerful tool allowing you to bring in as an input anything you can see on a networked Macintosh™ or Windows™ computer. It's a good idea to test your network and iVGA before the production starts. The TriCaster also supports Apple's AirPlay® protocol, allowing compatible off-the-shelf mobile video devices (such as iPhone™ and iPad™) to stream content wirelessly to the TriCaster.

a) Network Setup

Make sure the TriCaster and the device you want to use as a networked input are on the same network. Refer to the TriCaster User Guide for specific instructions on how to do that.

Gigabit Ethernet is the preferred network speed for using the TriCaster network inputs.

b) iVGA Setup

iVGA works on Windows™ or Macintosh™. The iVGA utility is located in `C:\TriCaster\iVGA`.

c) iVGA for Windows™

The Windows™ iVGA options available on the Setup menu are: Primary display; Secondary display; Show cursor; Gigabit; LAN; Wireless LAN. In addition to the setup options, the operator can choose the Zoom, Privacy, Media player, and About. When a zoom level above 100% is chosen, moving the cursor around the screen causes the display to pan to follow the cursor. When panning, Ctrl-9 (on the numeric keypad) is a toggle which locks the screen location.

d) iVGA for Macintosh™

The Macintosh™ iVGA options available on the Control menu are: Normal Mode; Privacy Mode; Keynote Mode; Monitor 1; Monitor 2; and Hide Mouse.

e) Connecting to iVGA

LiveText will show up as a separate source when running on a networked computer.

f) Skype™ Setup

You'll need to create a mix-minus audio output (typically using Aux out) so that the Skype™-connected person can hear everything but themselves. This avoids creating a feedback loop.

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10) Module 10: Streaming

Most broadcasters and event producers recognize the need to have an Internet component to their productions. Also, many traditional media, like newspapers, magazines and radio, are moving to live video production on the Internet. Streaming opens up your productions to a world-wide audience.

a) Streaming Setup

Numerous CDN streaming presets are provided on the TriCaster. If you use Browser-based streaming, the quality of the stream will be lower than if you use Flash® or Windows Media™ streaming.

The TriCaster can do multi-bitrate streams, but this option is resource intensive. It is always a good idea to test your stream before going live.

When you save the streamed file, it is located on the session media drive in:
`Clips\{the name of the session}\Saved Streams.`

Pull streaming is only useful when a few viewers will be viewing the stream since the TriCaster itself is functioning as the server. Push streaming pushes the stream to the CDN which does all the work of serving the stream to viewers.

b) Start Streaming

When you first start the stream, a few frames may be dropped. It's a good idea to start streaming before the actual start of the live event.

Don't forget to stop streaming after the live event is over.

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11) Module 11: Live Operation

Once you've got a session started, all the media imported, and the output and record settings set, you're ready to actually produce the live event.

a) Live Desktop Overview

You'll want to set the preferences on the Desktop Options menu before you begin the live production.

You'll also want to create or import any media you want to use before the production begins. If you exit the live desktop while the production is live, the Program output will go to black.

b) Switching Basics

"Hot punching" (switching directly between input sources by clicking the button for that input on the Program bus) is generally to be avoided. This helps prevent mistakes.

Renaming the buttons and input monitors is also a good idea to help calling up the right camera when needed.

Power users use keyboard shortcuts—become a power user! A selected list of keyboard shortcuts is given as an appendix to this document, and the complete list is in the User Guide.

The input monitor title bar colors are red when that input is on Program out, green when that input is on Preview, and blue when that input is on the FX bus. On the monitor title bar, the three indicator lights are yellow, indicating that source has a proc amp adjustment applied, green, indicating that source has a LiveMatte applied, and blue, indicating that source has a crop applied.

c) Take, Fade, and Transitions

You can create your own custom animated transitions with Animation Store Creator which is included with EXTREME TriCaster models.

d) The Background Layer

The bottom-most layer is the Background layer. This consists of the Program and Preview busses. Above the Background is DSK 1, and above DSK 1 is DSK 2. The top-most layer is the Fade to Black (FTB) layer.

e) The Downstream Keys (DSKs)

The DSK transitions automatically ping pong.

The DSKs can be sized, positioned, and rotated. When any of these controls are applied, the yellow indicator light is lit beside the positioning controls button.

f) Fade to Black (FTB)

When FTB is applied, the button in the delegate group flashes. Getting "stuck" with the Program out black is a common problem. This happens when the you fade to black, and then change the transition delegate before transitioning back to another source.

FTB fades the audio as well as the video.

g) Utility Delegate

The Utility Delegate controls offer an alternative way to select the source for the DSKs.

When the Auxiliary Out source is set to FX, the Utility row can be used as a second internal switch within the current switch.

h) Transition Delegate

TriCaster's powerful look ahead preview feature shows you exactly what you'll get when you press Take or Auto.

Hold the Control key to multi-select the Delegate buttons. You can select up to all four of them.

Note the thin grey bar under the Delegate buttons; this bar indicates that a source is currently on Program out.

i) Record, Stream, and Grab

Don't forget to record and/or start streaming your production. Start recording or streaming at least several seconds before that actual start of the production. Also, don't forget to stop recording or streaming after the production ends.

j) Control Surface

Most of the functions available on the Live desktop are also available on the Control Surface. You are likely to find using the Control Surface easier and quicker for many of these functions.

Notes: _____

Appendix A: Selected Keyboard Shortcuts

Program Row, Inputs 1 to Input 24	F1 – F12 and Shift + F1-12
Preview Row, Inputs 1 to Input 24	1 – 0, -, = and Shift + 1-0, -, =
Utility Row, Inputs 1 to Input 16	Alt + (1 – 0, -, =) and Alt + Shift + (1-4)
Take	Return Key
Transition – Go/Pause	Spacebar
Transition – Slow ... Medium ... Fast	z...x... c
Record on/off	r/ Shift + r
Grab (still image)	p
Select All	Ctrl + a
Cut	Ctrl + x
Copy	Ctrl + c
Paste	Ctrl + v
Delete	Delete Key
First/Last Item	Home/End
Navigate through Playlist items	Up/Down/Left/Right Arrows

Appendix B: Acronyms Used in the Certified Training Curriculum

(note: file format abbreviations, such as PDF, JPG, WAV, etc., are not listed)

AC/DC	Alternating Current/Direct Current
AES/EBU	Audio Engineering Society/European Broadcasting Union
BKGD	Background
BNC	Bayonet Neill-Concelman
CDN	Content Delivery Network
CS	Control Surface
DDR	Digital Disk Recorder
DSK	Down Stream Key
DV	Digital Video
DVD	Digital Video Disc
DVI	Digital Visual Interface
FAQ	Frequently Asked Questions
FAT32	File Allocation Table (32-bit)
FTB	Fade To Black
FX	Effects
HD/SD	High Definition/Standard Definition
HDMI	High Definition Multimedia Interface
ID	Identification
IMAG	Image Magnification (projector)
IP	Internet Protocol
IRE	Institute of Radio Engineers
iVGA	Internet Video Graphics Array
LAN	Local Area Network
LC-11	Live Control (control surface)
Mbps	Megabits Per Second
NTSC	National Television Standards Committee
NTSF	New Technology File System
PAL	Phase Alternating Line
RCA	Radio Corporation of America
RGB	Red, Green, Blue
SDI	Serial Digital Interface
S/PDF	Sony/Philips Digital Interconnect Format
UPS	Universal Power Source
USB	Universal Serial Bus
VGA (XGA, SXGA, WXGA)	Variants of the Video Graphics Array standard
VU	Volume Unit
Y/C	Another name for the S-video standard
YUV	Another name for the YCbCr color space