Abekas TRIA

The Ultimate Production Server

ROSS
Production Technology Experts

Present Uniquely Creative Content

Engage your audiences with more compelling live programming with a flexible, feature-rich, multi-channel production server that delivers the creative freedom you need at a price your budget demands. The incredibly flexible architecture of Tria production server ensures seamless integration into a wide variety of live production workflows that includes animated switcher transitions, feeding on-set displays, and capturing live video sources.

Server configuration flexibility, combined with intuitive engineering controls, dramatically simplifies installation and daily operation, while the integrated media file import/export tools—which support an extensive range of codecs—enables a streamlined and very efficient media file workflow.

Create More Interest

- Enhances live production environments as a networked video production server that contributes clips, finished video segments, and animated transitions
- Includes just the right feature set to support a wide range of live production applications
- Provides two channel counts and five storage capacity configurations to match a wide range of production requirements

File it Fast

- Streamlines media file workflows with built-in Media File Import and Export tools
- Imports and Exports a wide variety of media file codecs and wrappers
- Handles Video+Key clips as a single clip asset rather than two

Control the Flow

- Provides maximum flexibility in live television production control rooms since all video channels can be used as either recorder or player
- Integrates RS-422 serial and Ethernet control over every video channel
- Delivers predictable and precise operations during live productions

“Tria Explorer” graphical user interface with built-in Multi-Viewer

KEY BENEFITS

Flexibility of Channels
Multiple configurations with every channel switchable between record and play

Production Integration
Contribute clips, finished video segments, and animated transitions for use with switchers and on-set displays

File-Based Operations
Media file ingest and multiple-destination export

Protected Media Storage
High reliability with RAID-6 parity protected media disk array in 5 different capacities

Content Sharing
Network clip playback between multiple Tria servers via Gigabit Ethernet

Comprehensive Capabilities
Advanced video server solution that includes clip ingest, trimming and management—with built-in Playlist playout

Efficient Operations
A clean and uncluttered user interface includes MultiViewer and “Quad Viewer” displays

Advanced Playlist Functions
Create and edit playlists with programmable flags to have items pause on first/last frame, loop playback, and to advance items with transition effects

Visual Creativity

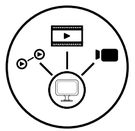
Complex and creative studio sets are constantly evolving as broadcasters look for a competitive edge with an increasingly fragmented viewing audience. Large flat-panel monitors and virtual monitors that display moving visual elements are increasingly commonplace in modern studio sets.

A similar trend is happening with on-air graphics. Highly sophisticated motion graphics, elaborate 3D transitions, and virtual components are standard in many modern on-air productions. Consequently, today's production environments demand cost-effective playback of video, key and audio (VKA) content—and Tria production server meets this need.

Ease of Setup and Operational Efficiency

The setup and configuration of Tria production is an engineer's dream. A simple, intuitive interface provides control over every technical aspect of the server. Tria production server can be purchased with either four or eight symmetric video channels—which means every video channel can instantly switch between record and play operation, providing you with maximum operational flexibility. As all video channels have access to the shared clip library, one video channel can be actively recording into a clip while another channel plays out that same clip.

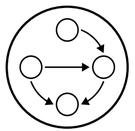
The unified "video+key+audio" (VKA) architecture of Tria streamlines your entire production workflow. A single clip contains all three media elements, dramatically simplifying clip management and media file import/export. Single, unified VKA clips are much easier for you to load and to control from external devices, since only a single trigger is required to both load and play them out.



Media Format Diversity

Tria production servers are truly universal, supporting a wide range of resolutions and formats including Ultra HD-4K, HD and SD. Tria servers fitted with the AVC-Intra codec support 1080p across all channels—without sacrificing channel count. The 8-channel 1080p servers can also be configured as two channels of UHD-4K. No other production server offers you this level of format flexibility at a similar price point as Tria.

Tria servers come standard with embedded digital audio I/O. The comprehensive audio routing capability built into Tria provides you with the flexibility to associate any audio input/output with any or all channels, eliminating the need for complex and expensive external routing equipment and cabling.



Intuitive Operations

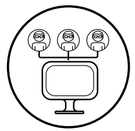
Tria production server's primary user interface, Tria Explorer, delivers an uncluttered and intuitive display of transport controls for each of the four or eight video channels. A video window in each transport provides real-time monitoring, so you always know which clips you're working with. Each clearly indicates the current status of the video channel with play speed, timecode, and clip name prominently displayed.

Leveraging the underlying networking capabilities of the Windows®-based operating system, Tria Explorer can be installed on and run from your remote Windows computers on the same local network. Video channels can be "un-assigned" from the main Tria Explorer GUI running on the Tria server itself, and assigned to the remote instance(s) of the Tria Explorer application. With this simple, elegant control flexibility, Tria server resources can be assigned throughout a facility, maximizing your investment.

Enhanced Playback

Because Tria handles VKA under a single clip identity, recalling and loading a clip either through Tria Explorer, a production switcher, or an automation system is fast and simple. To quickly and easily seek to multiple "points of interest" within any clip, QWERTY keyboard shortcuts are available for you to mark and save "Cue Points". Once marked, the mouse and/or keyboard shortcuts can be used to immediately seek to these Cue Points.

Intuitive controls provide you with unmatched playlist creation and editing. Playlist playout flags permit list items to be "paused" on first and/or last frame, items to be looped, and list items can be programmed with either CUT or MIX transitions between them.



Tria makes it easy for you to create child clips from longer clips, name clips with up to 256 characters, and use advanced clip features such as multi-point loop. The result is more creativity with fewer on-air errors.

Multi-Server Content Sharing

The integrated clip networking feature permits operators to quickly and easily share media clips between any number of Tria production servers interconnected via inexpensive Gigabit Ethernet. Remote clip content can be played as stand-alone clips, or as clip content within a playlist with immediate playout. No matter where a given clip is stored—any clip can be played in real-time from a source Tria server across the Gigabit network, with playback from the SDI video outputs of any network-connected Tria server. In addition, remote clips can be freely trimmed by the operator prior to playout; just as with local clips.

File-Based Operations

Tria production servers come standard with integrated media file import and export tools, which dramatically streamlines your file-based workflows. A wide variety of the most popular self-contained media files with MXF and QuickTime® MOV wrappers can be ingested and exported via the built-in USB-2, USB-3 and Gigabit Ethernet ports. The file import process will automatically resize the video contained within the media file to match the current video format and frame rate in which the Tria server is operating.

Up to nine Export Destinations can be pre-defined by the operator with each including: file codec and wrapper, export pathway, file naming parameters, handle inclusion, and whether playlists are exported as "one" or as "many" media files.

System Reliability

To provide you complete peace of mind, Tria production servers come standard with dual-redundant, hot-swappable power supplies. For further reliability and ease of maintenance, all Tria servers also feature hot-swappable chassis fans and media disk drives.

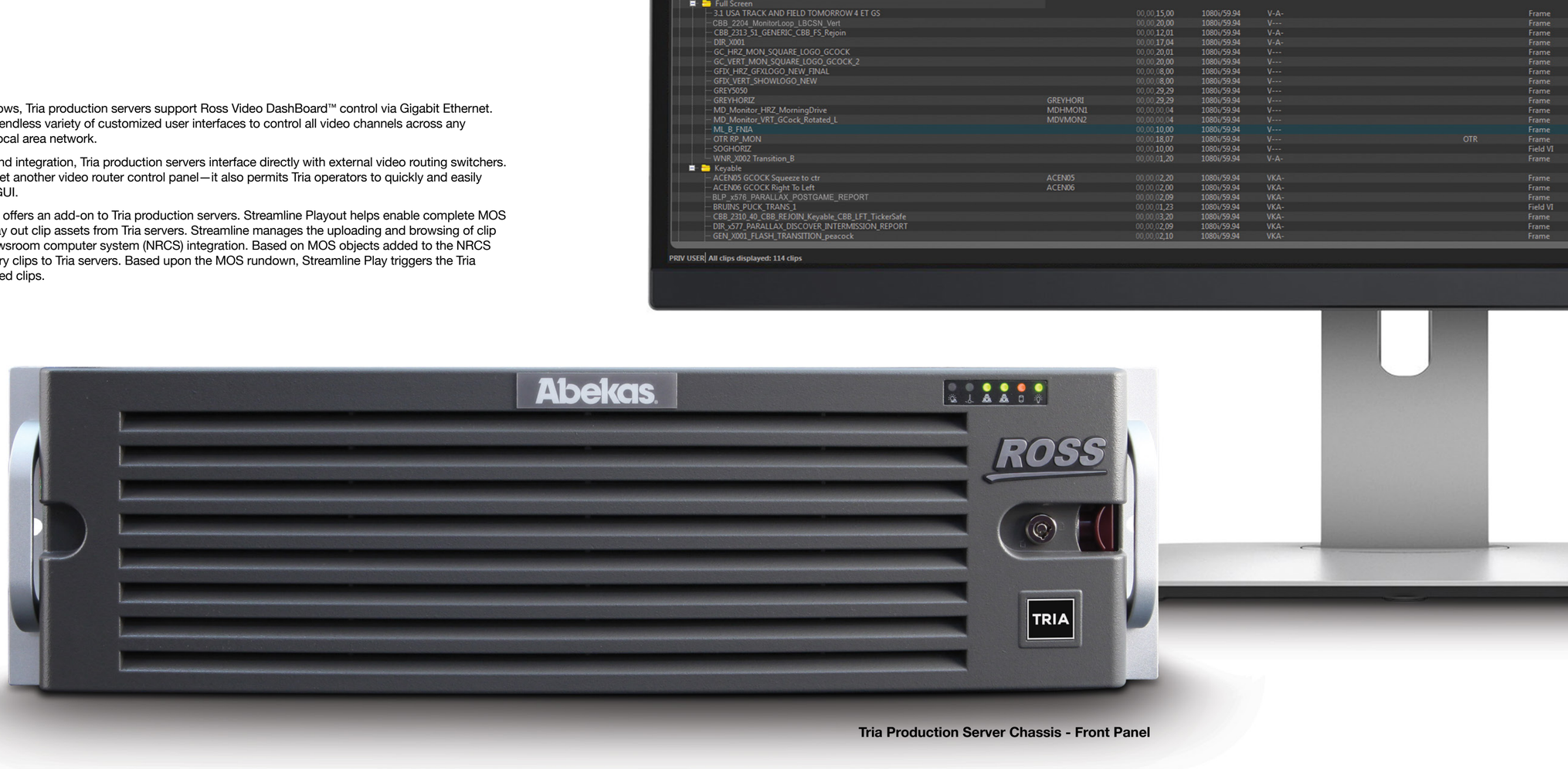
Featuring fault-tolerant RAID-6 parity protection, Tria production servers can withstand the simultaneous failure of two media disk drives—with no loss of your valuable content. There is absolutely no interruption to your operations—even while the replacement disks are automatically rebuilding in the background.

Integrated Systems Control

To enhance and simplify production workflows, Tria production servers support Ross Video DashBoard™ control via Gigabit Ethernet. DashBoard permits operators to create an endless variety of customized user interfaces to control all video channels across any number of Tria servers connected to your local area network.

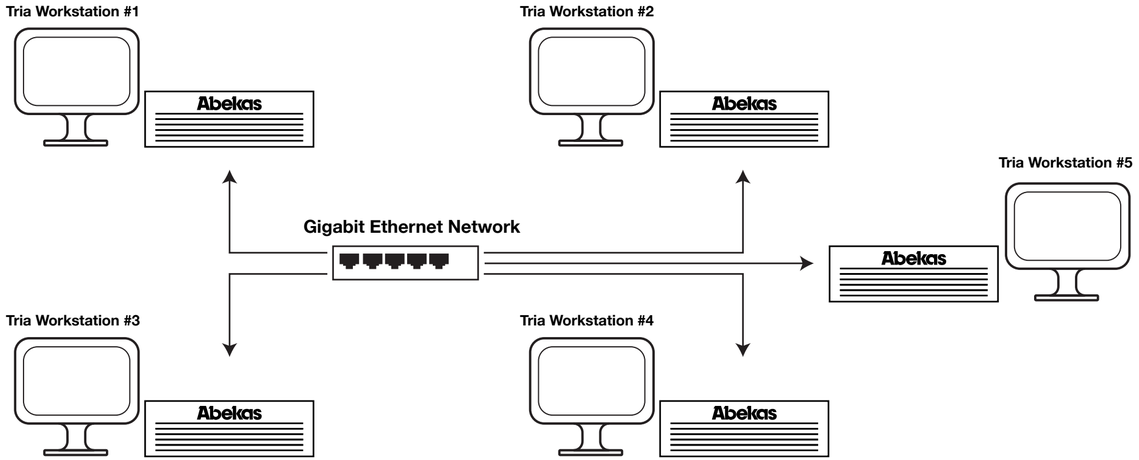
Providing expanded production flexibility and integration, Tria production servers interface directly with external video routing switchers. This feature not only saves on the cost of yet another video router control panel—it also permits Tria operators to quickly and easily change video inputs directly from the Tria GUI.

Ross Streamline media asset management offers an add-on to Tria production servers. Streamline Playout helps enable complete MOS newsroom workflows, with the ability to play out clip assets from Tria servers. Streamline manages the uploading and browsing of clip assets, and provides a MOS plug-in for newsroom computer system (NRCS) integration. Based on MOS objects added to the NRCS rundown, Streamline transfers the necessary clips to Tria servers. Based upon the MOS rundown, Streamline Play triggers the Tria server channels to load and play the selected clips.



Tria Production Server Chassis - Front Panel

Tria Clip Networking



SPECIFICATIONS

KEY FEATURES

- Four or eight symmetrical HD/SD channels; each can be used as either Recorder or Player
- 1080p 3G video support using AVC-Intra native video hardware
- Up to two Ultra HD-4K channels using AVC-Intra native video hardware
- Integrated Media File Import and Export tools
- Sophisticated playlist operations with advanced features
- Real-time clip networking and sharing via standard Gigabit Ethernet
- Built-in Input/Output Audio Router
- Built-in control over external Video Routers
- Built-in Multi-Viewer computer desktop video monitoring
- Built-in HD-SDI Quad-Viewer output(s)
- Media disk array with RAID-6 parity protection and up to 350 hours of storage at 100Mb/s
- DashBoard and Mira Ethernet API is freely available to program custom control interfaces
- Dual, hot swap redundant power supplies
- Mira Production server is housed within a robust, compact 3RU server chassis

SUPPORTED VIDEO FORMATS

Native Video Codec: — Choice of one native recording video codec —

AVC-Intra Compression @ 100Mb/s

DVCPro-HD Compression @ 50Mb/s & 100Mb/s

JPEG-2000 (J2K) Compression @ 15Mb/s to 200Mb/s

Ultra HD 4K Video: 2160p /59.94 /50 (AVC-Intra only)

HD Video:
- 1080i /59.94 /50
- 1080p /59.94 /50 (AVC-Intra only)
- 720p /59.94 /50

SD Video:
- 525i /59.94 (J2K & DVCPro only)
- 625i /50 (J2K & DVCPro only)

CHASSIS PHYSICAL & ELECTRICAL

- Dimensions: 3RU Height/Depth = 25.6 in (65.1 cm)
- Maximum Weight: 65lbs. (30kg)
- Maximum Power: <500 Watts / 100-240 VAC / 50-60Hz (Auto-sensing power input)

SAFETY & EMISSIONS

- TUV
- FCC Class
- CE

ANALOG REFERENCE INPUT.....(1) Female BNC

Tri-level HD or Composite Analog SD; Terminating

DIGITAL VIDEO INPUT - TRIA 4CH = (4) OR TRIA 8CH = (8).....FEMALE BNC

Ultra HD 4K & 1080p Video (Only with AVC-I):
- HD-SDI SMPTE 424M Level A (10-bit at 3.0 Gb/s).....Uses (4) or (8) of these BNC's

HD Video:
- HD-SDI SMPTE 292M (10-bit at1.5 Gb/s).....Uses (4) or (8) of these BNC's

SD Video:
- SD-SDI SMPTE 259M (10-bit at 270 Mb/s).....Uses (4) or (8) of these BNC's

DIGITAL VIDEO OUTPUTS - TRIA 4CH = (4) OR TRIA 8CH = (8).....FEMALE BNC

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DIGITAL AUDIO INPUTS

(8-track AES Digital Audio I/O on each video channel is available via "Digital Audio Breakout Panel" (DABP) hardware option)

Embedded in Ultra HD-4K & 1080p Video (Only with AVC-I):
- Embedded in all 3G HD-SDI video inputs: 8-tracks; 48kHz at 24-bits (16- tracks w/ software option)

Embedded in HD Video:
- Embedded in all HD-SDI video inputs: 8-tracks; 48kHz at 24-bits (16- tracks w/ software option)

Embedded in SD Video:
- Embedded in all SD-SDI video inputs: 4-tracks; 48kHz at 20-bits

DIGITAL AUDIO OUTPUTS

(8-track AES Audio I/O on each video channel is available via "Digital Audio Breakout Panel" (DABP) hardware option)

Embedded in Ultra HD-4K & 1080p Video (Only with AVC-I):
- Embedded in 3G HD-SDI video outputs: 8-tracks; 48kHz at 24-bits (16-tracks w/ software option)

Embedded in HD Video:
- Embedded in HD-SDI video outputs: 8-tracks; 48kHz at 24-bits (16-tracks w/ software option)

Embedded in SD Video:
- Embedded in SD-SDI video outputs: 4-tracks; 48kHz at 20-bits (16-tracks w/ software option)

QUAD-VIEWER & MULTI-VIEWER DIGITAL VIDEO OUTPUTS

HD Video (Only):
HD-SDI SMPTE 292M Quad-Viewer :.....Tria 4CH = (1) or Tria 8CH = (2) Female BNC

SD and HD Video:
- Multi-Viewer on desktop Tria Explorer graphical user interface. HDMI, DisplayPort & Mini DisplayPort (1920x1080 native resolution display required)

ANALOG AUDIO OUTPUT - TRIA 4CH = (1) OR TRIA 8CH = (2).....FEMALE 3.5mm

- Unbalanced, line-level at: -10 dBV
- 2-Tracks (1 stereo pair / Selectable to monitor any output stereo pair)

ANALOG LTC INPUT

- LTC input (Time of Day), unbalanced.....(1) Female XLR

DATA / CONTROL

- RS-422 Serial: Sony, Louth VDCP & Odetics protocols with M-RJ45 to F-DB9 adapters included.....(4) or (8) M-RJ45
- DisplayPort & Mini DisplayPort 1920 x 1080 native resolution display required.....(1) F-DP
- HDMI Output 1920×1080 native resolution display required.....(1) F-HDMI
- Gigabit Ethernet (10-T / 100-T / 1000-T) with AMP and VDCP protocols.....(2) Female RJ45
- USB 2.0 and USB 3.0 Hi-Speed "Series A" Receptacle.....Female USB-A
- USB 3.1 Super-Speed "Series A" Receptacle.....Female USB-A
- USB-C Super-Speed "Type-C" Receptacle.....Female USB Type-C
- QWERTY Keyboard & Mouse set (included with each Tria Server).....USB-A

Mira Production Server Chassis – Rear Panel

ROSS VIDEO
Production Technology Experts

MOTION GRAPHICS

XPRESSION | Studio, BlueBox, Prime, Go!, Designer, Developer, Quad
XPRESSION CLIPS
XPRESSION TESSERA
XPRESSION MAPS
XPRESSION TELESTRATE
XPRESSION TOUCH FACTORY
XPRESSION BRAND IT
XPRESSION TICK IT

CREATIVE SERVICES

ROCKET SURGERY | Graphics Creation

STUDIO IN A BOX

GRAPHITE | All-in-One Live Production Vehicle

NEWS & SOCIAL MEDIA

INCEPTION NEWS | Academic, Express, Standard, Enterprise
INCEPTION LIVE
INCEPTION SOCIAL
INCEPTION.CLOUD
HORIZON

CONTROL SYSTEMS

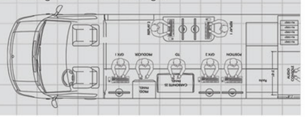
OVERDRIVE | Express, Prime, Premium
DASHBOARD
LIGHTNING CONTROL SYSTEM

PRODUCTION SWITCHERS

ACUITY | Panel: A1s, A2m, A2x, A3m, A3, A4 Frame: 4RU, 8RU
CARBONITE BLACK | Panel: C1, C1s, C2, C2s, C3s, C3x Frame: 2RU
CARBONITE BLACK PLUS
CARBONITE BLACK PLUS 12G
CARBONITE BLACK SOLO

OPENTRUCK

OPENTRUCK | Flight Case through 40-foot Truck Designs



PRODUCTION SERVICES

ROSS MOBILE PRODUCTIONS

ASSET MANAGEMENT

STREAMLINE

CAMERAS

ACID CAMERA | H200-UCHR, Z50-UCHR
PIVOTCAM | PIVOTCam-20

CHROMA KEYING

ULTRACHROME HR

** Carbonite Black Chassis with UltraChoma HR Software*

INFRASTRUCTURE

ULTRIX ROUTER | 16x16-72x72
NK ROUTER | 16x4 -144x144
OPENGEAR | Modular Signal Processing
MASTER CONTROL | MC1 openGear Card, MC1 Panel
NIELSEN | Watermarks Encoder
RAPTOR EDGE | IP Gateway & Processor
GEARLITE | Point of Use Signal Processing
AUDIO MONITORING | MB 651, MB-652
MASTER SYNC & REFERENCE | SRG-2200, SRG-4400, ACO-4400

IP TECHNOLOGY

COVELOZ | OEM Hardware, Virtual Chip, Engineering Services

COVELOZ

VIDEO SERVERS, REPLAY & DELAY

ABEKAS MIRA | Replay Systems
ABEKAS TRIA | Production Servers
ABEKAS AIRCLEANER | Live Events Delay

ROBOTICS

FURIO SE LIVE | Live Head, SE Dolly and SE Lift; PanBar and Joystick Controls
FURIO SE STUDIO | VR100, VR600 Heads; SE Lift and SE Dolly; SE BlackBird
CAMBOT | 520PT, 600PT, 700PT Heads; 600 PTZ; 600XY & 700XY Free-Roaming Peds
SMARTSHELL | Robotic Camera Control System

VIRTUAL & AUGMENTED REALITY

TRACKLESS VIRTUAL
UX VIRTUAL TRACKING SYSTEM
FRONTIER

Abekas TRIA

Ross Video has a complete range of technical services available to ensure that your Abekas Tria production server installation is a success.

Operational Training can be provided at Ross Video, on-site or on the web. Experienced Ross operators will teach your staff to get the most out of your new system, and enhance your productions.

Commissioning is a service to help get your Abekas Tria production server system properly configured, connected and installed. This service is performed by factory trained Ross technical staff.

Technical Training can be provided at Ross Video, on-site or over the web. Technical training will teach your engineering staff the technical details of the system you have purchased. System configuration, interfaces, databases, and routine maintenance procedures are some of the topics covered.

Abekas Tria production server comes standard with a 1 year comprehensive warranty. **Extended Warranties** on hardware and software maintenance are available for an annual fee.

Technical advice is available on-line, by telephone, or email to Ross Video – **Included for the life of your system.**

Contact Us

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www.**rossvideo**.com

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Sport & Live Events
Legislative
Mobile Production
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Motion Graphics & Clip Servers
Replay & Production Servers
Robotic & Camera Systems
Control Systems
Routing Infrastructure
Signal Processing Infrastructure
News, Live & Social Production Management
Media Asset Management

SERVICES
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AT-001-BR

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