

# Tria Express DUET User Manual

v9.0



www.rossvideo.com

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- 1. Provide a Superior Customer Experience
  - offer the best product quality and support
- 2. Make Cool Practical Technology
  - develop great products that customers love

Ross has become well known for the Ross Video Code of Ethics. It guides our interactions and empowers our employees. I hope you enjoy reading it below.

If anything at all with your Ross experience does not live up to your expectations be sure to reach out to us at *solutions@rossvideo.com*.

al Ross

David Ross CEO, Ross Video dross@rossvideo.com

## **Ross Video Code of Ethics**

Any company is the sum total of the people that make things happen. At Ross, our employees are a special group. Our employees truly care about doing a great job and delivering a high quality customer experience every day. This code of ethics hangs on the wall of all Ross Video locations to guide our behavior:

- 1. We will always act in our customers' best interest.
- 2. We will do our best to understand our customers' requirements.
- **3.** We will not ship crap.
- 4. We will be great to work with.
- **5.** We will do something extra for our customers, as an apology, when something big goes wrong and it's our fault.
- **6.** We will keep our promises.
- 7. We will treat the competition with respect.
- 8. We will cooperate with and help other friendly companies.
- **9.** We will go above and beyond in times of crisis. *If there's no one to authorize the required action in times of company or customer crisis do what you know in your heart is right. (You may rent helicopters if necessary.)*

## **Document Information**

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### **FCC Compliance and User Information**

The following information has been provided to clarify FCC requirements for operation of this device. These requirements are found in the FCC rules for radio frequency devices, Part 15.

#### Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense.

### **Important - Modifications & Shielded Cables**

Changes or modifications to this product not authorized by Ross<sup>®</sup> Video Limited could void the FCC Compliance and negate authority to operate the product.

This product was tested for FCC compliance under conditions that included the use of Ross<sup>®</sup> peripheral devices and Ross<sup>®</sup> shielded cables and connectors between system components. It is important that Ross<sup>®</sup> peripheral devices are used, and shielded cables and connectors are used between system components to reduce the possibility of causing interference to radios, television sets, and other electronic devices. Ross<sup>®</sup> peripheral devices and the properly shielded cables and connectors can be obtained directly from Ross<sup>®</sup>, or through a Ross<sup>®</sup> authorized dealer.

#### **EMC Notices**

#### Canada

This Class "A" digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe "A" est conforme a la norme NMB-003 du Canada.

#### Korea — Class A Statement

이 기기는 업무용 환경에서 사용할 목적으로 적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭 의 우려가 있습니다.

This device has been evaluated for conformity for use in a business environment. When used in a home environment, there is a danger of interference.

#### **Europe**

This equipment is in compliance with the essential requirements and other relevant provisions of **CE Directive 93/68/EEC**.

#### Australia

This equipment has been tested to **AS/NZS CISPR 22:2009** +**A1:2010** and found to comply with the limits for a Class A Digital device.

#### International



*Important:* This is a Class A product. In domestic environments, this product may cause radio interference, in which case the user may have to take adequate measures.

## **Safety and First Aid**

Ross<sup>®</sup> Abekas<sup>®</sup> equipment is designed to the highest standards of quality and reliability. However, no matter how these systems are designed, operators and maintenance personnel can be exposed to electrical shock hazard when protective covers are removed for maintenance or the installation of options. With this caution in mind, each operator and engineer must observe all safety regulations, and have a clear understanding of first aid procedures related to electrical hazards.

## **Safety and Compliance Certifications**



## **Power Information**

To ensure safe operation and to guard against potential shock or risk of fire, ensure your AC power source for the system is within the required voltage range and frequency.

## **Operating Environment**

The optimum operating environment is within the following ranges:

- Recommended Operating Temperature:
- Recommended Operating Humidity: 20% to 80% non-condensing

*Note: High temperature/humidity should be avoided at all times.* 

## **Safety Information**

#### **Important Safety Notices**

This system complies with safety standard . To ensure safe option and to guard against potential shock hazard or risk of fire, the following must be fulfilled:

- This system features auto-ranging power supplies. Ensure that your power source is within the correct range of voltage and frequency, as required by the system.
- Each chassis in this system must be electrically grounded by connecting the input power cord(s) to a correctly wired and grounded power outlet.



**Warning:** Completely disconnect all input AC power cords from the chassis before removing the top cover from the chassis. Failure to do so will expose dangerous electric currents and voltages. Physical contact with these electric currents and voltages is extremely dangerous and may result in severe physical injury or death! Only qualified service personnel should remove the top cover from the chassis. 4

**Warning Hazardous Voltages:** Modules marked with this symbol may be removed while the system is operating (powered). After removing a module, beware of dangerous electric currents and voltages that are exposed on the module receptacle connector inside the chassis. Please keep fingers, tools, and foreign metal objects away from the exposed receptacle connector while the chassis has input AC power applied. Physical contact with these electric currents and voltages is extremely dangerous and may result in severe physical injury or death! Only qualified service personnel should remove these modules.

## **Environmental Information**

The equipment that you purchased required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.

To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Ross Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.



If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You can also contact Ross Video for more information on the environmental performances of our products.

## **Company Address**

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## **Technical Support**

At Ross Video, we take pride in the quality of our products, but if a problem does occur, help is as close as the nearest telephone.

Our 24-Hour Hot Line service ensures you have access to technical expertise around the clock. After-sales service and technical support are provided directly by Ross Video personnel. During business hours (eastern standard time), technical support personnel are available by telephone. Outside of normal business hours and on weekends, a direct emergency technical support phone line is available. If the

technical support personnel who is on call does not answer this line immediately, a voice message can be left and the call will be returned shortly. Our Technical support staff are available to react to any problem and to do whatever is necessary to ensure customer satisfaction.

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## **Required Equipment**

To set up and operate your server you will need a computer monitor supporting either HDMI<sup>™</sup>, DisplayPort<sup>™</sup>, or VGA (analog). A monitor with a minimum native resolution of 1920×1080 is recommended for best user experience. A computer monitor is not supplied by Ross Video.

A standard USB keyboard (QWERTY) and mouse are provided with your server.

## **Getting Started**

## **Power On/Off**

The system powers on with the single power button located at the front of the chassis. When the power button is pressed the system will boot up and launch Windows<sup>®</sup>.



*Warning:* Even with the system powered off, hazardous voltages are present inside the chassis. Disconnect both the primary and secondary power supplied before opening up the chassis.

## Windows<sup>®</sup> Login

The server comes with the Microsoft<sup>®</sup> Windows<sup>®</sup> operating system and all the required software pre-installed.

Refer to the Windows<sup>®</sup> help system for information on changing the password.

*Note:* Once you have logged in to the system, the video channels and serial control are all active. If you are using an external serial controller, that controller can now be used to control the video channels (including loading and playing clips).

## **Software**

The server comes pre-installed with all the software needed for operation and setup.

- Tria Explorer provides a graphical interface to the operation of the server.
- Tria Import allows you to import media files into the server.
- Tria Config allows you to configure the hardware of the server.
- AsRun Log Report Creator generates a file of the AsRun Log that contains all media playout from all video channels of the video server.

**Important:** Do not install any additional third party software applications onto the video server. Third party software applications that did not come pre-installed on your video server can place demands on system resources that may negatively impact real-time audio/video processing resulting in performance degradation in recording and/or playback. Install third party application at your own risk.

## **Server Configuration**

The **Tria Config** application allows you to configure various aspects of the hardware in your server. The number of channels and inputs and outputs you have depend on the hardware installed in your server.

*Important:* Not all settings are available on all servers or require a option to be purchased or installed.

## **Channel Setup**

The hardware channels can be set up in a number of ways, depending on the task you need the server to perform. These configurations are applied to all the channels in a group (ChA-D) and can be used for simple background video, keyed video, MultiScreen, Stereoscopic 3D, instant replay (2D).

Mode	Description
VVVV (Mix)	Four (4) background channel transports (no alpha).
VK VK (Mix)	Two (2) keyer channel transports (video+alpha). Channel A carries the video and channel C carries the alpha for the first key and channel B carries the video and channel D carries the alpha for the second key.
VK V V (Mix)	One (1) keyer channel transport (video+alpha) and two (2) background channel transports. Channel A carries the video and channel B carries the alpha. This configuration also allows the two video (V) channels to playout a Play List with mix transitions.
VK VK	Two (2) keyer channel transports (video+alpha). Channel A carries the video and channel B carries the alpha for the first key and channel C carries the video and channel D carries the alpha for the second key.
VK V V	One (1) keyer channel transport (video+alpha) and two (2) background channel transports. Channel A carries the video and channel C carries the alpha.
νννκ	Two (2) background channel transports and one (1) keyer channel transport (video+alpha). Channel B carries the video and channel D carries the alpha.
V V VK (Mix)	Two (2) background channel transports and one (1) keyer channel transport (video+alpha). Channel C carries the video and channel D carries the alpha.

#### Table 1: Video-Only / Video+Key Modes

#### Table 2: ISO Modes

Mode	Description
ISO2 + V V (Mix)	Two (2) 2D cameras are recorded to the same clip ID on channels A and B. Channels C and D are the playback channels.
ISO3 + V	Three (3) 2D cameras are recorded to the same clip ID on channels A-C. Channel D is the playback channel.
ISO4	Four (4) 2D cameras are recorded to the same clip ID. There are no playback channels.
ISO2 + ISO2 (Mix)	Two (2) 2D cameras are recorded to the same clip ID on channels A and C, and another two (2) 2D cameras are recorded to the same clip ID on channels B and D.
ISO2 + ISO2 (Time-Slip Record + Playback)	Two (2) 2D cameras are recorded to the same clip ID on channels A and B, and another two (2) 2D cameras are recorded to the same clip ID on channels C and D.
V V (Mix) + ISO2	Channels A and B are the playback channels, and two (2) 2D cameras are recorded to the same clip ID on channels C and D.
ISO2 + VK	Two (2) 2D cameras are recorded to the same clip ID on channels A and B and channels C and D make one (1) keyer channel transport (video+alpha).

#### Table 3: Multi-Screen Modes

Mode	Description
2X VK (Multi-Screen VK)	A 2-wide MultiScreen video stream with alpha. The MultiScreen is a single channel transport used for media files that are of a non-standard size (3840×1080).

#### **To Configure the Hardware Channels**

The number of hardware channels on your server depends on the configuration you purchased.

**1.** Launch the **Tria Config** application.

You may be prompted to allow the program to make changes on the computer, click **Yes**.

2. Click the **Channels** tab.

🗑 Engineering Setup	?	×
<u>ROSS</u> Abeka	<b>is</b> [	
Channels		
Output Grouping for Channels A through D           Channel A: ChA=V           Channel B: ChB=V           Channel C: ChC=V           Channel D: ChD=V		
Video-Only / Video +Key ISO / Replay Groups Multi-Screen Groups		
<ul> <li>○ NK NK</li> <li>○ NK NK (MBX)</li> <li>○ NA NK (MBX)</li> <li>○ NA NK (MBX)</li> <li>○ NA NK</li> <li>○ NA NK</li> <li>○ NA NK</li> </ul>		
Салсе		Apply

- **3.** Select the video processing mode and how you want the channels grouped.
- **4.** Select the default alpha (key) output that is used on a video plus key channel transport when no alpha channel is present in the clip or no clip is loaded.
  - **Output BLACK on key output** the key (alpha) channel outputs a full frame of internally generated black.
  - **Output WHITE on key output** the key (alpha) channel outputs a full frame of internally generated white. Use this selection if the output is going to a switcher as an auto-select key. The full-frame white alpha will force the entire video image onscreen.
- 5. Click Apply.

### **Video Formats**

Select the video format that the server is operating in, and the source of the reference signal.

#### To Configure the Video Format

The server can only operate in one video format at a time. All channel transports will play and record in the same format.

Note: Not all video resolutions and frequencies are compatible. Some selections will be grayed out if they are not compatible.

- Launch the Tria Config application.
   You may be prompted to allow the program to make changes on the computer, click Yes.
- **2.** Click the **Video** tab.

Regineering Setup	? <mark>×</mark>
ROSS	
Video	
Video Reference Frequency	
60 Hz 30 Hz	
50 Hz 25 Hz	
◎ 24Hz	
© 23.98 Hz	
Video Resolution	
1080i      1080p     1080p	
© 720p	
Video Reference Source	
Tri-level External Reference	
Bi-level Reference (525/625 Standard Definition Reference)	
Free Run	
Video Board #1 Reference: Locked	
-Horizontal Phase	
Leave this value at +2.0µs unless you have a very good reason to do otherwise.	
Horizontal Phase: +2.0µs	
Net Video	
Enable Network Video	
L	Cancel Apply
	Cuncer

- 3. In the Video Reference Frequency area, select the frequency you want the server to operate in.
- 4. In the Video Resolution area, select the video resolution you want the server to operate in.

*Note:* The available resolutions depend on the frequency you have selected.

**5.** In the **Video Reference Source** area, select the type of input reference signal that the server is using. This is the video signal that is connected to the **REF IN** HD-BNC on the back of the server.

Note: You should only use Free Run when the server is not receiving video from, or outputting video to, another device.



*Important:* If you select *Tri-Level External Reference* or *Bi-Level External Reference* with no valid reference signal coming into the server, you will get corrupt video on all outputs.

- **6.** In the **Horizontal Phase** area, select a timing offset for the video output relative to the reference timing.
- 7. Click **Restart Tria**. A confirmation dialog box is displayed.
- 8. Click Restart Tria to restart the server application and services with the new setting.
- 9. Click **OK** when the restart has completed to dismiss the window.

#### **Video Router Setup**

You can connect the server to an external router and control the sources feeding the server.

*Note:* The router must support the Evertz<sup>®</sup> Quartz or Probel SW-P-08 protocol.

#### To Connect to a Video Router

You can change which destinations are coming into the server from the router, as well as which sources on the router are routed to those destinations.

1. Launch the Tria Config application.

You may be prompted to allow the program to make changes on the computer, click Yes.

2. Click the Video Router tab.

Engineering Setup	? ×
ROSS	
Video Router	
External Video Input Router	
Router Protocol	
○ Probel SW-P-08 (used in Ross routers) Router Levels: 1 🐳	
Quartz (used in most Evertz, and Imagine routers)	
Router IP Address:	
Router Port Number: Video Router Status: Not Connected	
Connect to Router	
Disconnect and Clear Inf	5
	Cancel Apply

- 3. In the **Router Protocol** area, select the protocol you want to use to communicate with the router.
  - **Probel SW-P-08** select this option of your router uses the Snell Advanced Media<sup>®</sup> SW-P-08 protocol.
  - **Quartz** select this option if your router uses the Evertz<sup>®</sup> Quartz protocol.
- 4. In the **Router Levels** field, select the number of levels that the router is using.
- 5. In the **Router IP Address** field, enter the IP address of the router you want to control.
- 6. In the Router Port Number field, enter the port on the router you want to connect to.
- 7. Click **Connect to Router** to connect to the router.
- **8.** In the **Video Router Destinations** area, select which destinations on the router are connected to each video channel input on the server. This is the physical connection from one BNC to the other.
- **9.** In the **Change Router Sources** area you can change which sources are being routed to the destinations that are assigned to each video channel input on the server.
- 10. Click Apply.

### **Audio Setup**

You can select the number of audio channels to record, which sources audio will use, and which audio channel to monitor from the analog audio out headphone jack. The number of AES digital audio inputs and outputs depends on the model of server you purchased.

#### To Configure the Audio Setup

Select the number of channels to record and which channels are sent to the headphones jacks.

**1.** Launch the **Tria Config** application.

You may be prompted to allow the program to make changes on the computer, click **Yes**.

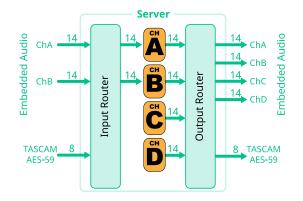
2. Click the Audio tab.

P Engineering Setup	
ROSS	
Audio	
Audio Tracks	
🔘 2 track audio	
O 4 track audio	
8 track audio	
🔘 14 track audio	
Audio Tracks in an ISO Clip	
② 2 track audio accompanies each video input	
4 track audio accompanies each video input	
8 track audio accompanies each video input	
14 track audio accompanies each video input	
Audio Muting Policy	
Mute everything except 100% play speed and JOG STEP	
Mute everything except 100% play speed. Mute JOG STEP.	
Mute when speed is not in the range 85% through 115% of play speed.	
Mute when playback speed exceeds 200% play speed	
Analog Audio Monitor	
O Channel A O Channel B O Channel C O Channel D     O     Channel D     O     Channel D     O     O     Channel D     O	
	Cancel Apply

- 3. In the Audio Tracks area, select the number of audio channels to record.
  - 2 track audio record two channels of audio.
  - 4 track audio record four channels of audio.
  - 8 track audio record eight channels of audio.
  - 14 track audio (software option) record fourteen channels of audio.
- **4.** In the **Audio Tracks in an ISO Clip** area, select the number of audio channels to record per input channel.
- **5.** In the **Audio Muting Policy** area, select how the audio output (AES, embedded, and analog audio out) is muted during playback.
  - Mute everything except 100% play speed and JOG STEP audio is muted at all play speeds except 1× (100%) and during single-frame jogging.
  - **Mute everything except 100% play speed. Mute JOG STEP** audio is muted at all play speeds except 1× (100%).
  - Mute when speed is not in the range 85% through 115% of play speed audio is muted at all play speeds except in the range of 85% to 115% play speed.
  - Mute when playback speed exceeds 200% play speed. audio is muted only when play speed exceeds 2× (200%).
- **6.** In the **Analog Audio Monitor** area, select the channel transport audio that you want to monitor on the analog audio output headphone jack. Only audio channels 1 and 2 are available on the analog audio output port.
- 7. Click Apply.

### **Audio Router Setup**

There are two integrated audio routers built into the server. An input router that sends audio from an audio input to any channel transport, and an output router that sends the audio from a channel transport to any audio output. The number of audio inputs and outputs depends on the options you have installed in your server.



#### To Configure the Audio Router

The Audio Input Router tab allows you to set the audio channel that get recorded on the server and the Audio Output Router tab allows you to set which audio channels are played from the server.

**1.** Launch the **Tria Config** application.

You may be prompted to allow the program to make changes on the computer, click **Yes**.

**2.** Click the **Audio Router** tab.

*Tip:* If the audio routing on an input or output has been changed, a dot is shown next to the name on the tab.

3. Click the Audio Input Router tab.

Engineering Setup	? 🗙
ROSS	
Audio Router	
Audio Input Router Audio Output Router	
ChA Recorder ChB Recorder	
NOTE: All settings below only affect the ChA RECORDER audio pathways. Select Audio Input source connector source to be routed into ChA Recorder:	
ChA Input V Track 1 V A Recorder Track 1	
ChA Input ▼ Track 2 ▼ → ChA Recorder Track 2 ChA Input ▼ Track 3 ▼ → ChA Recorder Track 3	
ChA Input ▼ Track 4 ▼ ChA Recorder Track 4	
ChA Input V Track 5 V → ChA Recorder Track 5	
ChA Input ▼ Track 6 ▼ → ChA Recorder Track 6	
ChA Input V Track 7 V > ChA Recorder Track 7	
ChA Input ▼ Track 8 ▼ → ChA Recorder Track 8	
ChA Input ▼ Track 9 ▼ → ChA Recorder Track 9	
ChA Input ▼ Track 10 ▼ → ChA Recorder Track 10	
ChA Input ▼ Track 11 ▼ → ChA Recorder Track 11	
ChA Input V Track 12 V A Recorder Track 12	
ChA Input ▼ Track 13 ▼ → ChA Recorder Track 13	
ChA Input ▼ Track 14 ▼ → ChA Recorder Track 14	
ChA Input ▼ Track 15 ▼ → ChA Recorder Track 15	
ChA Input ▼ Track 16 ▼ → ChA Recorder Track 16	
NORMALIZE ALL ChA Input Routes	
	Cancel Apply

- 4. Click on the tab for the record channel that you want to route audio channel to.
- 5. In the **ChX Recorder Track 1** row, select the source channel input (**ChX Input** or **TASCAM AES Input**) and the audio channel (**Track #**) from the input that you want to record on channel 1 of the clip.
- **6.** Repeat this step for all of the remaining recorder channels.

Tip: Click NORMANIZE ALL ChX Input Routes to reset all the input audio channels to their default recorder channel assignment.

7. Click the Audio Output Router tab.

Audio Router          Audio Router         Audio Input Router         Oha Output Che Output Che Output         Oha Output Che Output Che Output         NEEE All settings below only affect TASCAM AES Audio Output         METE All settings below only affect TASCAM AES Audio Output connectors:         Oha Player         Track1         Track2         Track3         Madio	ngineering Setup									?	>
Audio Input Router         ChA Oulput       ChC Oulput         Select PLAYER audio sources to be routed into TASCAM AES Audio Oulput Track 1         ChA Player       Track 2         Track 2       Track 2         Track 1       Track AES Audio Oulput Track 2         ChE Player       Track 1         Track 2       Track AES Audio Oulput Track 4         ChA Player       Track 1         Track 2       TASCAM AES Audio Oulput Track 5         ChC Player       Track 2         Track 2       TASCAM AES Audio Oulput Track 5         ChC Player       Track 2         Track 2       TASCAM AES Audio Oulput Track 6         ChA Player       Track 2         Track 2       TASCAM AES Audio Oulput Track 7         ChA Player       Track 2         Track 2       TASCAM AES Audio Oulput Track 8	<u>ROSS</u>							Abe	əkas		A
ChA Output       ChB Output       ChC Output       • TASCAM Output         NOTE: All settings below only affect TASCAM AES Audio Outputs       Select PLAYER audio sources to be routed into TASCAM AES Audio Output tonectors:         ChA Player       Track 1       > TASCAM AES Audio Output Track 1         ChA Player       Track 1       > TASCAM AES Audio Output Track 2         ChB Player       Track 1       > TASCAM AES Audio Output Track 2         ChB Player       Track 1       > TASCAM AES Audio Output Track 3         ChB Player       Track 1       > TASCAM AES Audio Output Track 4         ChA Player       Track 1       > TASCAM AES Audio Output Track 5         ChC Player       Track 2       > TASCAM AES Audio Output Track 6         ChA Player       Track 2       > TASCAM AES Audio Output Track 7         ChA Player       Track 2       > TASCAM AES Audio Output Track 7			Audio Router								
NOTE: All settings below only affect TASCAM AES Audio Outputs         Select PLAYER audio sources to be routed into TASCAM AES Audio Output connectors:         ChA Player       Track 1       > TASCAM AES Audio Output Track 1         ChA Player       Track 2       > TASCAM AES Audio Output Track 2         ChB Player       Track 1       > TASCAM AES Audio Output Track 2         ChB Player       Track 1       > TASCAM AES Audio Output Track 3         ChB Player       Track 2       > TASCAM AES Audio Output Track 4         ChA Player       Track 1       > TASCAM AES Audio Output Track 5         ChC Player       Track 2       > TASCAM AES Audio Output Track 6         ChA Player       Track 1       > TASCAM AES Audio Output Track 7         ChA Player       Track 2       > TASCAM AES Audio Output Track 7	Audio Input Router	Audio Output Router									
Select PLAYER audio sources to be routed into TASCAM AES Audio Output connectors:         ChA Player       Track 1       > TASCAM AES Audio Output Track 1         ChA Player       Track 2       > TASCAM AES Audio Output Track 2         ChB Player       Track 1       > TASCAM AES Audio Output Track 2         ChB Player       Track 1       > TASCAM AES Audio Output Track 2         ChB Player       Track 1       > TASCAM AES Audio Output Track 3         ChB Player       Track 2       > TASCAM AES Audio Output Track 4         ChA Player       Track 1       > TASCAM AES Audio Output Track 5         ChC Player       Track 2       > TASCAM AES Audio Output Track 6         ChA Player       Track 1       > TASCAM AES Audio Output Track 7         ChA Player       Track 2       > TASCAM AES Audio Output Track 8	ChA Output C	ChB Output ChC Output	ChD Output	TASCAM Output							
	Select PLAYER au ChA Player V ChA Player V ChB Player V ChB Player V ChB Player V ChA Player V ChC Player V	do sources to be routed into Track 1 $\rightarrow$ TASCAM Track 2 $\rightarrow$ TASCAM Track 1 $\rightarrow$ TASCAM Track 1 $\rightarrow$ TASCAM Track 2 $\rightarrow$ TASCAM Track 1 $\rightarrow$ TASCAM Track 2 $\rightarrow$ TASCAM Track 1 $\rightarrow$ TASCAM	o TASCAM AES Aud AES Audio Outpu AES Audio Outpu AES Audio Outpu AES Audio Outpu AES Audio Outpu AES Audio Outpu AES Audio Outpu	o Output connectors at Track 1 at Track 2 at Track 3 at Track 4 at Track 5 at Track 6 at Track 7	52						
	Cha Mayer V	Trace	ALS AUGIO OUTPI		ASCAM AES C	Output Routes					

- 8. Click on the tab for the channel output into which you want to route audio channels.
- In the ChX Audio Output Track 1 row, select the source channel player (ChX Player) and the audio channel (Track #) from the player that you want to route to channel 1 of the output video stream.
- **10.** Repeat this step for all of the remaining output audio channels you want to assign a source to.

*Tip:* Click **NORMANIZE ALL ChX Output Routes** to reset all the player audio track to their default output track assignment.

**11.** Click **Apply**.

## **Timecode Setup**

The selected timecode information that is recorded with the video can be overlaid on the output video stream of the server. This can be time of day linear timecode (LTC) coming into the server, or the embedded ancillary timecode (ATC) in the video stream being recorded.



*Important:* When you turn the timecode overlay on, it is shown over the image on the video output.

#### To Configure the Timecode

The selected timecode information that is recorded with the video can be overlayed on the output video stream of the server.

Note: The timecode overlay is only on the video output and will not appear in the recorded video.

- Launch the Tria Config application.
   You may be prompted to allow the program to make changes on the computer, click Yes.
- **2.** Click the **Timecode** tab.

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Tmecod mecode Input Source hannel A:  The of day LTC In Channel A ATC In	Timecode Overlay on Video Output CAUTION: Use of any of these timecode overlay outputs will cause timecode
Channel B:   Time of day LTC In  Channel B ATC In  Channel A  Channel A  Channel B  Channel B  Channel F  Channel B  Chan	to be written over the picture on the primary SDI outputs. Channel A Timecode Overlay:  O Off  O In in EE and Record  Always On Channel B Timecode Overlay:  O Off  O In in EE and Record  Always On
	Timecode Overlay Position And Size Left Right Top Botton
	H Small H Larg V Small V Larg Clips Beyond 24+Hour Timecode
	Allow Creation of Clips With Durations longer than 24-Hours CAUTION: Due to limitations of AMP and VDCP protocols, using these remote protocols to "Load and Seek" within a Clip that has a Duration greater than
	24-Hours will not support a Seek (Cue) to content 'near to' and 'beyond' the 24-Hour point within the Clp!

- 3. In the **Timecode Input Source** area, select the timecode source for each channel.
  - **Time of Day LTC In** the LTC signal coming into the server.
  - **ATC In** the embedded digital timecode in the video source.
- **4.** In the **Replace ATC Output with Timecode Remain** area, select the video channels that you want the normal count-up ATC timecode to be replaced with the count-down (time-remaining) ATC timecode.

*Tip:* This is useful when you want to display count-down timecode in downstream devices that can decode and display ATC timecode.

- **5.** In the **Replace Viewer Timecode with Time Reaming** area, select the video channels that you want the normal timecode to be replaced with the count-down (time-remaining) timecode.
- 6. In the **Timecode Overlay on Video Output** area, select whether the timecode is displayed on the video output for each channel.
  - **Off** the timecode is not shown on the video output stream.
  - **On in EE and Record** the timecode is only shown when in EE mode or when the channel is recording.
  - Always On the timecode is always shown on the video output stream.
- 7. In the Timecode Overlay Position And Size area, use the Left/Right and Top/Bottom sliders to position the timecode overlay on the background video source, and use the H Small/H Large and V Small/ V Large sliders to adjust the size of the timecode text.
- **8.** In the **Clips Beyond 24-Hour Timecode** area, select whether the server can record a clip that is longer than 24 hours in length.

*Note:* External devices controlling the server over VDCP or AMP will not support timecode over 24 hours. You will not be able to seek beyond the 24 hour point as the timecode restarts again.

9. Click Apply.

## **Channel Label Setup**

You can assign a custom name to each channel transport to help identify the server it is on or what it is used for.

Labels are shown at the far right of each channel transport in Tria Explorer.

Note: The Quad Viewer Label Overlay option must be enabled for the labels to be visible on the Quad Viewer output.

#### To Assign Labels to Channels

Labels can be shown on the channel transport to help identify each channel.

**1.** Launch the **Tria Config** application.

You may be prompted to allow the program to make changes on the computer, click **Yes**.

2. Click the Labels tab.

Engineerin	ng Setup				? ×
ROS	<u>55</u>			Abeka	
	-		Labels		
Channel A	PGM 1				
Channel B	PGM 2				
Channel C	PGM 3				
Channel D	PGM 4				
Restart Tria				Cance	Apply

3. Enter a new label name for each channel transport as required.

*Tip:* Leave the label name field blank to remove the channel label from the channel transport and Quad Viewer.

4. Click Apply.

## **Quad Viewer Setup**

# Quad Viewer Display



- Channel, audio meters, and status are shown along the top of each quadrant.
- Clip name and timecode are shown along the bottom of each quadrant.
- The position of the channel label can be adjusted.
- The opacity of all the overlay text can be adjusted.

#### To Configure the Quad Viewer

Select what is displayed on the Quad Viewer output and adjust the transparency of the text overlay on the Quad Viewer output.

**1.** Launch the **Tria Config** application.

You may be prompted to allow the program to make changes on the computer, click **Yes**.

2. Click the Quad Viewer tab.

Engineering Setup				?	x
ROSS					A
		-	Quad Viewer		
Output Display O Quad Split Display					
Clip Information Overlay					
Opacity Presets	Text Opacity				
Off 75%	Invisible (0%)			Opaque (100%)	
25% 85%				100%	
50% Study Opaque	Background C	pacity			
	Invisible (0%)	1		Opaque (100%)	
	-			100%	
Channel Label Overlay					
Opacity	Position	Height			
Off	• Тор	Small			
25% 85%	Middle	Medium			
50% Fully Opaque	Bottom	Large			
				Cancel	ly

#### 3.

**4.** In the **Clip Information Overlay** area, adjust the opacity of the clip information text and background of the text. These overlays are shown in the corners of each Quad Viewer quadrant.

*Tip:* Select one of the **Overlay Presets** to quickly set both the text and background opacity.

- Use the **Text Opacity** slider to adjust the transparency of the overlay text.
- Use the **Background Opacity** slider to adjust the transparency of the background behind the overlay text.
- **5.** In the **Channel Label Overlay** area, select the opacity, position, and size of the channel information text.
  - **Opacity** select the transparency of the label. Select **Off** to disable the channel label overlay.
  - **Position** select the position for the label in the quadrant.
  - **Height** select the size of the label.
- 6. Click Apply.

## **TSL Tally Setup**

The server can receive TSL messages from a downstream device to tally the channels on the server.

For example, when a production switcher takes the source from the server on-air, the switcher sends a signal back to the server telling it that is on-air and should be tallied.

The tally status is shown using the color of the background of the Channel Label.

- **Gray** the channel is not on program or preview.
- **Red** the channel is on program.
- **Green** the channel is on preview.
- Amber the channel is being recorded by a downstream device.

*Note:* TSL tally colors are set by how the protocol was implemented in the source device and may not be as listed above. Check with the device that is sending the TSL information to the server for information on how the protocol was implemented.

#### To Configure the TSL Tally Input

Tally information sent to the server over ethernet using the TSL protocol is used to show red and green tallies (as well as gray and amber) on the channel labels. You will need the IP address and port of the device sending the tally information, as well as the screen mapping.

- Launch the Tria Config application.
   You may be prompted to allow the program to make changes on the computer, click Yes.
- **2.** Click the **Tally** tab.

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Tally Server	Taly	
Address may be an IPv4 address, an IPv6 address, or a hos Server Address:	t name.	
Server Port: 0		
UDP TCP server (use with Carbonite, Ultricore, or TSI) TCP client		
Tally Protocol O TSL LIMD V5.0 () TSL LIMD V3.1		
Assign Preview Tally O Right Tally Lamp is Preview	Assign Preview Tally Color O No Color, Preview Tally Is ignored @ Green	
Left Tally Lamp is Preview		
Tally Index Number (also referred to as Tally ID or Tally Addr Set to Zero to disable ChA	ess)	
Restart Tria	Cancel	Apply

- 3. In the Server Address field enter the IP address of the device that is sending the TSL tally information.
- 4. In the **Server Port** field enter the port number on the device that the server is listening to.
- 5. In the Server Connection Type area, select the type of ethernet communication you want to use.
  - **UDP** select if you connect to the tally system using the UDP protocol.
  - **TCP Server** select if you connect to the tally system as a server using the TCP protocol.
  - **TCP Client** select if the connect to the tally system as a client using the TCP protocol.
- 6. In the Tally Protocol area, select the TSL protocol the tally system is using.
  - **TSL UMD V5.0** select if the tally server is using the TSL tally protocol v5.0.
  - **TSL UMD V3.1** select if the tally server is using the TSL tally protocol v3.1.
- **7.** Set up the tally interface as required:

Protocol	Settings
TSL v5.0	
Tally Screen Number	Select which tally screen you want to assign to each channel transport.
Tally Index Number	Select a tally id for each channel transport.
TSL v3.1	
Assign Preview Tally	Select which indicator is lit when a channel transport is tallied on preview.
Assign Preview Tally Color	Select the color to use when a channel transport is tallied on preview.
Tally Index NumberEnter the tally ID that is assigned on the tally server to the input on the server.	
	<i>Tip:</i> Refer to the device that you are receiving the tally information from for the ID that is assigned to the video input that is connected to the output of each channel on the server.

8. Click Apply.

## Import

The **Tria Import** file import utility converts all imported media files to the current video output format that the server is operating in.

For example, if the server is currently operating in the 1080i 59.94Hz video format, then all imported media files are converted to 1080i 59.94Hz video format. Media files are converted even if they are in a different video format.

## **Supported Media Files for Hardware Import**

*Note:* Some file formats require a third-party codec to be installed on the server.

Note: Ancillary data is preserved from the import of MXF files in systems with AVC-Intra native recording formats.

File Type	Codec	Plug-in
DV	(DV25) DVCPRO	none needed
MOV	(DV25) DVCPRO	none needed
	Animation	none needed
	H.264	none needed
	JPEG	none needed
	JPEG 2000	none needed
	MPEG-E Video	none needed
	NONE (No Compression)	none needed
	ProRes	none needed
	PNG	none needed
	Avid <sup>®</sup> DNxHD	Avid <sup>®</sup> DNxHD <sup>1</sup>

• <sup>1</sup> This codec from Avid<sup>®</sup> enables import of DNxHD essence within MOV files. *AvidCodecsLESetup.zip* 

## **Supported Import Transcoding**

The Software Transcoder in **Tria Import** uses FFmpeg<sup>™</sup> for the decoding operation.

In the table below, the legend column identifies which elements of the media file are supported.

- E Encoding supported
- D Decoding supported
- V/A Video codec (V) / Audio Codec (A)
- I Intra frame-only codec
- L Lossy compression
- S Lossless compression

#### Video+Audio and Video Only Media Files

Legend	Codec	Codec Description
.DVI	012v	Uncompressed 4:2:2 10-bit
.DV.L.	4xm	4X Technologies Movie
.DVS	aasc	Autodesk <sup>®</sup> RLE
.DVIL.	aic	Apple <sup>®</sup> Intermediate Codec

Legend	Codec	Codec Description
EDVI.S	alias_pix	Alias/Wavefront PIX image
EDVIL.	amv	AMV Video
.DV.L.	anm	EA <sup>®</sup> DeluxePaint
.DV.L.	ansi	ASCII/ANSI art
EDVS	apng	APNG (Animated Portable Network Graphics) image
EDVIL.	asv1	ASUS V1
EDVIL.	asv2	ASUS V2
.DVIL.	aura	Auravision AURA
.DVIL.	aura2	Auravision Aura 2
.DV	avrn	Avid® AVI Codec
EDVI	avrp	Avid® 1:1 10-bit RGB Packer
.DV.L.	avs	AVS (Audio Video Standard) video
EDVI	avui	Avid <sup>®</sup> Meridien Uncompressed
EDVI	ayuv	Uncompressed packed MS 4:4:4:4
.DV.L.	bethsoftvid	Bethesda <sup>®</sup> VID video
.DV.L.	bfi	Brute Force & Ignorance
.DV.L.	binkvideo	Bink <sup>®</sup> video
.DVI	bintext	Binary text
EDVI.S	bmp	BMP (Windows <sup>®</sup> and OS/2 bitmap)
.DVS	bmv_video	Discworld® II BMV video
.DVI.S	brender_pix	BRender PIX image
.DV.L.	c93	Interplay <sup>®</sup> C93
.DV.L.	cavs	Chinese AVS (Audio Video Standard) (AVS1-P2, JiZhun profile)
.DV.L.	cdgraphics	CD Graphics video
.DVIL.	cdxl	Commodore CDXL video
.DV.L.	cfhd	GoPro <sup>®</sup> Cineform <sup>®</sup> HD
EDV.L.	cinepak	Cinepak
EDVIL.	cljr	Cirrus Logic <sup>®</sup> AccuPak
.DVI.S	clic	GV Grass Valley <sup>®</sup> Canopus <sup>®</sup> Lossless Codec
.DV.L.	cmv	Electronic Arts CMV video (decoders: eacmv)
.DV	сріа	CPiA video format
.DVS	cscd	CamStudio <sup>™</sup> (decoders: camstudio)
.DVIL.	cyuv	Creative YUV (CYUV)
.DVILS	dds	Microsoft <sup>®</sup> DirectDraw Surface image decoder

Legend	Codec	Codec Description
.DV.L.	dfa	DreamForge Chronomaster DFA
EDV.LS	dirac	BBC <sup>®</sup> Dirac (encoders: vc2)
EDVIL.	dnxhd	Avid <sup>®</sup> VC3/DNxHD
EDVI.S	dpx	SMPTE <sup>®</sup> DPX (Digital Picture Exchange) image
.DV.L.	dsicinvideo	Delphine Software International CIN video
EDVIL.	dvvideo	DV (Digital Video)
.DVS	dxa	Feeble Files/ScummVM DXA
.DVI.S	dxtory	ExKode Dxtory
.DVIL.	dxv	Resolume DXV
.DV.L.	escape124	Square Enix <sup>®</sup> Escape 124
.DV.L.	escape130	Square Enix <sup>®</sup> Escape 130
.DVILS	exr	Lucasfilm <sup>®</sup> OpenEXR <sup>™</sup> image
EDVS	ffv1	FFmpeg <sup>™</sup> video codec #1
EDVI.S	ffvhuff	Huffyuv FFmpeg <sup>™</sup> variant
.DV.L.	fic	Mirillis <sup>®</sup> FIC
EDVS	flashsv	Adobe <sup>®</sup> Flash Screen Video v1
EDV.L.	flashsv2	Adobe <sup>®</sup> Flash Screen Video v2
.DVS	flic	Autodesk <sup>®</sup> Animator Flic video
EDV.L.	fl∨1	Adobe <sup>®</sup> FLV / Sorenson Spark <sup>®</sup> / Sorenson Media <sup>®</sup> H.263 (Flash Video) (decoders: flv) (encoders: flv)
.DVS	fraps	Beepa <sup>®</sup> Fraps
.DVI.S	frwu	Forward Uncompressed
.DV.L.	g2m	LogMeIn G2M (GoToMeeting)
EDVS	gif	GIF (Graphics Interchange Format)
EDV.L.	h261	H.261
EDV.L.	h263	H.263 / H.263-1996, H.263+ / H.263-1998 / H.263 version 2
.DV.L.	h263i	Intel <sup>®</sup> H.263
EDV.L.	h263p	H.263+ / H.263-1998 / H.263 version 2
EDV.LS	h264	H.264 / AVC / MPEG-4 AVC / MPEG-4 part 10 (encoders: h264_nvenc nvenc nvenc_h264)
.DVIL.	hap	VIDVOX Hap decoder
EDV.L.	hevc	DivX <sup>®</sup> HEVC/H.264 (High Efficiency Video Coding) (encoders: nvenc_hevc hevc_nvenc)
.DV.L.	hnm4video	HNM 4 video
.DVIL.	hq_hqa	GV Grass Valley <sup>®</sup> Canopus <sup>®</sup> HQ/HQA

Legend	Codec	Codec Description
.DVIL.	hqx	GV Grass Valley <sup>®</sup> Canopus <sup>®</sup> HQX
EDVI.S	huffyuv	Huffyuv
.DV.L.	idcin	ZeniMax <sup>®</sup> id <sup>®</sup> QUAKE <sup>®</sup> II CIN video (decoders: idcinvideo)
.DVI	idf	iCEDraw text
.DV.L.	iff_ilbm	IFF ACBM / ANIM / EDEP / ILBM / PBM / RGB8 / RGBN (decoders: iff)
.DV.L.	indeo2	Intel <sup>®</sup> Indeo 2
.DV.L.	indeo3	Intel <sup>®</sup> Indeo 3
.DV.L.	indeo4	Intel <sup>®</sup> Indeo Video Interactive 4
.DV.L.	indeo5	Intel <sup>®</sup> Indeo Video Interactive 5
.DV.L.	interplayvideo	Interplay <sup>®</sup> MVE video
EDVILS	jpeg2000	JPEG 2000
EDVILS	jpegls	JPEG-LS
.DVIL.	jv	Bitmap Brothers JV video
.DV.L.	kgv1	Kega Game Video
.DV.L.	kmvc	Karl Morton's video codec
.DVI.S	lagarith	Lagarith lossless
.DVI.S	Іосо	LOCO
.DVI.S	m101	Matrox <sup>®</sup> Uncompressed SD
.DV.L.	mad	Electronic Arts Madcow Video (decoders: eamad)
.DVI.S	magicyuv	MagicYUV video
.DVIL.	mdec	Sony <sup>®</sup> Playstation <sup>®</sup> MEDC (Motion EDCoder)
.DV.L.	mimic	Microsoft <sup>®</sup> Mimic
EDVIL.	mjpeg	Motion JPEG
.DVIL.	mjpegb	Apple <sup>®</sup> MJPEG-B
.DV.L.	mmvideo	American Laser Games MM Video
.DV.L.	motionpixels	Motion Pixels video
EDV.L.	mpeg1video	MPEG-1 video
EDV.L.	mpeg2video	MPEG-2 video (decoders: mpeg2video mpegvideo)
EDV.L.	mpeg4	MPEG-4 part 2
.DV.L.	msa1	Microsoft <sup>®</sup> ATC Screen
.DV.L.	msmpeg4v1	MPEG-4 part 2 Microsoft <sup>®</sup> variant version 1
EDV.L.	msmpeg4v2	MPEG-4 part 2 Microsoft <sup>®</sup> variant version 2
EDV.L.	msmpeg4v3	MPEG-4 part 2 Microsoft <sup>®</sup> variant version 3

Legend	Codec	Codec Description
.DVS	msrle	Microsoft <sup>®</sup> RLE
.DV.L.	mss1	Microsoft <sup>®</sup> Screen 1
.DVIL.	mss2	Microsoft <sup>®</sup> Windows <sup>®</sup> Media Video V9 Screen
EDV.L.	msvideo1	Microsoft <sup>®</sup> Video 1
.DVI.S	mszh	LCL (LossLess Codec Library) MSZH
.DV.L.	mts2	Microsoft <sup>®</sup> Expression Encoder Screen
.DVIL.	mvc1	Silicon Graphics <sup>®</sup> Motion Video Compressor 1
.DVIL.	mvc2	Silicon Graphics <sup>®</sup> Motion Video Compressor 2
.DV.L.	mxpeg	MOBOTIX <sup>®</sup> MxPEG video
.DV.L.	nuv	Nupplevideo/RTJPEG
.DV.L.	paf_video	Amazing Studio Packed Animation File (PAF) Video
EDVI.S	pam	PAM (Portable AnyMap) image
EDVI.S	pbm	PBM (Portable BitMap) image
EDVI.S	рсх	ZSoft PC Paintbrush PCX image
EDVI.S	pgm	PGM (Portable GrayMap) image
EDVI.S	pgmyuv	PGMYUV (Portable GrayMap YUV) image
.DVIL.	pictor	PCPaint/Pictor Paint
EDVS	png	PNG (Portable Network Graphics) image
EDVI.S	ppm	PPM (Portable PixelMap) image
EDVIL.	prores	Apple <sup>®</sup> ProRes (iCodec Pro) (decoders: prores prores_lgpl) (encoders: prores prores_aw prores_ks)
.DVIL.	ptx	VTech <sup>®</sup> V.Flash PTX image
.DVI.S	qdraw	Apple <sup>®</sup> QuickDraw <sup>®</sup>
.DV.L.	qpeg	Q-Team QPEG
EDVI.S	r10k	AJA <sup>®</sup> KONA 10-bit RGB Codec
EDVI.S	r210	Uncompressed RGB 10-bit
EDVI.S	rawvideo	raw video
.DVIL.	rl2	RL2 video
EDV.L.	roq	ZeniMax <sup>®</sup> id <sup>®</sup> RoQ video (decoders: roqvideo) (encoders: roqvideo)
.DVS	rscc	RSupport <sup>®</sup> /innoheim Screen Capture Codec
EDV.L.	rv10	RealNetworks <sup>®</sup> RealVideo <sup>®</sup> 1.0
EDV.L.	rv20	RealNetworks <sup>®</sup> RealVideo <sup>®</sup> 2.0
.DV.L.	rv30	RealNetworks <sup>®</sup> RealVideo <sup>®</sup> 3.0
.DV.L.	rv40	RealNetworks <sup>®</sup> RealVideo <sup>®</sup> 4.0

Legend	Codec	Codec Description
.DV.L.	sanm	Lucasfilm <sup>®</sup> LucasArts <sup>®</sup> SANM/SMUSH video
.DVS	screenpresso	Screenpresso
EDVI.S	sgi	Silicon Graphics <sup>®</sup> SGI <sup>®</sup> image
.DVI.S	sgirle	Silicon Graphics <sup>®</sup> SGI <sup>®</sup> RLE 8-bit
.DVI.S	sheervideo	BitJazz SheerVideo
.DV.L.	smackvideo	RAD Game Tools Smacker video (decoders: smackvid)
.DV	smvjpeg	SigmaTel Motion Video
EDV.LS	snow	Snow
.DVIL.	sp5x	Sunplus JPEG (SP5X)
EDVI.S	sunrast	Oracle <sup>®</sup> Sun <sup>®</sup> Rasterfile image
EDV.L.	svq1	Sorenson Media <sup>®</sup> Vector Quantizer 1 / Sorenson Video <sup>®</sup> 1 / SVQ1
.DV.L.	svq3	Sorenson Media <sup>®</sup> Vector Quantizer 3 / Sorenson Video <sup>®</sup> 3 / SVQ3
EDVI.S	targa	TrueVision <sup>®</sup> Targa image
.DVI	targa_y216	Pinnacle TARGA CinéWave YUV16
.DV.L.	tdsc	TDSC
.DV.L.	tgq	Electronic Arts TGQ video (decoders: eatgq)
.DV.L.	tgv	Electronic Arts TGV video (decoders: eatgv)
.DV.L.	theora	Xiph.Org <sup>™</sup> Theora <sup>™</sup>
.DVIL.	thp	Nintendo <sup>®</sup> Gamecube <sup>®</sup> THP video
.DV.L.	tiertexseqvideo	Tiertex Limited SEQ video
EDVI.S	tiff	TIFF image
.DVIL.	tmv	8088flex TMV
.DV.L.	tqi	Electronic Arts TQI video (decoders: eatqi)
.DV.L.	truemotion1	Google <sup>®</sup> (On2/Duck) TrueMotion 1.0
.DV.L.	truemotion2	Google <sup>®</sup> (On2/Duck) TrueMotion 2.0
.DV.L.	truemotion2rt	Google <sup>®</sup> (On2/Duck) TrueMotion 2.0 Real Time
.DVS	tscc	TechSmith <sup>®</sup> Screen Capture Codec (decoders: Camtasia <sup>®</sup> )
.DV.L.	tscc2	TechSmith <sup>®</sup> Screen Codec 2
.DVIL.	txd	RenderWare TXD (TeXture Dictionary) image
.DV.L.	ulti	IBM <sup>®</sup> Ultimotion Digital Video Data Stream Specification (decoders: ultimotion)
EDVI.S	utvideo	Ut Video
EDVI.S	v210	Uncompressed 4:2:2 10-bit
.DVI.S	v210x	Uncompressed 4:2:2 10-bit

Legend	Codec	Codec Description
EDVI	v308	Uncompressed packed 4:4:4
EDVI	v408	Uncompressed packed QT 4:4:4:4
EDVI.S	v410	Uncompressed 4:4:4 10-bit
.DV.L.	vb	Beam Software VB
.DVI.S	vble	VBLE Lossless Codec
.DV.L.	vc1	SMPTE <sup>®</sup> VC-1
.DV.L.	vc1image	Windows Media <sup>®</sup> Video 9 Image v2
.DVIL.	vcr1	ATI <sup>™</sup> VCR1
.DVIL.	vixl	Miro VideoXL (decoders: xl)
.DV.L.	vmdvideo	Sierra Entertainment VMD (Video and Music Data) video
.DVS	vmnc	VMware <sup>®</sup> Screen Codec / VMware <sup>®</sup> Video
.DV.L.	vp3	On2 VP3
.DV.L.	vp5	On2 VP5
.DV.L.	vp6	On2 VP6
.DV.L.	vр6а	On2 VP6 (Flash <sup>®</sup> version, with alpha channel)
.DV.L.	vp6f	On2 VP6 (Flash <sup>®</sup> version)
.DV.L.	vp7	On2 VP7
.DV.L.	vp8	On2 VP8
.DV.L.	vp9	Google <sup>®</sup> VP9
.DVILS	webp	Google <sup>®</sup> WebP
EDV.L.	wmv1	Windows® Media Video 7
EDV.L.	wmv2	Windows® Media Video 8
.DV.L.	wmv3	Windows® Media Video 9
.DV.L.	wmv3image	Windows® Media Video 9 Image
.DVIL.	wnv1	Winnov® WNV1
.DV.L.	ws_vqa	EA <sup>®</sup> /Westwood Studios VQA (Vector Quantized Animation) video (decoders: vqavideo)
.DV.L.	xan_wc3	EA <sup>®</sup> Wing Commander III / Xan
.DV.L.	xan_wc4	EA <sup>®</sup> Wing Commander IV / Xxan
.DVI	xbin	eXtended BINary text
EDVI.S	xbm	XBM (X BitMap) image
EDVIL.	xface	X-face image
EDVI.S	xwd	XWD (X Window Dump) image
EDVI	у41р	Uncompressed YUV 4:1:1 12-bit

Legend	Codec	Codec Description
.DVI.S	ylc	YUY2 Lossless Codec
.DV.L.	уор	Psygnosis <sup>®</sup> YOP Video
EDVI	yuv4	Uncompressed packed 4:2:0
.DVS	zerocodec	ZeroCodec Lossless Video
EDVI.S	zlib	LCL (LossLess Codec Library) ZLIB
EDVS	zmbv	DOSBox Zip Motion Block Video

#### Audio-Only Media Files

Audio-Only N		
Legend	Codec	Codec Description
.DA.L.	8svx_exp	Electronic Arts 8SVX exponential
.DA.L.	8svx_fib	Electronic Arts 8SVX fibonacci
EDA.L.	aac	AAC (Advanced Audio Coding) (decoders: aac aac_fixed)
.DA.L.	aac_latm	AAC LATM (Advanced Audio Coding LATM syntax)
EDA.L.	ac3	ATSC A/52A (AC-3) (decoders: ac3 ac3_fixed) (encoders: ac3 ac3_fixed)
.DA.L.	adpcm_4xm	ADPCM 4X Movie
EDA.L.	adpcm_adx	SEGA® CRI ADX ADPCM
.DA.L.	adpcm_afc	ADPCM Nintendo <sup>®</sup> Gamecube <sup>®</sup> AFC
.DA.L.	adpcm_aica	ADPCM Yamaha® AICA
.DA.L.	adpcm_ct	ADPCM Creative Technology
.DA.L.	adpcm_dtk	ADPCM Nintendo <sup>®</sup> Gamecube <sup>®</sup> DTK
.DA.L.	adpcm_ea	ADPCM Electronic Arts
.DA.L.	adpcm_ea_maxis_xa	ADPCM Electronic Arts Maxis <sup>®</sup> CDROM XA
.DA.L.	adpcm_ea_r1	ADPCM Electronic Arts R1
.DA.L.	adpcm_ea_r2	ADPCM Electronic Arts R2
.DA.L.	adpcm_ea_r3	ADPCM Electronic Arts R3
.DA.L.	adpcm_ea_xas	ADPCM Electronic Arts XAS
EDA.L.	adpcm_g722	G.722 ADPCM (decoders: g722) (encoders: g722)
EDA.L.	adpcm_g726	G.726 ADPCM (decoders: g726) (encoders: g726)
.DA.L.	adpcm_g726le	G.726 ADPCM little-endian (decoders: g726le)
.DA.L.	adpcm_ima_amv	ADPCM IMA AMV
.DA.L.	adpcm_ima_apc	ADPCM IMA CRYO APC
.DA.L.	adpcm_ima_dat4	ADPCM IMA Eurocom DAT4
.DA.L.	adpcm_ima_dk3	ADPCM IMA On2/Duck DK3
8		

Legend	Codec	Codec Description
.DA.L.	adpcm_ima_dk4	ADPCM IMA On2/Duck DK4
.DA.L.	adpcm_ima_ea_eacs	ADPCM IMA Electronic Arts EACS
.DA.L.	adpcm_ima_ea_sead	ADPCM IMA Electronic Arts SEAD
.DA.L.	adpcm_ima_iss	ADPCM IMA Funcom <sup>®</sup> ISS
.DA.L.	adpcm_ima_oki	ADPCM IMA Dialogic (OKI®)
.DA.L.	adpcm_ima_rad	ADPCM IMA Radical
.DA.L.	adpcm_ima_smjpeg	ADPCM IMA Loki SDL MJPEG
EDA.L.	adpcm_ima_wav	ADPCM IMA WAV
.DA.L.	adpcm_ima_ws	ADPCM IMA Westwood Studios
EDA.L.	adpcm_ms	ADPCM Microsoft®
.DA.L.	adpcm_mtaf	ADPCM MTAF
.DA.L.	adpcm_psx	ADPCM Playstation <sup>®</sup>
.DA.L.	adpcm_sbpro_2	ADPCM Sound Blaster <sup>®</sup> Pro 2-bit
.DA.L.	adpcm_sbpro_3	ADPCM Sound Blaster <sup>®</sup> Pro 2.6-bit
.DA.L.	adpcm_sbpro_4	ADPCM Sound Blaster <sup>®</sup> Pro 4-bit
EDA.L.	adpcm_swf	ADPCM Shockwave <sup>®</sup> Flash <sup>®</sup>
.DA.L.	adpcm_thp	ADPCM Nintendo <sup>®</sup> THP
.DA.L.	adpcm_thp_le	ADPCM Nintendo <sup>®</sup> THP (Little-Endian)
.DA.L.	adpcm_vima	LucasArts <sup>®</sup> VIMA audio
.DA.L.	adpcm_xa	ADPCM CDROM XA
EDA.L.	adpcm_yamaha	ADPCM Yamaha <sup>®</sup>
EDAS	alac	ALAC (Apple <sup>®</sup> Lossless Audio Codec)
.DA.L.	amr_nb	AMR-NB (Adaptive Multi-Rate NarrowBand) (decoders: amrnb)
.DA.L.	amr_wb	AMR-WB (Adaptive Multi-Rate WideBand) (decoders: amrwb)
.DAS	аре	Monkey's Audio
.DA.L.	atrac1	Sony <sup>®</sup> ATRAC1 (Adaptive TRansform Acoustic Coding)
.DA.L.	atrac3	Sony <sup>®</sup> ATRAC3 (Adaptive TRansform Acoustic Coding 3)
.DA.L.	atrac3p	Sony <sup>®</sup> ATRAC3+ (Adaptive TRansform Acoustic Coding 3+) (decoders: atrac3plus)
.DA.L.	avc	On2 Audio for Video Codec (decoders: on2avc)
.DA.L.	binkaudio_dct	Bink <sup>®</sup> Audio (DCT)
.DA.L.	binkaudio_rdft	Bink® Audio (RDFT)
.DA.L.	bmv_audio	Discworld <sup>®</sup> II BMV audio
EDA.L.	comfortnoise	RFC 3389 Comfort Noise

Legend	Codec	Codec Description
.DA.L.	cook	Cook / Cooker / Gecko (RealAudio® G2)
.DA.L.	dsd_lsbf	DSD (Direct Stream Digital), least significant bit first
.DA.L.	dsd_lsbf_planar	DSD (Direct Stream Digital), least significant bit first, planar
.DA.L.	dsd_msbf	DSD (Direct Stream Digital), most significant bit first
.DA.L.	dsd_msbf_planar	DSD (Direct Stream Digital), most significant bit first, planar
.DA.L.	dsicinaudio	Delphine Software International CIN audio
.DA.L.	dss_sp	Digital Speech Standard - Standard Play mode (DSS SP)
.DAS	dst	DST (Direct Stream Transfer)
EDA.LS	dts	DCA (DTS Coherent Acoustics) (decoders: dca) (encoders: dca)
.DA.L.	dvaudio	DV audio
EDA.L.	eac3	ATSC A/52B (AC-3, E-AC-3)
.DA.L.	evrc	EVRC (Enhanced Variable Rate Codec)
EDAS	flac	FLAC (Free Lossless Audio Codec)
EDA.L.	g723_1	G.723.1
.DA.L.	g729	G.729
.DA.L.	gsm	GSM
.DA.L.	gsm_ms	GSM Microsoft <sup>®</sup> variant
.DA.L.	iac	IAC (Indeo Audio Coder)
.DA.L.	imc	IMC (Intel <sup>®</sup> Music Coder)
.DA.L.	interplay_dpcm	DPCM Interplay
.DA.L.	interplayacm	Interplay <sup>®</sup> ACM
.DA.L.	mace3	MACE (Macintosh <sup>®</sup> Audio Compression/Expansion) 3:1
.DA.L.	mace6	MACE (Macintosh <sup>®</sup> Audio Compression/Expansion) 6:1
.DA.L.	metasound	Voxware <sup>®</sup> MetaSound
EDAS	mlp	MLP (Meridian Audio Lossless Packing)
.DA.L.	mp1	MP1 (MPEG audio layer 1) (decoders: mp1 mp1float)
EDA.L.	mp2	MP2 (MPEG audio layer 2) (decoders: mp2 mp2float) (encoders: mp2 mp2fixed)
.DA.L.	mp3	MP3 (MPEG audio layer 3) (decoders: mp3 mp3float)
.DA.L.	mp3adu	ADU (Application Data Unit) MP3 (MPEG audio layer 3) (decoders: mp3adu mp3adufloat)
.DA.L.	mp3on4	MP3onMP4 (decoders: mp3on4 mp3on4float)
.DAS	mp4als	MPEG-4 Audio Lossless Coding (ALS) (decoders: als)
.DA.L.	musepack7	Musepack SV7 (decoders: mpc7)
.DA.L.	musepack8	Musepack SV8 (decoders: mpc8)

Legend	Codec	Codec Description
EDA.L.	nellymoser	Nellymoser Asao
.DA.L.	opus	Opus (Opus Interactive Audio Codec)
.DA.L.	paf_audio	Amazing Studio Packed Animation File Audio
EDA.L.	pcm_alaw	PCM A-law / G.711 A-law
.DAS	pcm_bluray	PCM signed 16 20 24-bit big-endian for Blu-ray media
.DAS	pcm_dvd	PCM signed 20 24-bit big-endian
EDAS	pcm_f32be	PCM 32-bit floating point big-endian
EDAS	pcm_f32le	PCM 32-bit floating point little-endian
EDAS	pcm_f64be	PCM 64-bit floating point big-endian
EDAS	pcm_f64le	PCM 64-bit floating point little-endian
.DAS	pcm_lxf	PCM signed 20-bit little-endian planar
EDA.L.	pcm_mulaw	PCM mu-law / G.711 mu-law
EDAS	pcm_s16be	PCM signed 16-bit big-endian
EDAS	pcm_s16be_planar	PCM signed 16-bit big-endian planar
EDAS	pcm_s16le	PCM signed 16-bit little-endian
EDAS	pcm_s16le_planar	PCM signed 16-bit little-endian planar
EDAS	pcm_s24be	PCM signed 24-bit big-endian
EDAS	pcm_s24daud	PCM D-Cinema audio signed 24-bit
EDAS	pcm_s24le	PCM signed 24-bit little-endian
EDAS	pcm_s24le_planar	PCM signed 24-bit little-endian planar
EDAS	pcm_s32be	PCM signed 32-bit big-endian
EDAS	pcm_s32le	PCM signed 32-bit little-endian
EDAS	pcm_s32le_planar	PCM signed 32-bit little-endian planar
EDAS	pcm_s64be	PCM signed 64-bit big-endian
EDAS	pcm_s64le	PCM signed 64-bit little-endian
EDAS	pcm_s8	PCM signed 8-bit
EDAS	pcm_s8_planar	PCM signed 8-bit planar
EDAS	pcm_u16be	PCM unsigned 16-bit big-endian
EDAS	pcm_u16le	PCM unsigned 16-bit little-endian
EDAS	pcm_u24be	PCM unsigned 24-bit big-endian
EDAS	pcm_u24le	PCM unsigned 24-bit little-endian
EDAS	pcm_u32be	PCM unsigned 32-bit big-endian
EDAS	pcm_u32le	PCM unsigned 32-bit little-endian
EDAS	pcm_u8	PCM unsigned 8-bit

Legend	Codec	Codec Description
.DA.L.	pcm_zork	PCM Zork
.DA.L.	qcelp	QCELP / Qualcomm <sup>®</sup> PureVoice <sup>®</sup>
.DA.L.	qdm2	QDesign Music Codec 2
EDA.L.	ra_144	RealAudio <sup>®</sup> 1.0 (14.4K) (decoders: real_144) (encoders: real_144)
.DA.L.	ra_288	RealAudio <sup>®</sup> 2.0 (28.8K) (decoders: real_288)
.DAS	ralf	RealAudio <sup>®</sup> Lossless
EDA.L.	roq_dpcm	DPCM id RoQ
EDAS	s302m	SMPTE 302M
.DA.L.	sdx2_dpcm	DPCM Squareroot-Delta-Exact
.DAS	shorten	Shorten
.DA.L.	sipr	RealAudio <sup>®</sup> SIPR / ACELP.NET
.DA.L.	smackaudio	Smacker audio (decoders: smackaud)
.DA.L.	sol_dpcm	DPCM Sol
EDA	sonic	Sonic
.DAS	tak	TAK (Tom's lossless Audio Kompressor)
EDAS	truehd	Dolby <sup>®</sup> TrueHD
.DA.L.	truespeech	DSP Group TrueSpeech
EDAS	tta	TTA (True Audio)
.DA.L.	twinvq	VQF TwinVQ
.DA.L.	vmdaudio	Sierra Entertainment VMD audio
EDA.L.	vorbis	Xiph.Org <sup>™</sup> Vorbis
.DA	wavesynth	Wave synthesis pseudo-codec
EDA.LS	wavpack	WavePack
.DA.L.	westwood_snd1	Westwood Studios Audio (SND1) (decoders: ws_snd1)
.DAS	wmalossless	Windows Media <sup>®</sup> Audio Lossless
.DA.L.	wmapro	Windows Media <sup>®</sup> Audio 9 Professional
EDA.L.	wmav1	Windows Media <sup>®</sup> Audio 1
EDA.L.	wmav2	Windows Media <sup>®</sup> Audio 2
.DA.L.	wmavoice	Windows Media <sup>®</sup> Audio Voice
.DA.L.	xan_dpcm	Electronic Arts DPCM Xan
.DA.L.	xma1	Xbox <sup>®</sup> Media Audio 1
.DA.L.	xma2	Xbox <sup>®</sup> Media Audio 2

## **To Import Media Files**

Transcode a media file of a different format to a clip that can be played in the server.

*Note:* Ensure that **Tria Import** is properly configured for the type of import you want to perform. For example, if you are importing a Multi-Screen image, you must configure the import for the size of the canvas and codec you are using.

*Tip:* You can close the *Tria Import* application at any point during an import to stop the process. When you start the *Tria Import* application again, it will detect the import queue and prompt you to resume.

- 1. Launch the Tria Import application.
- 2. In the Import Method list, select the how you want to import the media file.
  - **Software Transcode** use the software based transcoder to import the media file that is in a different media format than your hardware.
  - **Native Import Only: No Transcoding** import the media file that is in the native media format for your hardware.

*Tip:* Select *Native Import Only* if the file you are importing is one of the following or use the **Software Transcoder** for any published codec. No channels are consumed for either of these operations.

AVC-Intra 100.mov/.mxf — if your server is equipped with the AVC-Intra video hardware.

#### The Tria Import window is shown.

F Tria Import	– 🗆 ×
File Edit Help	
ROSS	
Import From: H:\Video	Length:
Destination: H:\Video	Completed:
	Import speed:
Import Work Queue	
$\bigcirc$ $\bigcirc$	$\odot$

3. Click Import From and select the folder that the media files you want to import are located in.

*Tip:* If you want to point the import application to a network drive, you must map that drive in Windows<sup>®</sup> before you can select it as a source.

- 4. Click Choose.
- 5. Click **Destination** and select the H: \Video folder, or a folder below this one, on the media drive.

*Note:* The destination must be under the *H*: \*Video* folder on the media drive or the imported files will not be available to the server.

- 6. Click the green add files (+) button and select the media files that you want to import.
- 7. Click Add Files.

*Tip:* If you want to remove files from the import list, select the files and click the red remove files (-) button. The files are not deleted, only removed from the import queue.

*Tip:* You can change the order that the files are imported by selecting the file(s) you want to move and click the up or down arrow buttons on the right of the window. The file(s) are moved up or down in the list. You can also drag and drop the files to order the files.

# To Add a Watch Folder

You can create multiple watch folders that the import utility will monitor and automatically import any media files that are modified or copied into the watch folder(s).

*Note:* The **Tria Import** application must be running for the watch folder functionality to work. You can set up the application to automatically launch and start the watch folder function when the server is powered on.

- **1.** Launch the **Tria Import** application.
- 2. In the Import Method list, select the how you want to import the media file.
  - **Software Transcode** use the software based transcoder to import the media file that is in a different media format than your hardware.
  - Native Import Only: No Transcoding import the media file that is in the native media format for your hardware.

*Tip:* Select *Native Import Only* if the file you are importing is one of the following or use the *Software Transcoder* for any published codec. No channels are consumed for either of these operations.

• AVC-Intra 100.mov/.mxf — if your server is equipped with the AVC-Intra video hardware.

#### The Tria Import window is shown.

🗑 Tria Import	– 🗆 X
File Edit Help	
ROSS	
Import From: H:\Video	Length:
Destination: H:\Video	Completed:
	Import speed:
	Import speed:
Import Work Queue	Import speed:
Import Work Queue	Import speed:

- 3. Click File > Watch Folders....
- 4. Click Add Watch Folder... and select the folder that you want Tria Import to watch.

Watch Folders	? ×
Novie files in the following directories will be automatically imported.	
	Add Watch Folder
	Edit
	Remove
	OK Cancel

The folder can be on the local media drive or a network drive.

5. Click Select Folder to add the folder to the watch list. Repeat for any additional folders you want Tria Import to watch.

*Tip:* You can remove a folder from the watch list by selecting it and clicking *Remove Watch Folder*.

- 6. Click **OK**.
- 7. Select Enable Watch Folder to start importing from the watch folders.

## **To Configure Tria Import**

The **Tria Import** configuration menus allow you to change the destination folder, set how the RGB color space is interpreted, the raster size of the imported video, set up a watch folder, and to set an auto start behavior.

- **1.** Launch the **Tria Import** application.
- 2. In the Import Method list, select the how you want to import the media file.
  - **Software Transcode** use the software based transcoder to import the media file that is in a different media format than your hardware.
  - **Native Import Only: No Transcoding** import the media file that is in the native media format for your hardware.

*Tip:* Select *Native Import Only* if the file you are importing is one of the following or use the *Software Transcoder* for any published codec. No channels are consumed for either of these operations.

• AVC-Intra 100.mov/.mxf — if your server is equipped with the AVC-Intra video hardware.

The **Tria Import** window is shown.

👕 Tria Import	_		×
File Edit Help			
ROSS	Abekas		DUET
Import From: H:\Video	Length:		
Destination: H:\Video	Completed:		
	Import speed	ł:	
Import Work Queue			
	C	) (	

- 3. Click Edit > Configure.
- 4. Click the **Destination** tab and click **Change** and select a new destination folder for import.

🗑 Import Configuration	? ×
Destination	
Destination directory: H:\Video	Change
	OK Cancel

**5.** Click the **Color** tab and select how the RGB luminance color range is interpreted when a file is imported.

Import Configuration		?	×
Color			
Source RGB Range: Normal  Prescaled to 10-235			
	ОК	Cano	el

- **Normal** color luminance range is scaled from 0 to 255.
- Prescaled to 10-235 color luminance range is scaled from 10 to 235.

*Note:* Do not use **Prescaled to 10-235** when importing a clip with an alpha channel (VK clips). The alpha channel will not import properly. Use **Normal** when importing a clip with an alpha channel.

*Tip:* If the blacks of your imported media files appear crushed or the whites do not appear as bright as expected, try selecting the opposite mode.

*Tip:* Select *Normal* if you are importing a media file with alpha (key). The alpha may not import properly otherwise.

**6.** Click the **Multi-Screen** tab to allow the import of media file rasters with a resolution larger than 1920×1080.

E Import Configuration	?	×
Multi-Screen		
Number of monitors horizontally: 2 🔹 Number of monitors vertically: 1 🔹		
Monitor 1 Monitor 2		
ОК	Can	icel

- Number of monitors horizontally select the number of full rasters you want horizontally.
- Number of monitors vertically select the number of full rasters you want vertically.

*Tip:* To import a Multi-Screen media file, click *File* > *Open Multi-Screen...* on *Tria Import* and select the Multi-Screen media file you want to import.

7. Click the **Watch** tab and set the amount of time the system will wait after it has detected a new file in the watch folder and how often it polls remote file servers. These settings are used in conjunction with the **AutoStart** configurations and the watch folder selection.

🚏 Import Configuration		?	×
	Watch		
File Settle Time			
author has finished writing folder, leave this on the ma	ted, the importer will periodically check on the to the file. If applications are rendering direc aximum setting. If users are dropping short fi hould be safe to set this to a very low value.	tly to the watch les into the watch	ls
fileservers, including Mac f	Interval mediately notify the importer when a new file leservers, do not. In order to ensure your fili will rescan the fileserver periodically to ched	es are imported with	ls
		OK Cano	el

- **File Settle Time** the length of time the import application will wait after a file has been modified before starting to import it. If the media files are being rendered directly into the watch folder, set a long wait time. If the watch folder is being used for drag and drop, set a short wait time.
- **Remote Fileserver Rescan Interval** the length of time the import application waits to poll an external server for changes. This setting is ignored if the external server is running a Windows<sup>®</sup> operating system.
- 8. Click the **AutoStart** tab and select whether the **Tria Import** application is started automatically, and whether the selected folders are watched.

Import Configuration		?	Х
	AutoStart		
Start importer 30 seconds after login			
Enable watch folders at login			
Import Channel			
O Native import only			
<ul> <li>Software transcoder</li> </ul>			

- Start importer 30 seconds after login the Tria Import application will be started 30 seconds after you log into Windows<sup>®</sup>.
- Enable watch folders at login the watch folder functionality will start automatically with Tria Import.
- **Import Channel** select the channel transport to be used for import when the import application starts automatically.
- 9. Click the Import Codec tab and select codec you want to use when a file is imported.

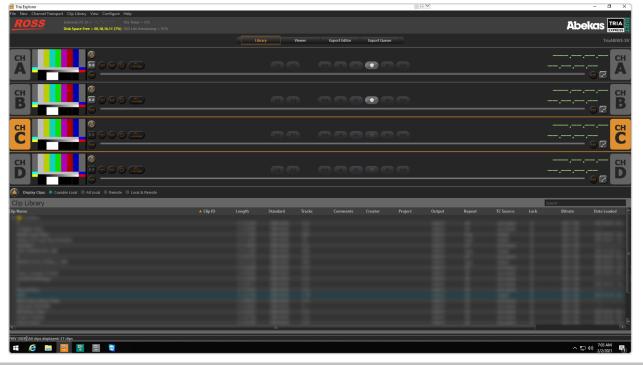
冒 Import Configuration		?	×
	Import Codec		
<ul><li>Quicktime</li><li>FFmpeg</li></ul>			
	ОК	Cance	9

- QuickTime the Apple<sup>®</sup> QuickTime<sup>®</sup> codec is not supported at this time.
  FFmpeg use the FFmpeg<sup>™</sup> codec.

# **Tria Explorer**

**Tria Explorer** is a Windows<sup>®</sup> application that provides a graphical interface to the operation of the server. Although this application allows you to control the operation of the server, it does not need to be running for the server to operate.

You can quit **Tria Explorer** at any time without affecting any of the active real-time video and audio recording and playback operations.



*Tip:* The *Library*, *Viewer*, *Export Editor*, and *Export Queue* buttons at the top of the window allow you to quickly switch between the Clip Library, the Multi-Viewer, and the export modes.

Tip: A yellow bar will appear at the bottom of the window to provide status updates on various services running on the server.

# **Tria Explorer Login**

When you launch **Tria Explorer** you have the option of logging in as an administrator, privileged user, or guest user. Each of these types have specific privileges that are assigned by the administrator account.

- Administrator full access to all features of the application and can set the privileges for the other account types. This account is password protected by default.
- **Privileged User** the default account type for using the application. This account is not password protected by default.
- **Guest User** a secondary user account if you want to give limited access to the application. This account is not password protected by default.

## To Log In to Tria Explorer

**1.** Open the **Tria Explorer** application.

Login Type Administrator Privileged User Guest User	Enter Password:	

- 2. In the Login Type box select the type of account you want to log in as.
  - Administrator
  - Privileged User
  - Guest User
- **3.** If required, enter a password in the **Enter Password** field.
  - Administrator default password is multiflex
  - **Privileged User** no password by default
  - **Guest User** no password by default
- 4. Click OK.

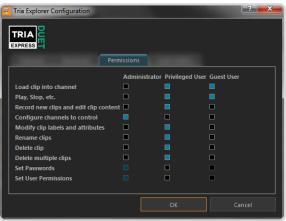
## **Managing Accounts**

The administrator account has access to all of the features of the server, as well as the ability to assign privileges to the other accounts.

## **To Set Account Permissions**

The different types of accounts can have different permissions. Only the Administrator account must have permission to set the permissions for other types of accounts.

- 1. Log into Tria Explorer as the Administrator.
- 2. Click Configure > General Configuration and click the Permissions tab.



- Select those permissions you want assigned to each account.
   The Guest User account cannot have permission to set passwords or set user permissions.
- 4. Click OK.

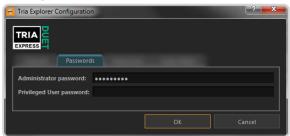
### **To Set Account Passwords**

Only the Administrator and Privileged User accounts can have a password.

**1.** Log into **Tria Explorer** as the Administrator.

*Tip:* The default password is *multiflex*.

2. Click **Configure > General Configuration** and click the **Passwords** tab.



**3.** Enter the new password for the account you want to set the password for. Passwords can use letters, numbers, and special characters, and are case-sensitive.

*Tip:* If the *Privileged User password* field is left blank, you will not be prompted to enter a password when logging in with that account.

**4.** Click **OK**.

# **Physical Channel Setup**

The server comes pre-configured with the channel transports assigned to physical channels on the same server. You can also assign physical channels from other servers to the channel transports on this server.

## **To Assign Channel Transports to Physical Channels**

Channel transports are assigned to the server. This is already configured from the factory.

1. Click **Configure > General Configuration** and click the **Channels** tab.

You may have to log in with a different account if your current account does not have permissions.

🗧 Tria Explorer Configuration	B			2	х
Channels					
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	<b>~</b>	СН В	~	Ctrl+1, 0, 2	
	<b>~</b> ]	Сн с	<b>v</b> ]	Ctrl+1, 0, 3	
		СН D	~	Ctrl+1, 0, 4	
	<u> </u>	Unassigned		Ctrl+1, 0, 5	
		Unassigned	$\mathbf{\vee}$	Ctrl+1, 0, 6	
	<u> </u>	Unassigned	$\mathbf{\vee}$	Ctrl+1, 0, 7	
	<b>~</b>	Unassigned	$\checkmark$	Ctrl+1, 0, 8	
	<b>~</b> ]	Unassigned	<b>v</b> ]	Ctrl+1, 0, 9	
	<u> </u>	Unassigned	$\mathbf{v}$	Ctrl+1, 1, 0	
		Unassigned		Ctrl+1, 1, 1	
		Unassigned	$\equiv$	Ctrl+1, 1, 2	
		Unassigned	$\equiv$	Ctrl+1, 1, 3	
		Unassigned		Ctrl+1, 1, 4	
		Unassigned		Ctrl+1, 1, 5	
		Unassigned		Ctrl+1, 1, 6	
	ОК				

- **2.** On the left side of the window use the drop-down list to select the server that you want to assign a channel transport to. The number of channel transports that are available depends on the server model you have.
- **3.** On the right side of the window use the drop-down list to select the channel transport that you want to assign to the server.

# **Audio Meter Setup**

Audio meters can be shown as an overlay on the Multi-Viewer. You can adjust the position and transparency of the audio meters all at once, or individually.

**Note:** The number of channels shown in the audio meter depends on the number of audio channel in the clip. The number of audio channel in a clip is applied when the clip is recorded or imported and is based on the **Audio Tracks** settings from the **Engineering Setup**.

## To Configure the Audio Meter for a Channel Transport

Each channel transport has an audio meter overlay on the Multi-Viewer output.

1. Click **Configure > General Configuration** and click the **Audio Meters** tab.

You may have to log in with a different account if your current account does not have permissions.

Tip: You can also click Audio Meters on the to	p left corner of the N	Aulti-Viewer. Th	nis does not req	uire you to log in a	s an administrator.
File	New Channel Transpor	t Clip Library V	iew Configu		
l l l l l l l l l l l l l l l l l l l	2055				
	Audio Meters	Disk Space Free =	- 21;21;22;27 (		
	er Configuration	-			
EXPRESS		Audio Meters			
	Middle Left 💙 50% 💙	Apply Changes	to ALL Channels		
	Middle Left V 50% V Middle Left V 50% V				
		ALT Toggles C ALL Audio M that are en	)FF / ON eter Displays		
		OK	Cancel		

- 2. Select Apply Changes to ALL Channels to have your selections applies to all channel transports.
- 3. Click the Middle Left field and select where you want the audio meters to be positioned.
- 4. Click the **50%** field and select the opacity of the audio meters.

*Tip:* Select **Off** to have the audio meter not visible for that channel transport.

*Tip:* Press **ALT+M** while on the Multi-Viewer to turn all audio meters off or on.

# **Installing Tria Explorer on a Remote PC**

You can install the **Tria Explorer** application on a remote PC and connect to the server over ethernet to control channel transports.

You can download the installer file from www.rossvideo.com/support/software-downloads/.

Keep the following in mind when setting up and using a remote pc to control a server:

- Tria Explorer only runs on the Microsoft<sup>®</sup> Windows<sup>®</sup> 7 or 10 operating systems.
- The **Phoenix** application needs access through the firewall on the server and remote PC. This will include the Windows<sup>®</sup> firewall, as well as any other network security applications operation on your PC or network.

- A physical channel can only be assigned to one virtual channel. If you want to assign a channel transport on a remote PC to a physical channel on a server, you must unassign the physical channel from the server first and then assign a virtual channel on the remote PC to it.
- Physical channels are identified by the server they are located on. The name of a server is shown in the upper-right corner of the **Tria Explorer** window.

## **To Install Tria Explorer on a Remote PC**

Installing the software on a remote PC and the server itself are the same and use the same executable file.

*Note: Tria Explorer* only runs on the Microsoft<sup>®</sup> Windows<sup>®</sup> 7 or 10 operating systems.

- 1. Download the latest installation file from the Ross Video website (*www.rossvideo.com/support/software-downloads/*).
- **2.** Run the downloaded installer on your computer and follow the onscreen instructions. You may be prompted to restart your computer to complete the installation.

The **Tria Explorer** application will launch automatically when the computer boots up.

## **To Disable Abekas<sup>®</sup> Services**

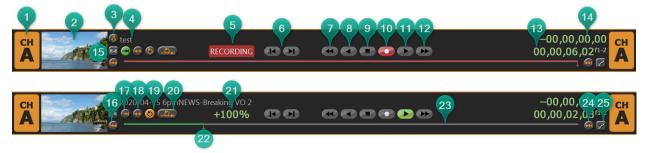
There are a number of services that are used by the server that are not needed on a remote PC and should be stopped and disabled.

- 1. Launch the Windows<sup>®</sup> Services application. This can be found under Computer Management or as a separate application, depending on the version of Windows<sup>®</sup> you are using.
- 2. Set the **Startup Type** for the following services to **Disable**.
  - Abekas Chassis Controller
  - Abekas Comms Server
  - Abekas Growing File Exporter
  - Abekas OGP Gateway
  - Abekas Quad Viewer
  - Abekas Replay Gateway
  - Abekas SE
  - Abekas Tally Gateway
  - Abekas Timecode In

Note: Leave the Abekas IP Monitor service running.

# **Channel Transport Control**

Each channel in the server has a dedicated channel transport in **Tria Explorer** that is used to load, play, record, and seek within clips. Clips are loaded into the channel transport from the Clip Library.



- 1. Active Channel The channel transport that is currently selected. Keyboard commands and clip selections are applied to this channel.
- **2.** Video Window Shows the full-motion video output of the channel. This can be the clip that is currently playing or the live video input to the channel when EE is on.
- **3.** Load Clip ( ) Load the selected clip in the Clip Library into this channel. Press and hold the Shift button and press to eject the clip.
- 4. Clip Name The name of the clip currently loaded into the channel transport.
- **5.** Activity Indicator Shows the current activity of the channel transport. **RECORDING** when the channel transport is actively recording, and **EXPORTING** when the channel transport is actively exporting.
- 6. Jog ( 📧 😕 ) Jog forward ( 💷 ) or reverse ( 📧 ) by one frame/field in the active clip.
- 7. Rewind ( 🎟 ) Rewind the current clip at 30-times normal speed.
- 8. Play Reverse ( 👁 ) Play the current clip in reverse at 1-times normal speed.
- **9.** Stop ( ) Stops playback or recording on the current channel transport.
- **10.** Record ( ) Opens the Record Setup dialog to assist in recording a clip.

Note: Record is only supported on channel transports A and B.

- **11.** Play Forward ( ) Play the current clip forward at 1-times normal speed.
- **12.** Fast Forward ( 🍉 ) Fast-Forward the current clip at 30-times normal speed.
- **13.** Timecode Shows the timecode value of the current position in the clip. An **f1** or **f2** at the end of the timecode indicates Field playback (interlaced), and an **f1-2** indicates Frame playback (progressive).

*Tip:* Double-click on the timecode to enter a new timecode value manually. The channel transport immediately seeks to that timecode in the clip once you press *Enter*.

- **14. Count-Down Timer** Shows the time remaining in the current clip. When the clip reaches the end the timer will show 00.00.00.00.
- **15. EE** ( ) Turns EE (Electronic to Electronic) mode On/Off for the selected channel transport. Also called bypass mode where the video signal coming into the video channel is routed directly to the output without being stored and read from disk.

*Note:* The *EE* mode is only supported on the channel transports A and B.

- **16.** Seek to Start ( ) Seek to the first frame of the clip.
- **17.** Play Repeat Normal ( ) Normal play mode where the clip plays to the end and stops. Only one play repeat mode can be active at one time.
- **18.** Play Repeat Ping-Pong ( ) Ping-pong repeat mode where the clip plays back and forth between the in and out points stored in the clip.

**19. Play Repeat Loop** ( **I**) — Loop repeat mode where the clip starts playing again from the in point after it reaches the out point.

*Note:* If the channel transport is being controlled externally using the Odetics protocol, this button is disabled.

**20.** Play Repeat Loop to Play ( ) — Multipoint repeat mode (also known as 3-Point Loop mode) where the clip can start playing from a point before the in point but starts playing again from the in point when it reaches the out point. The clip will continue to loop between the in point and out point from then on.

*Tip:* Clicking *Play Repeat Normal* allows the clip to ignore the out point and play through to the end frame of the clip. This does not interrupt the loop play in progress.

**21.** Play Speed — Shows the current play speed of the clip.

*Tip:* Double-click on the play speed to enter a new play speed manually as a percentage. The clip will start playing at the new speed once you press *Enter*.

- **22.** Clip Position Slider Handle Indicates the current point in the clip that is being played. You can drag the handle back and forth to select a different point in the clip. Playback stops if you move the slider handle.
- **23.** Clip Position Slider Bar A graphical representation of the current clip. When the clip is playing or recording, the slider handle moves along the slider bar showing real-time progress through the clip. The slider handle and bar are green when playing and red when recording.
- **24. Seek to End** ( **•** ) Seek to the last frame of the clip.
- **25.** Chain ( ) Selects whether a channel transport is ganged with other channel transports. When Chain is turned on for a channel transport, that channel transport becomes linked to the other channel transports in the chain in Tria Explorer. Within Tria Explorer, any transport commands run on one channel transport in the chain are frame-accurately duplicated on all the other channel transports in the same chain. Commands sent to a channel transport from an external device over serial/ethernet control are not chained to the other channels.

*Note:* Record and Load/Eject Clip are not support as chained commands and will only be performed on the channel transport that you run them on.

# **To Load a Clip**

The clip can start to play as soon as it is loaded into a channel transport.

1. Select the channel transport you want to load a clip into.

*Note:* If you are loading a VK (video + alpha) clip, ensure that the channel transport has been configured as VK as well.

**2.** Double-click the clip you want to load into the transport control. The clip must be in the same video format that the server is operating in.

*Tip:* You can also drag and drop the clip onto the channel transport area, or click the load clip button ( ) next to the clip name in the transport control area.

*Tip:* Click the up arrow next to the *Clip Library* title to expand the listing. Only the selected channel transport is shown with the expanded library list. Click the same button again to return the list to normal.

The clip is loaded into the channel transport and the transport control buttons become active. The first frame of the clip is shown in the preview window in the transport control area. If you are using a remote **Tria Explorer** client, the preview window is not available.

**Note:** If the Auto Play feature is enabled (**Channel Transport** > **Enable Auto Play**), the clip will start to play as soon as it is loaded.

# To Trim a Clip

You can trim the head (beginning) and tail (ending) off of a clip to shorten it and change the frame the clip starts and ends on. Trimming a clip is not destructive and the entire clip can be restored at any time. You can also edit the trim information from the metadata of the clip.

*Tip:* If you know the timecode values for the head and tail trim points you can set them directly in the metadata of the clip.

- **1.** Load the clip you want to edit into a channel transport.
- **2.** Seek through the clip to the point where you want the clip to start. This will be the new starting field/frame of the clip.
- 3. Click Channel Transport > Trim > Trim Head Off.

Enable Auto Play Chain   EE  Load  F1  UnLoad Shift+F1  Jog Reverse F3  Jog Forward F4  Rewind F6  Play Reverse F7  Stop F8  Play F9  Fast Forward F10 Seek to Start of Clip Ctrl+F6 Seek to Start of Clip Ctrl+F10  Variable Play  Angle  Trim  Trim Trim Trim Tail Off Ctrl+T, H  Gang All FlayIst Fast Restore Head Restore Tail  Mark Cue Point Ctrl+'	Select Channel		Þ	-	
EE       +         Load       F1         UnLoad       Shift+F1         Jog Reverse       F3         Jog Reverse       F3         Jog Reverse       F7         Stop       F8         Play       F9         Fast Forward       F10         Seek to Start of Clip       Ctrl+F6         Seek to Start of Clip       Ctrl+F10         Variable Play       +         Angle       +         Trim       +         Gang All       +         Playlist       -         Restore Head         Restore Tail	Enable Auto Play				
Load F1 UnLoad Shift+F1 Jog Reverse F3 Jog Forward F4 Rewind F6 Play Reverse F7 Stop F8 Play F9 Fast Forward F10 Seek to Start of Clip Ctrl+F6 Seek to Start of Clip Ctrl+F10 Variable Play + Angle + Trim Tail Off Ctrl+T, H Gang All Trim Tail Off Ctrl+T, T Record Playist Restore Head Playlist Restore Tail	Chain				
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Jog Reverse F3 Jog Forward F4 Rewind F6 Play Reverse F7 Stop F8 Play F9 Fast Forward F10 Seek to Start of Clip Ctrl+F6 Seek to End of Clip Ctrl+F10 Variable Play  ▲ Angle ★ Trim ← Trim Head Off Ctrl+T, H Gang All Playlist	Load				
Jog Forward     F4       Rewind     F6       Play Reverse     F7       Stop     F8       Play     F9       Fast Forward     F10       Seek to Start of Clip     Ctrl+F6       Seek to Start of Clip     Ctrl+F10       Variable Play     Itim Head Off       Ctrl+Tim     Trim Head Off       Ctrl+T, H     Trim Cang All       Playlist     Restore Head       Restore Tail	UnLoad	Shift+F1			
Revind F6 Play Reverse F7 Stop F8 Play F9 Fast Forward F10 Seek to Start of Clip Ctrl+F6 Seek to End of Clip Ctrl+F10 Variable Play → Angle → Trim → Trim Head Off Ctrl+T, H Gang All , Playlist , Restore Head Restore Tail	Jog Reverse	F3			
Play Reverse     F7       Stop     F8       Play     F9       Fast Forward     F10       Seek to Start of Clip     Ctrl+F6       Seek to End of Clip     Ctrl+F10       Variable Play        Angle        Trim     Trim Head Off     Ctrl+T, H       Gang All     Trim Tail Off     Ctrl+T, T       Playlist     Restore Head     Restore Tail	Jog Forward	F4			
Stop     F8       Play     F9       Fast Forward     F10       Seek to Start of Clip     Ctrl+F6       Seek to End of Clip     Ctrl+F10       Variable Play     →       Angle     →       Trim     →       Trim Aread Off     Ctrl+T, H       Gang All     →       Playlist     →       Restore Head     Restore Tail	Rewind	F6			
Play F9 Fast Forward F10 Seek to Start of Clip Ctrl+F6 Seek to End of Clip Ctrl+F10 Variable Play + Angle + Trim Trim Head Off Ctrl+T, H Gang All + Playlist + Restore Head Restore Tail	Play Reverse				
Fast Forward     FJ0       Seek to Start of Clip     Ctrl+F6       Seek to End of Clip     Ctrl+F10       Variable Play     ▶       Angle     ▶       Trim     ▶       Trim All     ▶       Record     ▶       Playlist     ▶	Stop	F8			
Seek to Start of Clip     Ctrl+F6       Seek to End of Clip     Ctrl+F10       Variable Play     •       Angle     •       Trim     •       Trim All     •       Record     •       Playlist     •	Play	F9			
Seek to End of Clip     Ctrl+F10       Variable Play     •       Angle     •       Trim     •       Trim Head Off     Ctrl+T, H       Gang All     •       Playlist     •	Fast Forward	F10			
Variable Play     Image       Angle     Image       Trim     Image       Gang All     Image       Playlist     Restore Head       Restore Tail	Seek to Start of Clip	Ctrl+F6			
Angle  Trim  Trim Head Off Ctrl+T, H Gang All Playlist Playlist Record Playlist Record Tail	Seek to End of Clip	Ctrl+F10			
Trim     Trim Head Off     Ctrl+T, H       Gang All     Trim Tail Off     Ctrl+T, T       Record     Restore Head     Restore Tail	Variable Play				
Gang All Trim Tail Off Ctrl+T, T Record Playlist Restore Head Restore Tail	Angle				
Record Restore Head Playlist Restore Tail	Trim		۲	Trim Head Off	Ctrl+T, H
Playlist Restore Head Restore Tail	Gang All			Trim Tail Off	Ctrl+T, T
Playlist Restore Tail	Record			Destant Used	
Mark Cue Point Ctrl+'	Playlist		•		
	Mark Cue Point	Ctrl+'			
Seek to Previous Cue Point Ctrl+Left	Seek to Previous Cue Point	Ctrl+Left			
Seek to Next Cue Point Ctrl+Right	Seek to Next Cue Point	Ctrl+Righ	nt		
Clear All Cue Points	Clear All Cue Points				

The portion of the clip before the trim point is hidden and the clip has been shortened.

- 4. Seek through the clip to the point where you want the clip to end. This will be the new last field/frame of the clip.
- 5. Click Channel Transport > Trim > Trim Tail Off.

The portion of the clip after the trim point is hidden and the clip has been shortened.

The trim information is stored in the metadata of the clip and is used every time the clip is loaded.

*Tip:* You can restore the head or tail of the clip by clicking *Channel Transport* > *Trim* and clicking *Restore Head* or *Restore Tail*.

# **To Play a Clip**

Clips can play automatically once loaded, loop, or play at faster or slower speeds.

- 1. Load the clip or playlist you want to play into the channel transport you want to play it out on.
- 2. Click the play button ( 🍉 ).

# **To Unload a Clip**

Remove a clip from the current channel transport.

- 1. Select the channel transport you want to eject a clip from.
- 2. Click Channel Transport > UnLoad.

Tip: Press and hold the Shift button and press F1 to unload the clip.

The clip is unloaded from the channel transport and color bars are loaded into the preview window and video output of the selected channel.

## **Clip Repeat Modes**

There are a number of ways to have a clip continuously loop when playing out. These modes can be set in the metadata of a clip so that the clip always loads in this mode. They can also be set manually from the channel transport controls, or they can be set remotely from an external device.

Only one play repeat mode can be active at a time.

*Tip:* Repeat modes use Play Repeat IN and Play Repeat OUT points to determine what video to repeat. The default values for these points are stored in the metadata of the clip.

## Normal (Off)

This is the normal play mode ( 🔿 ) where the clip plays to the end and stops. This mode is automatically set if you are controlling the channel transport from an external device, such as a switcher.

#### Loop

The repeat mode ( ) where the clip starts playing again from the in point again after it reaches the out point. When the clip starts playing, it immediately seeks to the **Play Repeat IN** point and plays until it reaches the **Play Repeat OUT** point. When it reaches the **Play Repeat OUT** point it seeks back to the **Play Repeat IN** point and plays again. The clip will continue to play like this until stopped.

## **Ping-Pong**

The repeat mode ( • ) where the clip plays back and forth between the in and out points. When the clip starts playing, it immediately seeks to the **Play Repeat IN** point and plays until it reaches the **Play Repeat OUT** point. When it reaches the **Play Repeat OUT** point it starts playing in reverse until it reaches the **Play Repeat IN** point again. The clip will continue to play like this until stopped.

### **Loop to Play**

The Multipoint (3-Point Loop) repeat mode ( ) where the clip can start playing from a point before the in point but starts playing again from the in point when it reaches the out point. The clip starts playing from the beginning passing through the **Play Repeat IN** point and continues playing until it reaches the **Play Repeat OUT** point. When it reaches the **Play Repeat OUT** point it seeks back to the **Play Repeat IN** point and plays again. The clip will continue to play like this until stopped.

The portion of the clip before the **Play Repeat IN** point is only played the first time. This can be used if the repeating portion of the clip has a lead-in at the beginning. The lead-out portion of the clip can be played by switching the clip to the normal ( ) mode after the last repeat has started. The clip will then play to the end.

# **Recording a Clip**

When recording a clip you can record a new clip, append to the end of an existing clip, or overwrite an existing clip. Clips can be recorded to the root, or a sub-folder in the Clip Library.

*Tip:* If you want to quickly record a clip using the same settings as the last time you recorded, press and hold the *Shift* button and click the record button ( • ).



**Important:** Only channel transports A and B can record.

### **To Record a New Clip**

Use a channel transport to record the video signal coming into the server.

- 1. Select the channel transport that you want to record a clip to. This is the channel for the BNC on the back of the server that the audio/video you want to record is coming in on.
- 2. Eject any clip that may already be loaded into the channel transport.
- **3.** Click the record button ( ).

The **Clip Record Setup** dialog box is shown.

EXPRESS	
Record Type Record Tracks	
New Clip (Record After Arming)	
O New Clip (Create & Load)	
Append Audio	
Overwrite	
	8
New Clip	
Clip Name: Testing ISO4	
Clip ID:	
Auto Name: Numeric Append 💙	
Timecode: Striped Starting at: 00,00,00,00	
OK Cancel Apply	

- 4. In the **Record Type** area, select the type of recording you want to do.
  - New Clip (Record After Arming) arms the channel transport for recording a new clip.
- 5. In the **Record Tracks** area, select which tracks you want to record.

Note: Audio is recorded depending on how the Audio Input Source is set in Tria Config.

- **Video** record the video and any embedded audio coming into the Video In BNC, depending on the audio source.
- **Key** record the alpha signal coming into the associated Video In BNC.
- **Audio** record the digital audio coming into the the embedded audio on the Video In BNC, depending on the audio source.
- 6. In the New Clip area, enter a name for the clip in the Clip Name field.

*Tip:* If you want to record the clip into a sub-folder on the media drive you must include the folder path with the new. For example, 1080p Clips\Downtown-Fire records the clip Downtown-Fire in the 1080p Clips folder. The folder must already exist in the Clip Library to be able to record to it.

7. Enter an 8-charater id for the clip in the **Clip ID** field.

If you are controlling the server from an external device, the clip id is used on the external device to load a clip. If you do not assign a clip id to the clip, the first 8 characters of the clip name can be used.

- 8. Turn Auto Name on if you want to create a series of clips with the same name plus an identifier.
  - **Off** overwrite any existing clip of the same name.
  - **Numeric Append** add a numeric digit to the end of the new clip name and increment it by one with each new clip of the same name.
  - **Time of Day** add the current date and time to the end of the clip name.
  - LTC In add a timecode stamp from the embedded timecode in the video signal being recorded.
- **9.** Select a **Timecode** source for the new clip.

- **Striped** use the internally generated timecode data. The starting point for the timecode is set in the **Starting at** field.
- **External TC** use the timecode data embedded in the video signal being recorded.
- 10. Click OK.

The channel transport is now armed to record. The video window shows live video coming into the channel, the **EE** button is on, and the record button ( • ) is flashing.

11. Click the flashing record button ( 👁 ) when you are ready to record.

The server starts recording, the **EE** button goes off, and name of the new clip is shown at the top of the channel transport area, and the **RECORDING** indicator appears.

**12.** Click the stop ( **•** ) button to stop recording.

### To Overwrite/Append to a Clip

Add to the end of an existing clip, or overwrite the clip entirely.

- 1. Select the channel transport that you want to record a clip to. This is the channel for the BNC on the back of the server that the audio/video you want to record is coming in on.
- 2. Prepare the channel transport for the type of recording you want to do.
  - Append load the clip that you want to append the new recording to.
  - **Overwrite** load the clip that you want to overwrite and seek to the point in the clip that you want to start the new recording.
- 3. Click the record button ( 🖤 ).

The **Clip Record Setup** dialog box is shown.

Record Type  New Clip (Record After Arming)  Record Tracks  Video	٦
	١.
🔵 New Clip (Record After Arming) 🔰 📃 Video	
○ New Clip (Create & Load)	
Append Audio	
Overwrite	
New Clip	ij.
Clip Name: Testing ISO4	
Clip ID:	
Auto Name: Numeric Append 💙	
Timecode: Striped V Starting at: 00,00,00,00	
OK Cancel Apply	

- 4. In the **Record Type** area, select the type of recording you want to do.
  - **Append** arms the channel transport to start recording at the end of the current clip.
  - **Overwrite** arms the channel transport to start recording at the currently selected point in the exiting clip. Everything after this point in the clip will be overwritten.
- 5. In the **Record Tracks** area, select which tracks you want to record.

*Note:* Audio is recorded depending on how the Audio Input Source is set in *Tria Config*.

• Video — record the video and any embedded audio coming into the Video In BNC, depending on the audio source.

- Key record the alpha signal coming into the associated Video In BNC.
- Audio record the embedded audio on the Video In BNC, depending on the audio source.
- 6. Click **OK**.

The channel transport is now armed to record. The video window shows live video coming into the channel, the **EE** button is on, and the record button ( • ) is flashing.

7. Click the flashing record button ( 👁 ) when you are ready to record.

The server starts recording, the **EE** button goes off, the name of the new clip is shown at the top of the channel transport area, and the **RECORDING** indicator appears.

8. Click the stop ( 🔍 ) button to stop recording.

# **Locking Channel Transport Control**

You can lock any channel transport control in **Tria Explorer**. This prevents someone from accidentally loading or ejecting a clip, or using any of the transport controls.

Note: Locking a channel transport does not prevent the external control of that channel.

### **To Lock/Unlock a Channel Transport**

Lock a channel so that it can't be accidentally changed directly. Chained, or ganged, channels are not affected by the lock.

Press and hold the **Ctrl** button and click on the channel transport that you want to lock/unlock.



The channel transport controls are grayed out and a lock symbol is shown over the controls when the channel transport is locked.

# **Keyboard Shortcuts**

These keyboard shortcuts work on the currently selected video channel transport in the **Tria Explorer** window.

*Tip:* Two or more video channel transports can be linked together (Chained) so that commands sent to one channel are also sent to the others. Not all the keyboard shortcuts support Chain control.

Function	Shortcut	Description	Chain
Full Screen	F11	(Windows <sup>®</sup> shortcut) Sets the <b>Tria Explorer</b> window to full screen mode, or back to windowed mode.	No
Change Application	Alt+Tab	(Windows <sup>®</sup> shortcut) Switch between Windows <sup>®</sup> applications.	No
Select Channel A	Ctrl+1 1 A	Selects channel A as the active channel transport.	No
Select Channel B	Ctrl+1 1 B	Selects channel B as the active channel transport.	No
Select Channel C	Ctrl+1 1 C	Selects channel C as the active channel transport.	No
Select Channel D	Ctrl+1 1 D	Selects channel C as the active channel transport.	No

Function	Shortcut	Description	Chain				
Chain Channel Transport Control	Ctrl+1 C C	<b>Clear all Channels</b> — set all channel chain controls to Off.	No				
	Ctrl+1 C Y	<b>Chain Current Channel</b> — turn channel chain control On for the selected channel transport.	No				
	Ctrl+1 C N	<b>Unchain Current Channel</b> — turn channel chain control Off for the selected channel transport.	No				
	Ctrl+1 C T	<b>Toggle Chain Current Channel</b> — toggles the chain control On or Off for the selected channel transport.	No				
Stop/Play	(spacebar)	Stop or Play on the selected channel transport.	Yes				
EE	Ctrl+E Y	<b>EE On</b> — turn EE (Electronic to Electronic) mode On for the selected channel transport. Also called bypass mode where the video signal coming into the server is routed directly to the output without being stored and read from disk.	No				
	Ctrl+E N	<b>EE Off</b> — turn EE mode Off for the selected channel transport. The video output comes from the disk.	No				
	Ctrl+E T	<b>EE Toggle</b> — toggles EE mode On or Off for the selected channel transport.	No				
Load	F1	Load the highlighted clip in the <b>Clip Library</b> into the selected channel transport.	No				
Unload	Shift+F1	Unloads the clip from the selected channel transport and loads a color-bar test pattern.					
Jog Reverse	F3	Reverse the clip in the selected channel transport by one frame/field. Press and hold the button to play the clip in reverse at 33% speed.	Yes				
Jog Forward	F4	Advance the clip in the selected channel transport forward by one frame/field. Press and hold the button to play the clip forward at 33% speed.	Yes				
Rewind	F6	Rewind the clip in the selected channel transport.	Yes				
Play Reverse	F7	Play the clip in the selected channel transport in reverse.	Yes				
Stop	F8	Stop playing or recording the clip in the selected channel transport.	Yes				
Play	F9	Play the clip in the selected channel transport.	Yes				
Fast Forward	F10	Fast-forward the clip in the selected channel transport.	Yes				
Seek to Start of Clip	Ctrl+F6	Seek to the first frame of the clip in the selected channel transport and stop.	Yes				
Seek to End of Clip	Ctrl+F10	Seek to the last frame of the clip in the selected channel transport and stop.	Yes				
Cue Points	Ctrl+'	Mark a cue point in the selected channel transport, or remove the current cue point.	No				
	Ctrl+Left	Seek backwards to the next cue point in the selected channel transport.	No				
Γ	Ctrl+Right	Seek forwards to the next cue point in the selected channel transport.	No				

Function	Shortcut	Description	Chain				
Variable Play	F12	<b>1× Forward</b> — play the clip in the selected channel transport forward at 1 times speed.	Yes				
Variable Play	F13	<b>3× Forward</b> — play the clip in the selected channel transport forward at 3 times speed.					
	F14	<b>4× Forward</b> — play the clip in the selected channel transport forward at 4 times speed.	Yes				
	F15	<b>8× Forward</b> — play the clip in the selected channel transport forward at 8 times speed.	Yes				
	F16	<b>16× Forward</b> — play the clip in the selected channel transport forward at 16 times speed.	Yes				
	F17	<b>30× Forward</b> — play the clip in the selected channel transport forward at 30 times speed.	Yes				
	F18	<b>0.33× Forward</b> — play the clip in the selected channel transport forward at 33% of 1 times speed.	Yes				
	Ctrl+F11	<b>0.33× Reverse</b> — play the clip in the selected channel transport backwards at 33% of 1 times speed.	Yes				
	Ctrl+F12	<b>1× Reverse</b> — play the clip in the selected channel transport backwards at 1 times speed.	Yes				
	Ctrl+F13	<b>3× Reverse</b> — play the clip in the selected channel transport backwards at 3 times speed.	Yes				
	Ctrl+F14	<b>4× Reverse</b> — play the clip in the selected channel transport backwards at 4 times speed.	Yes				
	Ctrl+F15	<b>8× Reverse</b> — play the clip in the selected channel transport backwards at 8 times speed.	Yes				
	Ctrl+F16	<b>16× Reverse</b> — play the clip in the selected channel transport backwards at 16 times speed.	Yes				
	Ctrl+F17	<b>30× Reverse</b> — play the clip in the selected channel transport backwards at 30 times speed.	Yes				
Trim	Ctrl+T H	<b>Head</b> — trim head from the clip in the selected channel transport.					
	Ctrl+T T	<b>Tail</b> — trim tail from the clip in the selected channel transport.	No				
Gang All	Ctrl+G P	<b>Gang Play</b> — play all clips loaded in all channel transports.					
	Ctrl+G S	<b>Gang Stop</b> — stop all clips loaded in all channel transports.	Yes				
	Ctrl+G R	<b>Gang Re-cue</b> — re-cue all clips loaded in all channel transports.	Yes				

Function	Shortcut	Description	Chain
Record	Ctrl+2 N	<b>New Clip Record</b> — creates a new clip in the Clip Library, loads it into Channel A Transport, selects LIVE EE mode, and starts recording to that clip.	No
	Ctrl+2 C	<b>Create and Load New Clip</b> — creates a new clip in the Channel A Transport with a 1-frame duration and parks on the first frame. It does not start recording.	No
	Ctrl+2 A	<b>Append Record</b> — seeks to the end of the clip loaded in Channel A Transport, selects LIVE EE mode, and starts recording to that clip. A clip must be loaded into the Channel A Transport before running this command.	No
	Ctrl+2 O	<b>Overwrite Record</b> — selects LIVE EE mode and starts recording over the clip loading in Channel A Transport. The server starts recording over the current clip at the location Channel A Transport is parked.	No
List Play	Ctrl+L A	<b>Move Cursor to On-Air Item</b> — selects the item that is currently airing on the on-air playlist.	No
	Ctrl+L B	<b>Move Cursor to Next On-Air Item</b> — selects the preview item on the on-air playlist.	No
	Ctrl+L 1 to L 9	<b>Move Cursor to On-Air Item </b> <i>X</i> <b> —</b> selects item <i>X</i> (1 to 9) on the on-air playlist.	No
	Ctrl+L L Y	<b>List Play Loop Mode ON</b> — turns looping on for the on-air playlist. The entire contents of the playlist is looped.	No
	Ctrl+L L N	<b>List Play Loop Mode OFF</b> — turns looping off for the on-air playlist.	No
	Ctrl+L L T	<b>List Play Loop Mode Toggle</b> — toggles looping on or off for the on-air playlist.	No
	Enter	<b>Take</b> — takes the next item on the on-air playlist. The <b>Enter</b> button found with the numeric keypad of your keyboard does not work for this command.	No

# **Clip Library**

The Clip Library appears on the bottom half of the **Tria Explorer** window and shows all the media file clips that are currently available to the server. These clips can be located on the internal media drive of the Tria Express DUET or on the media drive of a separate Tria Express DUET. The list can be filtered using the **Display Clips** selection at the top of the list.

o Library											Searc	h	
ime	Clip ID Length	Standard	Tracks	Comments	Creator	Project	Output	Repeat	TC Source	Lock	Bitrate	Date Loaded	Date Playe

*Tip:* You can change the width and position of each column in the list, as well as sort the list based on the information in any column. You can select which columns are shown from the *Clip Library* > *Select Columns*.

- **Cueable Local** show only those clips that are in the same video format that the server is operating in and are stored on the local media drive.
- All Local show all clips that are stored on the local media drive. Clips that are not in the same video format that the server is operating in are displayed, but cannot be loaded.
- **Remote** show only those clips that are located on a remote server. You can only load the clips from a remote server that is on the same network and operating in the same video format. Remote servers appear as folders in the Clip Library.
- Local & Remote show all clips that are stored on the local media drive and on remote servers. See above for restrictions on remote servers.

## Search

You can search the Clip Library for clip names that contain a specific word.

Enter the name of a clip you want to find in the **search** field located to the right of the Clip Library title bar. The Clip Library will only show those clips that match your search criteria and the number of clips shown is indicated in yellow at the bottom.

Clip Library												cam	8
Clip Name	Clip ID	Length	Standard		Project	Output	A Repeat		Bitrate	Date Loaded	Date Played	Date Attribute	EdiDate Content Edit
PRIV USER Find results: 8 of 101	dine matched												
AV USEN Find Tesdils: 8 01 101	cips matched												

# **Play Lists**

A Play List is a collection of clips that are sorted into the order you want them played. Play Lists are created and edited within the Clip Library.

## To Create/Edit a Play List

Create the Play List and add the clips. Arrange the clips in the order you want them to play and set how you want to transition between clips and the speed you want the clip to play out when the Play List is played.

- 1. If you are creating a new Play List, click **New** > **New Playlist** and enter a name for the new Play List. If you are editing a Play List, proceed to the next step.
- 2. Double-click on the name of the Play List you just created.

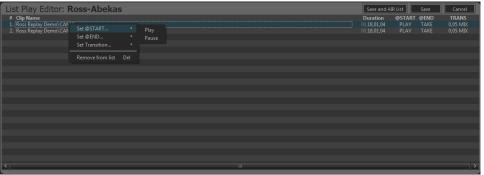
The **Playlist Editor** opens to the right of the Clip Library.

List Play Editor: Ross-Abekas # Oip Name	Save and AI	Save	Cancel
# Clip Name	Duration	@END	TRANS
< ··· ··· ··· ··· ··· ··· ··· ···		 	

3. Drag and drop clips from the Clip Library to your Play List.

*Tip:* Right-click on a clip and click **Remove from list** to remove the clip from the Play List.

- 4. Drag and drop clips within the Play List to order them how you want them to play out.
- **5.** Set a different behaviour for the start (**@START**) of a clip by right-clicking on the clip and selecting **Set @START...**



- **Play** the clip plays out automatically when the Play List transitions to this clip in ON-AIR mode. This is the default setting.
- **Pause** the clip is paused on the first frame when the Play List transitions to this clip in ON-AIR mode.
- 6. Set a different behaviour for the end (@END) of a clip by right-clicking on the clip and selecting Set @END....
  - **Take** the Play List transitions to the next clip in ON-AIR mode. This is the default setting.
  - **Pause** the clip is paused on the last frame when it reaches the end of the clip in ON-AIR mode. You must click **TAKE** to transition to the next clip.

Tip: You can press Enter on the keyboard to transition to the next clip, instead of clicking TAKE.

- **Loop** the clip is looped when it reaches the end of the clip in ON-AIR mode. You must click **TAKE** to transition to the next clip.
- **7.** Set a different transition length (**TRANS**) for the transition between the current clip and next by right-clicking on the clip and selecting **Set Transition...**.

*Note:* The dissolve transitions (MIX) require two channel transports (PGM/PVW) to be able to transition from one channel to the other (one clip to the other). The dissolve is applied between the two clips.

- **CUT** a cut is performed between the clips.
- **0.05 MIX** a 5-frame dissolve is performed between clips.
- **0.10 MIX** a 10-frame dissolve is performed between clips.
- **0.15 MIX** a 15-frame dissolve is performed between clips.
- **0.20 MIX** a 20-frame dissolve is performed between clips.
- 1.00 MIX a 1-second dissolve is performed between clips.
- 8. Click **Save** to save the changes to the playlist.

*Tip:* Click *Save and AIR List* to save the changes to the Play List and load the Play List into the selected channel transport.

#### To Air a Play List

Take the Play List on-air to play each clip in order with the set transitions.

*Note:* If you want to use mix transitions between the clips in the Play List you must use two channel transports. Depending on the channel transport you select, the following channel transport is used for preview.

- **1.** Double-click on the playlist you want to air in the Clip Library.
- 2. Select the channel transport that you want to play the Play List on.

*Tip:* Select a channel (*ChA* or *ChC*) if you want to use a mix transition. Channels B and D are used as the preview channels for ChA and ChC.

3. Click **AIR List** on the **Playlist Editor** window.

The **Playlist Editor** window changes to the **PLAYLIST ON-AIR** window, and the first clip in the Play List is highlight red and is loaded into the selected channel transport.



If you want to dissolve (mix) from one clip to the next in the Play List select the transition channels (ChB > ChA, ChD > ChC). If not selected, the Play List will cut from one clip to the next.

You are prompted whether you want to load the list in PGM/PVW mode. Click **Yes**. The next clip in the Play List (highlighted green) is loaded into the second (PVW) channel transport.

5. Click play ( 🍉 ) to start playing the Play List.

*Tip:* Click the loop button ( <sup>(S)</sup>) to have the Play List start again at the beginning when it finishes the last clip. It is recommended that you set **@START** to **PLAY** and **@END** to **TAKE** to fully automate the loop.

The first clip starts to play out and execute the @Start, @End, and transition tags of the current clip. When the clip is close to the end (3 seconds) the next clip highlights yellow, indicating that the PVW channel is about to go on-air as part of the transition.

*Tip:* When you are finished using the playlist feature, click **EXIT** to take the playlist off-air and free up the channel transports for other uses.

## Play List Commands

As a Play List is playing out you can skip items in the Play List, cue up segments with manual or immediate playout, or re-cue to the start of the Play List. When you jump to a new location in the Play List, the server continues to play the clips in the Play List from the new location.

To access the list of commands, right-click on the clip you want to cue or play.

ChA List Play			■ ChB ➡ ChA 🔶	) 🕘	EXIT	PLAY L	LIST ON-AIR
Ross-Abeka	5						TAKE
# Clip Name 1. Arctic to Hawaii			Du 00.0	uration 01,57,06	@START PLAY	@END TAKE	TRANS 0,05 MIX
2. Princess Bee Mov	Play this segment next Cue this segment next Play this segment immediately Cue to this segment immediately Cue to start of play list immediately	N C Ctrl+P Ctrl+K Ctrl+S	00.5	02,08,06	PLAY	TAKE	0,05 MIX
	ТАКЕ	Ctrl+T					
	Set @START Set @END Set Transition	, , ,					
	Remove from list						

- **Play this segment next** play the selected clip after the currently playing clip finishes on the PGM channel. The clip is highlighted green and is played next.
- **Cue this segment next** cue the selected clip after the currently playing clip finishes on the PGM channel. The clip is highlighted green and is cued next. The clip pauses at the first frame and must be played manually.

*Tip:* You can manually play the clip by pressing the **Spacebar** on the keyboard.

- Play this segment immediately immediately load and play the selected clip on the PGM channel.
- **Cue this segment immediately** immediately load and cue the selected clip on the PGM channel. The clip pauses at the first frame and must be played manually.
- **Cue to start of playlist immediately** immediately load and cue the first clip in the Play List on the PGM channel. The clip pauses at the first frame and must be played manually.

*Tip:* You can quickly take a different clip in the list by selecting the new clip and clicking the **TAKE** button or pressing **Enter** on the keyboard.

## **Folders**

Clips are stored on the media drive in the server, or on external servers connected to the server you are using. You can organise the clips into folders on the media drive either from Windows<sup>®</sup> Explorer or from the Clip Library.



*Important:* You cannot delete a folder from the Clip Library. You can only delete a folder from Windows<sup>®</sup>.

- To create a folder, right-click on an empty line in the Clip Library and click **New Folder**.
- You can type in a name for the new folder and drag and drop clips into it.

# **Clip Library Columns**

You can set up the Clip Library to show or hide specific columns. Any column, with the exception of the clip name column, can be shown or hidden.

- To change the columns, click Clip Library > Select Columns....
- Select which columns you want to show, or deselect the columns you want to hide, and click OK.

# **Clip Metadata**

Clip metadata includes information like the name of the clip, the repeat mode, timecode source, and trim points. This information is stored with the clip and is copied to other servers with the clip.

*Note:* You cannot edit the metadata of a clip (Abekas<sup>®</sup> .CLIP) if it is locked. You must unlock the clip before you can edit the metadata.

*Tip:* Most metadata shown in the Clip Library can be edited directly by double-clicking on the cell in the table and either entering the new data or selecting it from a drop-down list.

## To Edit the Label Metadata of a Clip

The label metadata is shown in the Clip Library and is used to sort and identify clips.

1. Select the clip in the Clip Library you want to edit the metadata for.

*Note:* You cannot edit the metadata of a clip if it is locked.

- 2. Click Clip Library > Modify....
- 3. Click on the Labels tab.

🗧 Clip Modif	y: Clip A Might	ty Heart				?	×
					Cli	p Name: A Might	ty Heart
Labels	Attributes	Timecode	Trim	]			
Comments							
Project Nam	e						
Creator							
Keyword							ון
				ОК	Cancel	Apply	

- 4. Edit the metadata item you want to change.
  - **Comments** a 255-character free form field.
  - **Project Name** a 255-character free form field.
  - **Creator** a 255-character free form field.
  - **Keywords** 6 independent 35-character searchable words. A keyword can only be a single word or conjunction without spaces.
- 5. Click OK.

### To Edit the Attributes Metadata of a Clip

The attributes metadata sets the default output mode for the clip, as well as the repeat function.

1. Select the clip in the Clip Library you want to edit the metadata for.

Note: You cannot edit the metadata of a clip if it is locked.

- 2. Click Clip Library > Modify....
- **3.** Click on the **Attributes** tab.

Cilp Mod	ify: Clip A Mig	hty Heart					?	
						Clip Name:	A Might	ty He
Labels	Attributes	Timecode	Trim	1				
Output	Mode							
○ Fr								
	ald \/I (with \/ad							
	eid vi įwith ven	tical interpolation						
	eld (no Vertical	tical Interpolation Interpolation)						
			IJ				_	
	eld (no Vertical					_	_	
O Fie	eld (no Vertical peat		,, 		Clip Start	: 00,00,00,00		
O Fie	eld (no Vertical peat		,) 	=	Clip Starl Play Repeat IN			
Play Rep Of Of	eld (no Vertical peat	Interpolation)	_	=		00,00,00,00		
Play Rep Of Of	eld (no Vertical peat	Interpolation)	_	=	Play Repeat IN Play Repeat OUT	00,00,00,00		
Play Rep Of Of	eld (no Vertical peat	Interpolation)	_	=	Play Repeat IN Play Repeat OUT	00,00,00,00		

- 4. In the **Output Mode** area, select the output video mode that you want to clip to play out in.
  - Frame select this option if the clip was shot in a progressive video format.
  - **Field VI** select this option if the clip was shot in an interlaced video format and you want to apply vertical interpolation (VI) to it. This mode is useful for clips that will be played out in slow motion or will be frequently paused. The VI helps to eliminate vertical hopping during slow motion playback and jagged edges in paused images.
  - **Field** select this option if the clip was shot in an interlaced video format and you don't want to apply vertical interpolation (VI) to it.

*Note:* The server does not support video format conversion. If a clip is in a different video format than the server is operating in you will not be able to load it into a channel transport.

- 5. In the **Play Repeat** area, select the repeat mode you want to use for the clip.
  - **OFF** play repeat is turned off by default when the clip is loaded.
  - Loop play repeat loop is turned on by default when the clip is loaded. When the clip starts playing, it immediately seeks to the **Play Repeat IN** point and plays until it reaches the **Play Repeat OUT** point. When it reaches the **Play Repeat OUT** point it seeks back to the **Play Repeat IN** point and plays again.
  - **Ping Pong** play repeat ping-pong is turned on by default when the clip is loaded. When the clip starts playing, it immediately seeks to the **Play Repeat IN** point and plays until it reaches the **Play Repeat OUT** point. When it reaches the **Play Repeat OUT** point it starts playing in reverse until it reaches the **Play Repeat IN** point again.
  - Loop To play repeat loop to play is turned on by default when the clip is loaded. The clip starts playing from the beginning passing through the **Play Repeat IN** point and continues playing until it reaches the **Play Repeat OUT** point. When it reaches the **Play Repeat OUT** point it seeks back to the **Play Repeat IN** point and plays again.
  - **Ping Pong To** play repeat ping pong is turned on by default when the clip is loaded. When the clip starts playing, it immediately seeks to the **Play Repeat IN** point and plays until it reaches the **Play Repeat OUT** point. When it reaches the **Play Repeat OUT** point it starts playing in reverse until it reaches the **Play Repeat IN** point again..
- 6. Use the **Play Repeat IN** and **Play Repeat OUT** fields to the set the timecode for the in and out points of the clip.

- **Play Repeat IN** the first inclusive field/frame of the repeated portion of the clip. By default this is the first field/frame of the clip.
- **Play Repeat OUT** the field/frame before the last field/frame of the repeated portion of the clip. By default this is one field/frame beyond the end of the clip.
- **7.** Click **OK**.

## To Edit the Timecode Metadata of a Clip

The timecode metadata sets the source of the timecode information for the clip.

1. Select the clip in the Clip Library you want to edit the metadata for.

*Note:* You cannot edit the metadata of a clip if it is locked.

- 2. Click Clip Library > Modify....
- **3.** Click on the **Timecode** tab.

•	Clip Modi	fy: Clip A Might	y Heart			?	×
					Cli	ip Name: A Mighty	/ Heart
1	Labels	Attributes	Timecode T	rim			
	TC Source	e <b>e e e e e e</b>					
	© Ext	ernal TC - First F	rame Only				
	© Ext	ernal TC - Entire	Clip Length				
	Str	iped starting at:	00,00,00,00				
			Dropframe Flag				
			Drop fram	e timecode			
			Nondrop f	rame timecode			
					Cancel	Apply	

- 4. In the **TC Source** area, select the timecode source.
  - **External TC First Frame Only** the clip uses the external timecode data of the first field/frame that was originally recorded with the clip. The timecode for the remainder of the clip is synthesized. This option is useful if there was a break or interruption in timecode data during recording.
  - **External TC Entire Clip Length** the clip uses the external timecode data that was originally recorded with the clip. This option is useful if the clip has different segments in it with different timecode ranges that you want to use.
  - **Striped** the clip uses the internally generated, or synthesised, timecode starting at a defined point. Enter the numeric timecode value that you want to use for the start of the clip.
- **5.** In the **Dropframe Flag** area, select if you want to use **Drop frame timecode** or **Nondrop frame timecode**.

This option is only available if the clip was recorded in a 59.94Hz video format.

6. Click **OK**.

### To Edit the Trim Metadata of a Clip

The trim metadata allows you to trim the head or tail off of the clip, setting a new start and end point for the clip. You can also offset a specific track in the clip.

1. Select the clip in the Clip Library you want to edit the metadata for.

*Note:* You cannot edit the metadata of a clip if it is locked.

- 2. Click Clip Library > Modify....
- **3.** Click on the **Trim** tab.

Clip Modify: Clip A N	ighty Heart				?	×
				Cli	p Name: A Migh	ity Hea
Labels Attribut	s Timecode	Trim				
Record Start:	00,00,00,00					
Trim In:	00,00,00,00					
Trim Out:	00,02,29,06					
Recording End:	00,02,29,06					
Advance Video Track:	00,00,00,00 🔳 Ad	lvance by a	in extra half-frame			
Advance Audio Track:	00,00,00,00 🗉 Ad	lvance by a	in extra half-frame			
			ОК	Cancel	Apply	

- **4.** In the **Trim In** field, enter the new starting timecode value for the clip. The **Record Start** field shows the timecode at the start of the clip.
- **5.** In the **Trim Out** field, enter the new ending timecode value for the clip. The **Recording End** field shows the timecode at the end of the clip.
- **6.** Use the **Advance** fields to slip the video, audio, or timecode track back in relation to the other tracks in the clip. Only those tracks that are present in the clip are shown.

Any content slipped past the start of the clip will not be present in the output of the clip.

Tip: Select Advance by an extra half-frame to slip that particular track back half of a field/frame.

- Advance Video Track slip the video track back in time relative to all the other tracks.
- **Advance Key Track** slip the key track back in time relative to all the other tracks.
- Advance Audio Track slip the audio track back in time relative to all the other tracks.
- Advance Timecode Track slip the timecode track back in time relative to all the other tracks.
- **7.** Click **OK**.

# **Parent/Child Clips**

You can create virtual copies of a clip. These child clips are essentially pointers to the parent clip that use an independent set of metadata. This allows you to create a number of child clips that are trimmed differently from their parent and each other without taking up additional space on the media drive.

Once a child clip has been created, you cannot delete the parent clip until all the child clips have been deleted.

## **To Create a Child Clip**

The child clip can have different metadata from the parent clip.

*Note:* You cannot create a child clip if the parent clip is locked.

- 1. Right-click on the clip that you want to create a child of.
- 2. Click Create Child Clip.

The child clip appears in the clip list with the same name as the parent clip with - Child appended to the end of the clip name.

# **Deleting a Clip**

By default, you can only delete a single clip at a time. The Administrator and Privileged User accounts can be granted permission to delete multiple clips at once.

*Note:* Only Administrator and Privileged accounts can delete clips from the server.

## To Delete a Clip

Remove the clip from the Clip Library and the hard drive of the server.

*Note:* You cannot delete a clip if it is locked. Unlock the clip first and then you can delete it.

**1.** Select the clip(s) that you want to delete.

Note: Your account must have permission to delete more than one clip at a time.

2. Click Clip Library > Delete.

You are prompted to confirm the deletion. Click **Delete** to delete the clip(s).

# Lock/Unlock Clips

Clips can only be locked or unlocked from Windows<sup>®</sup>. When a clip is locked, an orange lock icon is shown in the Locked column in the Clip Library.

## To Lock/Unlock a Clip

A clip can only be locked or unlocked from Windows<sup>®</sup>.

- 1. Launch Windows<sup>®</sup> Explorer and navigate to the media drive on the server (**Media Data (H)**:) and open the **Video** folder.
- 2. Locate the clip that you want to lock or unlock and right-click on it.

*Tip:* Select multiple files and right-click on one of them to lock/unlock multiple files at once.

- 3. Click Properties.
- 4. Click the General tab and select (locked) or un-select (unlocked) Read-only in the Attributes section.

Arctic to Hawaii.clip Properties				
General Secu	Inty Details Previous Versions			
	Arctic to Hawaii.clip			
Type of file:	CLIP File (.clip)			
Opens with:	🚳 Windows Shell Commor 🛛 Change			
Location:	H:\Video			
Size:	1.76 GB (1,897,529,344 bytes)			
Size on disk:	1.76 GB (1,897,529,344 bytes)			
Created:	Wednesday, July 19, 2017, 5:40:54 PM			
Modified:	Today, January 22, 2021, 6 minutes ago			
Accessed:	Wednesday, July 19, 2017, 5:40:54 PM			
Attributes:	Read-only Hidden Advanced			
	OK Cancel Apply			

**5.** Click **OK**.

## **Timecode Chase**

A Timecode Chase (TC Chase List) list allows you create a playlist where each clip in the list can be triggered by a timecode value. For each clip in the list you set the timcode value that you want to clip to start playing. You also have the option of setting a new in point, or offset, for the clip if you don't want the clip to start playing from the beginning.

*Note:* You must have a valid timecode signal connected to the *LINE IN* port at the back of the server.

Tip: Because the TC Chase List does not use the LTC IN port, you can still use time of day LTC input separate from TC Chase List.

### To Create a TC Chase List

You can add clips to the TC Chase List in the same way you add clips to a Play List. Once the clips have been added you can set the timecode value for when each clip will start playing, as well as any offset to the input of the clip that you want to jump to.

- 1. If you are creating a new TC Chase List, click **New** > **New Playlist** and enter a name for the new TC Chase List. If you are editing a TC Chase List, proceed to the next step.
- 2. Double-click on the name of the TC Chase List you just created.

The **TC Chase Editor** opens to the right of the Clip Library.

**Note:** If it appears that the Editor window has not opened, it may be shrunk. Resize the right side of the Clip Library to make the Editor window visible.

*Tip:* The current timecode coming into the server is shown at the top of the TC Chase List window.

TC Chase Editor: TC Chase List	LTC In:	00:00:00:00 START	TC Chase Close
# Clip Name	Duration	TC Offset Trigger	Clip TC Offset

3. Drag and drop clips from the Clip Library to your TC Chase List.

Tip: Right-click on a clip and click **Remove from list** to remove the clip from the TC Chase List.

**4.** Drag and drop clips within the TC Chase List to order them how you want them to appear visually. The order of the clips in the list does not change the playout order. Clips are played according to their **TC Offset Trigger**.

*Tip:* You can click *Save* at any time to save the current state of the TC Chase List.

5. Double-click on the time in the **TC Offset Trigger** column for the clip you want to edit and enter the timecode value at which you want this clip to start playing. For example, if you want the clip to start playing at timecode 01,00,30,00, enter 01,00,30,00.

TC Chase Editor: TC Chase List	LTC In: 00:00:00:00	Save and Start TC Chase	Save Cancel
# Clip Name	Duration	TC Offset Trigger	Clip TC Offset
1. 1080p\Ciao	00,0 <b>1,30,03</b>		00,00,00,00
2. 1080p\Fido	00,01,46,03		00,00,00,00
3. 1080p\Joshua	00,0 <b>2,27,06</b>		00,00,00,00
4. 1080p\Fuel	00,02,12,06	00,00,00,00	00,00,00,00

**6.** If required, double-click on the time in the **Clip TC Offset** column for the clip and enter the point in the clip at which you want it to start. This is an offset from the in point of the clip. For example, if you want the clip to start playing 5 seconds into the clip, enter 00,00,05,00.

	-		
TC Chase Editor: TC Chase List	LTC In: 00:00:00:00	Save and Start TC Chase	Save Cancel
# Clip Name	Duration	TC Offset Trigger	Clip TC Offset
1. 1080p\Ciao	00,01,30,03	01,00,30,00	00,00,05,00
2. 1080p\Fido	00,0 <b>1,46,03</b>	00,00,00,00	00,00,00,00
3. 1080p\Joshua	00,0 <b>2,27,06</b>		00,00,00,00
4. 1080p\Fuel	00,0 <b>2,12,06</b>	00,00,00,00	00,00,00,00

- 7. Repeat these steps for every clip in the TC Chase List.
- 8. Click Save.

### To Air a TC Chase List

Take the TC Chase List on-air to play each clip in order at the specified timecode values.

*Note:* A TC Chase List has no mix transition and only uses a single channel transport.

- 1. Double-click on the TC Chase List you want to air in the Clip Library.
- 2. Select the channel transport that you want to play the TC Chase List on.
- 3. Click START TC Chase on the TC Chase Editor window.

The **TC Chase Editor** window changes to the **TC Chase ON-AIR** window. As the timecode reaches the point for each clip, the clip is highlighted red and plays out on the channel transport. The channel transport outputs black if no clip is scheduled to play during the current timecode.

# **Desktop Multi-Viewer**

The integrated Multi-Viewer allows you to monitor multiple channel transports in a separate window on the server. The layout of the Multi-Viewer depends on how many channels you have and how the channels on the server are configured.

Tip: Connect a second computer monitor to the server to maximise the Multi-Viewer and the Tria Explorer on their own monitors.

Refer to Windows<sup>®</sup> documentation for information working with multiple monitors connected to the same computer.

You can launch the Multi-Viewer either in the **Tria Explorer** window or in an independent window.

- **Docked** Click **Viewer** at the top of the **Tria Explorer** window.
- **Un-Docked** Click **View** > **Undock Viewer**. The Multi-Viewer opens in a separate window that can be moved to a different screen and maximized.

# Export

You can export a clip from the Clip Library to a number of formats for use in an external device. Files are exported in the same video format that the server is operating in.

# **Supported Media Files for Export**

Table 4: Supported HD Video Codecs

File Type	Codec	Description
MXF	XDCAM HD422	Sony <sup>®</sup> XDCam in MXF wrapper.
	DV100	Panasonic <sup>®</sup> DV100 in MXF wrapper.
	AVC-Intra op1a	Only available in server with AVC-Intra native recording
AVI	MSMP4	Microsoft <sup>®</sup> MPEG-4 in Microsoft <sup>®</sup> AVI wrapper.
WMV	MSMP4	Microsoft <sup>®</sup> MPEG-4 in Microsoft <sup>®</sup> WMV wrapper.
	WMV2	Microsoft <sup>®</sup> MPEG-2 in Microsoft <sup>®</sup> WMV wrapper.
P2	DV100	Panasonic <sup>®</sup> DV100 in Panasonic <sup>®</sup> P2 wrapper.
CLIP	Native	native clip.

# **To Select an Export Destination**

You can set up to nine export destinations, each with a different export format. Destination folders should only be located on network drives or high-speed USB drives (USB 2.0/3.0/3.1) mounted on the server.



**Important:** Do not select an export destination on the system (C:) or media drive (H:) of the server. These drives are reserved for the operating system and media playout and recording. Exporting to either of these drives could cause video errors and system instability.

**1.** Click **Configure** > **Export Configuration**.

P Tria Export Configuration	? ×
	Verify Export Destinations
Destination 1 Destination 2 Destination 3 Destination 4 Destination 5 Destination 6 Destination 7 Destination 8 Destination 9	
Destination name: Destination 1	
Export directory: h:\Tria Exports	Change
Export type: AVC-Intra MXF	
ок	Cancel

- 2. Click the **Destination** *X* tab for the destination you want to set up or edit.
- **3.** Select **Enable this destination** to make this destination available for export. Destination 1 is always available for export.
- 4. In the **Destination Name** field, enter a new name for the destination tab.
- 5. Click **Export Type** and select the codec you want to use for the export.

Note: Only Abekas native . clip and AVC-Intra . mxf are available when operating in a 1080p video format.

- 6. Click **Change** and select the network drive or USB folder that you want to export to.
- 7. Click Select Folder.

The selected folder is shown in the **Export directory** field.

- 8. Select additional export destination as required.
- **9.** Click **Verify Export Destinations** to verify that all destination can be found.

A message is shown next to the button stating that all destination are valid, or that destinations are missing. The destinations that are missing are highlighted in yellow.

**10.** Click **OK**.

## **To Export Media Files**

Export media files from the server to another format that can be used by another device.

*Note:* Some export functions require a channel to export video. Ensure that the channel you want to use for exporting is not being used before you start the export.

- 1. Launch the **Tria Explorer** application.
- 2. Click Clip Library.
- 3. Select the clip(s) that you want to export in the Clip Library.
- 4. Click Clip Library > Export.

Export Configuration	GOTO DN GOTO OUT Spitt Segment IN OUT Duplicate Segment	Move to Export Queue
Media File Export Destination Export Media File Name CGM1	Export Media File Format In Out Duration Angle	

The **Export Editor** opens with the selected clips listed.

- **5.** To select a different destination for a clip, right-click on the clip and click **Set Destination**... and select the new destination.
- **6.** To set a custom in-point and out-point, load the clip into the selected channel transport and use the transport controls to locate the new in-point or out-point and click **IN** or **OUT** to set that point. The timecode for the new in-point and out-point is shown in the table.

*Tip:* To split the clip into segments, set the in-point to where you want the segment to end and click *Split Segment*. A new clip of the same name and export destination is created.

*Tip:* To duplicate the segment, set the in-point and end-point to where you want to new clip to start and end and click **Duplicate** *Segments*. A new clip of the same name and export destination is created.

- **7.** Select all the clips you want to export and click **Move to Export Queue**.
  - The **Export Queue** opens with the selected clips listed.
- 8. Click Start Export.
- **9.** If your export requires transcoding, in the **Channel to take offline** list, select the channel that you want to use for the export and click **OK**.

The server starts exporting the clips to the destination folders.

*Tip:* Click *Abort Export* to stop the export. The current clip is put back into the Export Queue with the remaining clips.

# **Remote Control Support**

Use the information in this section to assist you in setting up an external device to control your server.

# **Remote Communications (RS-422)**

Direct serial control of two channel transports is available through the RJ45 ports on the breakout cable connected to the server. Ethernet communications can also be used to control all channel transport instead of the direct serial connection.

Note: The BVW-75 and Odetics protocols are not supported over ethernet at this time.

The procedure for setting up a room for external control depends on the protocol you want to use.

## To Configure a Room for the BVW-75 Protocol

Set up a Room to use the BVW-75 protocol to control server channels.

*Note:* The BVW-75 protocol does not support clip library listing or clip loading.

- Launch the Tria Config application.
   You may be prompted to allow the program to make changes on the computer, click Yes.
- 2. Click the **RS422** tab.

Engineering Setup	? ×
ROSS	
	R5422
Ch-A: Room 1 V No RS422 port V Ch-B: Room 1 No RS422 port V Ch-C: Room 1 RS422 Port V Ch-C: Room 1 RS422 Port V Warning: Channel A has no RS-422 port assigned. It is set to Room 1 port assigned. It is set	Room 1 Configuration         R5422 Protocol         Image: BWV-75         Odetics         VCDP (Louth Protocol)         AMP over Ethernet         Response Time         Fast (Best for applications where an operator initiates each action)         Image: Accurate (Best for automation systems)         Edit Timing         Timecode Alignment:       0 frames         Out Point Offset:       0 fields         Video Edit Effect         Image: Edit Video Track       0 fields
	Edit Video and Key Tracks  BWW-75 Protocol Configuration  Disable field timecode reporting  Protocol ID: Sony BWW-75 (recommended)   Cancel Apply

- **3.** Click **Room** *X* **Configuration** and select the room you want to configure. Later you will assign this room to a channel.
- 4. In the **RS422 Protocol** area, select **BVW-75**.
- **5.** In the **Response Time** area, select how quickly the server executes the Clip Play command after the Clip Load command.
  - **Fast** executes the play command immediately after the load command. This is recommended when controlling the server from an external switcher.
  - **Accurate** executes the play command only after receiving confirmation that the clip has loaded. This is recommended when controlling the server from an automation system.

- 6. In the **Edit Timing** area, select a timing offset for when you are controlling the server from an external editor over serial.
  - **Timecode Alignment** select the offset, in frames, of the timecode information that is sent to the editor during playout or record.
  - **Source Alignment** select the offset, in frames, of the timecode information that is sent to the editor during playout.
  - **Out Point Offset** select the offset, in fields, of the out-point timecode value that is sent to the editor during record.
- 7. In the Video Edit Effect area, select which tracks get recorded when an external editor issues the Video Record command to the server.
  - Edit Video Track only the video track is recorded.
  - Edit Key Track only the alpha (key) track is recorded.
  - Edit Video and Key Tracks both the video and alpha (key) tracks are recorded. The clip loaded • into the VKA channel transport must have an alpha track.
- 8. In the **BVW-75 Protocol Configuration** area, select specific configurations for the protocol you are using.
  - Select **Disable field timecode reporting** to force the server to report timecode only once every video frame. If this option is not selected, the server reports timecode every field.
  - Select the Protocol ID that you want to use (Abekas 6000, Sony BVW-75, or Generic DDR).
- **9.** Click on the **Ch-X**: list and select the room and port that you want to assign to the channel.
  - **Room** assign the room configuration to the channel transport you want to control.
  - **RS422 Port** select the RS-422 serial port that you want to use to control the channel transport.



Important: There are only two (2) RS422 ports on the server. To control all four channel transports remotely you must select an ethernet protocol.

- **10.** Click **Restart Tria**. A confirmation dialog box is displayed.
- **11.** Click **Restart Tria** to restart the server application and services with the new setting.
- **12.** Click **OK** when the restart has completed to dismiss the window.

### To Configure a Room for the Odetics Protocol

Set up a Room to use the Odetics protocol to control server channels.

**1.** Launch the **Tria Config** application.

You may be prompted to allow the program to make changes on the computer, click **Yes**.

**2.** Click the **RS422** tab.

Engineering Setup			? ×
ROSS	A	bekas	
Ch-A: Room 1 V No RS422 port V	R5422		
Ch-B:       Room 1       No RS422 port         Ch-C:       Room 1       RS422 Port A         Ch-D:       Room 1       RS422 Port C         Oh-D:       Room 1       RS422 Port C         Warning:       Channel A has no RS-422 port c       v         Warning:       Channel A has no RS-422 port C       v         Warning:       Anse no RS-422 port. Presse       return a home of the second point as information of the second point as information of the second point of the seco	R5422 Protocol BW-75 Odetics VDCP (Jouth Protocol) AMP over Ethernet Response Time O Fast (Best for applications where an operator initiates each action) AMP over Ethernet Cate (Best for automation systems) Edit Timing Timecode Alignment: O frames O frame		
	Out Point Offset:     0 fields       Video Edit Effect <ul> <li>Edit Video Track</li> <li>Edit Key track</li> <li>Edit Video and Key Tracks</li> <li>Odetics Protocol Configuration</li> <li>Disable field timecode reporting</li> <li>Protocol ID: [Generic DDR (recommended) </li> <li>Image: State State</li></ul>		
Restart Tria		Cancel	Apply

- **3.** Click **Room** *X* **Configuration** and select the room you want to configure. Later you will assign this room to a channel.
- 4. In the **RS422 Protocol** area, select **Odetics**.
- **5.** In the **Response Time** area, select how quickly the server executes the Clip Play command after the Clip Load command.
  - **Fast** executes the play command immediately after the load command. This is recommended when controlling the server from an external switcher.
  - **Accurate** executes the play command only after receiving confirmation that the clip has loaded. This is recommended when controlling the server from an automation system.
- 6. In the **Edit Timing** area, select a timing offset for when you are controlling the server from an external editor over serial.
  - **Timecode Alignment** select the offset, in frames, of the timecode information that is sent to the editor during playout or record.
  - **Source Alignment** select the offset, in frames, of the timecode information that is sent to the editor during playout.
  - **Out Point Offset** select the offset, in fields, of the out-point timecode value that is sent to the editor during record.
- **7.** In the **Video Edit Effect** area, select which tracks get recorded when an external editor issues the Video Record command to the server.
  - Edit Video Track only the video track is recorded.
  - Edit Key Track only the alpha (key) track is recorded.
  - **Edit Video and Key Tracks** both the video and alpha (key) tracks are recorded. The clip loaded into the VKA channel transport must have an alpha track.
- **8.** In the **Odetics Protocol Configuration** area, select specific configurations for the protocol you are using.
  - Select **Disable field timecode reporting** to force the server to report timecode only once every video frame. If this option is not selected, the server reports timecode every field.

- Select the Protocol ID that you want to use (Abekas 6000, Sony BVW-75, or Generic DDR).
- 9. Click on the **Ch-X**: list and select the room and port that you want to assign to the channel.
  - **Room** assign the room configuration to the channel transport you want to control.
  - **RS422 Port** select the RS-422 serial port that you want to use to control the channel transport.



*Important:* There are only two (2) RS422 ports on the server. To control all four channel transports remotely you must select an ethernet protocol.

- **10.** Click **Restart Tria**. A confirmation dialog box is displayed.
- **11.** Click **Restart Tria** to restart the server application and services with the new setting.
- **12.** Click **OK** when the restart has completed to dismiss the window.

### To Configure a Room for the VDCP Protocol

Set up a Room to use the VDCP (Louth) protocol to control server channels.

*Note:* When controlling the server from a remote device over ethernet, you must select the port on the server corresponding to the channel transport you want to send commands to. For example, channel transport A = port 8000, channel transport B = port 8001, and so on.

1. Launch the Tria Config application.

You may be prompted to allow the program to make changes on the computer, click **Yes**.

**2.** Click the **RS422** tab.

Engineering Setup		? ×
ROSS		
	R\$422	
Ch-A:       Room 1       ✓       No R5422 port       ✓         Ch-8:       Room 1       ✓       No R5422 port       ✓         Ch-C:       Room 1       ✓       R5422 Port A       ✓         Ch-D:       Room 1       ✓       R5422 Port C       ✓	Room 1 Configuration         RS422 Protocol         BWV-75         Odetics         VDCP (Louth Protocol)         AMP over Ethernet         Response Time         Fast (Best for applications where an operator initiates each action)         Accurate (Best for applications where an operator initiates each action)         Accurate (Best for automation systems)         Channel Control Port         RS422 Serial Port         Ethernet Port         Edit Timing         Timecode Alignment:         Offames         Out Point Offset:         Other Tack         Edit Urideo Track         Edit Video Track         Integrate Or Configuration         Into playlast control         Maximum le	
lestart Tria		Cancel Apply

- **3.** Click **Room** *X* **Configuration** and select the room you want to configure. Later you will assign this room to a channel.
- 4. In the **RS422 Protocol** area, select **VDCP**.

- **5.** In the **Restrict to Folder** area, select if you want to restrict remote control of the selected room to only seeing the contents of a specific folder, or all folders (**All Folders**).
- 6. In the **Response Time** area, select how quickly the server executes the Clip Play command after the Clip Load command.
  - **Fast** executes the play command immediately after the load command. This is recommended when controlling the server from an external switcher.
  - **Accurate** executes the play command only after receiving confirmation that the clip has loaded. This is recommended when controlling the server from an automation system.
- **7.** In the **Channel Control Port** area, select whether you want to use the serial ports or ethernet connection for the channels assigned to the room.
- 8. In the **Edit Timing** area, select a timing offset for when you are controlling the server from an external editor over serial.
  - **Timecode Alignment** select the offset, in frames, of the timecode information that is sent to the editor during playout or record.
  - **Source Alignment** select the offset, in frames, of the timecode information that is sent to the editor during playout.
  - **Out Point Offset** select the offset, in fields, of the out-point timecode value that is sent to the editor during record.
- **9.** In the **Video Edit Effect** area, select which tracks get recorded when an external editor issues the Video Record command to the server.
  - **Edit Video Track** only the video track is recorded.
  - Edit Key Track only the alpha (key) track is recorded.
  - Edit Video and Key Tracks both the video and alpha (key) tracks are recorded. The clip loaded into the VKA channel transport must have an alpha track.

**10.** In the **VDCP Configuration** area, select specific configurations for the protocol you are using.

- Select **Louth Preview** to allow clips to be pre-cued in the background for seamless back-to-back transitions during playout.
- Select **Allow playlists control** to allow a playlist to be cued and played from an external device just like a clip.
- In the **Maximum length of Clip Name** field, select the maximum length of a clip name that is reported to the controlling device.

**11.** Click on the **Ch-X**: list and select the room and port that you want to assign to the channel.

- **Room** assign the room configuration to the channel transport you want to control.
- **RS422 Port** select the RS-422 serial port that you want to use to control the channel transport or select **No RS422 port** for ethernet.



*Important:* There are only two (2) RS422 ports on the server. To control all four channel transports remotely you must select an ethernet protocol.

- **12.** Click **Restart Tria**. A confirmation dialog box is displayed.
- **13.** Click **Restart Tria** to restart the server application and services with the new setting.
- **14.** Click **OK** when the restart has completed to dismiss the window.

### To Configure a Room for the AMP Protocol

Set up a Room to use the AMP protocol to control server channels.

*Note:* When controlling the server from a remote device over ethernet, you must select the port as 3811 and then select the channel you want to send the commands to.

1. Launch the **Tria Config** application.

You may be prompted to allow the program to make changes on the computer, click **Yes**.

2. Click the **RS422** tab.

RODESS         RECESS         RECESS         Recent	Engineering Setup	? X
Ch-A: Room 1 v No R5422 port v Ch-B: Room 1 v R5422 port v Ch-D: Room 1 v R5422 Port C v Ch-D: Room 1 v R5422 Port C v PBW-75 O Odelis V VDP (Louth Protocol) @ AMP over Ethernet Response Time Past (Best for automation systems) Edit Timing Timecode Alignment: frames © Source Alignment: frames © Out Port Offset: 0 fields © Video Edit Video Track © Edit Key track Edit Key track Edit Key track Edit Key track MP Protocol Configuration Disable field timecode reporting Allow overlapped commands Allow playlest control Protocol D: Generic DDR (recommended) v	ROSS	
Ch-B:       Room 1       No R5422 port         Ch-C:       Room 1       R5422 Port A         O Ch-D:       Room 1       R5422 Port C         O Ch-D:       Room 2       R5422 Port C         O Ch-D:       Room 2       R5422 Port C         O Ch-D:       Room 2       R5422 Port C         O Ch-D:       O Ch-D:       O Ch-D:         O Ch-D:       O Ch-D:       O Ch-D:         O Ch-D:       O Fortock       O Fortock         O		R5422
	Ch-B:         Room 1         V         No RS422 port         V           Ch-C:         Room 1         V         RS422 Port A         V	R5422 Protocol         Odetics         VCDC (Louth Protocol)         Image: Advance of the second of th
Restart Tria	Restart Tria	Cancel Apply

- **3.** Click **Room** *X* **Configuration** and select the room you want to configure. Later you will assign this room to a channel.
- 4. In the **RS422 Protocol** area, select **AMP over Ethernet**.
- **5.** In the **Response Time** area, select how quickly the server executes the Clip Play command after the Clip Load command.
  - **Fast** executes the play command immediately after the load command. This is recommended when controlling the server from an external switcher.
  - **Accurate** executes the play command only after receiving confirmation that the clip has loaded. This is recommended when controlling the server from an automation system.
- 6. In the **Edit Timing** area, select a timing offset for when you are controlling the server from an external editor over serial.
  - **Timecode Alignment** select the offset, in frames, of the timecode information that is sent to the editor during playout or record.
  - **Source Alignment** select the offset, in frames, of the timecode information that is sent to the editor during playout.
  - **Out Point Offset** select the offset, in fields, of the out-point timecode value that is sent to the editor during record.
- **7.** In the **Video Edit Effect** area, select which tracks get recorded when an external editor issues the Video Record command to the server.
  - **Edit Video Track** only the video track is recorded.
  - **Edit Key Track** only the alpha (key) track is recorded.
  - **Edit Video and Key Tracks** both the video and alpha (key) tracks are recorded. The clip loaded into the VKA channel transport must have an alpha track.

- **8.** In the **AMP Protocol Configuration** area at the bottom of the window, select specific configurations for the protocol you are using.
  - Select **Disable field timecode reporting** to force the server to report timecode only once every video frame. If this option is not selected, the server reports timecode every field.
  - Select **Allow overlapped commands** to allow the server to accept overlapping commands.
  - Select **Allow playlists control** to allow a playlist to be cued and played from an external device just like a clip.
  - Select the Protocol ID that you want to use (Abekas 6000, Sony BVW-75, or Generic DDR).
- 9. Click on the **Ch-X**: list and select the room and port that you want to assign to the channel.
  - **Room** assign the room configuration to the channel transport you want to control.
  - RS422 Port select No RS422 port.
- **10.** Click **Restart Tria**. A confirmation dialog box is displayed.
- **11.** Click **Restart Tria** to restart the server application and services with the new setting.
- **12.** Click **OK** when the restart has completed to dismiss the window.

## **DashBoard**

The DashBoard control system allows remote access to multiple pieces of Ross Video equipment, including openGear<sup>®</sup> cards, Carbonite production switchers, Ross video servers, and Ross cameras. Download and install the latest version of DashBoard from *www.rossvideo.com/support/software-downloads/*.

Review the documentation that comes with DashBoard for information on installing and launching DashBoard.

To control Tria Express DUET from DashBoard you must create a custom panel in DashBoard using PanelBuilder to send VDCP or Tria Express DUET Ethernet API commands to the server.

**Note:** DashBoard can only display active video for a channel transport if DashBoard is running on the same Tria Express DUET server. Active video for a channel transport cannot be shown in DashBoard when DashBoard is running on a separate computer.

### Abekas<sup>®</sup> DashBoard Service

The Abekas<sup>®</sup> OGP (openGear<sup>®</sup> Protocol) Service allows you to connect to your server from DashBoard.

### To Install the Abekas® OGP Service

The AbekasOGP application should already be installed on your server. If it is not, you can download and install the application manually.

1. Navigate to the **Downloads** section of the Ross<sup>®</sup> website for your server product and download the Abekas<sup>®</sup> OGP DashBoard Service.

*Tip:* For example, if you have a Mira server, you would navigate to https://www.rossvideo.com/support/software-downloads/mira/.

2. Run the Abekas\_#.#.#\_setup.exe application on your server and follow the wizard to install the service.

### To Connect to Tria Express DUET from DashBoard

1. Click File > New > TCP/IP DashBoard Connect or openGear Device.

New TCP/I	P DashBoard Connect/openGear Device	
TCP/IP Das	hBoard Connect/openGear Device	
	lows you to create a connection to a DashBoard Connect or openGear Device /IP. The wizard should be used when your device is not automatically detected by	
IP Address:	Detect Frame	Information
	Automatically track updates to frame information	
Display Name	: Frame	
Protocol:	○ OGP ● JSON	
Port:	5254 ~	
	Remember connection settings for this frame	
	< Back Next > Finish	Cancel

- 2. In the **IP Address** field, enter the IP address of the Tria Express DUET chassis. The default IP address is 192.168.0.1.
- **3.** In the **Display Name** field, enter the name you want to use to identify the Tria Express DUET chassis in DashBoard. This should be a unique name for the Tria Express DUET you are setting up.
- 4. Select JSON.
- 5. In the **Port** field, enter 5254.
- 6. Click Finish.

The Tria Express DUET you are connecting to appears in the **Tree View**.

#### **DashBoard Interface**

The server appears as a node in the DashBoard Basic Tree View. The **Replay** and **Explorer** sub-nodes can be expanded to show the **Operator** and **Explorer** pages.



#### **Replay**

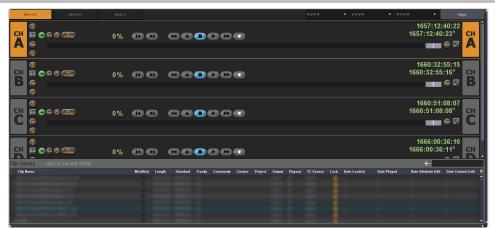
The **Operator 1** and **Operator 2** pages are also known as **MiraTouch Horse Racing** panels and are intended to be used in a 4-in/2-out replay configuration for horse racing.

TODAY'S EVENTS	Tue, 0ct06, 2020 1 HOUR : 13 MINUTES	CUE MARKS
PLAY 75% 50% 33% STOP	Can 1 d'Illicant PLATIALS PS PAIR MIX GANG LIVE START	PLAY 75% 50% 33% STOP
SHUTTLE	C 1s         1s         FINSH         II         C 1s         1s         1s         C 1s         1s <th1s< th=""> <th1s< th=""> <th1s< th=""></th1s<></th1s<></th1s<>	ѕнитце

#### **Explorer**

The **Explorer** and **Explorer Touch** pages mirror the operation of the **Explorer** application of your server. The **Explorer Touch** page is smaller version designed to fit into Live Assist.

*Tip:* Portions of these pages can be dragged onto a custom panel in DashBoard PanelBuilder.



#### Palette

The **Palette** page provides a number of widgets for use in PanelBuilder.

Channel A	Channel B	Channel C	Channel D	Channel E Chan	inel F Channel	G Channel H	Channel I Cl	hannel J Channel K	Channel L
СН		Coad Clip	Unioa		E-E E Status		S Repeat: Ping-F	Cong Repeat: Loop	Repeat: Loop-To
K			۲					•>>	P
Backward :	Step	Forward Step	Rev	vind Rev	erse Play	Stop	Play	Fast Forward	Ganged
	Clip	Name							
1657:	12:40:2	23							
Clip C	Current Time			Se	ek Start		Clip Scrub	Bar	Seek End
1657:	12:40:2	22							
Clip Rer	maining Time								
				O off	💽 Nu	meric Append 🔵 1	Time of Day	Striped 👻	00,00,00,00
Record		Video ,	Audio Key		Auto	-Name		Timecode Type	Start Time

#### **PanelBuilder Custom Panel Attributes**

When building a custom panel in DashBoard, you can connect to your server as a data source. This allows you access to numerous powerful commands and parameters native to your server.

#### To Add a Server Command to a Custom Panel

1. Double-click on the canvas of your custom panel and click the **openGear or XPression DataLing Configure** button.

	Insei	t Tag		Abs Attributes Style Source	
listener/>			<lookup></lookup>	General Attributes	
ogscript/>	<api></api>	Device		Name: 🗙	
abs lid=	top. contextly	(pe=opengear]		ID: 🗙 _top	
				Virtual Width: 🗙 1.872 🗢 🔲 Override Default	
				Virtual Height: X 512 Covering Select Device For Context X	
				Preserve Aspect Ratio	
				Data So	
				NK Series Routers:	
				openGear or XPression DataLing: 🔽 🌣 Configure	
				Internal Data Source	
				XPression DashBoard Ling Port: 🗙 2,222 🗢 📄 Enable S 🔹 Abekas Tria News	
				Remot Remot	
				Internal RossTalk GPI Listener:	
				VDCP Task Server Port: 🗙	
				HTTP Trigger Server Port: X Select a file	
				Lock Contents (widget root)	
			_	Scrolling: 🗙 🗸 🗸	
				Keep Alive (Prevents Custor OK Cancel	

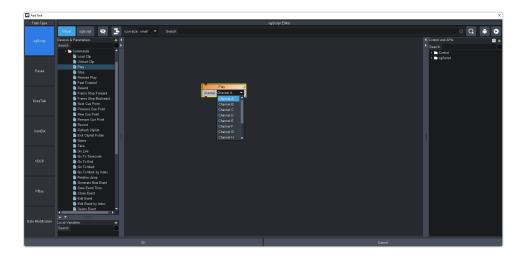
- 2. Click Select a device and select Abekas.
- **3.** Click **OK**.

The **Current** below the button shows the **Abekas** server.

4. Insert a button or other interface element to your custom panel.



 Edit your interface element as normal and click Add in the Tasks area. You can now drag and drop Abekas<sup>®</sup> server commands to the script editor to create visual logic chains.



# **Clip ID Support**

Devices using the VDCP or Odetics protocol can use the 8-character clip ID assigned to a clip. By default, the server does not assign a clip ID to the clip when it is recorded. If there is no clip ID, the first 8 characters of the clip name are used instead.

# Sony<sup>®</sup> MVS Series Switcher

Use the following information to set up your Sony<sup>®</sup> MVS series switcher to control the server as either a **Recorder** or **Player** device.

No.	Item	Setting
1	Video Port	(1-N)*
2	Maximum Open Delay	10
3	Maximum Cueup Delay	0
4	Play After Cueup Delay	0
5	Stop Delay	2
6	Still Delay	6
7	Continue Delay	0
8	Idle Delay	2

#### Table 5: VDCP RS422 Protocol Constants

\* Set this value to the MVS virtual RS422 Port # that is connected to the server.

# Maintenance

Refer to the following information for performing maintenance on your server, muting an alarm, restoring factory defaults, or upgrading the software.

## Alarm

All servers feature audible alarms inside the chassis to notify the user of cooling fans and power supply failures.

The server contains both primary and redundant fans and power supplies. A failure of either of these components causes the system to alarm and to automatically switch over to the redundant item. The server will continue operating with the failed component.

You can mute the audible alarm and failure notification from the front of the server, and continue working until you are able to service the failed component.

When a failure occurs, the audible alarm sounds and the red **Alarm Mute** button on the front of the chassis flashes.

*Tip:* Lift the clear cover and press the red *Alarm Mute* button to silence the audible alarm. The button will continue to flash as long as the alarm state still exists.

# **Media Drive**

The server uses an SSD media drive to store all media content.

### **Disk Space**

The amount of free disk space that is available for clips is shown at the top of the **Tria Explorer** window. The free space is shown in time (HH:MM:SS:FF) and percentage of free space on the drive. When the amount of free space goes below 10% the text is highlighted in yellow. If the amount of free disk space goes below 5% the text is highlighted in red.

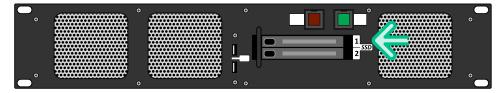
*Tip:* When the amount of free disk space goes below 5% you should consider removing unused content in order to free-up media disk space. To assist you in locating older or unused content, the Clip Library contains **Date Loaded** and **Date Played** columns that can be used to sort content.

### To Replace the Media Drive

The media drive in the server can be replaced. This is useful for increasing the amount of storage, replacing a failed drive, or moving your media library from one server to another.

**Note:** You can only have a single media drive in the server at a time. If you want to use multiple SSDs in the server as the media drive, you must set them up as a raid array.

- **1.** Power off the server and disconnect the power cords from the mains power.
- 2. Locate the media drive at the front of the server.



- 3. Slide the silver tabs on the drive doors to the right to unlock the doors.
- **4.** Pull the bay doors open and remove the drives.

**ESD Susceptibility:** Static discharge can cause serious damage to sensitive semiconductor devices. Avoid handling the server components in high static environments such as carpeted areas and when synthetic fiber clothing is worn. Touch the frame to dissipate static charge before removing boards or drives from the chassis and exercise proper grounding precautions when working on circuit boards.

- 5. With the connectors facing the server, slide the new drives into the slots in the server.
- 6. Push the bay doors closed to secure the drives in the server.

With the new media drive installed you can reconnect power to the server and turn it on. Use the **Disk Management** utility in Windows<sup>®</sup> to format the new drive (if required) and assign it drive letter **H**. A folder named Video must be located at the root directory of the media drive.

### To Mount the New Disks

When you install new drives into the server, you must configure them in Windows<sup>®</sup> for them to be available to the server.

- **1.** Open **Disk Management** utility.
- 2. Click Action and then click Rescan Disks.
- **3.** Right-click any disk marked Foreign, click **Import Foreign Disks**, and then follow the instructions on your screen.

**Note:** Ensure that **Foreign disk group** is selected.

**4.** If the new mirrored drive is not marked as drive **H**:, right-click on the drive and click **Change Drive Letter and Paths...**, and then follow the instructions on your screen.

An **AutoPlay** dialog box may appear after you are done mounting the new drives. Cancel (**X**) the dialog. The new drives are now ready to use.

# **AsRun Log Creator**

The server keeps a log of stills and clips that have been played in their entirety on all channel of the server. This information can then be filtered and output into either a CSV file or a PDF report.

Note: Clips must be played out in their entirety to be added to the AsRun log.

The AsRun log can be filtered for a number of criteria for the media items and when or where they were played.

- Date Range the range of dates that the media items was played in.
- **Channels** the transport channels that the media items were played on.
- Media Players the type of media item that was played (audio and video).
- Media File Name the name of the media item that was played.

## To Run an AsRun Report

Generate a PDF or CSV report of what clips and stills were played on the server.

1. Launch the **AsRunReport** application on your server.

ditional No	otes:				
rmat:	🖲 Aggregate 🔘 Individual				
ate Range		Channels			Media Players
		A	E	I	
rom:	2020-12-27 @ 00:00:00	. В	F	L 1	V Audio
o:	2021-01-26 @ 08:02:23	. ⊂	G	🗆 L	Video
0.	2021 01 20 @ 00.02.20	D	н	К	E Haco
1edia File N	Name:				Apply Filters
ults Found	h o				
uits round					

2. Set the parameters and filters you want to apply to the report

Item	Description			
<b>Report Name</b> This is the name that appears on the report.				
Additional Notes	Add any additional notes that you want to appear on the report.			
Format	<ul> <li>Select how you want the report to be formatted.</li> <li>Aggregate — lists how many times each clip was played during the selected date range</li> <li>Individual — lists every instance that a clip was played, including the start and stop times, during the selected date range</li> </ul>			
Date Range	Set the from and to date range between which you want to generate the report.			
Channels	Select which transport channels on the server that you want to generate the report for. Channel that are not present on your server are grayed out.			
Media Players	Select whether you want to show only audio clips, only video clips, or both.			

Item	Description
Media File Name	Enter a name or part of a name in the field, or leave the field blank. The clips that were played during the date range will be filter to only include those clip names that include the <b>Media File Name</b> . If no name is specified the filter will return all clip names.

### 3. Click Apply Filter.

The table below lists all the results of the filter.

AsRun Log Report	Creator						?
Video Se	rver A	AsRun Log Re	port Cre	ator			ROSS
Report Name:	Ross						
Additional Notes	5:						
Format:	Aggr	regate 🔘 Individual					
Date Range			Channels				Media Players
			✓ A			E I	
From:	2020-12-	27 @ 00:00:00 🔹	📝 В			F 🗌 J	Audio
To:	2021-01-	26 @ 08:02:23 -	✓ C			G 🗌 L	Video
10:	2021-01-	26 @ 08:02:23 •	V D			н	Video
Media File Nam	ne:						Apply Filters
Decide Seconda S							
Results Found: 6					_		
First Pla	,	Last Played	Play Duration	Count		Media File	<u> </u>
_		2021-01-22 @ 08:57:19	00:25:13	13 12		Arctic to Hawaii	Ē
	2 2021-01-22 @ 08:32:18 2021-01-22 @ 08:57:35 3 2021-01-22 @ 11:21:06 2021-01-22 @ 11:28:48		00:25:11	12		NATIONAL_ANTHEM(CAN.USA) CAM-2 Test_DC	
		2021-01-22 @ 11:28:48 2021-01-22 @ 13:33:55	00:07:42	1		astests2	
-		2021-01-25 @ 14:51:24	00:00:36	4		2020-04-15 6pmNEWS-Breaking VO 2	*
						Create CSV	Create PDF Exit

*Tip:* You can change the filter settings and click **Apply Filter** again to update the search results.

- 4. Click a **Create** button to generate the report file. You are prompted for a location to save the file.
  - Create CSV creates a standard comma segmented value (CSV) file.
  - **Create PDF** creates a formatted PDF report file.
- 5. Click Exit.

# Troubleshooting

Refer to the applicable section below for information on troubleshooting the operation or setup of your server.

### **General Problems**

- Video output is not synchronized with downstream devices.
  - Check that a reference signal is connected to the Reference BNC on the back of the server and that the correct reference format is selected.
- I cannot record external timecode.
  - Check that a valid analog timecode signal is connected to the LTC IN port.
  - Verify that the timecode signal is 1V peak-to-peak minimum.
- I hear a beeping sound from inside the main server chassis.
  - Check to see if two power cords are connected to the AC input on both power supplies. If only one power cord is connected, then the internal alarm will sound. The only way to silence the alarm is to either connect AC power to both modules, or remove the module without power. Although the server can operate with just one power module, it is not recommended.
  - If the two power cords are connected to the two modules of the power supply, and you are sure there is full power on both power cords, then check the small LED on each of the two power supply modules (from the chassis rear). These LEDs should be solid green. If either LED is blinking, or has changed to yellow or red, then you may have a fault in the power supply module. Remove the suspect power supply module immediately (the alarm should then mute). Contact Ross<sup>®</sup> technical support for assistance.
  - If the power supply checks okay, check the LEDs on the media drives on the front of the server. These LEDs should be BLUE or PURPLE. If any of the LEDs are RED there may be a failed media drive. Eject the drive and re-seat the dive in the bay. If this does not clear the fault after 5-10 seconds the drive may have failed. Contact Ross<sup>®</sup> technical support for assistance.

# **Specifications**

Resources, video specifications, power rating, and port pinouts. The information is this section is subject to change without notice.

## Resources

The number of resources specific to your server depends on the model.

Resource	2-Channel	4-Channel
Video Inputs	2	2
Video Outputs	2	4
AES Audio Input	1	1
AES Audio Outputs	8	8
Analog Audio Outputs	8	8
Analog Audio Outputs	1	1

# **Operating Temperature**

The system has been qualified at an operational temperature range of **13 to 35°C** (**55** to **95°F**) and a non-condensing humidity range of **20** to **80%**.

Table 6: Safe Operation and Non-operating Environmental Conditions

	Operating	Non-operating	
Temperature	5 to 55°C (41 to 131°F)	-40 to 65°C (-40 to 149°F)	
Relative Humidity	8 to 90% non-condensing	5 to 95% non-condensing	
Max. Wet Bulb Temperature	29.5°C (85°F) non-condensing	35°C (95°F) non-condensing	
Max. Temperature Gradient	15°C/hour (59°F/hour)	15°C/hour (59°F/hour)	
Altitude Range	-300 to 2,000m (-984 to 6,566ft.)	-300 to 12,200m (-984 to 40,026ft.)	

*Note:* Operator is responsible for providing sufficient ventilation to maintain surface temperature below 40°C (104°F) at the center of the top cover of the Tria Express DUET chassis.

Note: Non-condensing conditions should be maintained at all times.

*Note:* Maximum storage period inside shipping package is one year.

# Ports

# Serial (RS422) Port

The female DB9 serial port supports the RS-422 transmission standard.



Pin	Signal
1	Ground
2	Tx-
3	Rx+
4	Rx-Ground
5	n/c
6	Tx-Ground
7	Tx+
8	Rx-
9	n/c

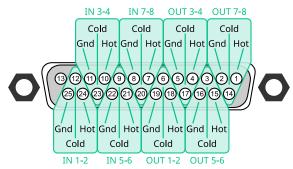
# LTC (3-Pin XLR) Port

The EIA Standard RS-297-A describes the use of the XLR3 for balanced audio signal applications.



Pin	Signal
1	Ground (cable shield)
2	LTC+ / Positive ( " hot " )
3	LTC- / Negative ( " cold " )

# AES Audio (DB25) Port



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