



Pyxis NLV

User Manual

24 June 2009
Software Version 2.0
Issue 001

Important Notice

The material in this document is copyright to Fairlight.AU Pty Ltd, and may not be quoted or reproduced in any form without written permission from the company.

Fairlight is a trademark of Fairlight.AU Pty Ltd. All other trademarks are the property of their respective owners.

Table of Contents

INTRODUCTION	6
Using this Manual	6
Pyxis Features	6
Pyxis Components.....	6
INSTALLATION	8
Safety and ESD Precautions.....	8
Installing the PCI Comms Card.....	8
Installing the Software	8
GETTING STARTED WITH PYXIS	9
Media and Projects	10
The Track Display	10
Playback and Transport Control.....	12
Making a Recording	15
EDITING	20
Adding clips.....	20
Selecting a Clip.....	20
Selecting a Range	20
Machine Control.....	21
Import/Export.....	23
MENU REFERENCE	25
File Menu.....	25
Export	30
Edit	38
View	42
Tracks	48
Setup.....	49
Process.....	62
Machine Control.....	65
ADR.....	66
Help	71
KEYBOARD & MOUSE SHORTCUTS	72
APPENDIX 1	74
Break-out Cable Specification.....	74
Touchscreen Setup	75
Multiple Monitors	75
APPENDIX 2	76
Supported formats	76

Introduction

Pyxis offers a complete solution for video playback in the audio post-production environment. Pyxis supports a huge range of formats including recording and playback of uncompressed and DV25 format video with standard PC hardware. See a list of formats in Appendix 2. Pyxis includes a sophisticated PCI I/O card to support synchronisation with video sync and 9-pin RS422 machine control. Pyxis provides an ultra-fast user interface when combined with a standard touch screen. Pyxis also provides native playback of video OMF files, quicktime files and AVI's.

Using this Manual

This manual is divided into two main sections. The first section *Getting Started with Pyxis* provides a easy tutorial approach to learning how to use the software. The second section provides a complete *Menu Reference* to all the features. You can quickly find the information you need by scanning the *Table of Contents* or by referring to the *Index*.

Menu items are referred to with the following notation **File > Open**. This means click on the **File** menu at the top of the Pyxis screen, and select the **Open** menu item. The names of buttons that you can click or press are also displayed this way, for example, **OK**.

Pyxis Features

- Record a large range of video and audio formats. See a list in Appendix 2.
- Record audio.
- Playback video in sync with an audio workstation or other 9-pin control device with external video sync.
- Instant random access to any point in the project with visual frame locators, timecode locator and jump keys.
- Network ready project management.
- Intuitive touch screen interface.
- Simple edit functions.
- Import OMF, AVI and MOV files.
- Export Fairlight ML4, BWave, WAV, AIFF, AVI, Quicktime and Pyxis VMU files.

Pyxis Components

- Pyxis NLV Software
- PCI Comms card
- Pyxis User Guide

Minimum Requirements (SD)

- OS: Microsoft Windows XP Pro
- CPU: Intel P4 or AMD Athlon 3 GHz
- Memory: 1GB DDR RAM
- Graphics: 128MB Direct-X compatible Video Capture Card
Must be an NVidia Geforce FX card.

- Sound: Direct-X compatible Stereo Sound Card
- Network: Gigabit Ethernet
- Separate Media Drive (Not the system drive)

Minimum Requirements (HD)

- OS: Microsoft Windows XP Pro
- CPU: Intel Quad Core 2.0Ghz or 2 x 3.0 Ghz Xeons
- Memory: 2GB DDR RAM
- Graphics: 512MB Direct-X compatible Video Capture Card
Must be a NVidia Geforce FX card.
- Sound: Direct-X compatible Stereo Sound Card
- Network: Gigabit Ethernet

Separate Media Drive (Not the system drive). See 'Some Useful Tips concerning Pyxis HD.pdf' concerning HD bandwidth requirements.

Installation

Safety and ESD Precautions

Always remove the power from any device before removing the cover or installing any components. If unsure, refer installation to qualified personell.

Always observe electrostatic discharge (ESD) precautions when handling static sensitive computer components. Leave PCI cards in their conductive plastic bags until ready to install. Touch both the PC chassis and the con-ductive plastic to eliminate harmful charge potentials before removing or installing the card.

Installing the PCI Comms Card

1. Remove the PC cover following the manufacturers instructions and insert the PCI Comms card in a free PCI slot on the motherboard.
2. Replace the PC cover.
3. Attach the supplied break-out cable to the 37-pin connector on the rear of the PCI Comms card. See *"Break-out Cable Specification"*.

Installing the Software

Insert the Pyxis NLV software CD into the CD drive. The CD's autorun feature will start up the Pyxis NLV installer menu. Click on the Pyxis installer button and than Pyxis will proceed to install. Alternatively, run the Pyxis installer PyxisSetup.exe located on the Pyxis CDROM. Click OK to begin the installation and follow the on-screen prompts to install.

Install the CommsDriverInstaller when requested and follow the prompts. Click on the Install Latest button to install the latest version of the driver.

To install the required software components, click on the Start button at the bottom of your Windows desktop and select Run. Click Browse and navigate to the CD and select the items as described below and click Open. Click OK to run the installer for each item.

Install QuickTime 7

Pyxis requires Apple QuickTime to support QuickTime Import and Export functions. Run the QuickTime installer located in the QuickTime folder on the Pyxis CDROM. When prompted to **Choose Installation Type** choose **Custom**. Then press the button **Select All** and continue on with the installation.

Touch Screen Driver

If you are using a touch screen with Pyxis you will need to install the driver and associated software. Follow the manufacturers instructions. For more information see *"Touchscreen Setup"*.

Getting Started with Pyxis

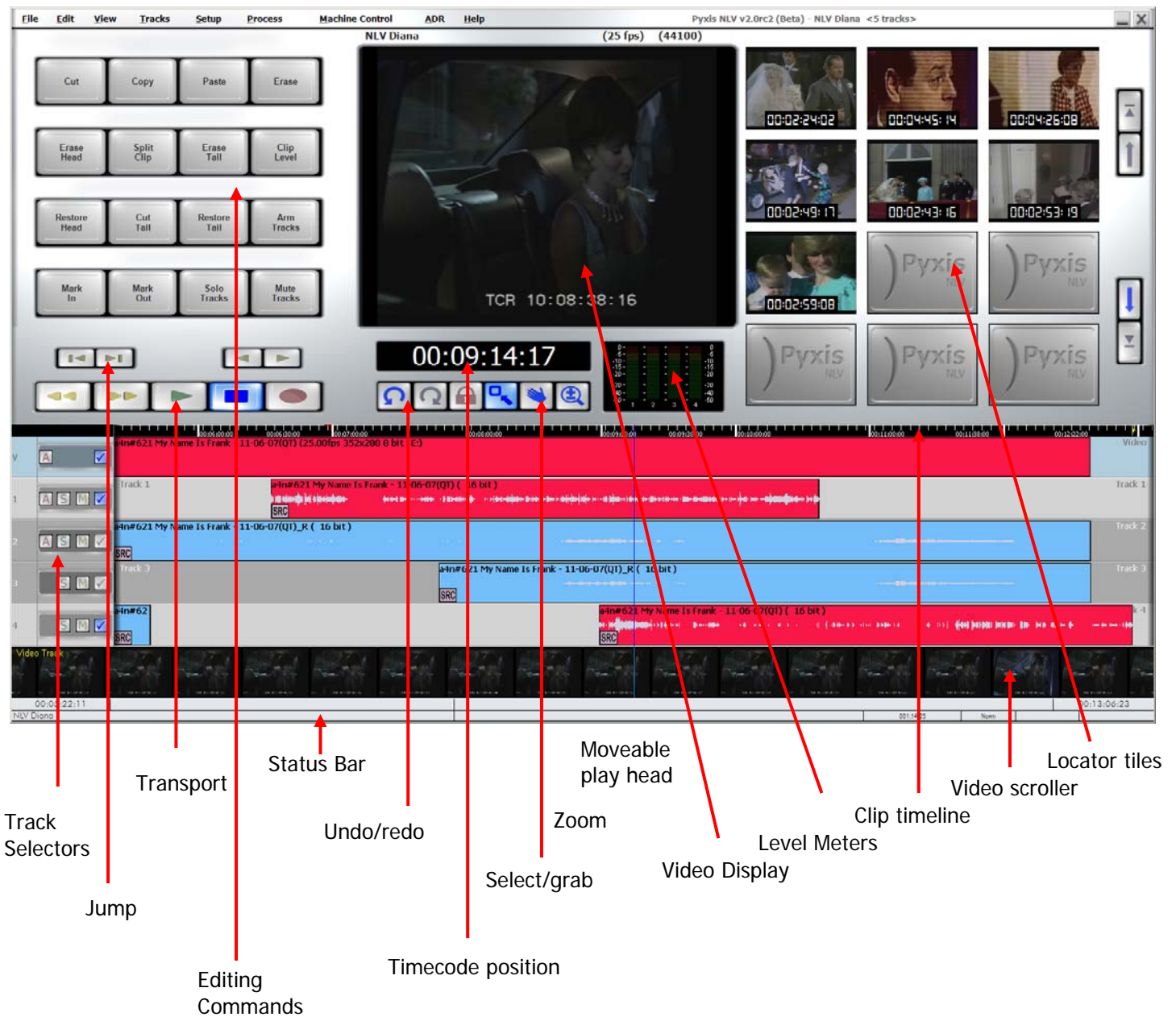
Starting Pyxis

To start Pyxis either double-click on the **Pyxis NLV** icon on the Windows desktop or click on the **Start** button at the bottom of the screen and select **Programs** → **Pyxis NLV** → **Pyxis NLV**.

Exiting Pyxis

To quit Pyxis click on the **File** menu and select **Exit**.

The Pyxis Screen



Media and Projects

Pyxis uses a separate directory or drive to store projects and media. The selected device should be formatted with the Windows NTFS file system. Pyxis may also store projects on a mapped network drive.

Default Media Device

When Pyxis is first started it displays a dialog box stating that no on-line Pyxis NLV devices have been found. You then need to press okay so that the Media and Project Management dialog can come up. For more information on the Media and Project Management dialog see "Media and Project Management".



To prepare a drive for use with Pyxis, select the device from the devices list and click on **Convert to Media device**. This does not affect any other data on this drive, though it is recommended that you use a separate disk as a media device, to enable video frames to be loaded quick enough.

You also need to select a device to be your default project device. You can click on the **Exit** button on the Media and Project Management dialog and it will prompt you for a project device, or you can set it manually by setting the default manual device property.

Opening a Project

To open an existing project select **File** → **Open**. Select a device in the top window and the projects contained in that device will be displayed in the bottom window. Projects may be listed with a video thumbnail or with a list of project details. Select a project and click **OK**.

Creating a New Project

To create a new project select **File** → **New**. When you create a new project you must enter the sample and frame rates and sample type. AVI, Quicktime and OMF files can be imported onto the time line by using the **File** → **Import** menu or dragging and dropping onto the time line from the Windows Explorer. See "Making a Recording" for details on recording new material into Pyxis.

Project Settings

Once the project is open, the audio sample rate, bits per sample, and the video frame rate can easily be changed. To change the current project settings select **Setup** → **Current Project** and enter the appropriate values. For more details on the project settings dialogue see "Current Project".

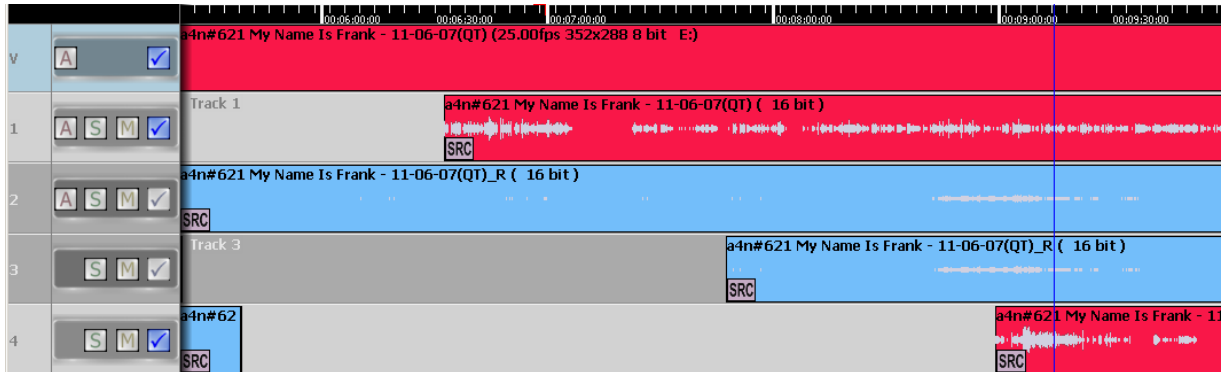
The Track Display

The lower half of the screen displays the project timeline as a series of clips containing the video and audio material and edits. The top half of the track display includes one video track and four audio tracks. The bottom half contains the optional video frame scroller and audio scrollers.

Above the tracks is the timeline. This displays frames, seconds and minute markers. What markers this displays depends on the zoom scale you are at.

At the centre of the track display is a blue vertical line. This represents the current time location or play head.

Tracks can be selected for edit operations by clicking in the track ID box at the left hand side of the track display. Selected tracks are highlighted, for example tracks 1 and 4 are selected below, as well as the video track. Clips under the playhead on selected tracks are also highlighted, indicating these are the clips that edit operations will be performed on.



Clips can be placed at the same location or overlapping on the timeline, however, only the top clip will be played back.

Audio clips can display a profile of the waveform contained in the clip.

On the scrollers at the bottom of the screen the current time or play head can be moved to show more or less of the up-coming frames. Simply click on the line and drag it left or right to the desired location.

Clip Colours

Clips on selected tracks under the play head are coloured red. These are the currently selected clips for all edit operations. Audio clips and AVI or Quicktime video clips that are dragged onto the timeline are coloured light blue. DV video clips are coloured light green and uncompressed video clips are coloured mauve. Clips that have been imported from an OMF file and are playing back from the original OMF file are coloured yellow. Yellow and other colours indicate that the source media is not in Pyxis format.

Scrollers

The scrollers display the actual frames for the video track or a waveform for an audio track.

The video scroller displays roughly 15 frames of video on the screen at once. The audio scroller display can be zoomed independently of the track display, but as a default, the audio scroller represents nearly six seconds of audio with each screen pixel representing 256 audio samples. The horizontal audio scale can be adjusted from 10 frames to over 3 minutes. The vertical scale can be set to one of seven display modes including linear and logarithmic amplitude display.

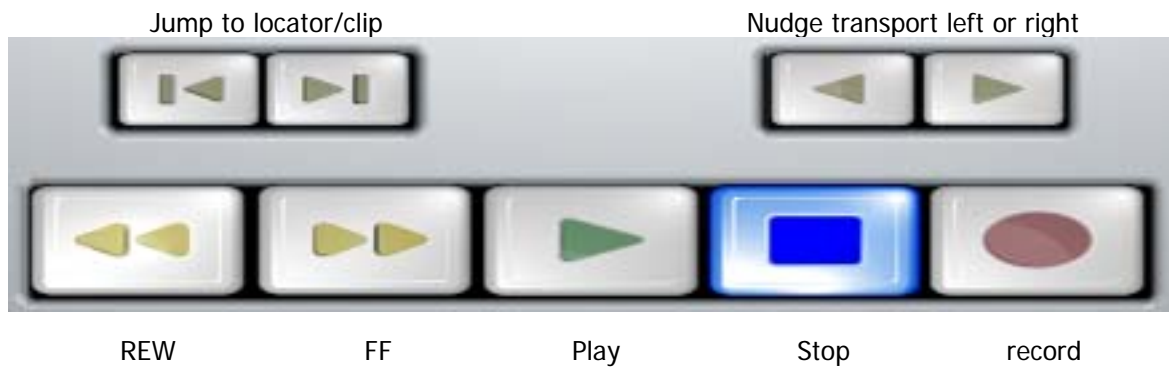
The current play position can be moved with fine resolution by clicking and dragging the scroller to the left or right. With jogging enabled in **Setup** → **Hardware** audio will be played at the rate you move the mouse. Zoom the scrollers with the wheel on a mouse. Click on a video frame or an audio sample to jump to that location.

To turn a scroller on or off hold the Ctrl key down and press the track number for the audio track that you would like to display or press the ~ key for the video scroller.

See "Scrollers" for more details.

Playback and Transport Control

Transport Controls



The transport control buttons are designed for use with a touchscreen or a mouse. They offer your usual selection of transport controls. You may also use the space bar to toggle between play and stop. The arrow keys to jump to the next clip or locator. Or you can use the < > keys to nudge left or right. By default the nudge size is set to one frame.

Locating

Pyxis offers several options for locating the transport and navigating throughout a project.

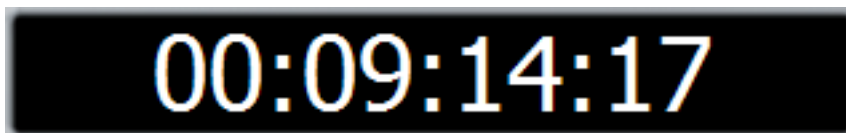
Dragging the Timeline

To quickly move the transport right-click with the mouse over the timeline and drag left or right. Alternatively click the grab button first and use the left mouse button or the touchscreen.



Direct Timecode Entry

To move to a specific timecode location click on the timecode display to reveal the timecode entry dialogue.



The screenshot shows a window titled "Locate to:" with a standard Windows-style title bar. The main content area features a large digital display at the top showing the time "00:00:00:12". Below the display is a numeric keypad with buttons for digits 1 through 9, 0, and "00", along with a "DEL" button. To the right of the keypad are buttons for "+", "-", "OK", and "Cancel". At the bottom of the window are four buttons, each displaying "00:00:00:00".

Enter the required location and click **OK**. The last four entries are stored and can be recalled by clicking one of the four buttons at the bottom of the window.

Video Locators



Three columns of video locator tiles are displayed at the upper right hand side of the screen. Each tile contains a frame of video and stores the associated timecode location. Clicking on a tile instantly moves the transport to that frame.

Click the left button mouse on a video locator to jump to that location, unless that locator is empty. Click the right mouse button on a locator to store the current time and frame. You may also click the left or right mouse button on an empty locator and it will store the current time.

When using a touchscreen, drag the current frame from the video display window onto any tile, or select an empty locator to store the current time on a locator.

The up and down arrows to the right of the locator tiles scroll through the available tiles.

Organise the locator tiles by dragging frames from one tile to another. Drag an empty locator onto an existing locator to clear the locator, or simply drag the locator off the right hand side of the screen, where a red cross will appear in place of the locator indicating it will be removed.

Jump Keys

Use the transport jump keys to jump right or left to the next clip or locator point. The nudge keys can be used to move left or right by one frame, and can also be changed to nudge by any amount, see "Nudge Size".

Video Scroller

Left-click on any frame on the video scroller to jump the transport to the beginning of that frame.

Right-click anywhere in a frame on the video scroller to jump the transport to that point in the frame.

Audio Scroller

Click on a point within the audio scrollers and the timeline will jump to that point.

Zooming

The horizontal scale of the timeline can be zoomed in or out to view more or less of the project. If using a wheel mouse simply move the mouse over the timeline and roll the wheel up or down.



Alternatively click on the zoom button and drag the mouse up or down.

The left and right extents of the track display are indicated in the bottom left and right of the status bar. The timescale of the track display is indicated by the graduated scale along the top of the video track. Major graduations are placed at every minute intermediate graduations indicate seconds and minor graduations indicate frames.

The audio scrollers can be zoomed independently of the track display. Hold the mouse over the scroller and roll the wheel. Alternatively the scroller can be set with numeric accuracy by selecting **Setup → General Preferences → Options → Scrollers**. See "Scrollers" for more details.

Making a Recording

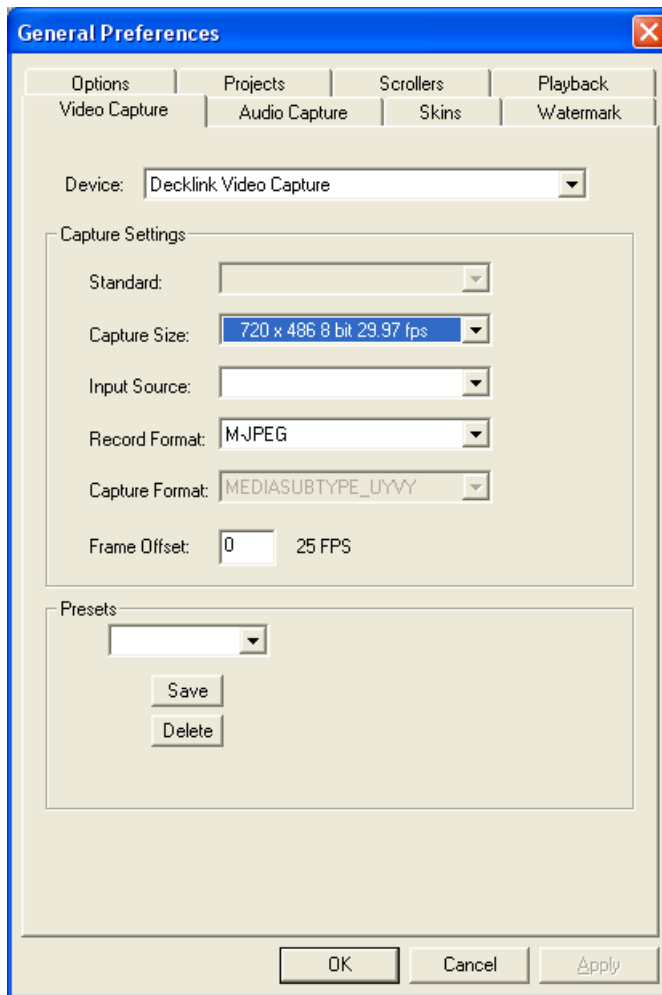
To support recording your Pyxis system must be fitted with a compatible video capture card and sound card. See "Minimum Requirements" for more details.

Selecting a Recording Source and Format

Pyxis must be configured for the appropriate capture device.

Select **Setup → General Preferences → Options → Video Capture** for the video source.

Select **Setup → General Preferences → Options → Audio Capture** for the audio source.



Video

In the video capture dialogue select the appropriate values from the drop-down boxes:

- Device - Select the video capture card.
- Standard - Select the video standard to match the source playback device: NTSC, PAL, or SECAM.
- Capture Size – Select the capture resolution. The highest resolution available depends on the video standard being captured..
- Input Source – Select from the valid input connectors on the selected capture card.
- Record Format – Pyxis can record in both uncompressed and DV formats.

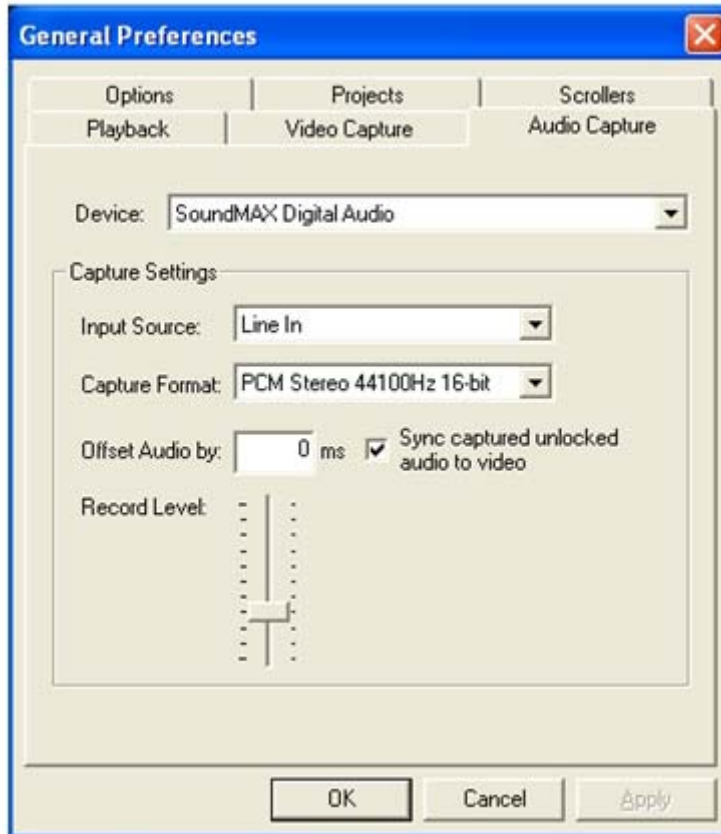
Note: The format set in this field also determines the target conversion format for imported video.

- Capture Format – This field displayed the component video format supported by the capture card. This may be useful in diagnosing capture problems.
- FPS – This field sets the capture frame rate in frames per second. It defaults to the frame rate of the selected video standard (i.e. 29.97 for NTSC or 25 for PAL or SECAM)> However, you can capture at a lower or higher frame rate if required. Click on the arrows to increase or decrease the value. If you select a rate higher than the video standard

being fed into Pyxis then some frames will be double up; if you select a rate less than the current video standard then some frames will be dropped.

Audio

In the audio capture dialogue box select the appropriate values from the drop down boxes:



- Device - Select the audio capture card.
- Input Source - Select from the available input connectors on the selected audio capture card.
- Capture Format - Indicate the required audio capture format.
- Offset Audio by - This is an offset setting in milliseconds. This allows for if the audio is always being captured ahead/behind by the same amount then you can adjust for this here. It is recommended that you capture a known bit of video initially to work out what this value should be for your system.
- Record Level - Allows you to adjust the level that the audio is captured at.

Arming Tracks



Tracks must be armed for record. Select the tracks to arm by clicking in the track ID boxes at the left hand side of the track display, then click the **Arm Tracks** button. Alternatively, you can click the track arm boxes at the left hand side of the track display.

Tracks can be dropped in or out of record during a recording using the methods described above.

As soon as the video track is armed, any incoming signal is displayed in the video display window. The video scroller still shows the clip under the play head while armed. However, once you start recording it shows the recorded frames as they are captured.

Entering Record



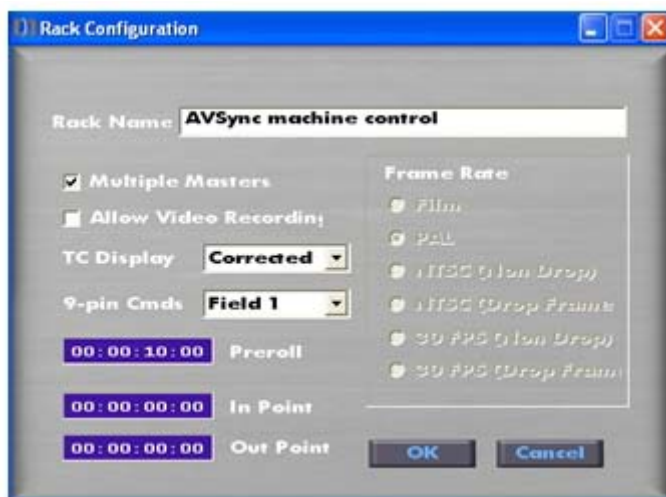
To begin recording simply click the **record** button. To stop recording press the record button again or the stop button.

Drop In/Out

Individual tracks can be dropped in or out clicking in the track arm boxes at the left hand side of the track display. All selected, armed tracks can be dropped out of record by clicking the **Arm Tracks** button.

When using the AVSync rack, tracks can be dropped in or out of record at pre-defined times. Arm tracks for recording.

Select **Machine Control** → **View AVSync Rack** → **Configure Rack** to display the rack configuration dialogue. You need to enable the option Allow Video Recording if you would like to record onto the video track. Enter preroll, drop-in and drop-out points by clicking on the times. Then press the Drop-In Recording button at the bottom of the rack. Click the **Execute Recording** button to pre-roll and drop in and out at the preset locations.



See "Machine Control" for more details on machine control.

Remote Recording

AVSync makes lay-back and other dubbing processes a simple and auto-mated procedure. See "Machine Control" for details on con-figuring remote machines. Once a machine has been added to the AVSync rack, it may be remotely armed for recording by clicking on the Configure Arming button on its front panel. Record commands issued by the 9-pin master device are sent to all

slave devices in the rack. In this way Pyxis may control remote devices as sources for recording or as destinations for transfer, lay-back or dubbing. The drop-in procedure out-lined in the previous section may be used with one or more remote machines.

Editing

Pyxis provides all the features necessary to perform simple edits for conforming, inserting or deleting video or audio material. Pyxis uses a nondestructive clip-based editing model. Each clip refers to audio or video data contained in a media file on disk. Edits performed on clips do not affect the original data contained in the media files.

Adding clips

You can add clips to a project a couple of different ways.

You can record a clip onto the timeline – see “Entering Record”.

You can drag a file from windows explorer onto the timeline, and if Pyxis can read it a clip will appear on the timeline. The file must be on a AVMedia formatted device see “Media and Project Management”.

You can import a video file using **File** → **Import** → **Video File**, see “Video File” how to do this.

The final way to add a clip is to use the Quick Import List see “Quick Import List”.

Selecting a Clip

All edits are performed on the currently selected clips. The clips under the play head on the currently selected tracks are the currently selected clips. To select a track click or press in the track ID area at the left hand end of the track in the track ID area. Click or press again to de-select. The selected tracks are highlighted and the selected clips are coloured red.

Selecting a Range

Click on the select button (as shown below, it goes blue, indicating that the cursor can be used for selection) then click and drag starting outside any clips on the track display. The selected clips are coloured red.



When the select button is active you can click and drag on a clip to move it to another track or location. If using a mouse you can left click on a clip at any time to drag it to another location.

Edit Operation

Most edit options are displayed on the edit buttons. Additional edit functions are located in the Edit menu. For a complete description of edit functions see “Edit”. Keyboard shortcuts are available for most edit operations, see “Keyboard & Mouse Shortcuts”.

Video versus Audio Edits

When the video track is selected, all edits occur at the frame boundary at the beginning of the current frame. When only audio tracks are selected, edits can occur at any location.

Edit Modes

There are three edit modes. In the **Normal** edit mode time is not affected by edits, only the clips themselves are modified. In **Razor On** mode, time is inserted where clips are pasted, or removed where clips are inserted. This mode is similar to editing a tape with a razor blade. After a paste operation, clips to the right of the play head are moved to the right. After an erase operation clips to the

right of the erased section are moved to the left to fill in the gap. Razor affects all selected tracks, meaning if you erase a 2 second clip on one track then all selected tracks are moved left by 2 seconds.

In the Drag edit mode, Cut and Copy operations select everything after the play head. Erase operations remove time from the time line in the same way as Razor Mode. Paste operations do not affect the time line and are the same as Normal mode edits. Drag affects all selected tracks.

Select **Edit** → **Edit Mode** to choose the edit mode.

Layers

More than one clip may be placed at the same point on the timeline. Clips may overlap, cover a part or cover a whole clip. Only the top clip can be heard when played back.

Edits may be performed on the top layer or on all clip layers. Select **Edit** → **All Layers** to enable editing on all clip layers.

Snapping

Editing can be made easier by enabling snap editing. When moving clips, snapping causes clips boundaries to be placed at the nearest clip or mark on a selected track. To enable snap mode select **Edit**>**Snap Editing**. You can choose to snap to all events or just clips or marks by selecting the appropriate option under **Edit** → **Snap To**. Note that marks are the locations of the locator tiles.

Undo/Redo

All edits can be undone. Click on the undo button to undo the last action. Click on the redo button to redo the last undone action.



Machine Control

Pyxis provides a simple machine control and synchronisation solution in a customised version of AVSync. AVSync is AVMedia's complete synchronisation tool which uses the same PCI Comms card as Pyxis. A full version of AVSync may be purchased separately to provide Pyxis with sophisticated multi-machine synchronisation features.

With Pyxis machine control you can operate Pyxis as a slave or master device connected via an industry standard Sony 9-pin RS422 interface to any compatible device. Machine control offers remote transport control, and track arming plus frame accurate synchronisation when supplied with a standard video sync signal.

To display the AVSync interface select **Machine Control** → **View AVSync Rack**.

Pyxis offers several default modes of operation: master and slave, 9-Pin Master => VTR, LTC Chase and MIDI Slave.

Master Operation

To select master mode, select **Machine Control** → **9-pin Master** from the main menu.

In master mode Pyxis will issue Sony protocol transport commands to a slave VTR, or digital audio workstation. Pyxis also issues timecode and status requests allowing it to chase the slave machine's current timecode location.

Connect a straight through wired RS422 9-pin cable from the slave machine to the master port on the Pyxis break-out cable. Connect a 75 ohm video cable from you house master video sync generator to the Pyxis VSync port on the Pyxis break-out cable. Pyxis indicates if a valid sync signal is present by displaying the video format (PAL/NTSC) in the lower right hand corner of the AVSync rack. If no valid signal is present this display shows ****UNLOCKED****.

In the AVSync rack you will see a Pyxis machine at the top of the rack and a slave machine below it. Pyxis automatically recognises most common 9-pin slave devices, when they are connected, and loads a slave machine configuration to suit.

If your machine is not one of those currently supported, Pyxis will auto-matically add it to its machine database. You may need to modify the machine configuration to suit the new device. Click on the **Configure Machine** button on the front panel of the slave device to change the settings for the slave machine's transport type and ballistics. For more details on the machine configuration settings, refer to the AVSync manual included on the Pyxis CD.

The AVSync rack can contain only one master timecode reference, this is known as the timecode master. Click the **Timecode Master** button on the front panel of the slave machine to make it the timecode master for the rack.



To lock Pyxis to the slave machine click on the **Locked** buttons on both the Pyxis machine and slave machine front panels. Alternatively, click on the **Lock** button on the Pyxis main screen just below the timecode display to lock or unlock Pyxis.

Slave Operation

To select slave mode, select **Machine Control** → **9-pin Slave** from the main menu.

In slave mode Pyxis will respond to Sony protocol transport commands issued by an edit controller, or digital audio workstation. Pyxis also responds to timecode and status requests allowing a master machine to chase or sync the Pyxis machine's current timecode location.

Connect a straight through wired RS422 9-pin cable from the master machine to the slave port on the Pyxis break-out cable. Connect a 75 ohm video cable from you house master video sync generator to the Pyxis VSync port on the Pyxis break-out cable. Pyxis indicates if a valid sync signal is present by displaying the video format (PAL/NTSC) in the lower right hand corner of the AVSync rack. If no valid signal is present this display shows ****UNLOCKED****.

In the AVSync rack you will see a Pyxis machine at the top of the rack and a master machine below it. This master machine contains the settings for a slave emulation device. As Pyxis is a non-linear device you should use the default Pyxis set-up. However, some master machines may not recognise the Pyxis device ID. In this case you may want to select a device from the list of common device presets.

To select a different device for slave emulation, click in the device name on the AVSync master machine and select a known device from the drop-down list. You will probably want to modify the device settings by clicking on the **Configure Machine** button on the front panel of the master device. Click on the **Reset** button at the bottom of the dialogue box, then select **Stop Command: Stop & Locate**. Select **Slave Control**

Method: Non linear device. These settings will make the slave emulation behave like a non-linear device.

The AVSync rack can contain only one master timecode reference, this is known as the timecode master. Click the **Timecode Master** button on the front panel of the master machine to make it the timecode master for the rack.

To lock Pyxis to the master machine click on the Locked buttons on both the Pyxis machine and master machine front panels. Alternatively click on the **Lock** button on the Pyxis main screen just below the timecode display to lock or unlock Pyxis.



Offsets

Timecode offsets can be entered in the AVSync rack. Double click in the **Offset** field of the machine you wish to adjust and enter the desired offset. Offsets can be captured from the current difference between the master and slave by clicking the **set** button. Add or subtract a single frame from the offset by clicking the **+** or **-** buttons. See the AVSync manual located on the Pyxis CD for further information.

Using Pyxis with a Fairlight Workstation

Pyxis can be used in either slave or master mode with a Fairlight DREAM II product. In master mode the Pyxis transport controls and locators can be used to control the Fairlight.

When properly configured, Pyxis provides bi-directional control with the Fairlight when Pyxis is operating in slave mode. You must be running QDC version 18.3 or above, or any version of DREAM II to fully support this feature.

The key to using the Pyxis transport controls in slave mode is set the **Multiple Masters** setting in the AVSync rack. Select **Machine Control** → **View AVSync Rack**, then click on the **Configure Rack** button at the bottom of the rack. Tick the **Multiple Masters** check box and click **OK**. This option is set by default.

DREAM II Setup

Connect the Pyxis to the 9-pin A or B ports with a straight through wired 9-pin cable.

On the DREAM console press **BLUE** + **M1** to display the machine control menu, and select **Pyxis A** or **Pyxis B**. Press the **M1** button when you are ready to lock the machines together. The unlace and lace values will be set automatically when the Pyxis is detected.

Import/Export

Pyxis can import and export a variety of file formats. There are two methods of importing material into Pyxis. The first is via the **File** → **Import** menu. The second method is to drag and drop video or audio files from Windows Explorer from a AVMedia formatted device directly onto a track.

Pyxis can export video files, Fairlight ML4 files, audio mixdowns, audio files, AES31 and OMF.

When importing video files from the **Import** menu, the video is trans-coded into either DV, M-JPEG or Pyxis native Uncompressed format. The uncompressed format is YUV 422. To choose the target format select the record format in the combo box located to the right of the filename.

When importing OMF files from the import menu or when dragging video files onto the timeline, Pyxis will attempt to play the video directly from the OMF or video file. If the Pyxis machine cannot decode the video format in real-time, it is possible to convert the video material to Pyxis native DV or Uncompressed.

To do this, select the clips to convert and then select **Process** → **Import Clips**.

The target format is chosen in the **Setup** → **General Preferences** → **Video Capture** → **Record Format** dialogue.

If the frame rate of the imported material is not the same as the frame rate of the project, the clip will be marked to indicate that it is being played at different rate. A clip can be frame rate converted by selecting **Process** → **Frame Rate Convert**. See “Frame Rate Convert” for more details.

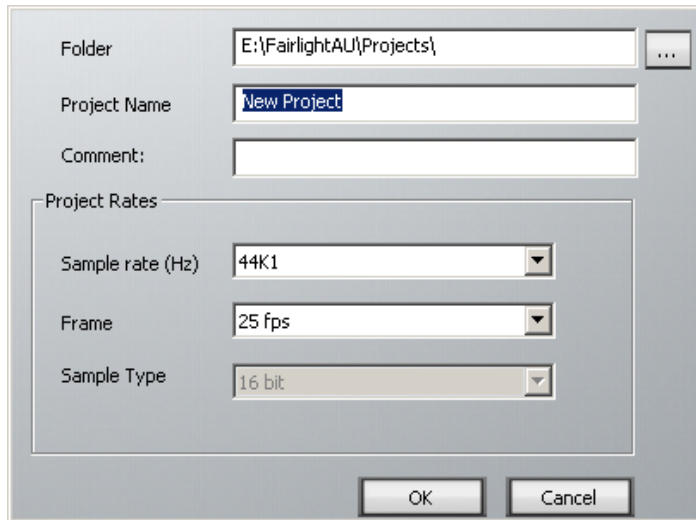
Audio files can be imported by dragging and dropping from Windows Explorer. If the sample rate of the clip is not the same as the rate of the project the clip will be sample rate converted in real time. The clip will be marked to indicate it is being converted. More conversion options are available from the **Process** → **Sample Rate Convert** dialogue. See “Sample Rate Convert” for more details.

For complete details of the Import and Export functions, see “Import” and “Export”.

Menu Reference

File Menu

New



File → **New**

Project Name:

Enter a name for the project. This is also the file name for the project file.

Comment: Optionally enter a comment for the project.

Sample Rate:

Select the audio sample rate. A project can contain audio clips recorded at any sample rate and the clips will be sample rate converted in real time. The project sample rate can be changed later by selecting **Setup** → **Current Project** → **Sample Rate**. Pyxis supports two sampling rates 44.1 or 48 KHz.

Frame Rate:

Select the video frame rate. A project can contain video clips recorded at any frame rate and the clips will be frame rate converted in real time. The project frame rate can be changed later by selecting **Setup** → **Current Project** → **Frame Rate**.

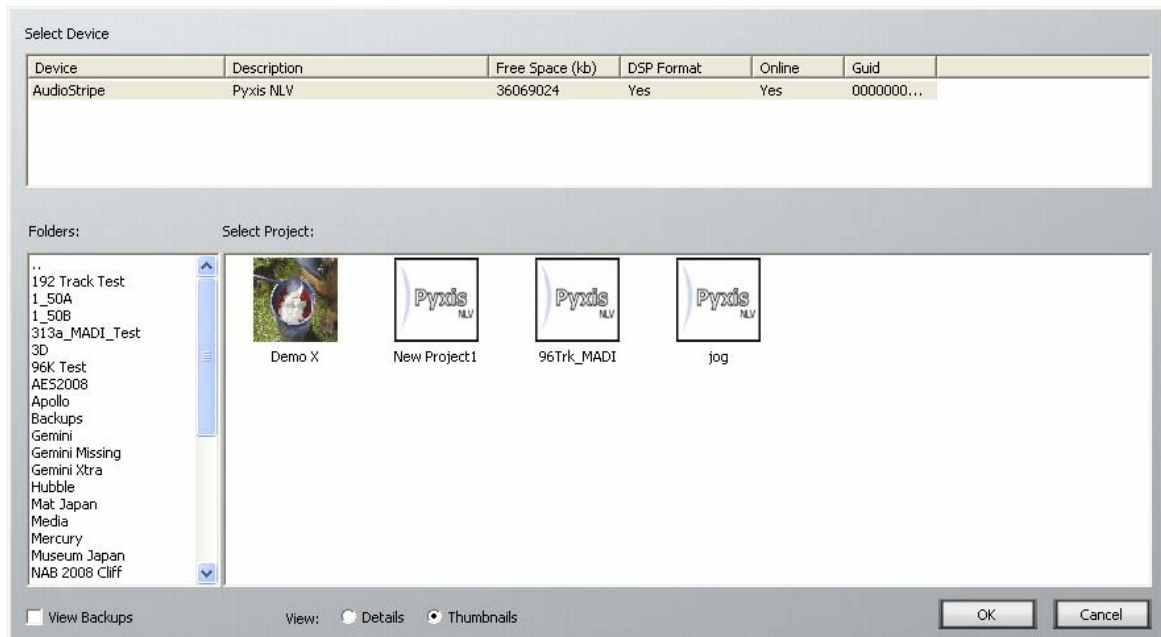
Available rates are: 25; 29.97DF, 29.97ND, 30DF and 30ND frames per second.

Sample Type:

Displays the audio bits per sample. A project can contain audio clips recorded at any bit rate and the clips will be converted in real time. Currently the only option available for a project is 16 bit.

Open

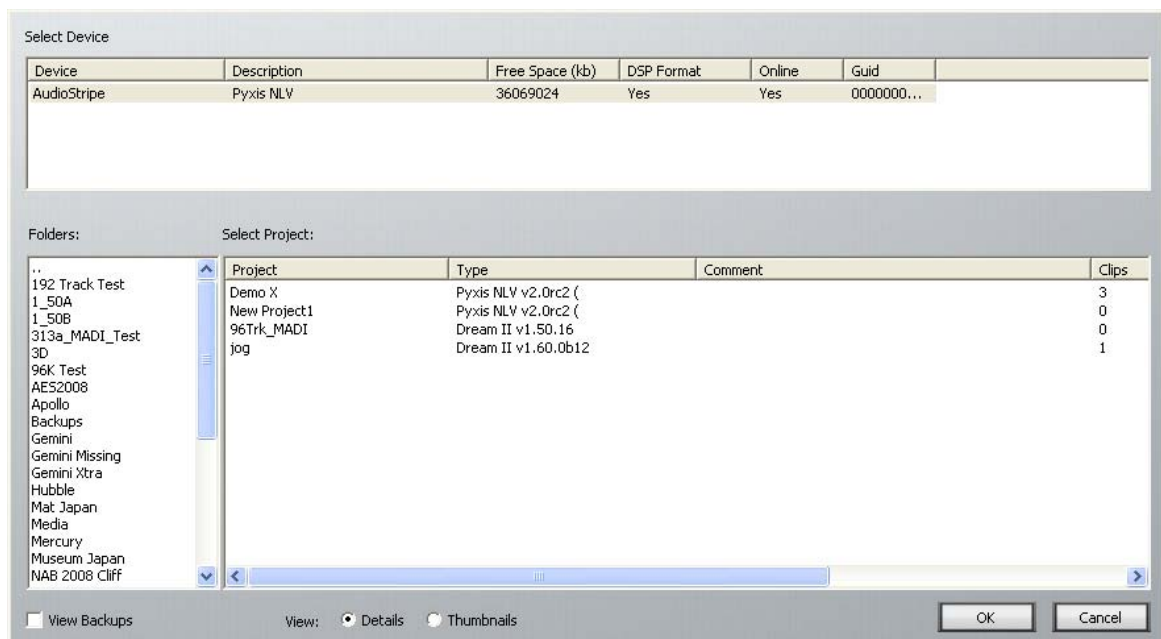
File → **Open**



The File Open window is divided into two panels. The top panel displays the available AVMedia formatted devices, showing the available free space, format, and globally unique identifier for the device.

The lower window displays the projects stored in that device. Each project is displayed with an animated thumbnail showing the frames stored as locator tiles in that project. Double click on a frame to open the project.

Details: Click on the **Details** button to display full project details as shown below.



The lower panel now includes details for each project including the project type, description, number of clips, audio sample rate, video frame rate, and date of last save.

View Backups:

Click to the View Backups box to include backup projects in the lower panel. Automatic backups project names are appended with a number. The most recent backup has the highest number. To activate automatic backups select **Setup** → **General Preferences** → **Projects**.

Save

File → **Save**

Saves the current open project.

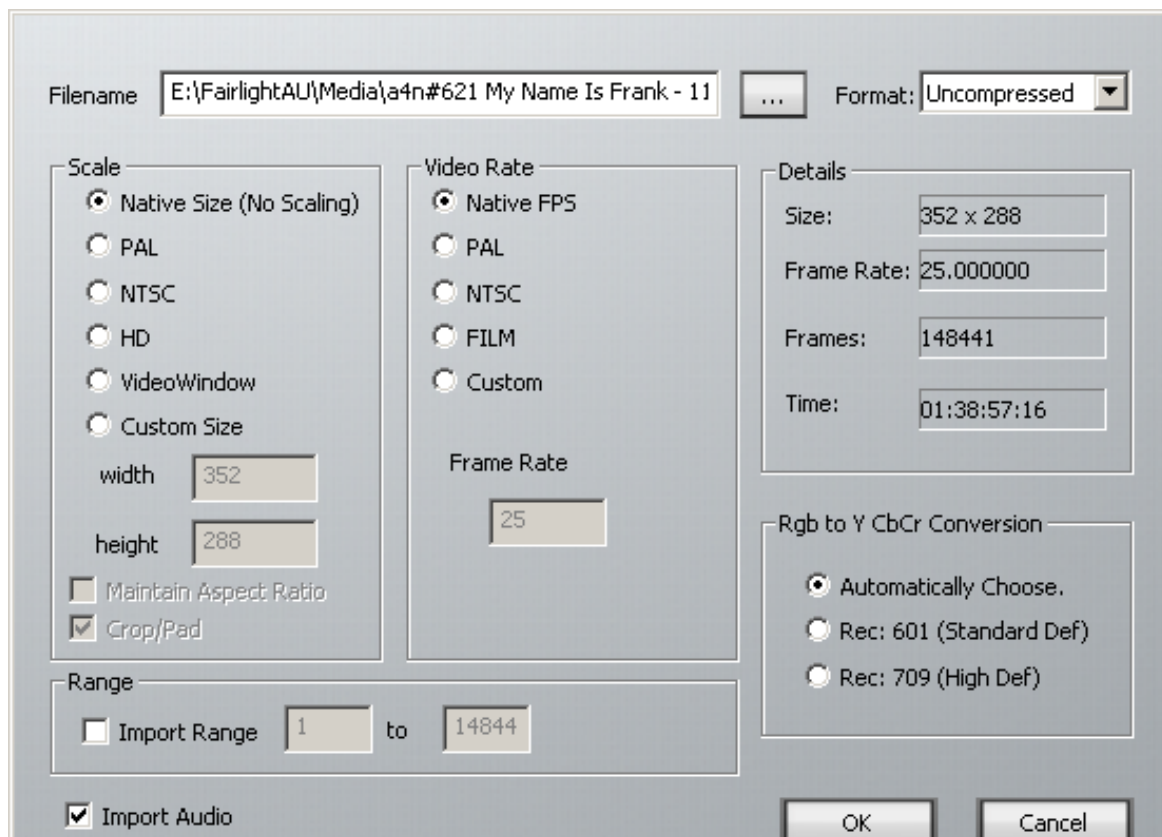
Save As

File → **Save As**

To save the project with a different project name, enter a new name in the dialogue box and click OK.

Import Video File

File → **Import** → **Video File**



Pyxis can import video and audio from AVI, MPG, Quicktime, and sequential bitmap files. Select the file, select the options as described below then click **OK** to import.

Import Audio:

Import the audio tracks contained in the video file. The audio tracks are saved as separate wave files in the Pyxis media directory.

Scale

Native Size (No Scaling):

Video will be imported without changing the image resolution.

PAL: Video will be resized during importing to PAL size.

NTSC: Video will be resized during importing to NTSC size.

VideoWindow:

Video will be resized during importing to size of the small video window.

Custom Size:

Imported video is scaled to a user defined resolution. Select this item then enter the image width and height in pixels in the number boxes below.

Maintain aspect ratio:

If you are resizing the image during the import this will ensure that the video stays at the same aspect ratio.

Video Rate

Native FPS:

Video frames are imported at the frame rate specified in the video file.

PAL: Video frames are imported at 25 frames per second

NTSC: Video frames are imported at 29.97 frames per second

Film: Video frames are imported at 24 frames per second

Custom: Specify the frame rate at which to import the video. Enter the custom frame in the number box below.

Length

Frames: Displays the length of the imported video in frames.

Time: Displays the length of the imported video in seconds.

Import Range:

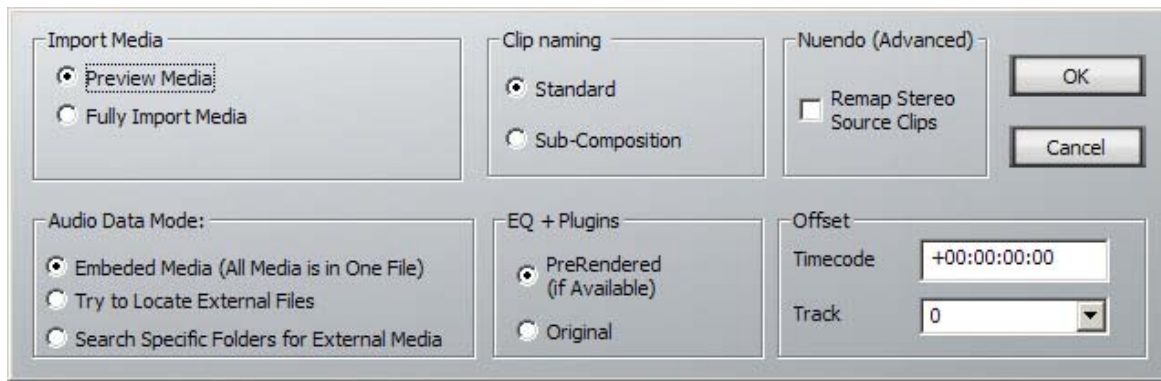
Check this box to specify a range of video to import in frames.

Import AES-31

File → Import → AES-31

Import OMF

File → Import → OMF



Pyxis can import compatible OMF files including OMF EDLS with external data and OMF compositions. Select the file, select the options as described below, then click **OK** to import.

Import Media

Preview Media:

Pyxis will attempt to play video directly from the OMF file, it is able to playback both DV and Avid JPEG video. Pyxis may not be able to play back the JPEG video in real time, depending on the speed of the computer, in which case the media can be imported into Pyxis native format. There is also an option in

Setup → **General Preferences** → **Playback** → **Avid JPEG OMF - Full Quality** which when turned off will enable most machines to be able to play back.

Fully Import Media:

Pyxis will transcode the video data in to either Pyxis native uncompressed or DV format. To select the import format select **Setup** → **General Preferences** → **Video Capture** → **Record Format**.

Audio Data Mode

Embedded Audio - All audio is in one file:

Pyxis will import the media directly from the OMF composition.

Try to locate external files:

Pyxis will look for external media files associated with the OMF EDL.

Search specific folders for external audio:

When this button is selected the lower panel is displayed allowing specific search paths to be added. Click the **Add Folder** button and browse to the path where the media files are located.

Clip Naming

Standard: Suitable for most compositions.

Sub-composition:

Retains clip names used in sub-compositions, suitable for some later generation Avid OMF files. Use when standard clip naming produces undesired clip names.

EQ + Plugins

PreRendered:

Where an OMF file was exported using rendered EQs or Plugins this allows you to import

the pre-rendered audio.

Original: Allows you to import the original source audio that the EQs or plugins was performed on.

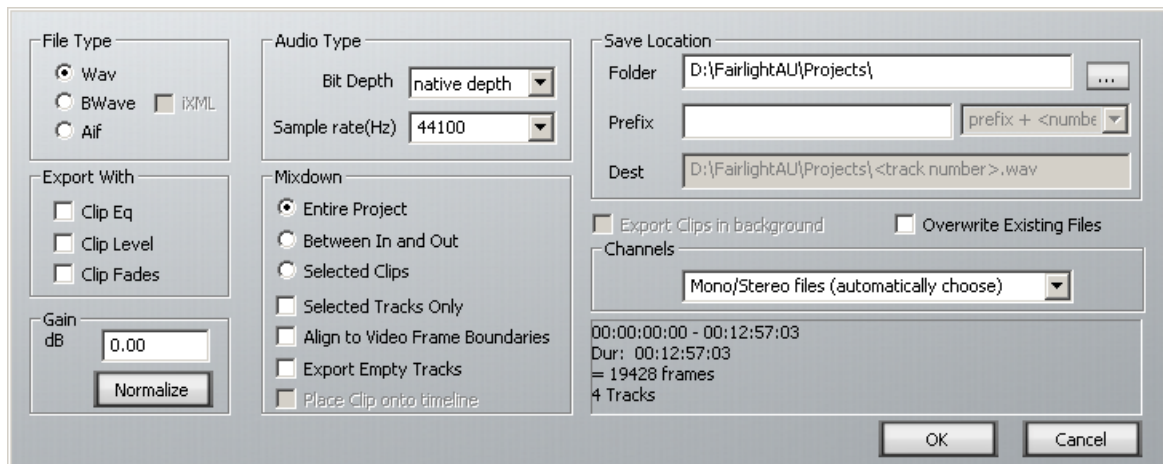
New: Import Pyxis/DR2 Project

New: Import Thomson XML project

Export

Audio Tracks / Clips

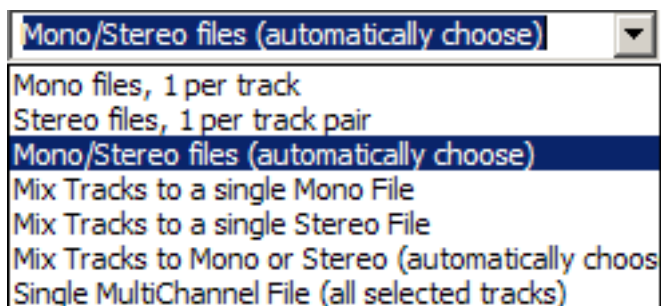
File → **Export** → **Audio Tracks / Clips**



The audio in your project can be exported to one or more audio files. Spaces between audio clips become zero samples in the exported file. Fades and cross-fades are rendered into the audio before exporting.

Select the settings as described below then click **OK** to export. Enter a file name and click **Save**.

Channels



Mono Files, 1 per track:

Each track is exported to a single mono file.

Stereo Files, 1 per track pair:

Each pair of tracks (1-2, 3-4) is exported to a single stereo file.

Mix Tracks to a single Mono File:

All tracks are mixed together into one mono stream, which is exported to a single file.

Mix Tracks to a single Stereo File:

Tracks 1 and 3 are mixed to the left channel and tracks 2 and 4 are mixed to the right channel and saved as a single stereo file.

Mono/Stereo files (automatically choose):

The system determines whether there are any stereo (multi-channel) clips in the project. If there are, it outputs to a single stereo file, otherwise a single mono file.

Multi-channel clips are created when stereo files are imported into Pyxis.

Single Multi-Channel file:

All active tracks are saved as a file with multiple channels. If all four tracks have audio on them, this file is four channels wide.

File Type

Wav: Audio is exported in Windows standard wav format.

BWav: Audio is exported in broadcast wave format. The timecode location at the head of the audio is included in the audio file.

Aif: Audio is exported in Apple Macintosh standard aiff format.

Audio Type

Sample Size:

Enter the sample word length in bits. Pyxis can export 8, 16 and 24 bit files.

Sample Rate:

Enter the sample rate in Hertz. Pyxis can export audio with 11025, 22050, 44100, 48000, and 96000Hz sample rates.

Mixdown

Entire Project:

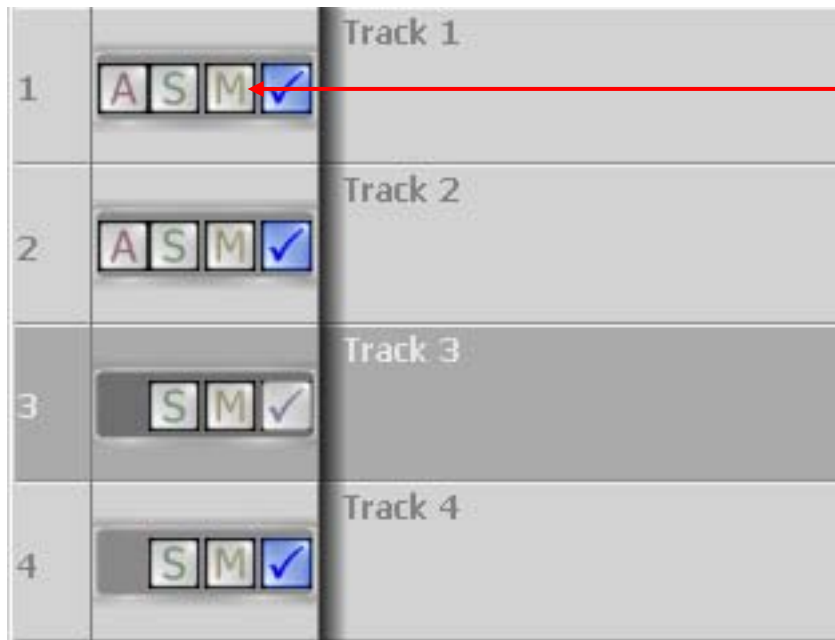
All audio clips in the project are mixed down for export.

Between In and Out:

Only audio clips between the in and out points are exported. To set the in and out points, locate the transport to the desired location and click on the **Mark In** or **Mark Out** buttons directly above the transport controls.

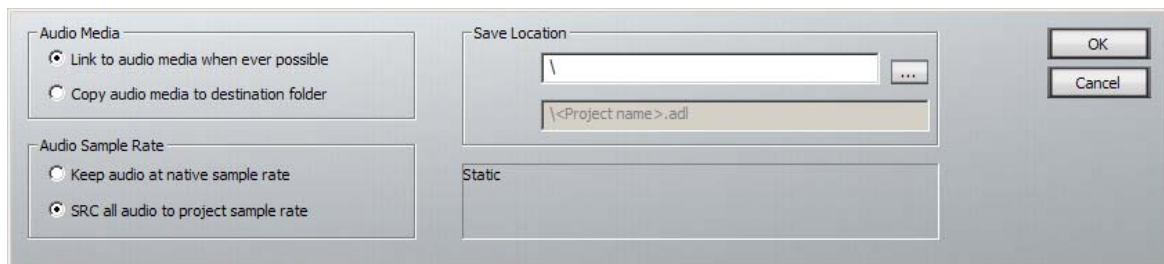
Selected Tracks Only:

Only audio clips on the selected tracks are exported. To select a track, click in the track ID box at the left of the track display. Selected tracks are highlighted.



Click to select or deselect tracks

File → **Export** → **AES-31 Project**



Exports the audio in your project to AES-31 interchange format.

Audio Media:

You have the option to copy all the media to the same folder as the AES-31 file, or leave it where it currently is, and link to it. If you are moving the project to another location, it is wise to copy the audio media to the destination folder.

Audio Sample Rate:

You have the option to sample rate convert all audio to the project sample rate. This is useful if you have imported clips running at different sample rates, and the machine for which the AES-31 project is intended cannot handle a mixture of sample rates.

File → **Export** → **ML4**



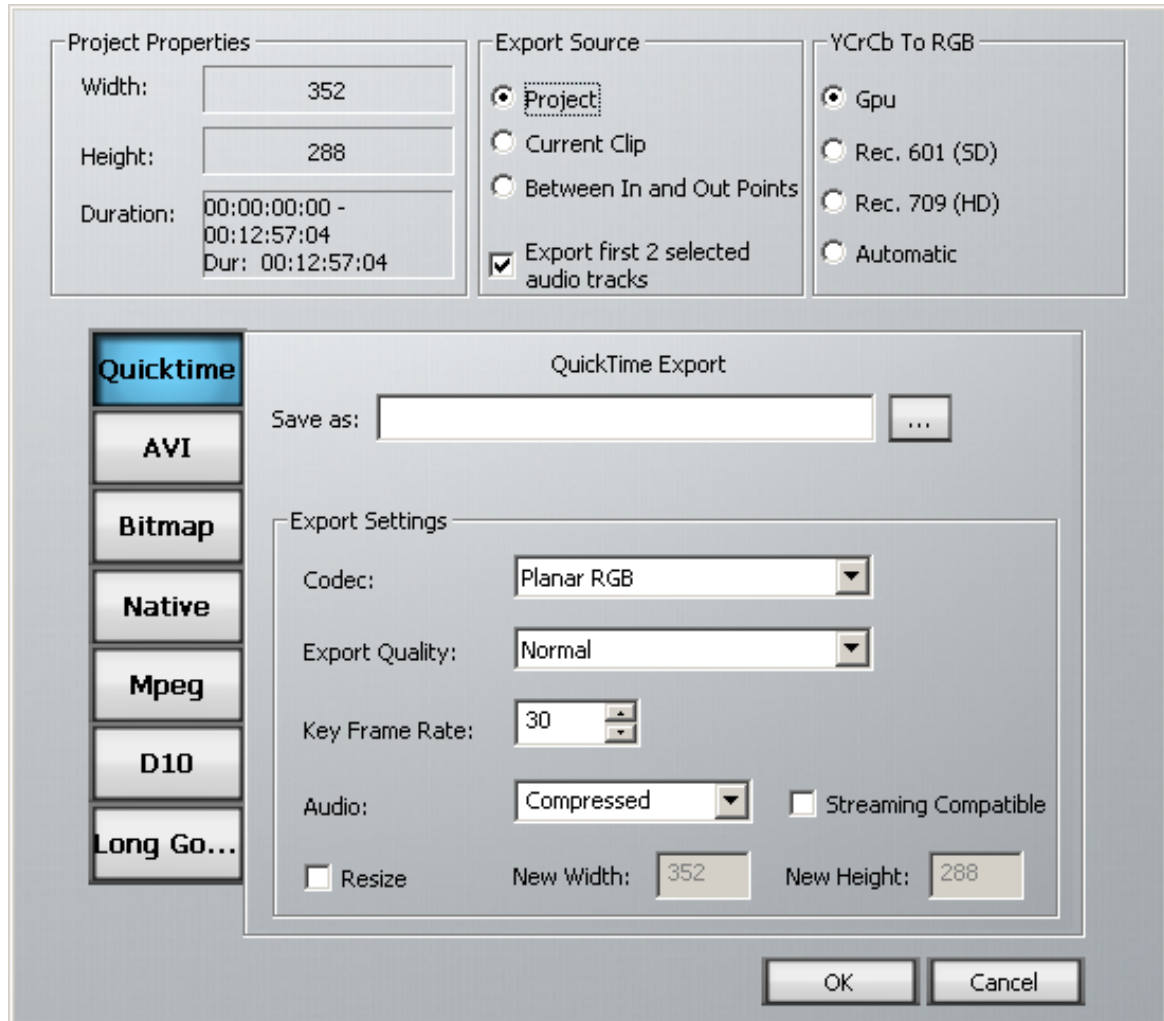
Exports the audio in your project to Fairlight's ML4 interchange format.

There is also the option to enable handles. Normally, only audio used in clips will be exported, instead of all of the audio, if the clip only references a section of the original audio file. When using the enable handles option you can also specify some extra samples at the head and tail of the clip to be exported.

New: Export -> OMF Project

Video File

File → **Export** → **Video File**



Pyxis can export Quicktime, AVI, sequential bitmaps, its own native format, MPEG, d10 or LongGOP. Select the settings as described below, enter a file name then click **OK** to export.

Project Properties

Width: Displays the current project's width in pixels.

Height: Displays the current project's height in pixels.

Number of Frames:
Displays the number of frames in the current project.

Export Source

Project: Click to export the entire current project.

Current Clip:
Click to export only the currently selected clip.

Between In and Out Points:
Click to export only between the in and out points. To set the in and out points, locate the transport to the desired location and click on the **Mark In** or **Mark Out** buttons directly above the transport controls.

Export Audio Mixdown:
Click to include a mixdown of the audio tracks in the exported video file. Tracks 1 and 3 are mixed to the left channel and tracks 2 and 4 are mixed to the right channel.

Quicktime

Click the **Quicktime** button to select export to a Quicktime mov file. Enter the Quicktime export settings as described below.

Codec: Select the codec from the list of available codecs in the system.

Export Quality:
Select the export quality used by the codec for image compression. Increased quality will improve the visible detail within the video and increase the file size.

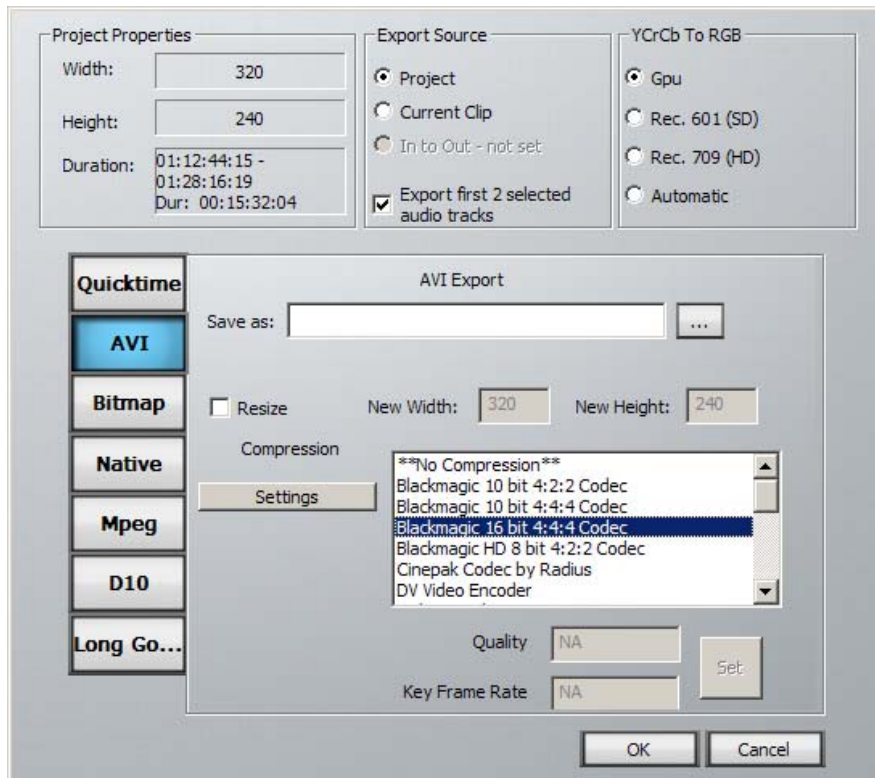
Key Frame Rate:
Key frames are used to compare the differences between subsequent frames for data compression. Decreasing the key frame rate increases both the quality and file size.

Audio: Select whether to use audio data compression algorithm in the video codec. The algorithm is non-lossy and compresses at a ratio of 4:1.

Streaming compatible:
Encode the audio in a streaming compatible format for delivery over the internet.

Resize: Click to resize the video frame resolution. Enter the new width and height in pixels in the number boxes to the right.

AVI



Click the **AVI** button to select export to a Windows avi file. Enter the AVI export settings as described below.

Resize: To change the resolution of the exported video file, click this box and enter the new width and height in pixels in the number boxes to the right.

Compression: Select the video compression codec from the available codecs in the list.

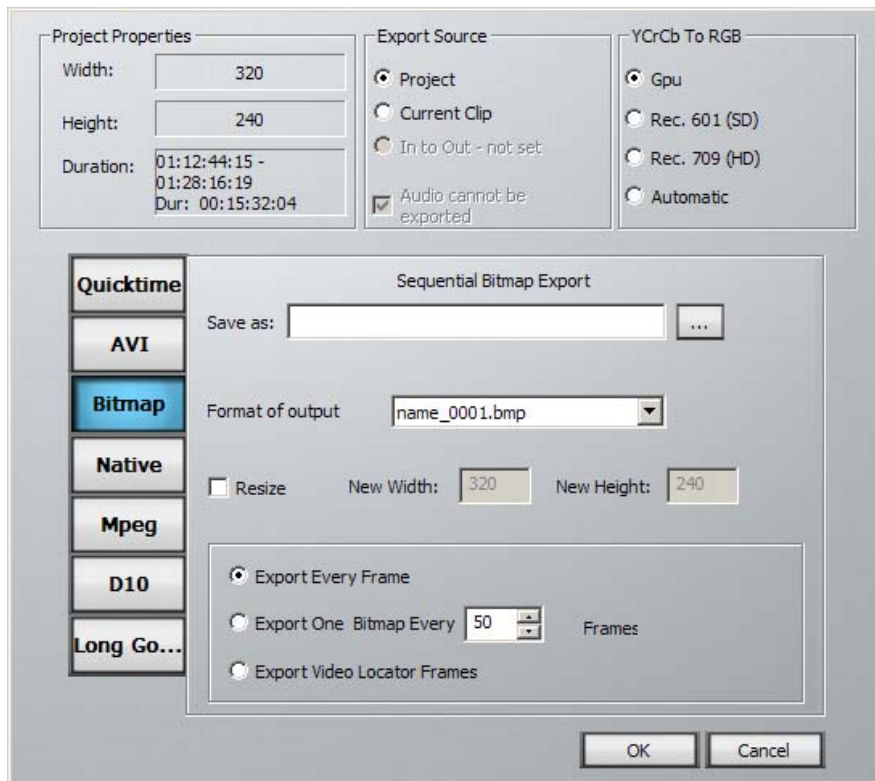
Settings: Some video codecs provide settings for customising the compression algorithm. Click the **Settings** button to display the codec settings dialogue.

Quality: Each codec has a default overall quality setting. This setting may be modified. Click the **set** button to apply the quality setting.

Key Frame Rate: Key frames are used to compare the differences between subsequent frames for data compression. Increasing the key frame rate increases both the quality and file size. Click the **set** button to apply the key frame rate setting.

Bitmap

Click the **Bitmap** button to select export to sequential bitmap files. Enter the bitmap export settings as described below.



Format of output files:

Select the format for the output file names. The numerical suffix is incremented for each file.

Resize: To change the resolution of the exported bitmap files, click this box and enter the new width and height in pixels in the number boxes to the right.

Export every frame:

Every frame is exported as a separate bitmap file.

Export on every _ frames:

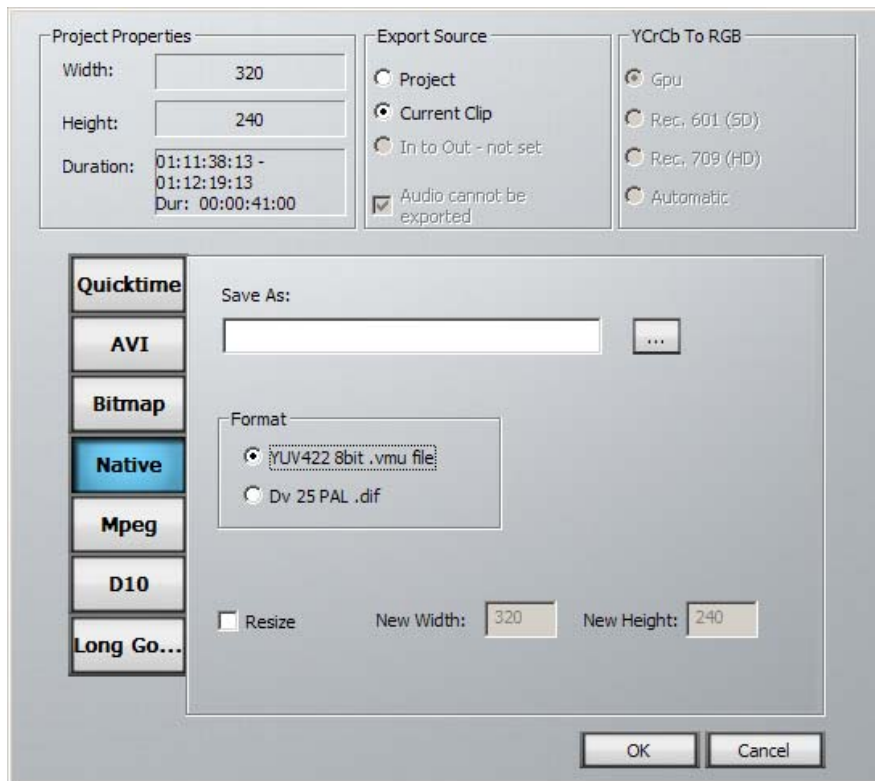
Enter 50 to export every 50th frame as a bitmap file.

Export frames displayed on video locators:

Only frames stored on the video locator tiles are exported as bitmaps.

Native

Click the **Native** button to select export in YUV422 or DV 25 PAL format.



Mpeg

Click the **Mpeg** button to select export to MPEG format. Source material must be in IMX MPEG format. This can be useful when the original video came from a “container” such as MXF, and it is desirable to have it in simpler format i.e. MPEG.

D10

Click the **D10** button to select export to D10 format.

D10 format is IMX MPEG, with 8 tracks of audio.

Typical use is to import a D10 file, edit the audio, then export it with the new audio. This file is the ready to broadcast.

Long GOP

Click the **Long GOP** button to select export to Log GOP format.

Recent File List

File → **Recent File List**

This list displays the most recently opened project for quick selection. Click on a file name in the list to open a project.

Hide

File → **Hide**

Minimize the Pyxis window to gain access to the Windows desktop. Pyxis may be restored by clicking on the icon on the Windows Taskbar.

Exit

File → **Exit**

Quit Pyxis.

Edit

The edit menu contains options for performing clip based editing. Most edits are performed on the currently selected clips on the currently selected tracks. The currently selected clips are either those directly under the play head on the selected tracks or those clips which have been selected by clicking and dragging the selection border in select mode.

Many edit functions are also available directly from the edit function buttons to the left of the video display window.

Cut

Cut the currently selected clips to the clipboard. The clips are removed from their current location and are displayed as a grey shadow anchored to the play head. Clips which have been cut may subsequently be pasted at a different location. Alternatively click the **Cut** button or hold the **Ctrl** key and press **x** to cut.

Copy

Copy the currently selected clips to the clipboard. The original clips remain at their current location and the copies are displayed as a grey shadow anchored to the play head. Clips which have been copied may subsequently be pasted at a different location. Alternatively click the **Copy** button or hold the **Ctrl** key and press **c** to copy.

Paste

Clips which have been cut or copied to the clipboard are displayed as a grey shadow anchored to the play head. Move the transport to select a new location or click on the clip and drag to a new track before selecting paste. Alternatively click the **Paste** button or hold the **Ctrl** key and press **v** to paste.

Erase

Erase the selected clips from the project. Alternatively click the **Erase** button or press the **Delete** key.

Accidentally erased clips may be recovered by pressing the **Undo** Button

Erase Head

Erase the portion of the selected clips to the left of the play head. Alternatively click the **Erase Head** button.

Erase Tail

Erase the portion of the selected clips to the right of the play head. Alternatively click the **Erase Tail** button.

Restore Head

Clips which have been previously edited can be restored to reveal all the audio data contained in the original file. **Restore head** restores the portion of the selected clips to the left of the play

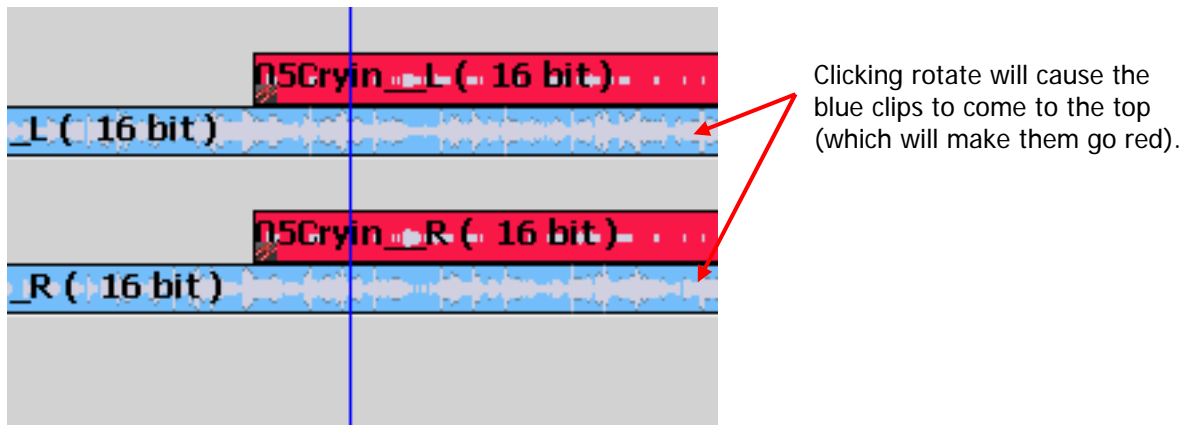
head to the extent contained in the original media file on disk. Alternatively click the **Restore Head** button.

Restore Tail

Clips which have been previously edited can be restored to reveal all the audio data contained in the original file. **Restore tail** restores the portion of the selected clips to the right of the play head to the extent contained in the original media file on disk. Alternatively click the **Restore Tail** button.

Rotate

Where two or more clips are layering on a track, **Rotate** causes the clip on the bottom of the stack to be moved to the top. This is a convenient way of auditioning multiple recording takes of the same audio against the same piece of picture.



Split Clips

Split the currently selected clips into two clips divided at the point of the play head. Alternatively click the **Split Clip** button or press **s** to split.

Cut Tail

Cut the portion to the right of the play head on the currently selected clips to the clipboard. The tails are removed from their current location and are displayed as a grey shadow anchored to the play head. Clips which have been cut may subsequently be pasted at a different location. Alternatively click the Cut Tail button.

Rename

Enter a new name for the currently selected clips. Alternatively click the **Rename** button.

Clip Level

Apply gain to the currently selected audio clips. Enter the amount of gain in dB. This is calculated in real time and does not affect the original media. Alternatively click the **Clip Level** button.

Set Sync Point

Sets a sync point on all selected clips. A sync point is a way of defining a sync point on a clip. It is used to define the beginning of the most important sound in a clip. This can then be used when inserting a clip into another project – see “Quick Import List”.

Flip Fields (Pyxis Pro)

Causes the fields in the current video clip to be swapped.

Each Interlaced video frame is composed of 2 fields. Each field is exactly one half of the frame.

The fields are interleaved (interlaced) on a line by line basis. I.e. the first line of the frame will be from field A, the second will be from fields B, and so on like this:

A0A0A0A0A0A0A0A0A0A0A0A0A0 <---- line 0 of field A

B0B0B0B0B0B0B0B0B0B0B0B0B0 <---- line 0 of field B

A1A1A1A1A1A1A1A1A1A1A1A1A1 <---- line 1 of field A

B1B1B1B1B1B1B1B1B1B1B1B1B1 <---- line 1 of field B

A2A2A2A2A2A2A2A2A2A2A2A2A2 <---- line 2 of field A

B2B2B2B2B2B2B2B2B2B2B2B2B2 <---- line 2 of field B

A3A3A3A3A3A3A3A3A3A3A3A3A3 <---- line 3 of field A

B3B3B3B3B3B3B3B3B3B3B3B3B3 <---- line 3 of field A

Each even line is from field A, each odd line is from field B.

The even lines come first, so field A comes first.

Sometimes video signals or video files arrive that have been put together wrong, so you would use either flip fields or switch alternate lines to correct the signal back to its normal state (above).

If you apply Flip Fields on the above image, you would get this:

B0B0B0B0B0B0B0B0B0B0B0B0B0

A1A1A1A1A1A1A1A1A1A1A1A1A1

B1B1B1B1B1B1B1B1B1B1B1B1B1

A2A2A2A2A2A2A2A2A2A2A2A2A2

B2B2B2B2B2B2B2B2B2B2B2B2B2

A3A3A3A3A3A3A3A3A3A3A3A3A3

B3B3B3B3B3B3B3B3B3B3B3B3B3

A4A4A4A4A4A4A4A4A4A4A4A4A4

Each evenline is now from field B, each odd line is now from field A The even lines come first, so field B comes first.

Switch Alternate Lines

Causes the fields in the current video clip to be swapped, in a slightly different way to Flip Fields.

If you apply Switch Alternate Lines on the image shown above, you get this:

B0B0B0B0B0B0B0B0B0B0B0B0B0

A0A0A0A0A0A0A0A0A0A0A0A0A0

B1B1B1B1B1B1B1B1B1B1B1B1B1

A1A1A1A1A1A1A1A1A1A1A1A1A1

B2B2B2B2B2B2B2B2B2B2B2B2

A2A2A2A2A2A2A2A2A2A2A2A2

B3B3B3B3B3B3B3B3B3B3B3B3

A3A3A3A3A3A3A3A3A3A3A3A3

Resync to Recorded Time

Moves the selected clips so that their audio is at the same timecode where it was originally recorded. This is particularly useful after auto conforming, to find out where audio came from.

Space Clips evenly

Works with a range of selected clips. Places them so that their heads (beginnings) are evenly spaced, by an amount of time that you enter. The software will not overlap the clips, so the time you enter must be longer than any of the selected clips, or the results will be unpredictable.

Join Split

Joins a clip that you have split. Use by jumping to the split point before issuing the command. The two parts of the clip must be in contact in order for the split to be joined.

Cleave Multi-Channel Clips

Unlinks stereo clips so that they become two mono clips, each on its own track.

Remove Hidden Clips

Erases clips that are completely covered by other clips. The command performs this clean up for the whole project, regardless of what is selected.

Undo

Used to undo the last move. Alternatively click the **Undo** button.

Redo

Used to redo the last move. Alternatively click the **Redo** button.

All Layers

More than one clip may be placed at the same point on the timeline. Clips may overlap, cover a part or cover a whole clip. Only the top clip can be heard when played back.

Edits may be performed on the top layer or on all clip layers. Select **Edit** → **All Layers** to enable editing on all clip layers.

Edit Mode

Normal

In the **Normal** edit mode time is not affected by edits, only the currently selected clips are modified.

Razor On

In **Razor On** mode, time is inserted where clips are pasted, or removed where clips are insert. This mode is similar to editing a tape with a razor blade. After a paste operation, clips to the right of the play head are moved to the right. After an erase operation clips to the right of the erased

section are moved to the left to fill in the gap. This affects all selected tracks, meaning if you erase a 2 second clip on one track then all selected tracks are moved left by 2 seconds.

Drag

In the **Drag** edit mode, Cut and Copy operations select everything after the play head. Erase operations remove time from the time line in the same way as Razor Mode. Paste operations do not affect the time line and are the same as Normal mode edits. Drag affects all selected tracks.

Select Mode



To enter Select mode, click the Select button, so that it goes blue.

In Select mode, left mouse click and drag a clip to move it to another location or track. Left click and drag on an empty track to create a selection border. All clips contain by the selection border become the selected clips for subsequent edit operations. Click the Select button to quickly enter select mode.

When not in Select mode, Pyxis is in Grab mode. In Grab mode, left clicking and dragging moves the entire transport. This option exists so that people using Pyixs with a touch screen can accomplish both of these tasks easily.

Range Selection

Inclusive: Only clips wholly contained in the range will be affected by commands. You can see this, because the clips will not go red unless they are completely inside the range.

Intersecting:

The parts of the clips that are inside the range are affected by commands, and the other parts are not. This is shown by red colouring.

Snap Editing

Editing can be made easier by enabling snap editing. When moving clips, snapping causes clip boundaries to be placed at the nearest clip or mark on a selected track.

Snap To

All Events: Snap clips to all clip boundaries and locator marks.

Skip Clips: Snap clips to clip boundaries only.

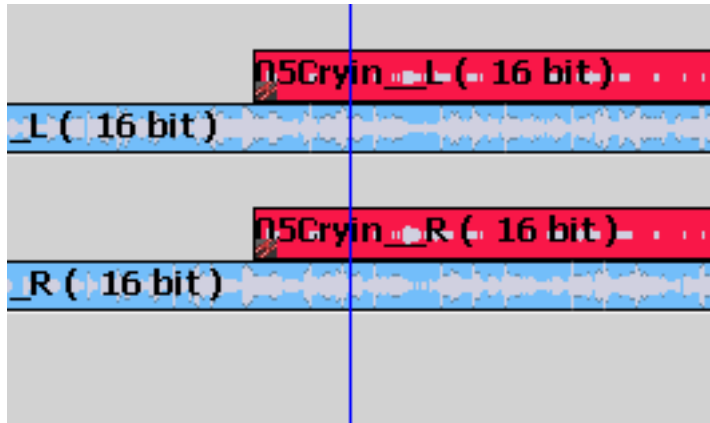
Skip Marks: Snap clips to locator marks only.

View

The view menu contains options for viewing additional floating windows. Press the **Esc** key to remove a view window.

Display Layering

View → **Display Layering**



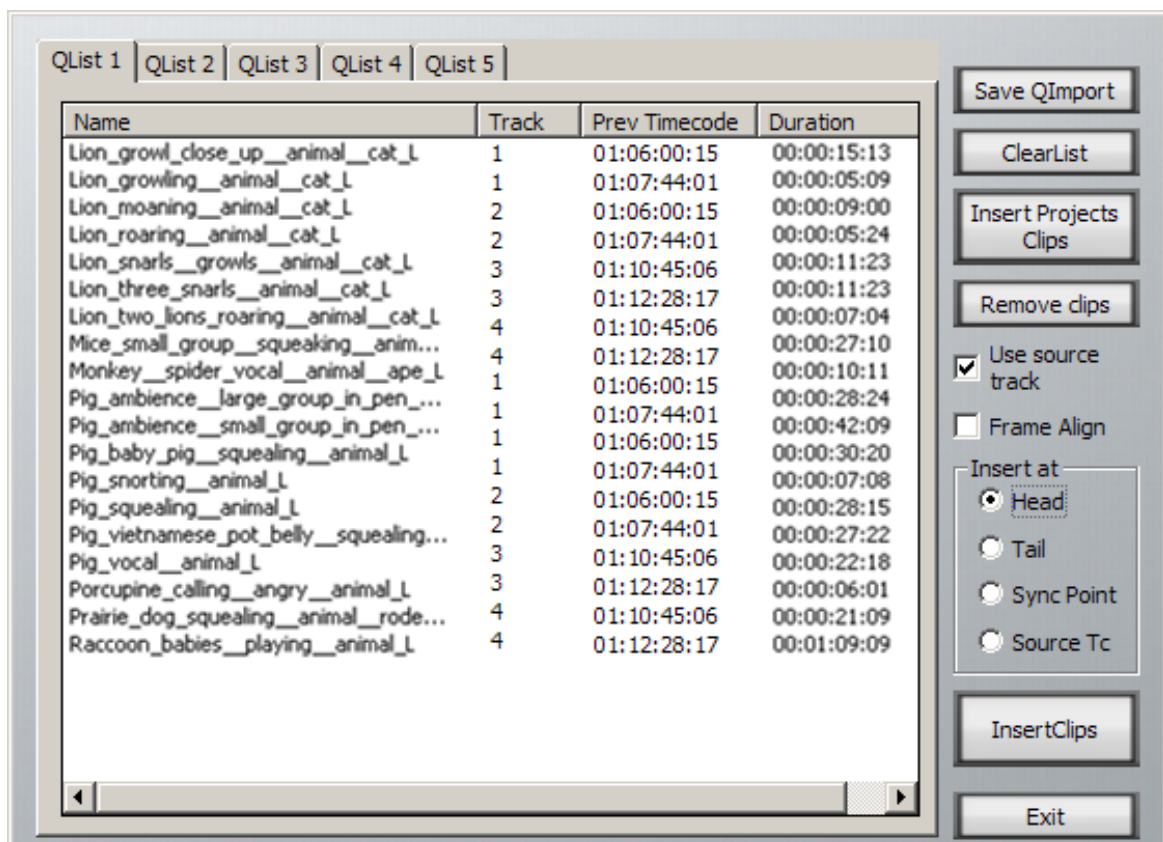
When Layering is displayed, the tracks show all layers of the clips. This allows you to easily see how the clips are arranged.

You can move a clip from one layer to another by dragging and dropping up and down with the mouse.

Quick Import List

View → Quick Import List

Quick import lists provide a quick method of inserting often used clips such as sound effects, program IDs or titles. Quick import lists may be loaded from existing projects or from new projects containing regularly used clips. Five separate lists are available.



Save QImport:

Save the import lists so that they are accessible from other projects.

Clear List: Remove all clips from the current list.

Insert Project's Clips:

Insert all the clips contained in a previously saved project.

Remove Clips:

Remove the selected clips from the import list. To select a clip, click on the clip name in the list. To select multiple clips hold down the Ctrl or Shift key and click.

Use Source Track:

when Insert Clips is clicked, the selected clips will be copied to the tracks where they were originally placed, as shown in the Track column.

Frame Align:

When Frame Align is checked, the selected clips will be inserted at the nearest frame boundary to the current position.

Insert at Head:

Insert the head of the clip at the play head.

Insert at Tail:

Insert the tail of the clip at the play head.

Insert at Sync Point:

Inserts the clip so that its sync point is at the play head, if the clip does not contain a sync point then the head of the clip will be placed at the play head. To create a sync point see "Set Sync Point".

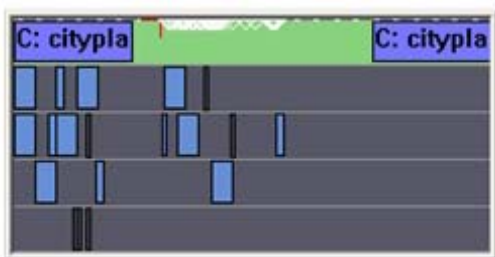
Insert Clips:

Insert the selected clip(s) on the first selected track.

Project Overview

View → **Project Overview**

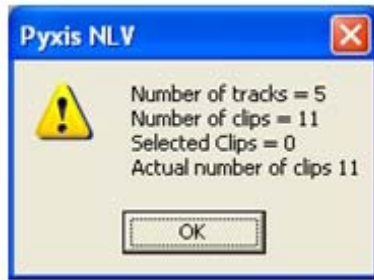
The project overview window provides a quick view of all the clips within a project.



Statistics

View → **Statistics**

The project statistics window displays the total number of clips and tracks in a project.



Timecode Display

View → Timecode Display

This can be used to display a resizable timecode window that can be moved where ever you like.



Software Keyboard

View → Software Keyboard

Brings up the windows software keyboard. This is useful for people with a touchscreen, who wish to enter text into Pyxis.

Clip Info Display

View → Clip Info Display

The clip info window provides a complete list of all clips in the project. All Pyxis media files are identified with a globally unique identifier or GUID. The clip details window provides a cross reference between clip names and GUIDs. This can assist in identifying individual media files in the Pyxis media directory.

Clip	Track	Start Time	End Time	Duration	Media Guid	Bit ...	Sample...
6003_42_1_CAT WILD...	Track 1	00:33:41:03	00:33:44:07	00:00:03:04	7C884550 00000011	16 bit	44100 Hz
6003_34_1_BIRD MEA...	Track 1	00:33:44:07	00:33:46:05	00:00:01:22	7C884550 00000013	16 bit	44100 Hz
6003_35_1_BIRD wO...	Track 1	00:33:46:05	00:33:50:16	00:00:04:11	7C884550 00000015	16 bit	44100 Hz
6003_36_1_ALLIGATO...	Track 1	00:33:50:16	00:33:56:09	00:00:05:17	7C884550 00000017	16 bit	44100 Hz
6003_37_1_BOBCAT ...	Track 1	00:33:56:09	00:34:04:15	00:00:08:06	7C884550 00000019	16 bit	44100 Hz
6003_38_1_CAMEL L...	Track 1	00:34:04:15	00:34:37:11	00:00:32:20	7C884550 0000001B	16 bit	44100 Hz
6003_39_1_CAT DOM...	Track 1	00:34:37:11	00:34:41:07	00:00:03:21	7C884550 0000001D	16 bit	44100 Hz
6003_40_1_CAT DOM...	Track 1	00:34:41:07	00:34:46:06	00:00:04:24	7C884550 0000001F	16 bit	44100 Hz
6003_41_1_CAT DOM...	Track 1	00:34:46:06	00:35:03:21	00:00:17:14	7C884550 00000021	16 bit	44100 Hz
6003_33_1_BIRD WA...	Track 1	00:35:03:21	00:35:12:11	00:00:08:15	7C884550 00000023	16 bit	44100 Hz
6003_43_1_CAT WILD...	Track 1	00:35:12:11	00:35:15:15	00:00:03:04	7C884550 00000025	16 bit	44100 Hz
6003_44_1_CAT WILD...	Track 1	00:35:15:15	00:35:21:23	00:00:06:08	7C884550 00000027	16 bit	44100 Hz
6003_45_1_CHIMPAN...	Track 1	00:35:21:23	00:35:23:15	00:00:01:17	7C884550 00000029	16 bit	44100 Hz
6003_46_1_CHIMPAN...	Track 1	00:35:23:15	00:35:28:03	00:00:04:12	7C884550 0000002B	16 bit	44100 Hz
6003_47_1_CHIMPUN...	Track 1	00:35:28:03	00:35:33:05	00:00:05:01	7C884550 0000002D	16 bit	44100 Hz
6003_48_1_COW SIN...	Track 1	00:35:33:05	00:35:39:24	00:00:06:19	7C884550 0000002F	16 bit	44100 Hz
6003_49_1_COW AMB...	Track 1	00:35:39:24	00:36:38:17	00:00:58:17	7C884550 00000031	16 bit	44100 Hz
6003_50_1_DOG POM...	Track 1	00:36:38:17	00:36:44:08	00:00:05:16	7C884550 00000033	16 bit	44100 Hz
6003_51_1_DOG SAM...	Track 1	00:36:44:08	00:36:51:16	00:00:07:08	7C884550 00000035	16 bit	44100 Hz
6003_52_1_DOG MX...	Track 1	00:36:51:16	00:37:05:18	00:00:14:02	7C884550 00000037	16 bit	44100 Hz
6003_53_1_DOG COL...	Track 1	00:37:05:18	00:37:13:12	00:00:07:19	7C884550 00000039	16 bit	44100 Hz
6003_54_1_DOG SHE...	Track 1	00:37:13:12	00:37:42:12	00:00:28:24	7C884550 0000003B	16 bit	44100 Hz
6003_55_1_DOG MX...	Track 1	00:37:42:12	00:38:05:01	00:00:22:13	7C884550 0000003D	16 bit	44100 Hz
6003_56_1_DOG DRI...	Track 1	00:38:05:01	00:38:07:19	00:00:02:18	7C884550 0000003F	16 bit	44100 Hz
6003_57_1_DOG KFN	Track 1	00:38:07:19	00:38:15:21	00:00:08:02	7C884550 00000041	16 bit	44100 Hz

Project Name

View → Project name

Puts a mini window on the screen, containing the project name.

Sort Video Locators

View → Sort video locators

Sorts the video locators by timecode.

Timescale

View → Timescale

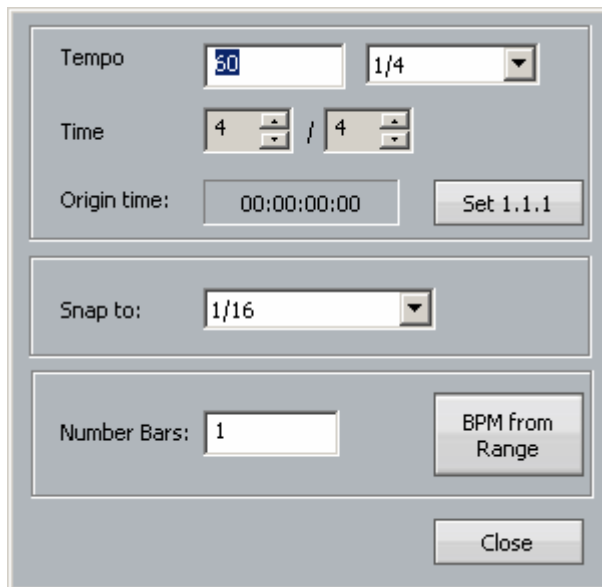
Allows a choice of different time scales for the project, as follows:

Timecode positions can be displayed in whole frames, frames with subframes, frames with subframes and samples, feet and frames in either film format, or Bars and Beats.

Bar/Beat display

Positions can be displayed in bars and beats. To enable this, use the Edit Screen menus, and click View → Timescale → Bars and Beats. The Edit Screen shows dark bar lines and light beat lines.

To set up parameters, go to Setup → Bars and Beats Setup. This displays a dialog with the following parameters:



Tempo

Expressed as beats per minute. The box on the right allows you to choose the beat value used in specifying the tempo. In some cases you may wish to specify beats differently from the time signature.

Time

This is the time signature, expressed in the usual way.

Origin Time

This is the timecode where the first bar starts. To set it, locate to the timecode of the first bar, and click the button labeled "Set 1.1.1".

You may move the transport earlier than the first bar, which is negative bar territory. Note: there is no zero bar – the number goes from -1 straight to 1.

Snap

Snap editing is used when dragging clips with the mouse. You may set the snap points to any musical interval in the bar. To switch snapping on, click Edit → Snap Editing. Note that several types of snap may operate at the same time e.g. clip and beat. This can lead to conflicts if two snap points are in close proximity.

BPM from Range

The system will calculate accurate tempos based on fitting to a range. To do this, mark the In and Out points of the range using the From and To keys. Now enter the number of bars that should fit in the range, and click the button labelled “BPM from Range”.

Clip Details

View → Clip Details

Clip	Color	Track	Layer	Start Time	End Time	Duration
Closer.new.03		Track 22	1	09:50:24:07	09:50:33:05	00:00:08:23
Closer.new.03		Track 60	1	09:50:24:07	09:50:33:05	00:00:08:23
Closer.new.03		Track 98	1	09:50:24:07	09:50:33:05	00:00:08:23
621 My Name Is Frank		Track 9	1	09:50:27:08	10:04:19:15	00:13:52:07
621 My Name Is Frank		Track 10	1	09:50:27:08	10:04:19:15	00:13:52:07
621 My Name Is Frank		Track 47	1	09:50:27:08	10:04:19:15	00:13:52:07
621 My Name Is Frank		Track 48	1	09:50:27:08	10:04:19:15	00:13:52:07
621 My Name Is Frank		Track 85	1	09:50:27:08	10:04:19:15	00:13:52:07
621 My Name Is Frank		Track 86	1	09:50:27:08	10:04:19:15	00:13:52:07
Closer.new.03		Track 1	1	09:51:03:09	09:51:12:07	00:00:08:23
Closer.new.03		Track 2	1	09:51:03:09	09:51:12:07	00:00:08:23
LHall_Frank Open.mp3.ne		Track 7	1	09:51:03:09	09:51:51:19	00:00:48:10
LHall_Frank Open.mp3.ne		Track 8	1	09:51:03:09	09:51:51:19	00:00:48:10
CLOSER_12		Track 11	1	09:51:03:09	09:51:03:22	00:00:00:12
CLOSER_12		Track 13	1	09:51:03:09	09:51:03:22	00:00:00:12
Closer.new.03		Track 39	1	09:51:03:09	09:51:12:07	00:00:08:23
Closer.new.03		Track 40	1	09:51:03:09	09:51:12:07	00:00:08:23
LHall_Frank Open.mp3.ne		Track 45	1	09:51:03:09	09:51:51:19	00:00:48:10
LHall_Frank Open.mp3.ne		Track 46	1	09:51:03:09	09:51:51:19	00:00:48:10
CLOSER_12		Track 49	1	09:51:03:09	09:51:03:22	00:00:00:12
CLOSER_12		Track 51	1	09:51:03:09	09:51:03:22	00:00:00:12
Closer.new.03		Track 77	1	09:51:03:09	09:51:12:07	00:00:08:23

Under Playhead
 Only Offline Clips

Reveal File
 Pop
 Refresh
 Close

While the Clip Details dialog is open you can:

- Filter the list by typing a sequence of characters in the text box. Only clip names containing that sequence will be displayed. To quickly move the cursor into the Search field, press the **Search** soft key.
- Sort the clips in track order, start order, end order or duration or clip colour, by clicking on the column header. Clicking the header a second time reverses the sort order.
- Double click any clip to locate to its timecode.
- Press the **Playhead** soft key, or select the **Under Playhead** checkbox, to display only clips touching the cursor. This is updated as the transport moves.

- Press the **Pop** soft key, or select the **Pop** button, to bring the currently selected clip to the top layer on its track. This can be used to manage multiple takes of the same recording, layered on a single track.
- Press the **Offline** soft key, or select the **Only Offline Clips** button, to reduce the list to only those clips for which media are not currently available.
- Click the **Reveal File** button to display a Windows Explorer window, showing the file containing the media for the clip.
- Resize the dialog by dragging with the mouse on any of its sides.
- Change the order of displayed fields by dragging the field names horizontally with the mouse.

You can keep the Clip Details dialog on the screen while you do other types of editing.

Full Screen Video

The full screen video display replaces the normal Pyxis display with video image. Double click the video window to quickly display the full screen video image, double click again to return to the normal Pyxis display.

Tracks

The tracks menu contains options for naming, muting and soloing tracks.

Add Clip

Tracks → **Add Clip**



Allows you to add a clip directly from a media file. The clip is added on the track you select, with its head at the current timecode position.

You can also add clips by dragging and dropping audio files from a Windows folder on to any track.

Rename Tracks

Tracks → **Rename Track**

Enter a name for the most recently selected track.

Set Record Seed Name

Tracks → **Set Record Seed Name**

Mute Tracks

Tracks → **Mute Tracks**

Mute the audio output of all selected tracks.

Solo Tracks

Tracks → **Solo Tracks**

Solo the selected tracks.

Arm Tracks

Tracks → **Arm Tracks**

Arm the selected tracks for recording. If the video track is armed any incoming video signal is displayed in the video window. Only the first two audio tracks are ever armed.

Add 4 Tracks

Tracks → **Add 4 Tracks**

Allows you to add a second bank of 4 tracks to the project. No more than 8 tracks are allowed in SD systems, and 16 in HD systems.

Setup

The setup menu contains options for configuring projects, hardware and general options.

Hardware

Setup → **Hardware**

Setup audio hardware. Pyxis uses the Direct Sound audio system.



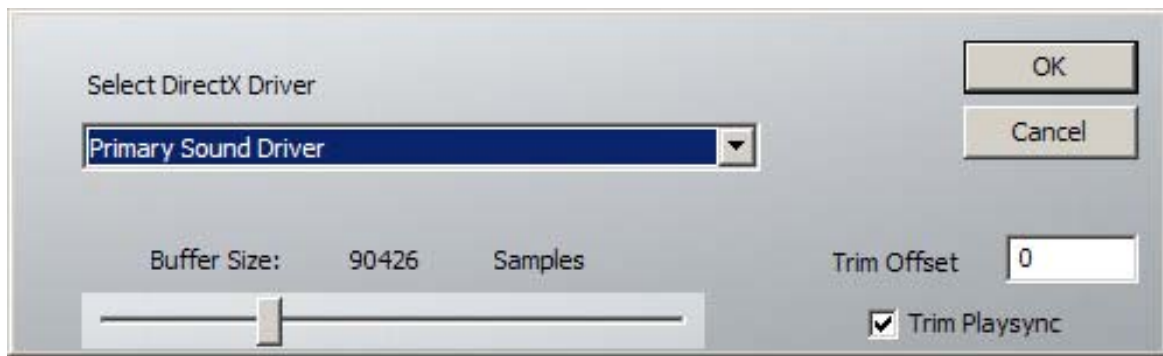
Enable Audio Jogging:

When this option is checked, moving one of the scrollers will play back the audio at the speed the scroller is moved. By zooming in at different levels on the audio scroller you can jog at different speeds. You can also jog by holding down **ctrl** and the **right mouse button** over the track view.

Jog Threshold (samples):

This option displays the minimum amount of samples the time line must be moved before it starts to play back audio. On some systems the direct sound engine may not be able to cope with a low threshold.

Configure



Select DirectX Driver:

Select the audio output device from the drop-down list.

Buffer Size:

Specify the output buffer size in samples. Decreasing the buffer size will improve playback latency. Making the buffer size too small may cause the audio output to break up or distort.

Trim Playsync:

This option is used when locked with AVSync. It is used to keep the audio locked with the VSync.

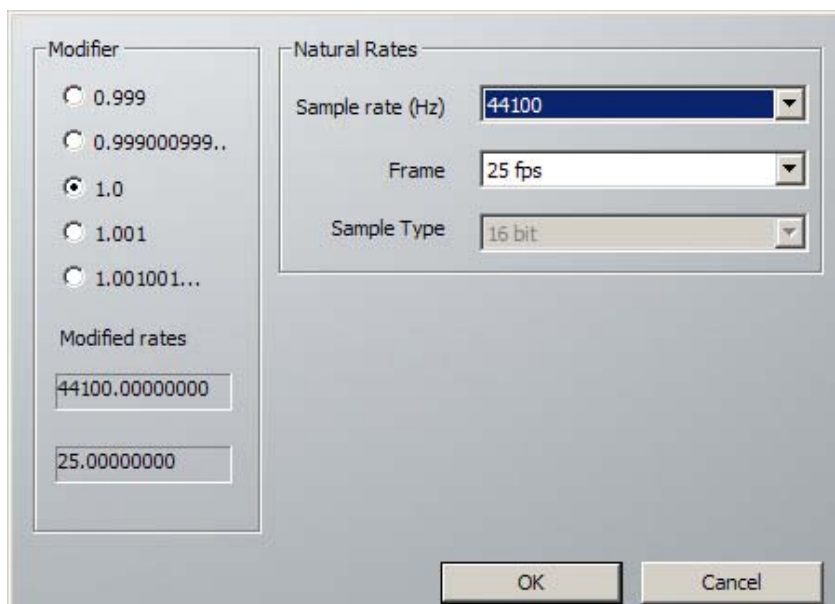
Trim Offset:

This option is used when locked with AVSync. It allows the audio to be played ahead or behind of time by an amount of samples.

Current Project

Setup → **Current Project**

Set the audio sample type and video frame rate for the current project.



Natural Rates

Sample Rate:

Select the audio sample rate. A project can contain audio clips recorded at any sample rate and the clips will be sample rate converted in real time. Pyxis supports a sampling rate of either 44.1KHz or 48KHz.

Frame Rate:

Select the video frame rate. A project can contain video clips recorded at any frame rate and the clips will be frame rate converted in real time. Standard frame rates are: PAL(25); NTSC DF(29.97002997); NTSC ND(29.97002997); 30DF; and 30ND frames per second. In HD mode you get the HD rates.

Sample Type:

This field is greyed out because Pyxis projects are always 16 bit. Other audio bit depths can be placed on the timeline, such as 24 bit, but Pyxis will bit depth convert on the fly to 16 bit.

Modifier

Fractional modifiers are provided to allow for pull-up or pull-down rates for NTSC. First select the closest natural rate then apply the appropriate modifier.

0.999: Approximate NTSC pull-down rate used by some systems. This is provided for compatibility with imported material.

0.999000999...: Accurate NTSC pull-down rate (1000/1001).

1.0: Default natural rate with no modification.

1.001: Accurate NTSC pull-up rate (1001/1000).

1.001001...: Approximate NTSC pull-up rate used by some systems. This is provided for compatibility with imported material.

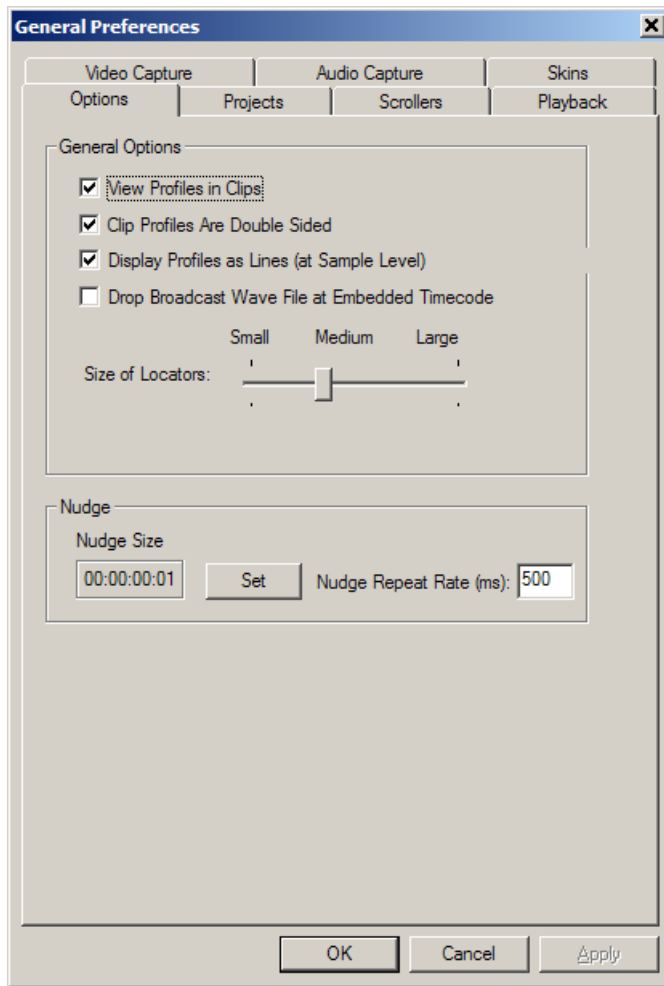
Modified Rates:

These are the resultant rates after the modifier has been applied. Pyxis can also play back other frame rates, and if a project comes in that is not one of the standard frame rates then Pyxis will display the projects frame rate here. The Frame Rate field will display **Custom**

General Preferences

Setup → **General Preferences**

Options



View Profiles in clips:

With this on you will see a representation of the sound waves within each clip in the track display.

Clip Profiles are double sided:

Is applicable when the above option is enabled. Changes the way the profiles are displayed.

Drop Broadcast WaveFile to emedded timecode:

When this is enabled and you drag a bwf onto the timeline it will appear on the timeline at the embedded time.

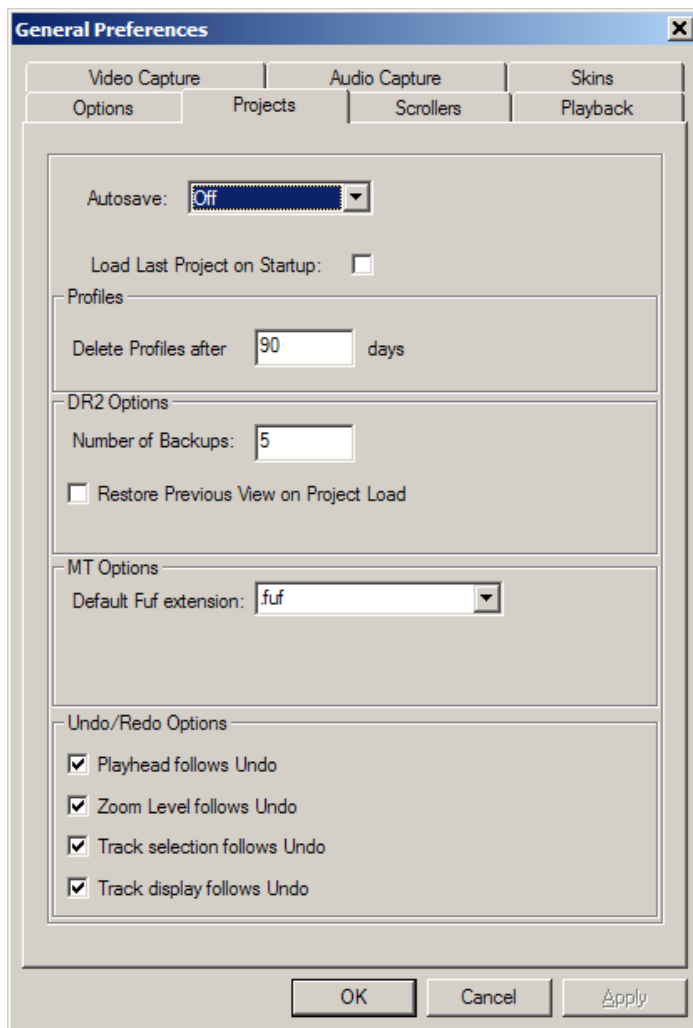
Size of Locators:

Controls the size of the Video Locators shown at the right of screen.

Nudge Size:

By default the nudge size is one frame. However you can adjust the nudge size here by clicking on Set and entering the new nudge size that you wish. You nudge in Pyxis by pressing the nudge left/right buttons or you can use the < > keys to nudge left or right.

Projects



Auto Save: Select the period between automatically saving backup files. Select Off to turn the Auto Save feature off. Backups can be used to recreate your current project in case of system failure or power loss.

Load last project on start-up:

Check this box to load the last project each time Pyxis is started.

Profiles:

Profiles are used to display waveforms on the screen. Large projects can use a lot of disk space storing them, and they are not deleted when a project is removed from the system. The easiest way to handle them is to automatically delete after a certain number of days of non-use.

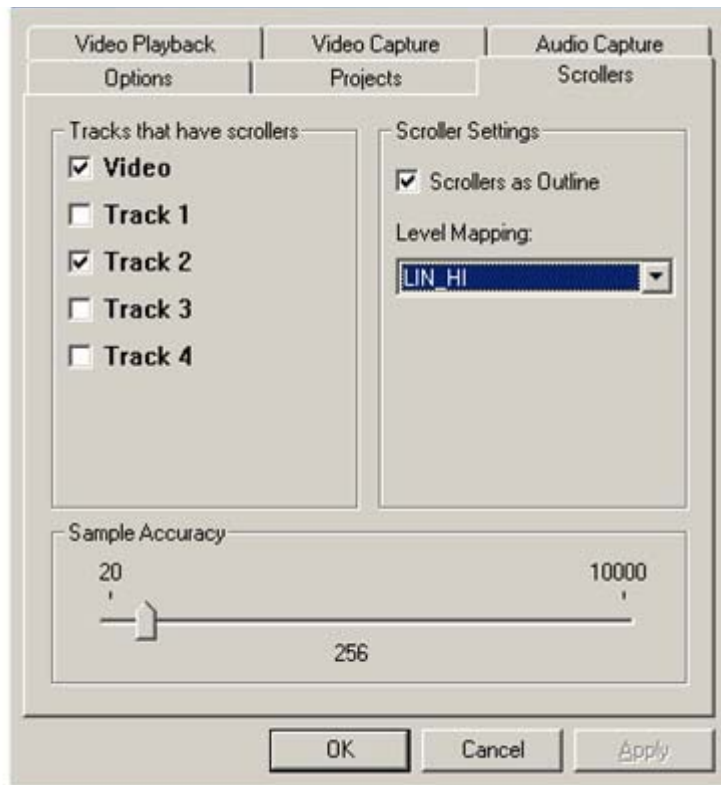
If profiles have been deleted for a project, they are re-created as soon as the project is opened. This takes a little time, during which the waveforms are not displayed, but the audio can still be heard and edited.

Number of Backups:

When the Auto Save feature is on a copy of the project with an incremental numerical suffix is saved automatically every Auto Save period. When the last suffix is used Auto Save starts again from 1. Enter the number of separate backup files to be created.

Scrollers

Scrollers provide a detailed view of the video or audio material in the clips on the time line.



Tracks that have scrollers:

Select the tracks that display scrollers. Alternatively hold down the Ctrl key and press ~ for video and 1-4 for the audio tracks.

Scroller Settings

Scrollers as Outline:

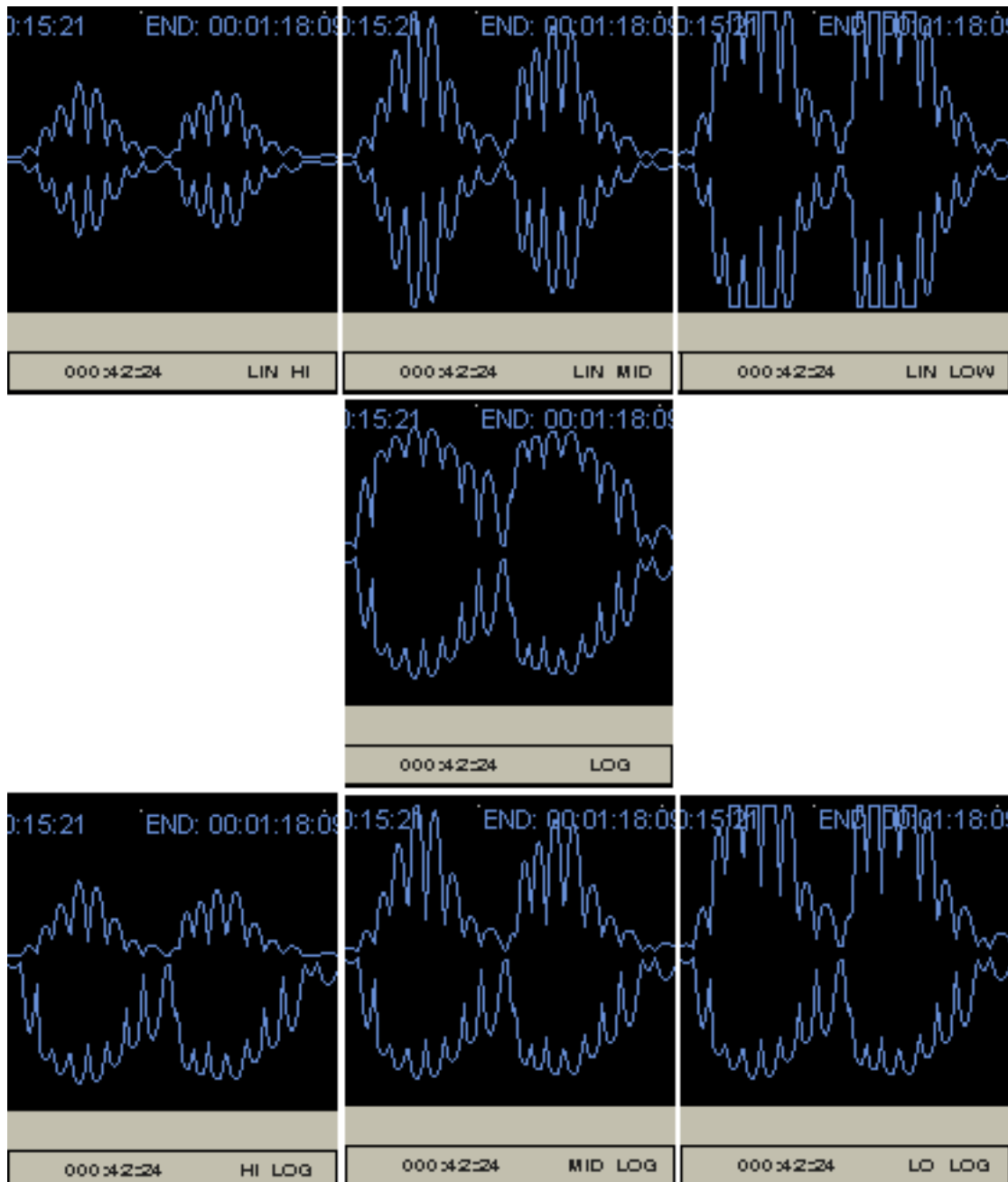
Display the outline of the waveform only.

Level Mapping:

The scroller vertical scale can be set to either Linear, Logarithmic or combination display modes. Amplitude zoom can also be set in dB.

The current level mapping being applied can be seen in the Status bar.

The level mapping modes are shown below for comparison:



Linear waveform display:

Absolute peak amplitude displayed as a positive and negative outline around a "0" reference point.

LIN_LO: +12 db vertical zoom

LIN_MID: +6 db vertical zoom LIN_HI 0 db vertical zoom

Logarithmic waveform display:

Showing the "loudness" of the sound, logarithmic displays help to view detail of the sound not seen by linear display.

Linear/Logarithmic waveform display:

Showing a combination of linear above and logarithmic below, gives extra detail to differentiate speech sounds.

LO_LOG: linear/log +12 db vertical zoom

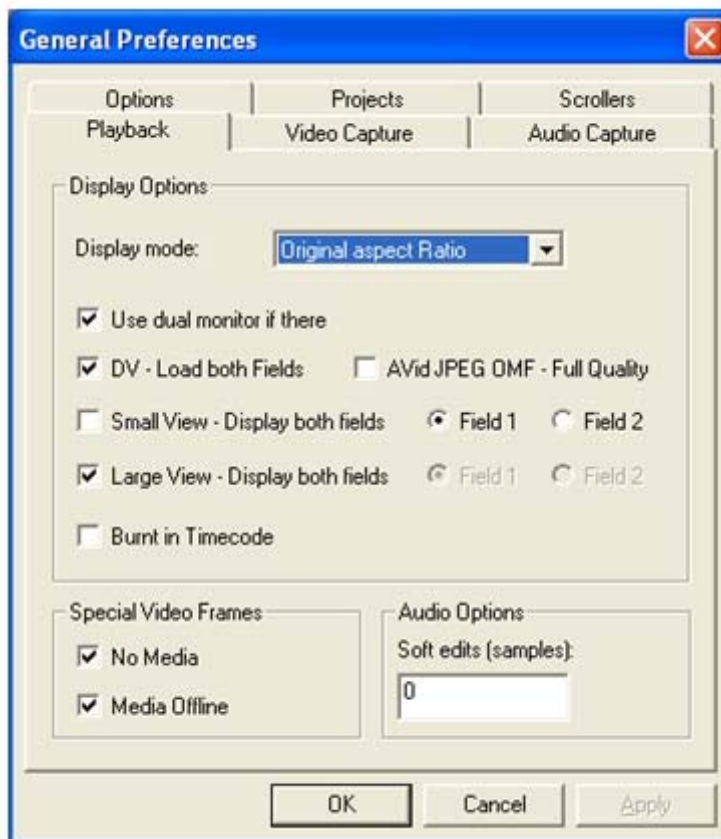
MID_LOG: linear/log +6 db vertical zoom

HI_LOG: linear/log 0 db vertical zoom

Sample Accuracy:

This defines how many samples make up one pixel of an audio scroller. The default is 256 samples equals one pixel. To change this accuracy the mouse wheel may be used to zoom in/out on the scroller, while the mouse cursor is over the scrollers.

Playback



Display Options

Display mode:

Set the aspect ration of the video display. Choose Original aspect ratio to maintain the aspect ratio of the source video, or choose Stretched to output device to scale the picture to fit the video display window. You can also choose 4:3 ratio or 16:9 ratio which will stretch the source video to one of these ratios. This is useful for anamorphic footage.

Use dual monitors if there:

If dual monitors are available and they are configured for span mode, this option allows a full screen video image to be displayed on the second monitor. If Pyxis can not detect a second monitor in horizontal span mode then it will display a user warning.

DV - Display both fields:

When playing back DV material, this option allows full de-interlacing. When not selected lines from the first field are repeated to create an image at the original aspect ratio. This

may allow real time playback on slower systems.

Avid JPEG OMF - Full Quality:

Decoding JPEG OMF's is very processor intensive, it is normally done in hardware. To allow computer systems to decode it in real time this option causes only one field to be decoded.

Small View - Display both fields:

This can be used to remove artifacts on the small video window caused by the 2 fields in a video frame being different when they are displayed on a computer screen. You have the option to display either field 1 or field 2.

Large View - Display both fields:

This can be used to remove artifacts on the large video window caused by the 2 fields in a video frame being different when they are displayed on a computer screen. You have the option to display either field 1 or field 2.

Burnt in Timecode:

Can be used to put timecode onto the video being displayed.

Special Video Frames

No Media: Display the special No Media frame where there is no video clip. This helps to differentiate between black image frames and places where there are no clips.

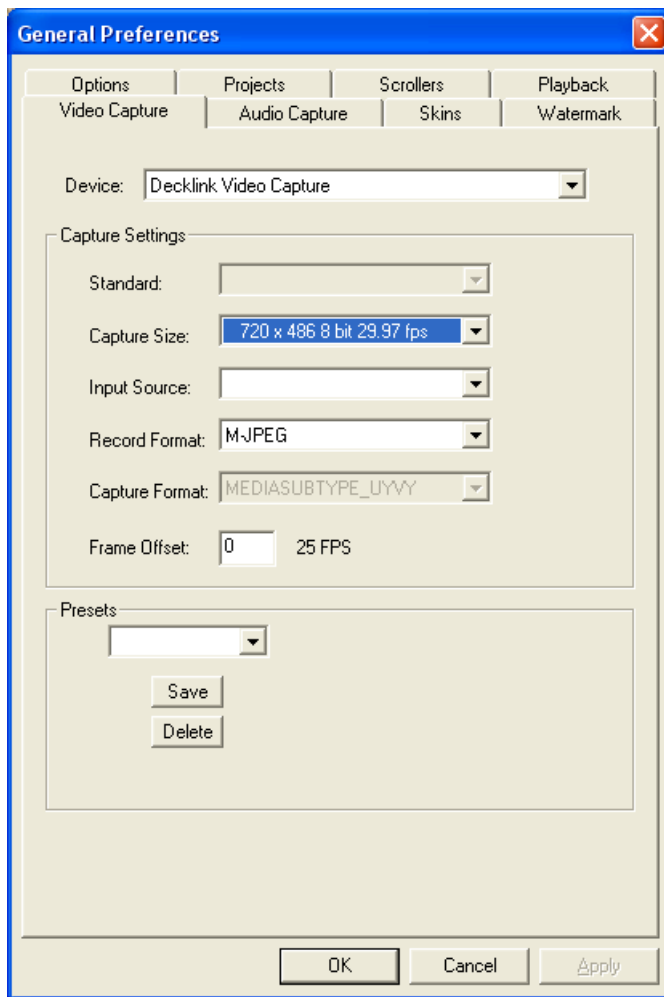
Media Offline:

Display the special Media Offline frame where the original media data file is not available.

Audio Options

Soft Edits: Can be used to put automatic dissolves at the beginning and end of all audio clips. Specify the size the automatic dissolves should be in samples.

Video Capture



Device: Select the video capture card to use.

Capture Settings

Standard: Select from PAL or NTSC video standards.

Capture Size:

Select the image resolution to capture. The default is the maximum delivered by the capture device at the selected video standard.

Input Source:

Select the input port on the capture card.

Record Format:

Select the record format, either DV25 compression or uncompressed. The uncompressed format used by Pyxis is YUV 422. This field also sets the video import format.

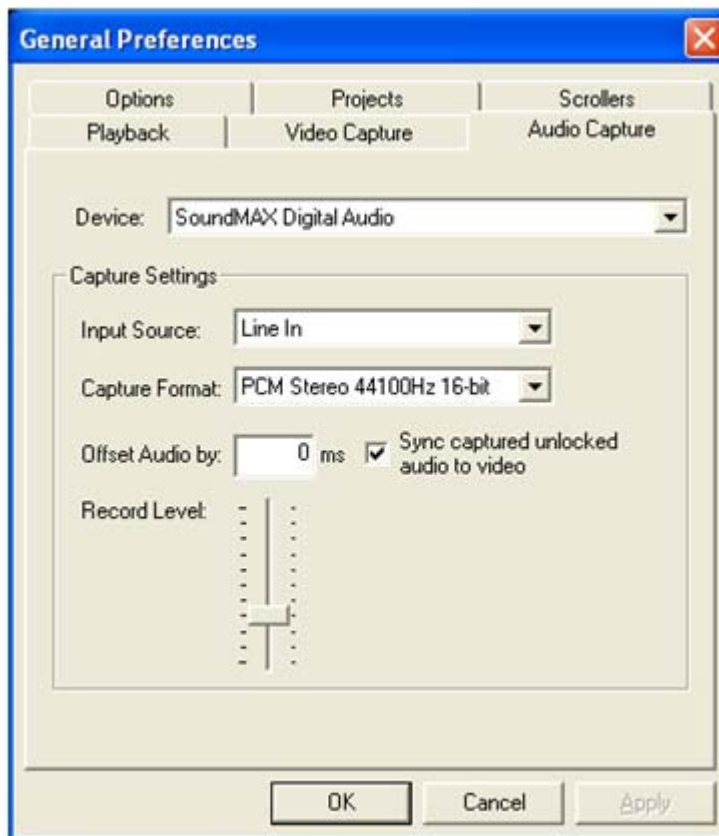
Capture Format:

This field displays the component or RGB video format. This may be useful for diagnosing compatibility problems.

FPS:

Enter the frame rate for capture. The default value is determined by the video standard selected. If a value lower than the default is selected some frames will be not be captured.

Audio Capture



Device: Select the video capture card to use.

Capture Settings

Input Source:
Select the input source on the capture card.

Capture Format:
Select what audio format you would like the capture card to capture at.

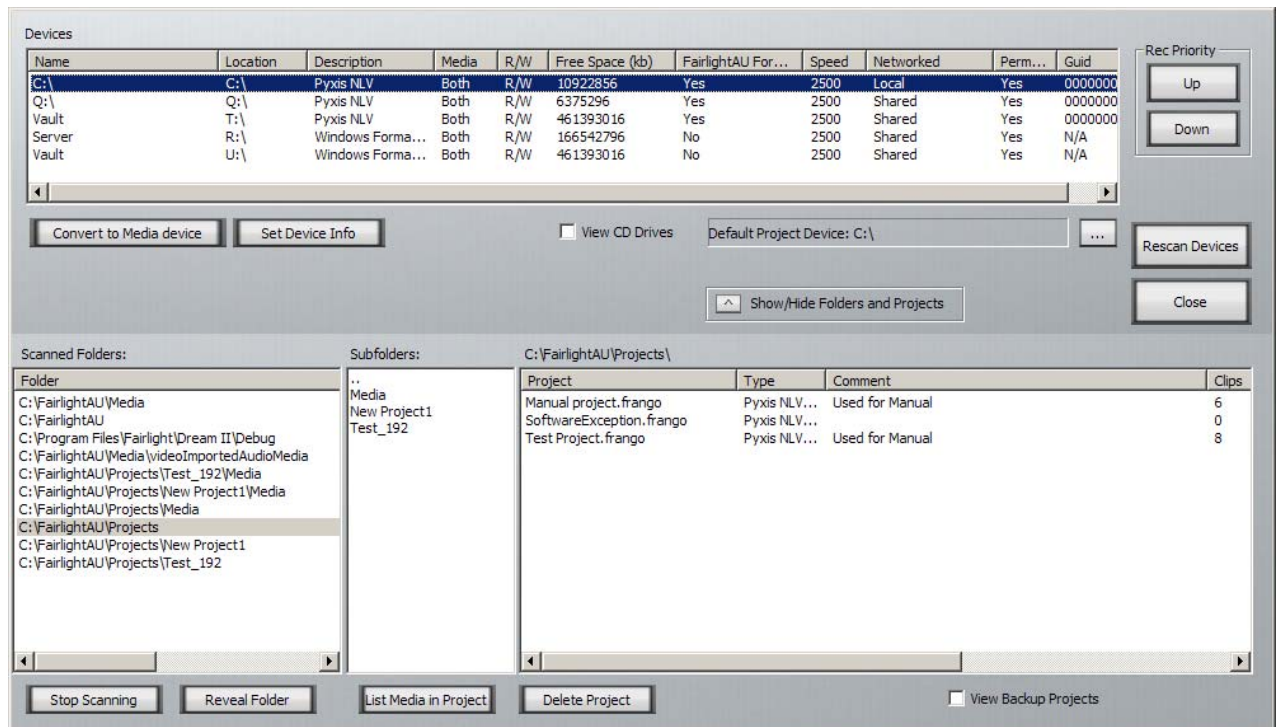
Offset Audio by:
This is an offset setting in milliseconds. This allows for if the audio is always being captured ahead/behind by the same amount then you can adjust for this here. It is recommended that you capture a known bit of video initially to work out what this value should be for your system.

Sync captured unlocked audio to video:
This option is required if you are capturing from a sound card that cannot be locked. Having this option disabled will cause the audio to slowly drift away from the captured video as the sound card will be running of its own clock which can be running slightly fast/slow. This can mean over a 10 minute capture your audio may drift up to a couple of frames away from the video. When this option is enabled it keeps the audio in sync with the video by adding/removing samples.

Record Level:
Select the audio level you would like the audio captured at, if clipping is occurs during capture then you need to reduce this level.

Media and Project Management

The media and project management window is divided into two panels. The top panel lists the available devices. The lower window displays the projects contained in the currently selected device.

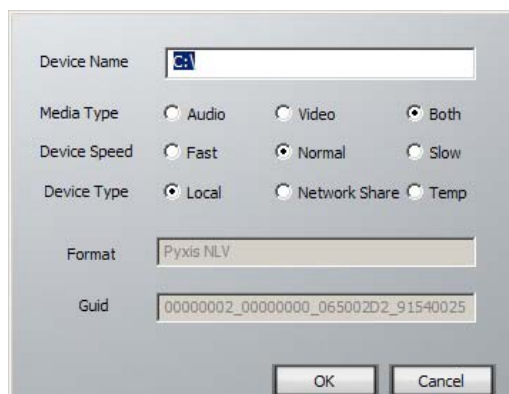


Convert to Media Device:

Media devices must first be formatted with the NTFS file system. Select this to create the AVMedia, Project and Media directories which is used by Pyxis to store projects and media. Creating a Media device does not affect other data on a drive. However, it is recommended that you do not use your normal system disk as a Media device as Pyxis may be unable to retrieve video quick enough of the drive. For uncompressed video you should use a striped raid to ensure the required bandwidth.

To use a network connected device, first create a mapped network drive in Windows Explorer. This can now be selected in the device panel and converted to a Media device. You will also be able to play DV projects of a network connected device if you have setup a gigabit network.

Set Device Info →



Device Name:

Enter a name for the device. Device Speed: Set the device speed. Device Type: Set the device type.

Format: Indicates if the device is a AVMedia device.

GUID: Displays the globally unique identifier of the device

View CD Drives:

Windows XP allows CDs to be converted to AVMedia devices and used for backup of projects. Check this box to add all removable media to the device panel.

Default Project Device:

Select the device to be used for all new projects.

Record Priority:

Pyxis uses available space on the devices for recording in the order they are displayed in the device panel. Select a device and use the Up or Down buttons to change its position in the list.

Purge Media:

Purge media deletes all unreferenced media data files from the selected devices.

Rescan Devices:

Rescan for new devices which may have been recently connected.

Export Project to another device:

Copy the project and all associated media files to another device.

List Media in Project →

Clip	Project	Track	Type	Start Time	End Time	Duration	Media Guid	File	Device	Permanent
X G: AVM_...	PAL Test	Video	Video	00:00:00:00	00:07:05:21	00:07:05:21	23F6428...	AVM_23...	Adam's...	Yes
X G: AVM_...	PAL Test	Video	Video	00:07:05:21	00:15:46:02	00:08:40:06	23F6428...	AVM_23...	Adam's...	Yes
X G: AVM_...	PAL Test	Video	Video	00:15:46:02	00:16:16:01	00:00:29:24	23F6424...	AVM_23...	Adam's...	Yes
X G: AVM_...	PAL Test	Video	Video	00:16:16:00	00:16:51:01	00:00:35:01	23F6424...	AVM_23...	Adam's...	Yes
X G: AVM_...	PAL Test	Video	Video	00:17:05:24	00:24:15:11	00:07:09:12	3E3643D...	AVM_23...	Adam's...	Yes
Long_Roa...	PAL Test	Track 1	Audio	00:00:00:00	00:05:59:00	00:05:59:00	329C265...	DSP_32...	Adam's...	Yes
lake_of_fir...	PAL Test	Track 1	Audio	00:05:57:19	00:08:52:19	00:02:55:00	329C1D6...	DSP_32...	Adam's...	Yes
RHCP_TR...	PAL Test	Track 1	Audio	00:08:52:19	00:12:29:19	00:03:37:00	329C189...	DSP_32...	Adam's...	Yes
Cdwo0000...	PAL Test	Track 1	Audio	00:12:28:11	00:16:42:00	00:04:13:14	329C186...	DSP_32...	Adam's...	Yes
Long_Roa...	PAL Test	Track 2	Audio	00:00:00:00	00:05:59:00	00:05:59:00	329C265...	DSP_32...	Adam's...	Yes
lake_of_fir...	PAL Test	Track 2	Audio	00:05:57:19	00:08:52:19	00:02:55:00	329C1D6...	DSP_32...	Adam's...	Yes
RHCP_TR...	PAL Test	Track 2	Audio	00:08:52:19	00:12:29:19	00:03:37:00	329C189...	DSP_32...	Adam's...	Yes

View Multiple Media **Find Lost Media** **Localize Media** **Exit**

View Multiple Media:

Display separate entries for duplicated clips.

Find Lost Media:

Enter a specific path for clips which are currently offline.

Localize Media:

Copy the selected media files to the local device.

Delete Project:

Remove the selected project.

View Backup Projects:

Include Auto Save backups in the list of projects.

Rescan Media

Looks at all your hard drives again to find

Decklink output flip field order

MJPEG compression

Process

The process menu contains options for modifying the audio and video data contained in the selected clips.

Sample Rate Convert

Process → **Sample Rate Convert**

Media Playback Rate

Speed **Natural Rate (44100 Hz)**

Sample rate (Hz)

Sample Rate Type

Quick (live preview)
 Good (rendered)
 Best (HQ render)
 Advanced

SRC

Entire Media
 Clip with handles

Handle (samples)

Resize Clip **>> Advanced** **RENDER** **Cancel**

2 Clips Selected

Advanced Options

Order Auto Rolloff

Beta Rolloff

Source Sample Rate

Dest Sample rate (Hz) **Project Rate**

Speed: Enter the playback rate conversion factor.

Sample Rate:
Enter the target sample rate.

Natural Rate:

Reset to the clips natural sampling rate.

Sample Rate Type:

Select the quality option for sample rate conversion. The default type is for real time conversion. Select one of the other options for better audio quality. Any of the other options will render a new sound file to which the clip will then be linked.

SRC: Perform the conversion on the entire media file or just the portion represented by the clip. Add optional edit handles either side of the clip head and tail. Enter the handle value in samples.

Resize Clip: Indicates if the clip should be resized to where it would now end on the timeline after the sample rate convert.

RENDER: Perform the sample rate conversion and render the media file. This only appears if you have selected not to do real time conversion.

Advanced Options

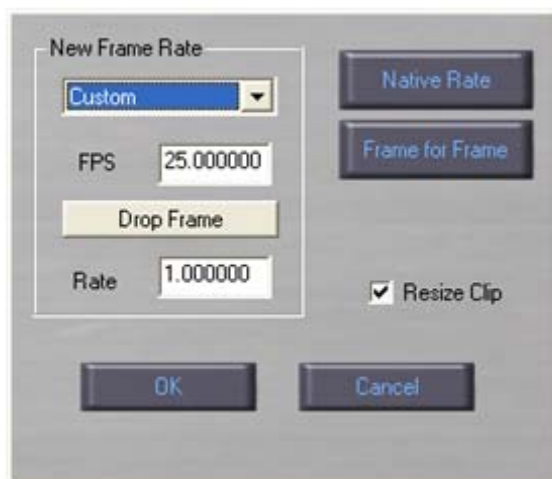
Order: Set FIR order (number of taps is $2 * \text{order} + 1$). Calculation time is proportional to 'order'.

Beta: Beta values of 2 to 12 are reasonable. For a given order, larger 'beta' reduces pass band ripple, but widens the rolloff transition band, so a lower roll off frequency is required to avoid aliasing.

Rolloff: Roll off frequency must be less than 1/2 of both sample rates. Auto Rolloff: Means Pyxis will calculate the required rolloff for you.

Frame Rate Convert

Process → Frame Rate Convert



New Frame Rate: Enter the target frame rate. Select from the list of standard rates, or select custom to select your own rate.

FPS: Used to enter a custom frame rate in frames per second.

Drop Frame: Select drop frame format.

Rate: Enter the rate conversion factor.

Native Rate:

Reset to the clip's native frame rate.

Frame for Frame:

Sets so that every frame from the video clip is displayed. This means that if the clip is PAL and the project is PAL then the clip will play as normal. However, if the clip is PAL and the project is NTSC then every frame of the clip will be played once making the clip end sooner.

Resize Clip: Indicates if the clip should be resized to where it would now end on the timeline after the frame rate convert.

Normalise Clips

Process → Normalise Clips

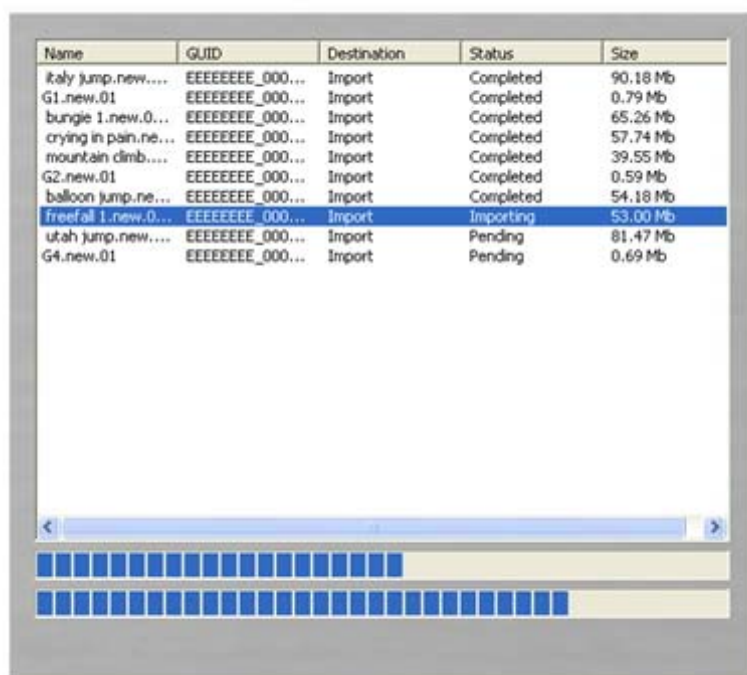
Normalise the maximum level of the clip. Set the maximum sample value in decibels.



This is calculated in real time and does not affect the original source media.

Regenerate Profiles

Process → Regenerate Profiles



Redraw the clip waveform profiles for all clips or just the selected clips.

Localize Clips

Process → **Localize Clips**

Localizes the media for clips that have been placed onto the timeline but are not in your project's media directory. This makes it easier to move the project to another system, because all the media is in the same place as the Project file.

You can also use this to convert a Quicktime or AVI clip that you have dragged onto the timeline to the internal format. When you choose this option it will bring up the following dialog.

This dialog shows you the clips that you have selected to import. It shows you which clips have been completed, which clip is currently being imported and which clips are pending importing. Progress bars display how far along the import process is.

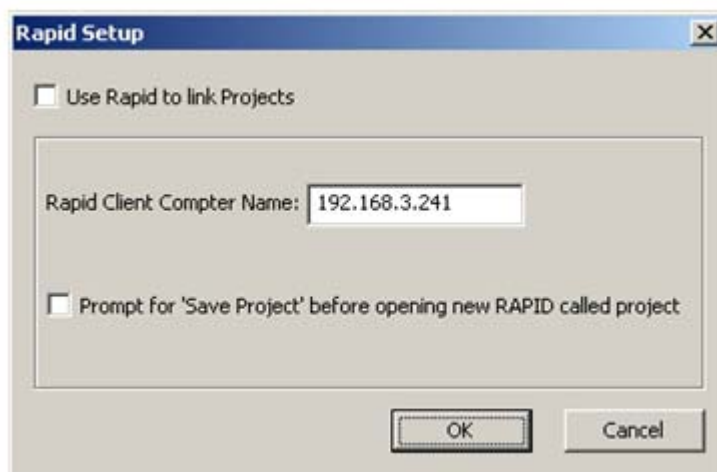
Machine Control

The machine control menu contains options for remote control of external devices, and for Pyxis to be remotely controlled by another device.

Setup Rapid

Machine Control → **Setup Rapid**

This option is used only to interface with Fairlight QDC systems.



Select the Fairlight RAPID protocol for linking project open and close operations. Enter the IP address of the Fairlight Constellation, Station or FMC remote.

You also need to setup the FMC side to get this to work. You need to run DreamStart and click on Setup. There will be an option labelled Enable Remote Control which you need to enable. If this option is greyed out then you need to get a later version of FMC or you can edit the FMC.ini file manually. You need to add REMOTE_ENABLED into the FMC.ini file.

Also to get this functionality to work you need to be logged in with the same user name and password on both the FMC machine and Pyxis machine.

View AVSync Machine Rack

Machine Control → **View AVSync Machine Rack**

AVSync allows Pyxis to be used as a 9-pin master or slave device. See "Machine Control" or refer to the AVSync manual contained on the Pyxis CD for more information on using AVSync.

9-pin Master => VTR

Machine Control → **9-pin Master => VTR**

Select the preset for using Pyxis as a VTR emulator.

9-pin Master

Machine Control → **9-pin Master**

Select the preset for using Pyxis as a master device. When setup as a master you use the cable labelled as **Master**.

9-pin Slave

Machine Control → **9-pin Slave**

Select the preset for using Pyxis as a master device. When setup as a slave you use the cable labelled as **Slave**. If Pyxis is a slave it can try and use bi-directional control which is supported by Fairlight products. This allows transport controls to be used also on the Pyxis. See "Using Pyxis with a Fairlight".

LTC Chase

Machine Control → **LTC Slave**

This option is disabled in the base Pyxis. However, if you require Pyxis to be a slave via LTC then you can purchase an upgrade from your Pyxis dealer to enable this feature. They will give you a serial number and key which you enter into **Machine Control** → **AVSync Registration**.

MIDI Slave (MTC Chase)

Machine Control → **MIDI Slave**

Allows Pyxis to chase MIDI Timecode.

Autoswitch TC Master

Machine Control → **Autoswitch TC Master**

Autoswitch TC master provides a mechanism such that the TC master switches "automatically" to the most appropriate machine. Typically this will be the last machine that "did something".

The purpose is to allow true bi-directional control (actually multi-directional control) from any device in the rack at any time.

Lock

Machine Control → **Lock**

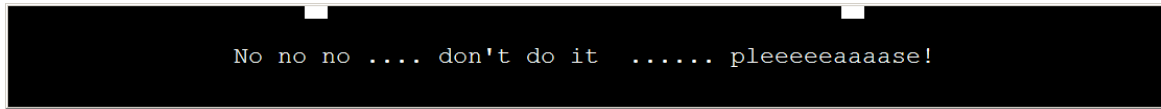
When you have machine control setup the way you need you can choose this option or the lock button under the timecode window to lock Pyxis to the master. If at any time you need to use the Pyxis without being locked to the master use this option again.

ADR

The ADR package is an optional package for which you need an upgrade. You can contact your Pyxis dealer to get a serial and key to enable this functionality. Once enabled you will be able to use Pyxis as an ADR machine.

ADR Display

ADR → ADR Display

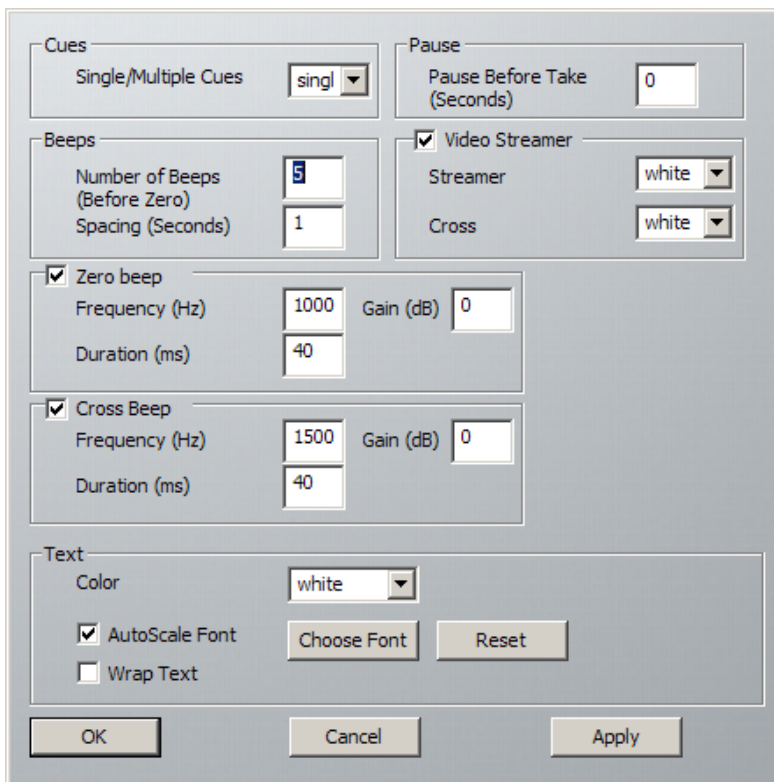


The ADR Display can show the text for the current cue, as well as a simple visual cueing device consisting of two white blocks coming together at the cue In point.

ADR Preferences

ADR → Preferences

Allows you to adjust the ADR environment to your needs.



Single/Multiple Cues:

This should be controlled from the ADR List.

Number of Beeps:

Controls the number of beeps to be played before the zero beep.

Spacing:

Controls the number of seconds between each beep.

Zero Beep Frequency:

The Zero Beep is used in rehearsal mode to help an artist get used to the timing of the cue. This parameter controls the frequency of the zero beep

Zero Beep Duration:

Controls the duration of the zero beep

Cross Beep Frequency:

Cross beeps are the beeps preceding the start of the recording. They can have their own frequency, duration and gain.

This parameter controls cross beep frequency.

Cross Beep Duration:

Controls the duration of the cross beeps

Text Colour:

Controls the colour of the displayed text

Autoscale Font:

Forces the text to fit on the screen if it is too large at its normal font size.

Wrap Text:

Causes the text to break to second and subsequent lines if it is too long.

Pause before Take:

Pauses the transport after locating to the preroll point, before moving forward into the cue. This gives more time for video sources to buffer or park before starting the take.

Video Streamer Colour:

The streamer is a vertical line that travels from both sides of the screen towards the center. It arrives at the center exactly at the Cue In time. This parameter determines its colour.

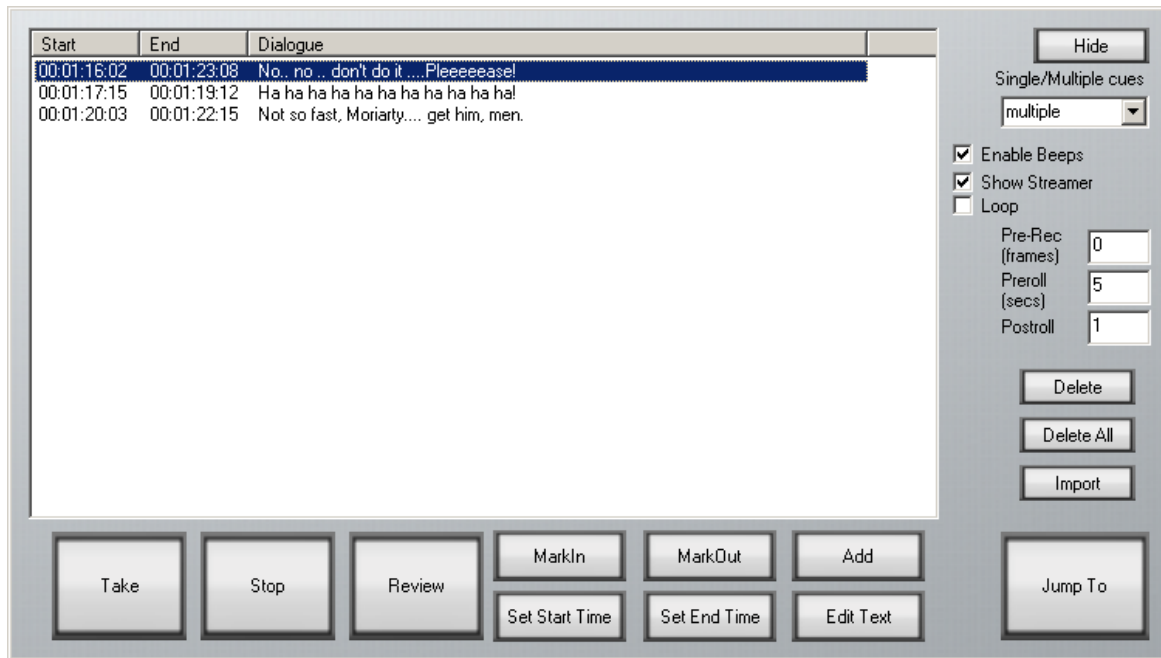
Video Streamer Cross:

The Streamer Cross is an extension to the streamer which coincides with the audible beeps (if enabled). This parameter controls the colour of the streamer cross.

ADR List

ADR → **ADR List**

This is where the dialogue is entered for the voice artist. To enter a new Take move to the position on the timeline when the dialogue is meant to begin and then press **Add**. Enter the required dialogue then press okay.



Take: Begins a recording pass. During this pass, the system will:

Move to the ready position (In time minus preroll)

Start playing forwards, emitting cross beeps if enabled.

Emit a zero beep at the cue In time if enabled.

Enter record at the cue In time.

Exit record at the cue Out time.

Stop at the end time (cut Out time plus postroll)

Note: Double-clicking a cue also initiates a Take of the cue.

Stop: Stops the transport.

Review: Plays through the same period as the record pass, but plays back the existing audio instead of recording a new take.

Add: Creates a new cue at the current timecode position, prompting you to enter the text.

Mark In: Click this button to copy the current timecode position to the In time of the selected cue

Mark Out: Click this button to copy the current timecode position to the Out time of the selected cue

Set Start Time:

Click this button to display a dialog where you can enter the timecode for the In time of the selected cue

Set End Time:

Click this button to display a dialog where you can enter the timecode for the Out time of the selected cue

Edit Text: Click this button to change the text of the selected cue.

Jump to: Moves the transport to the In time of the selected cue.

- Delete: Removes the selected cue from the list.
- Delete All: Removes all cues from the list.
- Import: Initiates import of a cue list from a text file (see below)
- Enable Beeps:
Turns on audible beeps, which are heard during the preroll to each cue.
- Show Streamer:
Turns on visible marks which help to cue the artist.
- Loop: Causes the transport to loop through the timecodes of the cue. If Take is selected, a recording pass will be executed on each loop.
- Single/Multiple cues:
This controls which lines of text are shown in the ADR Display.
- Single: shows only the current cue.
- Multiple: shows cues following the current one, if they overlap in time.
- Track: shows cues whenever the transport is in their timecode range, whether or not the ADR transport commands are active.
- Hide: Closes the ADR List

Importing ADR cue lists from a text file

You may also import an entire script by pressing the **Import** button. This can import a short script that has been written in a word processor.

Each line of text in the file is treated as a separate line of ADR cue text. Each line of text can optionally have one or more timecode numbers at the start of the line:

```
00:00:00:00 This line has one timecode number
```

or

```
00:00:00:00 00:00:01:12This line has two timecode numbers
```

The first timecode number becomes the cue-in point and the second, if present, the cue out point.

Timecodes must contain 4 individual numbers separated by colons: **01:00:23:12** or semicolons if the timecode is drop-frame based: **01;01;00;02**

Here is an example of a text file in the correct syntax with timecode numbers at the start of each line:

```
00:02:19.19 Her eyes shined bright and true
```

```
00:04:57.07 00:09:42.18 Do not look now, but...
```

```
23:58:39.03 00:02:58.19 Haven't I seen you before.
```

The format described above is the native format used by Pyxis NLV for storing ADR cue lists. You can edit the stored ADR cue lists directly in any word processor or text editor, as long as you make sure you save the file as a text file.

Help

About

The about box displays the Pyxis version number and versions of some of the components it uses.

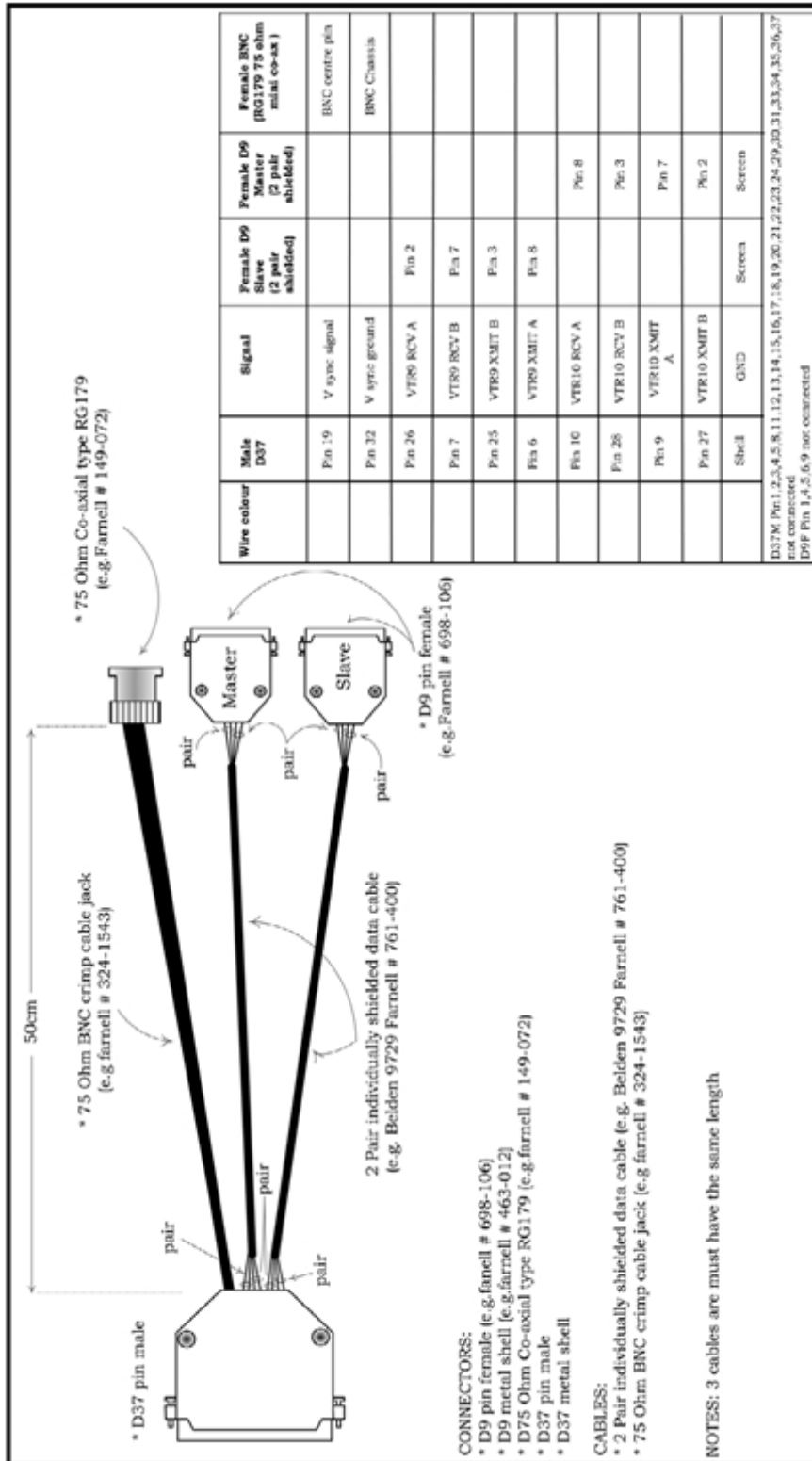
New 'Licenses' shows optional extra licenses you have.

Keyboard & Mouse Shortcuts

space bar	toggle play/stop
~	toggle selection of video track
1	toggle selection of audio track 1
2	toggle selection of audio track 2
3	toggle selection of track 3
4	toggle selection of audio track 4
[erase head of selected clips
]	erase tail of selected clips
,	(< key) nudge left
.	(> key) nudge right
<-	(left arrow key) jump left to head, tail or locator mark
->	(right arrow key) jump right to head, tail or locator mark
Ctrl + ~	toggle video scroller display
Ctrl + 1	toggle track 1 scroller display
Ctrl + 2	toggle track 2 scroller display
Ctrl + 3	toggle track 3 scroller display
Ctrl + 4	toggle track 4 scroller display
Ctrl + x	cut selected clips
Ctrl + c	copy selected clips
Ctrl + v	paste selected clips
Ctrl + z	undo last edit
Ctrl + y	redo
Ctrl + s	split selected clips
Ctrl + right	Used above the track view. Will cause the audio
mouse down	engine to jog to the time under the mouse pointer. Jogging must be enabled.
Alt + ~	toggle arming of video track
Alt + 1	toggle arming of track 1
Alt + 2	toggle arming of track 2
Alt + 3	toggle arming of track 3
Alt + 4	toggle arming of track 4
a + left click	click in track selection box at left of track to select track
m + left click	click in track selection box at left of track to toggle track mute
mouse wheel	zoom
Shift + ctrl + h	Jump back 5 seconds and go into play

Appendix 1

Break-out Cable Specification



Touchscreen Setup

TouchWare Setup

If you are using a TouchWare touch screen device, run the TouchWare application by clicking on the **Start** menu and selecting **Programs → TouchWare → Touchware**. Select the **Calibrate** tab and follow the instructions to calibrate the touch interface. You will need to calibrate for every screen resolution used.

Select the **Touch Settings** tab and select the Drawing Touch Mode.

EloTouch Setup

If you are using a Elo touch screen you can run the Elo software by going to the **Control Panel** and running **Elo TouchScreen**. Click on the button in the **General** tab to calibrate the touch screen.

Multiple Monitors

Pyxis supports the use of multiple monitors. If you have multiple monitors, you must map the monitors for the TouchWare interface. Select the **Multiple Monitors** tab and follow the instructions to map the monitors. The second monitor may be used to display a full-screen video image.

To configure your monitors go to the Windows **Control Panel** and select **Display**, then select the **Settings** tab. Pyxis expects the second monitor to be located directly to the right in the **Display Properties** dialogue. Stretched or Spanned mode is a display mode supported by the video card driver. It is not directly supported in the **Display Properties** dialogue. In the **Settings** tab you should see 2 monitors labeled 1 and 2. The number 2 monitor should be grayed out, if it is not, then uncheck 'Extend my Windows desktop onto this monitor', then press OK and then reopen the **Display Properties** and go back to **Settings**.

Select the main monitor then click on the **Advanced** button to display the video card's user interface tab. Select the **GeForce** tab then click on the **nView Display Mode** menu. Check the **Horizontal Span** item.

To enable the second monitor within Pyxis go to the **Setup → General Preferences → Video Playback** menu and check the **Use dual monitors if there** option. This option is enabled by default.

Using a TV as the second Display

If using a monitor and a TV the monitor must be plugged into output 1 on the back of the video card. There is a label on the back of the video card identifying the two monitor outputs. If you still can not get the graphics card to display out to the TV, then click on the **Troubleshooting** section in the **GeForce** settings and select **My connected TV is not being detected**.

Appendix 2

Supported formats

The following table lists the video and audio formats supported by Pyxis NLV.

VIDEO	File Formats	Import	Export	Audio	Drag & Drop	File>Import>Video or File Menu	SD	HD	Notes
	Quicktime (.mov)	√	√	√	√	√	√	√	can play natively depending on Codec
	Avi (.avi)	√	√	√	√	√	√	√	can play natively depending on Codec
	Windows media format (.wmv)	√		√	√	√	√	√	
	Mpeg4 files (.mp4)	√			√	√	√	√	
	Mpeg 2 Long Gop	√		√	√	√	√	√	
	Mpeg 1 or 2 (.mpg, .m2v, .mvf),	√		√	√	√	√	√	recommend main concept codec
	dv25 (.dv or .dif)	√	√		√	√	√	√	HD means DVCPRO HD
	Bitmap (.bmp)	√	√		√	√	√	√	Sequence of images in sequentially numbered frame per file
	Cineon (.cin)	√	√		√	√	√	√	Sequence of images in sequentially numbered frame per file
	Uncompressed (.vnu)	√	√		√	√	√	√	Native files are not "imported" rather they are placed on the timeline and played natively, even if they are not the correct aspect ratio. Consequently they are not resized.
	mjpeg (.vmj)	√			√	√	√	√	Native file
	lossless (Huffman compression) (.vmh)	√			√	√	√		Native file
Quicktime DV50	√		√	√	√	√		(with the addition of a DVCPRO License other windows software can currently play these files (although Macs can of course).	

Quicktime dv100 (DVCPPro HD)	√		√	√	√		√	(with the addition or a DVCPPro License other windows software can currently open a lot of files (although Macs can of course).	
MXF (.mxf) dv25	√		√	√			√	Requires an MXF license (dongle)	
MXF (.mxf) dv50	√		√	√			√	Requires an MXF license (dongle)	
MXF (.mxf) dv100(DVCPPro HD)	√		√	√			√	Requires an MXF license (dongle) also DVCPPro License (dongle)	
MXF Mpeg Long gop	√	√	√	√			√	Requires an MXF license (dongle)	
MXF Mpeg I frame HD	√	√	√	√	√		√	Requires an MXF license (dongle)	
MXF (.mxf) IMX mpeg compressed video	√	√	√	√	√		√	Requires an MXF license (dongle)	
Omf video files (.omf) mjpeg	√		√	√	√		√		
Omf video files (.omf) dv25	√		√	√	√		√		
Omf video files (.omf) uncompressed	√		√	√	√		√		
Thomson/Grass valley dv25 files (.vid)	√		√	√	√		√		
Avid codecs - DnxHD media inside an MXF file, via a Quicktime reference movie (EDL)	√		√	√	√		√	√	subject to CPU speed and performance
Quicktime ProRes	√		√	√	√		√	requires ProRes codec contained in Quicktime	
Thomson/Grass valley xml edls	√		√		√		√		
Prunus Mpeg2 HD	√		√	√			√		
Cantar CMX edls (.bwf w/ metadata)			√	√	√				
Advanced Authoring Format (AAF)	√	√	√	√	√		√	√	Requires Plug-in from Dark Matter Digital

AUDIO	File Formats	Import	Export	Audio	Drag & Drop	File>Import>Video or File Menu	SD	HD	Notes
	MXF Audio bwf encoding	√		√	√				Requires an MXF license (dongle)
	MXF Audio AES 3 encoding	√		√	√				Requires an MXF license (dongle)
	.BWF (Broadcast Wave Format)	√	√	√	√				Includes Multi-Channel Files (Microsoft Format)
	.AAC (Advanced Audio Coding)	√		√	√				
	MPEG-1 Audio Layer II (MP2)	√		√	√				
	MPEG-1 Audio Layer 3 (MP3)	√	√	√	√				Can be exported using VSR (Virtual Studio)
	Advanced Authoring Format (AAF)	√	√	√	√	√	√	√	Requires Plug-in from Dark Matter Digital
	AES31	√	√	√	√	√			
	Audio Interchange File Format (AIFF)	√	√	√	√				
	Open Media Framework (OMF)	√	√	√	√	√			
	.ML4 (Fairlight EDL format)	√	√	√	√	√			
	.MT (Fairlight MFX3+ native format)		√	√		√			