

Lightworks ***Softworks***

User Guide

Document Information

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Chapter 1 - Before You Start

The Softworks 'editing interface' is a progression of the Lightworks interface that thousands of users have grown to love. It may be thought of as the surface at which editor and editing machine meet. This interface therefore has two parts - a software interface and a hardware interface. This document is primarily a guide to the software interface. Before we start on the software interface however, we will need to look at the essential **hardware components** of a Softworks system. We will then go on to look in greater detail at the use of two components of the hardware interface – the **Console** and the **Mouse**.

Hardware components

System Specification

- Minimum hardware requirements for Softworks are a 2 GHz Pentium 4 with 1Gbyte Ram and Windows XP. Performance will be drastically improved with Dual Core or Dual processor systems with 2 GB or more onboard memory
- IEEE 1394 interface (firewire) 800Mbps per second is recommended if a Firewire drive or deck/camera is to be used
- Gigabit ethernet is recommended for network transfers or editing of material over a network
- 128MB Graphics sub-system with support for DirectX9
- A minimum single 7200rpm drive is recommended with best performance from a Raid0 (striped) pair
- Lightworks console requires USB power. Some laptops may not support adequate power in which case a powered hub should be used.

DV camera or deck (not supplied)

A DV source is usually attached to the Lightworks Softworks via the IEEE 1394 interface to provide video and audio input and output. Files can also be transferred in from a network interface or removable storage.

Console (Optional purchase)

The Lightworks console creates an intuitive physical interface with the system. In addition to playing pictures and sound, it also controls most editing functions. Because console use varies somewhat depending on what you're doing, console usage information is spread throughout this user guide. There is a detailed summary of the console transport controls below.

Mouse

The mouse is a two-button mouse with a fly wheel in the middle. It is used as a direct interface to the information on the graphics monitor. See **Mouse Clicks** for a description of Lightworks mouse usage.

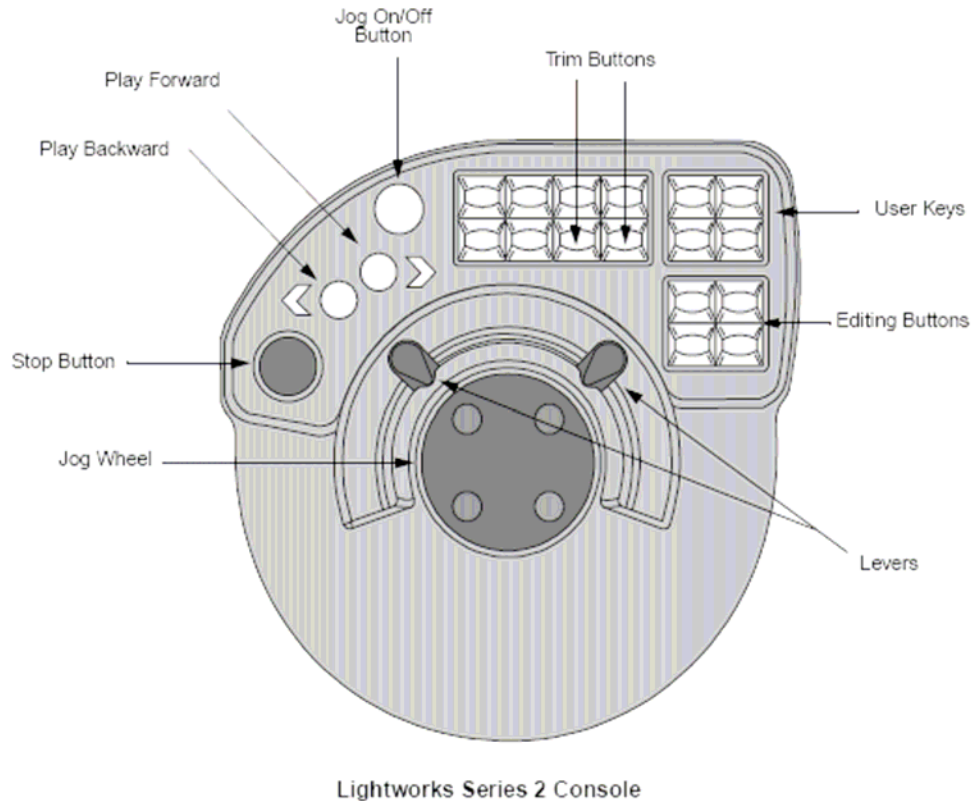
Keyboard

Unlike the keyboards on other NLE systems, the Lightworks keyboard is used for text and numerical entry, not for editing. However, it is important to highlight that "key assignments" can be changed to facilitate the use of Softworks for users who do not own a Lightworks console or who prefer to allocate some functions to the keyboard. Information on how to assign keys is supplied later in this manual **Editor Preferences**.

The Lightworks Series 2 Console

The console is used to control the playing of pictures and sound on the system. It also controls many of the editing functions.

The Console transport controls operate on the active tile or viewer on the graphics screen.



Play and Stop Buttons

The two round grey buttons with direction chevrons are the **Play Forward** and **Play**

Backward buttons. Use them to play material forward or backwards at normal play speed.

The large red **Stop** button allows you to stop playback instantly.

Single frames and nudging: You can use the buttons in combination. If you hold the stop button down, then press either of the play buttons, the shot will be nudged one frame forward or backward. If you keep holding the buttons down, the shot will continue to nudge along slowly (approximately 10% of normal play speed).

Playing double speed: Pressing either of the play buttons a second time doubles the speed of the material. To return to normal speed press the key again.

NB: The play forward and play backward buttons now switch speed between normal playspeed and one of two user-defined play speeds. Users can define the play speeds by changing the config.dat parameters **UserPlaySpeed1** and **UserPlaySpeed2**. The defaults are 150% for UserPlaySpeed1 and 25% for UserPlaySpeed2. Valid values are from 1.0 to 800.0. Once these speeds have been established, a keyboard shortcut can be assigned to toggle between them (See Editor Preferences).

Console Lever

The Console lever has the same effect as the lever on a flatbed film editing machine. It allows you to play the shot forward or backward at any speed between 0% and approximately 1000% of normal play speed. Dual levers offer alternative hand positions for left-handed and right-handed users. There are notches at play speed forward and backward, but if accurate timing is required you should play using the buttons, which are locked to play speed electronically rather than mechanically. Sync sound is maintained from 0 to 6 times play speed. Above this speed the sound is muted.

Jump Buttons

The square buttons marked <- and -> move the current frame from event to event, forwards or backwards. An 'event' is either a cut, dissolve or wipe; a cue-point or audio node; the blue mark; or the first or last frame of an edit or shot. Most commonly, you will jump from cut to cut. The jump button always sets the current frame to the first frame *after* the cut. The jump buttons jump to events on all selected tracks. If you want a track to be ignored by the jump buttons, deselect it using the track selector buttons on the viewer or stripview.

NB: When using the Recording Panel to control a device, the jump forward button fast forwards the tape and the jump backward button rewinds it.

Jog-wheel

The console has a central jog-wheel for playing material slowly - forward or reverse. The jog-wheel is particularly useful when audio scrubbing. It is enabled in one of two ways:

- by the jog on/off button.
- by moving the jog-wheel sharply (the jog-wheel will not be enabled by gentle movement).

NB: When using the Recording Panel to control a device, the jog-wheel may or may not enable the jog feature on the IEEE 1394 device. Early versions of Softworks require a 3rd party DV ingest tool and will not allow for capture within the application.

Console Editing Buttons

All basic editing — assembly, cutaways, inserts, etc. — is performed using the console editing buttons. See Chapter 5 - Basic Editing for information on editing with the console.

Mark

The **Mark** button marks the current frame of a shot or edit. This is used to **Insert**, **Replace**, **Move** or **Delete** the part between the mark and the current frame.

The marked frame of a shot or edit is represented by a blue marker on the Viewer Indicator Strip and Stripview.

The **Vanish** button on a tile is blue if the shot or edit has a mark set and white if not. (For tiles in galleries, the vanish button will only be visible if the cursor is over the tile.)

Unmark

The **Unmark** button removes the mark from the active tile or viewer.

Swap

The **Swap** button swaps the positions of the current frame (red diamond) and the marked frame (blue diamond).

Cue

The **Cue** button creates a green cue point at the current frame. This cue point is permanent until deleted (use **Stop+Cue** to delete a cue). You can jump to cues with the Jump buttons.

Replace

The **Replace** button is used when editing to control overlay operations and to assemble or replace shots.

Remove

The reverse of Replace, Remove lifts the selected part of the edit, leaving black behind.

Preliminary

Insert

Inserts all the selected source frames into the edit, without overwriting anything else

Delete

The reverse of Insert, it cuts out the selected part of the edit and closes up the gap.

Trim Buttons

Two trim buttons allow cut points to be unjoined for trimming without using the Mouse. Multiple cuts can be unjoined at once. See Chapter 6 - Editing Using the Stripview for information on trimming.

Console Button Combinations

Some Console button combinations can be used for additional operations. To perform a combination, first hold down the **Stop** button and then press the other button, as specified below.

Stop+Play Forward

Nudges the material forward one frame.

Stop+Play Backward

Nudges backward one frame.

Stop+Jump Back

Jumps to the **start** of the active shot or edit.

Stop+Jump Forward

Jumps to the **end** of the active shot or edit.

Stop+Replace

Replaces backwards (for making backtimed edits). See **Replacing Backwards**

Stop+Insert

Performs an insert and leaves the current-frame at the end of the inserted shot. This is useful when assembling shots into an edit.

Stop+Delete

Performs a **Redo** on the currently highlighted edit.

Stop+Remove

Performs an **Undo** on the currently highlighted edit.

Stop+Unmark

Same as the **Join/Unjoin** button on the Stripview. Joins and unjoins cuts for trimming.

Stop+Cue

Deletes a cue. Park on the cue frame before pressing **Stop+Cue**.

Stop+Swap

Switches activity between the Record Viewer and the current source.

Stop+Mark

Places a mark at the end of the shot currently parked on, i.e selects the remainder of the current shot.

Stop+Trim buttons

Unjoins either the previous shot (left hand button) or the following shot (right hand button) for trimming. See Chapter 6 - Editing Using the Stripview for more information.

Stop+User keys 1 to 4

May be used for additional user keys

The Mouse

The mouse is used to control objects on the graphics screen. Moving the mouse changes the position of the mouse cursor (white arrow) on the screen. The two buttons on the mouse are used to control the position and behaviour of screen objects. When the system is busy, the mouse cursor becomes an hour glass. While the mouse cursor is an hour glass, it can still be moved but will not register any clicks made. When the system has finished processing, the mouse cursor turns white and you can carry on working.

Mouse Clicks

The Left-Click

The left-click is used to activate:

- 1) Place the mouse cursor over the object, button or command to be activated.
- 2) Click and release the left mouse button.

The Right-Click and Drag

The right-click is used to move an object:

- 1) Place the mouse cursor over the object.
- 2) Hold down the right mouse button.
- 3) Move the mouse to drag the object into the desired position.
- 4) Release the right mouse button.

Right-clicking and dragging is also used to change the shape and size of certain objects. Stripview, Gallery and Databases can all be resized in this way.

- 1) Position the mouse cursor on the border of the object.
- 2) Hold down the right mouse button.
- 3) Move the mouse to resize the object.
- 4) Release the right mouse button.

The Right+Left-Click

Also known as the "shark-click", the right+left-click can be used to pop Viewers, Stripviews and Galleries to the front of the screen if they are partially obscured by other objects.

- 1) Place the mouse cursor over the Viewer, Stripview or Gallery.
- 2) Hold down the right mouse button and click with the left button.

In the case of objects which have their own red diamond current frame marker (e.g., Viewer, Stripview), the right+left-click is also used to jump the red diamond to a new position.

Preliminary

- 1) Point the mouse cursor at the desired new position on the Indicator Strip.
- 2) Hold down the right mouse button and click with the left button. The red diamond will jump to the new position.

NB: The right+left click (or left+right) can also be used to jump the red diamond on a viewer or stripview to a new position. Make the click on the white indicator strip on the viewer or stripview or on the grey area between stripview tracks.

Right Click

Right clicking when the mouse cursor is over an object will display the Menu for that object.

Left-Click on Sliders

If you left-click on a slider (for example, a shot sound slider), it will reset to its default position.

Sharking Objects

Items can be removed from the screen (such as Viewers, Tiles, Databases, Galleries and Tools) by using the red shark (sitting in the bottom left hand corner of the user interface)

- 1) Place the cursor over the shark and right click and hold the button down.
- 2) Move the shark using the mouse over the object you wish to vanish.
- 3) Left click with the mouse. The object will now vanish. The shark will then swim back to its original position.
- 4) To allow the object to reappear, left click on the shark.

Tool Tips

Holding the mouse cursor over certain objects (for more than two seconds) allows information to be displayed.

- Tiles - Over a Tile log information is displayed plus the cookie number.
- Instructions - Over some objects, basic operational instructions appear.

Mouse Wheel

The Mouse wheel can be used to move up and down database rows and jump through cut points within an edit.

Chapter 2 - Getting Started

This chapter provides a brief guide to launching the Lightworks software, setting up a new Project, making simple recordings and then playing back the material recorded. This chapter can be followed as a tutorial - provided that the system you are working on is already correctly connected and configured for recording and playing back.

Windows XP

You should use the Windows XP Administrator account when operating Softworks. Please contact your system or network administrator for assistance if you wish to connect the system to a network.

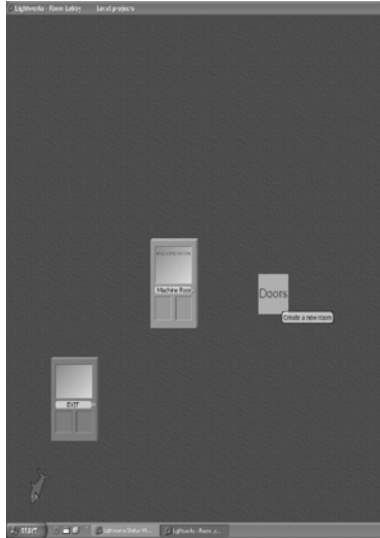
Keyboard and mouse

This section assumes that you are familiar with using a keyboard and mouse on a PC running Windows. The previous chapter covers some special mouse clicks that are used when operating Softworks.

Starting the System - Step-by-step



Double click on the shark icon or select it from the Start Menu. The Lightworks Softworks application will start and will put you in the Lobby.



After starting the program you will see the Lobby displayed across the two graphics screens.

The Lobby has a Door for each Room that currently exists on the system. The other objects in the Lobby are:

- **Door Generator**

For generating new Doors. **Note:** Doors are used to move between the Lobby and the Rooms on the system.

- **Mouse Cursor**

For controlling objects on the graphics screen.

- **Shark**

For deleting unwanted Doors from the screen.

- **Exit Door**

For shutting down the program.

- **Machine Room**

The Machine Room is used for system-wide settings.

- **Yellow Arrow**

Click on the Yellow Arrow to pop up any Tools or Menus obscured behind other screen objects.

To start working you will need to go from the Lobby into a Room.

Projects

Your work on the system is divided up into Projects. Each project is independent from the other projects on the system.

When you are working in a project, you can access only the shots and edits stored in it. Projects allow you to keep different items separate. For example, for a six-part series you could use one project for each episode.

Preliminary

- **Note:** The project name will appear in the glass pane on the Door. If a Door has not yet been attached to a project, then the word “None” will appear.

Rooms

The Room is the place where editing occurs. A room belongs to one project only. Any work, logging, editing, etc. done in a room is stored in its project.

While a room belongs to one project only, it is possible to have several rooms belonging to the same project. For example, a room called ‘Editor’ and a room called ‘Assistant’. Any of the shots or edits in that project can be called onto the screen in any of the rooms.

While rooms are important to editors, they are not so important to the system. Rooms can be sharked and recreated without affecting any of the work in the project. To the system, a room is simply a screen arrangement.

Projects and rooms – summary

- **A room is merely a screen arrangement. Sharking a room does not affect the contents of the project**
- **Projects are more important than Rooms**
- **A project can have several Rooms belonging to it**
- **A Room belongs to one (and only one) project**

To change a room name

- 1) Left-click on the room name displayed on the door. The current name of the room will be highlighted.
- 2) Type in the new name for the room and press **Enter**.

- **Note:** When a new door is generated, the system gives a random two-letter name to the new room created. This appears in a strip in the middle of the door.

Using Rooms

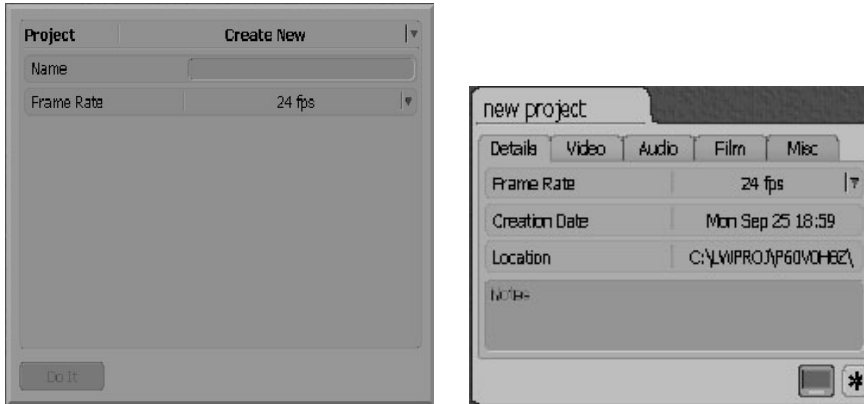
If you want to work on an existing project, you can either create a new room for the project or use an existing room belonging to that project.

If you want to start a new project you must first create a new room.

Creating a new room for an existing project

In the lobby

- 1) Left-click on the Door Generator. A new door will appear. Move it to a convenient position on the screen by dragging with the right mouse button
- 2) Give the door a name (see above)
- 3) Left-click on the new door. This will take you into the new room. The Project configuration panel will appear on entering the new project.



4) For a new project choose 'Create New', set the project frame rate and give the project a name. You can also select "Chose Existing" or "Restore From Archive" to work with existing material. The "new project" menu will appear allowing for adjustment of project details.

- **Note:** The video tab allows you to set the video output resolution. Material will be automatically scaled up or down in real-time to match the video setting on this tab.

5) Left-click on the **Do It** button. If no password has been set for the project, the room will now belong to the project and the project name will appear in the top-right corner of the screen. If the project is password-protected you will be returned to the lobby and prompted for the project password. You will not be allowed into the room until the correct password is entered.

New room contents:

- **Project Details**

Click on the name of the project in the top right hand corner to show the current project details filecard

- **Editor Preferences**

Click on the thumb-print icon to set Editor Preferences

- **Red Shark**

Use this to remove unwanted objects from the screen.

- **Back Door**

Left-click on the Back Door to return to the lobby.

- **Toolbox**

The Toolbox contains most of the tools you will need for a work session. To begin with, however, it is not necessary to know about every tool. Left-click on the Toolbox to open it. To close it, left-click on the **Close** button (the triangle in the lower left corner).

- **Yellow Arrow**

The Yellow Arrow is permanently displayed in the lower right of the right-hand graphics screen. Left-click on the Yellow Arrow to pop-up any tools that have become obscured behind other screen objects.

To start working in the Room, refer to one of the following sections:

- Importing Material: Chapter 3
- To search for shots and edits stored in the project
- Playing Material: Chapter 4

Rooms within rooms

It is also possible to create a new room for a project from within an existing room. This may be useful if you are working on several episodes from one project, as each episode could be on the screen in its own room.

To create a new room from within an existing room:

- 1) Open the Toolbox.
- 2) Left-click on the Door Generator tool in the Toolbox. A new door will appear. Move it to a convenient position on the screen.
- 3) Left-click on the new door.
This will take you into the new room, which will automatically belong to the same project as its "parent" room.

As there are many different ways of using projects and rooms to arrange your work, you should develop a method that suits the material and your style of working.

Using an Existing Room

If you wish to work in an existing room, left-click anywhere on the door to the room. If no password has been set for the project, you will enter the room. If the project is password-protected you will be returned to the lobby and prompted for the project password. You will not be allowed into the room until the correct password is entered.

Upon entering the room, the graphics screen will display all the screen objects that were in the room when it was last used. If a lot of objects have to be displayed the cursor will change to an hourglass while they are found.

To start working in the Room, refer to one of the following sections:

- Importing Material: Chapter 3
- To search for shots and edits stored in the project
- Playing Material: Chapter 4

Creating a New Project

Starting in the lobby,

- 1) Left-click on the door generator. A new door will appear. Move it to a convenient position on the screen.
- 2) Left-click on the door.
This will take you into a new room. Displayed in the center of the left-hand screen is a Visidir panel listing the projects that currently exist on the system.
- 3) Left-click on the **New** button in the Visidir.

A Project Card will appear. Use this to enter information about the project, for example the TV Standard and Project Name.

If you are starting a project using a networked installation, refer to the Networking chapter within this User Guide for set up and operational details.

Shots, Ghosts and Edits

- **Note:** Throughout this User Guide, the phrase “shots and edits” always means “shots, ghosts and edits.”

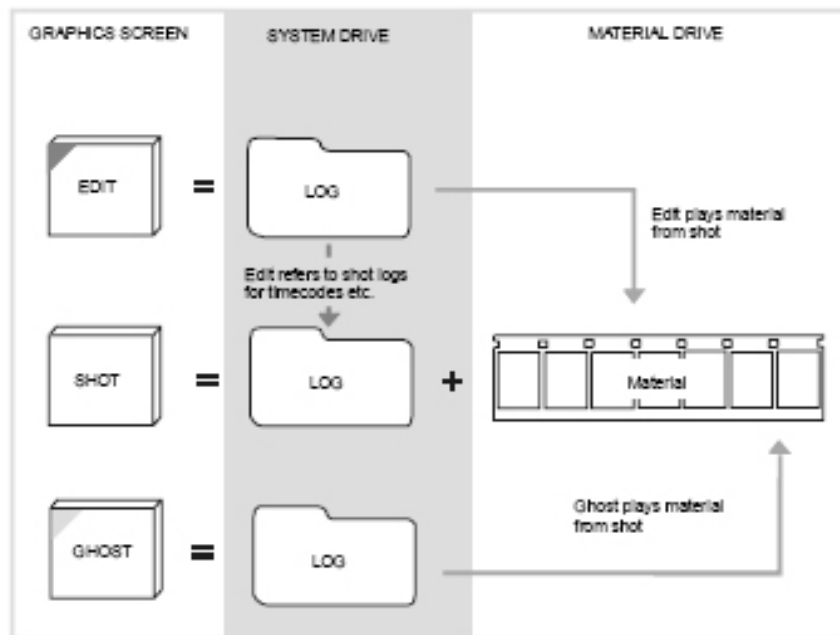
Shots

A shot is created by a single continuous recording of picture and/or sound into the system.

A shot is stored on the system as both a log file and a material file.

The **log file** for a shot contains logging information such as the shot name, reel ID and timecode. The **material file** contains pictures or sound for the shot.

Shots recorded into the system may need further preparation; for example, breaking down long recordings into sub-clips or syncing up separate picture and sound. The products of these processes are called **Ghosts**.



The Relationship between a Shot, a Ghost and an Edit

Ghosts

A ghost is so named because it has no material of its own. When you play a ghost it plays the pictures and sound from the material files of its original shot(s).

There are three types of ghost:

- **Part Ghost**

A sub-clip from a longer recording.

- **Sync Ghost**

The result of syncing up separately digitised picture and sound shots.

- **Print Ghost**

Made from an edit when a videotape master from an online has to be recut. Ghosts behave like shots during editing and behave like edits during project-management processes. When working with ghosts, do not delete the original shots, as each ghost refers to the log of its original shot for labels such as timecode.

Edits

An edit in Lightworks means an edited sequence of shots and/or ghosts.

NB: The edit that you see on the graphics screen does not "exist" in the same way as a film cutting copy or videotape master. The edit is simply a list of edit points in Lightworks' own format without pictures, sound or timecode. The edit refers to the logs of its constituent shots for labelling information such as timecode. When you view the edit, it plays the pictures and sound from the material files of the original shots.

Galleries and databases

Galleries

Galleries are used to organise and display your shots and edits during editing. The shots and edits are displayed as small pictures called **Tiles**.



Gallery with Two Shots and One Edit

Tiles can be played at any time by clicking on the picture and pressing the play button on the Console. You can reposition tiles within a gallery or move tiles from one gallery to another by dragging with the right mouse button. You can also add a tile to a minimised gallery by right+left-clicking.

You can perform certain operations on shots or edits in a gallery using the Gallery Menu commands. To access the menu click on the screwdriver button at the bottom of the gallery.

- **Note:** It is possible for a shot to be in more than one gallery at the same time. You can use this feature to help organise your material more flexibly. However, seeing a shot in more than one place on the screen does not mean there is more than one copy of the shot on the hard disks.

Galleries can be generated in the following ways:

- Searching using the **Searchcard**.
- Using the **Gallery of Shots** button on the **Edit menu**.
- Using the Gallery button on a **Database**.
- Left-clicking on the **New Gallery tool** in the toolbox.

The **Tidy** command on the gallery menu neatly aligns the tiles without resorting them. When a gallery is generated from another screen object, a tidy is performed automatically.

The **Sort** command sorts the tiles by any field that is chosen. This is a very powerful tool with numerous uses.

Right+left-clicking on the New Gallery tool itself generates a Visidir of all the permanent Galleries in the current project. Left-click on the gallery name(s) and click on **Open** to display them.

Right clicking on the New Gallery tool brings up a menu. Clicking on **Hoover** will vacuum up any loose tiles and put them in a gallery

Databases

A Database in Lightworks is a list of shots and edits displayed as text rather than pictures.

A database can be used in the same way as a gallery to display information or perform an operation. Databases make it easier to handle large numbers of shots and edits.

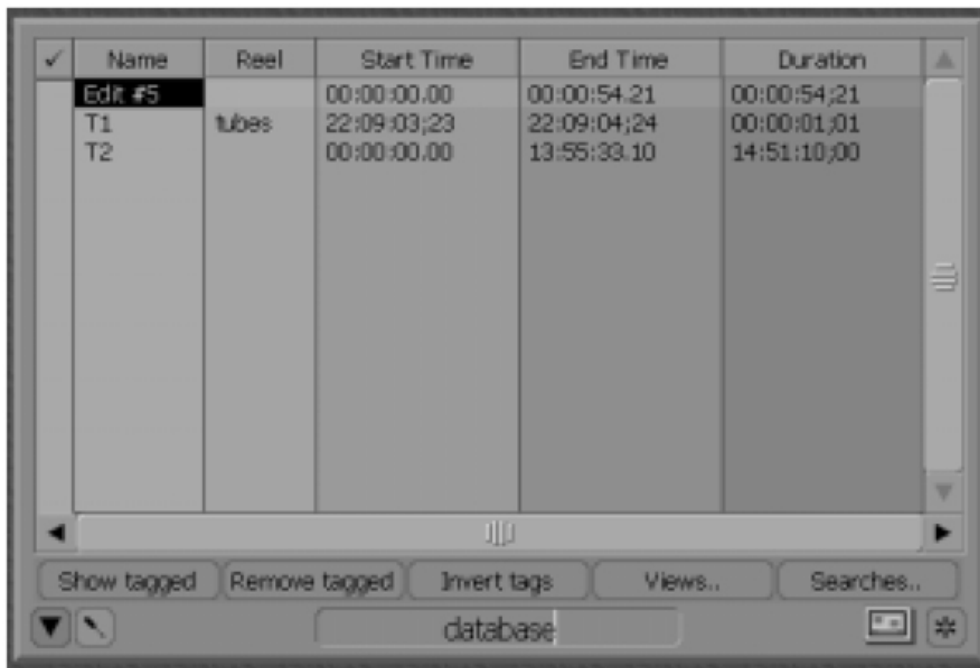
There are two types of database on the system, and each is used for a different purpose. They can be recognised by their different background colours.

- **List Databases (orange background)**

These display information about shots and edits in text form. Their functions are roughly synonymous with galleries. Sorting is done by clicking on a field header.

- **Logging Databases (blue background)**

These are used to control the recording of shots onto the system.



A List Database

Racks

The Rack is a sort of filing cabinet, used to store galleries, list databases, sync-groups (and even other racks) on the graphics screen.

Properties of racks:

- A rack can contain up to 15 items.
- A rack can be closed to save space on screen.
- Closed galleries and databases can be dropped into closed racks.
- Closed racks can be placed in other racks.
- A rack can be made permanent and then searched for.

To place a gallery in a rack



A Rack

- 1) Left-click on the **Close** button (the triangle) to close the gallery.
- 2) Generate a rack by left-clicking on the **Rack** tool in the toolbox.
- 3) Drag the closed gallery over the rack and release the right mouse button. The rack automatically expands to accommodate the gallery.

To drop a closed gallery or database into a closed rack, place the closed gallery over the rack and right+left-click.

If you right+left-click on the rack tool itself, it will generate a Visidir of all permanent racks in the current project. Left-click on the name(s) of the rack(s) to be displayed. See **Rack Menu**

Naming Galleries, Databases and Racks

Each gallery, database or rack has a name. This is displayed whether the object is opened or closed.

These names are used to find (permanent) galleries, databases and racks via the searchcard.

A newly created gallery, database and rack will be given a default name, usually based on the method by which it was generated.

To change the default name:

- 1) Left-click on the existing name.
- 2) Type in the new name and press **Enter**.

Gallery and Database Permanence

A gallery, database or rack can be transient or permanent.

• Transient

This is the default state for a newly generated gallery, database or rack. A transient gallery, database or rack has a **blue label**.

If you shark one of these objects when transient, you cannot get it back. Sharking does not delete the shots and edits from the hard disk.

Entering a name in the name field of a transient database or gallery makes it permanent.

• Permanent

A permanent gallery, database or rack has a **green label**. You can change a gallery, database or rack from transient to permanent (and vice versa) using the appropriate menu commands.

If you shark a permanent gallery, database and rack from the screen, it is possible to retrieve it via the searchcard.

A rack (but not a gallery or database) automatically becomes permanent when it first has an item placed in it.

If a tile is vanished from a permanent gallery, a message appears asking whether you want to remove the tile from the gallery. It should be stressed that removing the tile from the gallery does not delete the shot or edit from the hard disk.

Arranging Galleries, Databases and Racks on the Screen

Using the mouse, you can drag a gallery, database or rack to any position on the screen (or even place it partially offscreen).

Galleries and databases can be resized by dragging their borders. Any one of the four borders can be dragged.

For example, to resize a gallery:

- 1) Point the mouse cursor at the border of the gallery.
- 2) Hold the right mouse button down.
- 3) Drag the mouse to make the gallery larger or smaller.
- 4) Release the right mouse button.

For your own sanity, if nothing else, it is recommended that you keep the number of on-screen galleries, databases or racks to a minimum.

Chapter 3 – Importing Material



Lightworks Toolbox Icons

Importing using the Import-Export tool

To import a file, or a group of files:

- 1) Click on the import-export tool icon (the stamp) in the toolbox.
- 2) Select the Import tab.
- 3) Select the file(s) to be imported using the file browser.
- 4) Select the destination material drive for the imported file(s).
- 5) Press 'Do it'.

NB. Selected files can be removed from the list by highlighting them and pressing 'Remove'.

The Details button displays a database of filenames and sizes for all the files chosen. Individual files listed on the Details Panel can be untagged to exclude them from the import.

When the import is complete, the imported shots and edits will be displayed in a database or gallery.

Importing using 'Drag and Drop'

To import a file or group of files using the drag and drop method, drag the files from Windows and drop them onto the Softworks desktop. The import-export tool will automatically open, and the import will commence.

Importing single images

Importing a single image (BMP, JPG, PNG or TGA) produces a shot with a single frame in the project. The original aspect ratio of the image will be maintained. Black borders may therefore be added to the top or sides of the image to make it fit a standard viewer for the current resolution. Images larger than the standard current resolution will be reduced to fit a standard viewer.

Keying stills

Still images can also be keyed over background video, via the Image Key feature of the effects tool. Unlike image import, image key does not convert the files to a video resolution material, but is referenced in its original state. This allows graphics files with an alpha track to be keyed over a video background. It also gives the user more control over which part of the image is seen, and where it is to be placed within the viewer .

Importing image sequences

In the same way as single frames are imported, a sequence of images can be imported simultaneously to form a single shot in Lightworks.

Importing Video

Video files (AVI, MOV, MPG, MPEG) can be imported into Softworks. Only the video part of the file will be imported. If any audio is embedded into the file, it will be discarded on import.

NB. Make sure that QuickTime7 is installed on the system before MPEG, MPG or MOV files are imported. For more information on downloading QuickTime please see www.apple.com.

Chapter 4 - Playing Material

Introduction to Tiles and Viewers

Shots and edits are displayed on the graphics screen as **Tiles** or **Viewers**. A shot that has been imported manually will appear as a tile in an open gallery. The viewer also displays timecode and other labels associated with a shot.

The larger **Viewer** is more useful for viewing material. The viewer also displays timecode and other labels associated with a shot.

A shot may be played as a tile or as a viewer.

To generate a viewer from a tile:

- 1) Hover the mouse cursor over the tile. A number of buttons will appear.
- 2) From the top down, these buttons are the **Filecard**, **Viewer**, **Stripview** and **Vanish** buttons. Click on the grey **viewer** button.
- 3) If the tile is in a gallery, a viewer will appear *over* the tile. If the tile is out on the Lightworks room desktop, a viewer will replace the tile.

You can have as many viewers on screen as you want, overlapping each other if necessary.

As we shall see in the next chapter, your source during editing may be a tile or a viewer but your active edit must be a viewer.

To find and display shots and edits, you need to search for them using the Searchcard. See **Searchcard**

Tiles

To play the material in a tile, click anywhere in the picture area. The border will become bright blue to show that the tile is now "active". Use the console play buttons, lever, jog-wheel (or a keyboard assignment) to play the tile.

A tile can be used as a source when editing. Just click anywhere in the picture area to select the tile as a source.



A Tile

Name display

The name of the shot, ghost or edit is displayed at the bottom of the tile.

Preliminary

Coloured triangle

Some tiles have a coloured triangle in the top left corner of the picture area. The triangle tells you what the tile contains:

- **No triangle** indicates a Shot
- **Red** triangle indicates an Edit
- **Beige** triangle indicates a Sync Ghost or Part Ghost (subclip)
- **Yellow** triangle indicates a Print Ghost
- **Blue** triangle indicates a Reel
- **Grey** triangle indicates an empty tile

Border colour

The border colour of a tile indicates its status.

- **Bright blue** indicates an active source. It can be played using the console.
- **Dull blue** indicates an inactive source.
- **Bright red** indicates an active edit. It can be played using the console.
- **Dull red** indicates an inactive edit.
- **Dark grey** indicates that the tile is not selected.

Filecard button

Left-click on the **Filecard** button to display the filecard for the shot, ghost or edit.

Viewer button

Left-click on the **Viewer** button to display the shot, ghost or edit in a viewer.

Stripview button

Left-click on the **Stripview** button to display the stripview for the shot, ghost or edit.

Vanish button

The **Vanish** button on a tile has two functions:

- Removing the tile from the screen.
 - Left-clicking on the vanish button removes the tile from the room desktop, without removing the shot, edit or ghost from the hard disks.
- Indicating whether a tile currently has a mark frame (see next chapter).
 - A **white** vanish button means no mark frame.
 - A **blue** vanish button means the tile has a mark frame.

Viewers

Shots, ghosts and edits can be displayed on the graphics screen in viewers.

To display a shot or edit in a viewer, you first need to have your shot or edit displayed as a tile. To turn the tile into a viewer, either left-click on the viewer button on the tile, or drag the tile over any viewer containing a shot (not an edit) and then right+left-click with the mouse. The new shot will replace the existing shot in the viewer.

To play the material in a viewer, left-click anywhere in the picture area. The border will become bright, indicating that the viewer is active. You can then use the console play buttons, lever, jog-wheel (or keyboard assignment) to play the viewer.

During editing the viewer can act as a source or a recorder. You will need at least one viewer for an editing session (set up as a recorder), but you can display as many as you want.

Viewers have the following general features:

Coloured triangle

Some viewers have a coloured triangle in the top left corner. The triangle tells you what the viewer contains:

- **No triangle** indicates a Shot
- **Red** triangle indicates an Edit
- **Beige** triangle indicates a Sync Ghost or Part ghost (subclip)
- **Yellow** triangle indicates a Print Ghost
- **Blue** triangle indicates a Reel

Border colour

The colour of the border round the viewer indicates its status.

- **Bright blue** indicates an active source. It can be played using the console.
- **Dull blue** indicates an inactive source.
- **Bright red** indicates an active edit. It can be played using the console.
- **Dull red** indicates an inactive edit.
- **Dark grey** indicates that the tile is not selected.



A Viewer

Pin button

The Pin button in the top left hand corner of the viewer locks the viewer in its current position on the screen. When a viewer is locked the pin button is highlighted. To unlock a viewer, click on the pin button again.

Indicator Strip

The Indicator Strip - the white strip that runs across the top of a viewer - shows the position of the current frame (the red marker), as well as any marked frame (blue marker) and any cues (green points).



The left of the indicator strip represents the beginning of the shot or edit, the right represents the end. The frames between the current frame and any marked frame are highlighted by a pink stripe.

To skip at high speed through the shot or edit in the viewer:

- 1) Point the mouse cursor at the red marker.
- 2) Hold down the right mouse button.
- 3) Drag the red marker to a new position on the indicator strip, keeping the right mouse button held down.

To jump instantly to a new point in the shot or edit:

- 1) Position the mouse cursor at the point on the indicator strip you want to jump to.
- 2) Left+right-click the mouse.

Video Outputs button

The Video Output Button in the upper-right corner of the viewer indicates the current physical output for the viewer. With Softworks there is no video output available.

Clicking on the button displays a panel that allows you to change the output. Depending on the wiring configuration of your system - SDI, composite or component - the picture from an active viewer (or tile) will be displayed on the chosen physical output.

Filecard button

Below the video outputs button is the **Filecard** button. Click on the filecard button to display the filecard for the shot or edit in the viewer.

Stripview button

Left-click on the **Stripview** button to display the stripview for the viewer. The stripview shows the various tracks that make up the shot or edit in a linear, graphical display. Its main use is during editing operations. See **Chapter 6 - Editing Using the Stripview** on page 59.

Tile button

The **Tile** button ejects the viewer contents as a tile, leaving an empty edit viewer on the screen.

Copy button

The **Copy** button is used to create a copy of the viewer contents. If a shot is in the viewer, Copy creates a Part Ghost (subclip) from a selected section of the shot. If an edit is in the viewer, Copy creates a copy of all or part of the edit.

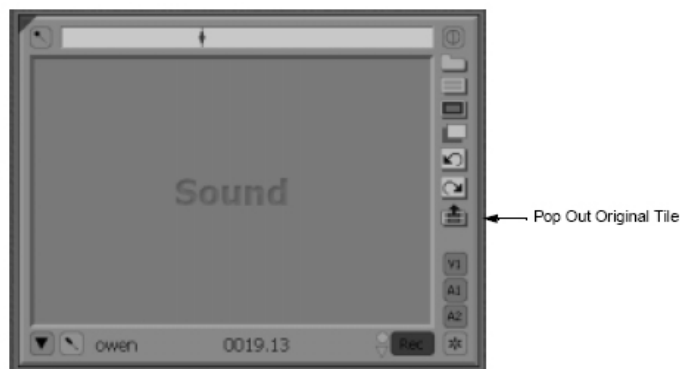
NB: The following three buttons only appear on edit viewers.

Undo button

Left-click on the **Undo** button to undo your last editing operation. The number of levels of undo is normally set to a default of ten.

Redo Button

Left-click on the **Redo** button to remake any editing operations you have undone using Undo. The number of levels of redo is ten.



Preliminary

Pop Out Original ('Match Frame')

Left-click on the **Pop-out Original** button to display a tile of the original shot (or ghost) in the topmost selected track of your edit, parked at the current frame. In other words, this is a 'match frame' feature.

If you are parked in a Simple Transition Effect (see Effects chapter), Pop-out Original displays a gallery of all the elements in the effect, parked at the current frame.

Track selector buttons

The **Track Selector** buttons control whether each track is selected or not selected for editing operations. If the track is selected, the button is bright blue. To deselect a track, click on the button. It will go grey.

If the viewer contains a shot, there will be a track selector button for video, and for each audio track recorded up to audio 4.

If the viewer contains an edit, there will be a track selector button for video, and for each audio track up to audio 2. The track selector buttons for audio 3 and above can be found on the stripview.

During console editing, the console editing buttons will only operate on selected tracks. The console jump buttons only recognise cuts or marks on selected tracks.

During stripview editing, both selected and non-selected tracks can be trimmed. The track selector buttons determine what is monitored during trimming. See **Chapter 6 - Editing Using the Stripview**

Close and Vanish buttons

Viewers have a **Close** button in the lower-left corner. This closes the viewer down to a tile. Pop Out Original Tile

Pressing the **Vanish** button (in the lower-right corner) will cause the viewer to disappear from the screen completely. The shot, edit or ghost has not been removed from the hard disk however and can always be found via the toolbox Search Card.

Menu button

Left-click on the screwdriver Menu button (or right-click anywhere on the viewer) to display the **Viewer Menu**. Shots and edits will have different menu items.

Name display

The name of the shot, ghost or edit is displayed at the bottom of the viewer. To change the name, just left-click on the existing name and type in a new name. Remember to press Enter to register the new name.

For an edit, you may want to display the name of the current source shot instead of the edit name. This is done by clicking on the drop-down **Label Picker** (see below) menu and choosing **Shot code**.

Label Picker menu

Click on the small triangle to the right of the **Label Display** to access the **Label Picker** menu.

This menu is used to choose what 'label' is displayed at the bottom of the viewer. You can choose any of the available codes for the current frame, or you can choose to display duration information. The label picker menu is also used to access the **Labels Panel** (see below).

The label picker menu options are:

- **Edit timecode**

The edit timecode for the current frame is shown in black. This is the default display for an edit viewer.

- **Shot code**

The source timecode for the current frame is shown in blue. This is the default display for a shot viewer. On an edit viewer, the name display will also show the source shot name.

- **Elapsed**

Elapsed time, the duration between the start and the current frame, is shown in green. This and the following durations can be shown in either timecode or feet+frames format, depending on the type of label selected.

- **Marked duration**

The duration between the mark and the current frame (or the start of the shot and the current frame if no mark exists). Marked duration is shown in white.

- **Total duration**

The total length of the shot or edit in the viewer, regardless of the position of the current frame, is shown in red.

- **Labels Panel**

This brings up the Labels Panel (see below).

Beyond start and end

If the current frame is parked off the start or the end of the shot or edit, the label display will change to chevrons, as follows:

<<<<<<<<<< off start (shot or edit viewer)
>>>>>>>>>> off end (shot viewer only)

Choosing which shot code

Having chosen 'Shot code' on the Label Picker, choose which code is displayed on your current viewer by clicking on its button to highlight it in green on the Labels Panel.

You can also choose a default code for future viewers by clicking on 'Choose code for all future viewers' on the Labels Panel menu.

The available options for future viewers are:

- Primary Timecode
- Original Audio T/C
- 24P Timecode
- Ink Code
- Camera Timecode
- Film Keycode

Choosing duration display type

Having chosen one of the duration labels via the Label Picker, you can choose the type of the duration by clicking on 'Choose type of ALL duration labels' on the Labels Panel menu.

The available types are:

- Video (playout) Time
- Feet + frames 35mm
- Feet + frames 16mm
- Feet + frames 35mm 3-perf
- Film frames

See the Lightworks Film Guide for more information on these film formats.

Duration in NTSC projects

In a project with a TV standard of either NTSC or NTSC drop frame, the duration displayed will reflect drop-frame timecode (i.e. accurate for time).

Labels Panel

Choose **Labels Panel** on the Label Picker to display the Labels Panel. The panel displays all of the labels which are available for a shot or edit.

• Add (shots only)

Click on the Add button, to add labels manually to the shot. The choices are:

- **Primary timecode**
- **Original Audio T/C**
- **24P Timecode**
- **Ink Code**
- **Camera Timecode**
- **Film KeyKode**

Each of these code labels is “associated” with a reel or roll number. Adding the code label to a shot will also add the associated reel or roll label. The associations are as follows:

- **Primary timecode** and **Primary reel**
- **Original audio T/C** and **Audio reel**
- **24P timecode** and **24P reel**
- **Ink code** and **Rushes roll**
- **Camera timecode** and **Lab roll**
- **Film keykode** and **Camera roll**

Modify (see below) will have to be ticked to actually key in a new value into any label field.

• Modify (shots and edits)

If this check box is ticked, it becomes possible to amend a label. by typing into any of the red areas of the panel. or an edit it is only possible to modify the edit timecode, whereas any label may be modified or a shot.

• Remove (shots only)

Clicking on Remove will delete whichever code is highlighted in green on the Labels panel.
NB: Primary timecode cannot be removed.

• Current Time/Start Time (shots and edits)

Determines whether the labels displayed in the Labels panel refer to the first frame of the shot or edit, or the current frame displayed in the viewer.

Record Button

Click on the **Rec** button to turn a viewer into a Record Viewer, ready for editing. When a viewer is a record viewer the Rec button and the viewer border are both bright red. To turn off record status, click again on the Rec button.

Additional viewer features

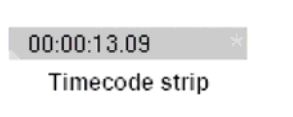
Locating a timecode

To go to a specific timecode, enter a timecode value in the Label Display on the viewer and press **Enter**. The viewer will immediately jump to this frame. Timecodes can also be entered using tear-off timecodes (see below).

Tear-off timecodes

Timecodes from other screen objects (the calculator, searchcard, stripview, other viewers) can be cut and pasted into the label display of a viewer by using a couple of simple mouse clicks. The viewer will then jump to the new timecode.

1) Right+left-click on the timecode you wish to use. The timecode will appear in a timecode strip of its own.



2) If you want to edit the timecode in a strip before it is used, left-click on the timecode itself and overtype.

3) Line up the yellow triangle in the bottom left corner of the strip over the viewer label display field.

4) Right+left-click to insert the timecode.

To remove a loose strip from the screen, click on the tiny vanish button on the strip.

Enlarging viewers

There are three viewer sizes available on the Softworks system - Normal, Medium and Big. 'Big' is four times the size of 'Normal'.

'Normal' and 'Medium' display single video fields, 'Big' shows interleaved fields.

Editing operations can be carried out with all sizes.

To change the size, use the viewer menu command Viewer Size.

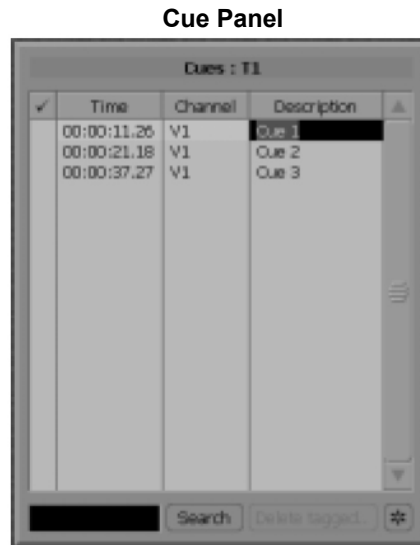
Using Cues

It is possible to put cues in a shot or edit to denote points of interest, for quick reference later. Pressing the console **Cue** button places a cue at the current frame. This can be done "on the fly" (during recording and playing) or by stopping on the frame first. The cue appears as a small green triangle on the viewer indicator strip. You can add as many cues as you wish to a shot or edit.

Any of the following methods can be used to jump to a cue:

- Using the console jump buttons.
- Right+left-clicking with the mouse at the cue point on the indicator strip.
- Left-clicking on the appropriate cue record on the cue panel.

If you choose 'Cue Panel' on the viewer menu, the cues are listed in a panel.



The cue panel displays the timecode position, the track and a description for each cue.

When the cue button on the console is pressed, a default name is given to each cue on the cue panel. To change the name:

- 1) Highlight the name.
- 2) Type the new name.
- 3) Press Enter.

At the bottom of the cue panel is a Search facility. When a search is made for a particular cue, the record will be tagged. Click on the record to move the current frame to the cue position.

Records can be sorted alphabetically and alphanumerically by pressing the field headings for Time, Track and Description at the top of the panel.

Cue descriptions appear as tooltips when you hover over the cue in the position indicator.

If you mark a cue in an edit, a cue will appear on the same frame of the original shot. NB: Deleting the cue from the edit will *not* delete the cue from the original shot.

The cue panel for an edit includes a checkbox for **Show original material cues**. When this box is ticked, the indicator strip for the edit will show source shot cues.

To delete a cue:

- 1) Jump to the cue point.
- 2) Press **Stop+Cue** on the console.

or:

- 1) Tag the cues to be deleted on the cue panel.
- 2) Press the **Delete tagged** button.
- 3) A warning message will appear asking if you want to delete the tagged records.
Select Yes.

Chapter 5 - Basic Editing

Record and Source viewers

Before starting to edit, you must select an active record viewer and an active source.

Editing can only be done to a record viewer. There is no such thing as a record tile. Your active source, however, may be a viewer or a tile. NB: You will probably find it easier to edit with a viewer as your source, rather than a tile.

You can create as many edits as you like, but only one can be active as the record viewer at any moment. This may be a new edit or an existing edit.

Before starting a new edit, you may want to set the number of default tracks for new edits.

Setting the number of default tracks

- 1) Position the cursor over the New Edit tool in the toolbox and right-click with the mouse.
- 2) Click on **New edit settings** on the menu that appears. This displays the Default Tracks panel.
- 3) Use the panel to set the default number of video and audio tracks for all new edits. The defaults are 1 video track and 2 audio tracks.

Starting a new edit

To start a new edit:

- 1) Open the toolbox and take out the New Edit tool.
- 2) Click on the tool to generate an empty record viewer. Position it in a suitable place on the screen.
- 3) Click on the **Rec** button to select the viewer as the record viewer. The **Rec** button will turn red when the Viewer is selected as the Record Viewer. All editing commands from the Console will now operate on this Viewer.



Empty Record Viewer

Selecting an Existing Edit

- 1) Display the edit in a viewer.
- 2) Position the edit viewer in a suitable place on the screen.
- 3) Click on the **Rec** button to select the viewer as the record viewer. The **Rec** button will turn red when the Viewer is selected as the Record Viewer. All editing commands from the Console will now operate on this Viewer.

Selecting a Source

Shots, ghosts and edits can all be selected as sources for editing.

- 1) Display the source(s) you want to use for your editing session as Tiles or Viewers on the screen.
- 2) Click on the Tile or Viewer you want to use as the first source. A blue border lights up to show that it is selected as the source. This Tile or Viewer will remain the source until you choose another.

Selecting Part of a Shot or Edit

Mark and park

For many editing operations you need to select a length of the source shot or the edit. For example, to cut out part of a shot you must select which part of the shot to delete. The selection of a section of a shot is made using the **Mark** button on the Console. When you press the **Mark** button, the current frame is marked and becomes one end of your selection.

This appears as a blue mark, replacing the normal red marker on the indicator strip at the top of the viewer.

The other end of the selected section is simply wherever the current frame is parked.

When you play forward or backward, the section between the blue mark and the new current frame is now selected. You can see this on the indicator strip, which shows a pink stripe between the blue mark and the red current frame marker.

The procedure for selecting part of a shot is known as “**Mark and Park.**”



Source Viewer with a Mark and Park

Preliminary

It does not matter on which end of the selection you put the blue mark. You can mark the in-point and then go to the end, or you can mark the out-point and then go to the beginning. The system does not have separate Mark-In and Mark-Out buttons.

A viewer can have only one mark point at a time. If you press the **Mark** button again, it removes the existing mark and marks the current frame instead.

Mark All

The Series II console has a **Mark All** button. Use this to select everything from the current frame to the end of the current shot. It can be used to select an entire shot:

- 1) Jump to the beginning of the shot to be selected.
- 2) Press the Mark All button by holding down the Stop button and pressing Mark (Stop+Mark). The entire shot is selected.

Swapping in- and out- points

If you select a section by marking the in-point and parking at the out-point, and you then decide you want to change the in-point, you have a problem. Since there is only one mark point, if you were to use the jump button to jump to the in-point to change its position, you would lose your out-point.

To prevent this happening, use the **Swap** button on the console. The Swap button exchanges the blue mark and the red current frame. In the above scenario, pressing Swap would put a mark at the out-point and move the current frame to the in-point, allowing it to be altered.

Removing a mark

If a selection has been marked on a shot but is no longer relevant, press the **Unmark** button on the console. This removes the mark.

Marking on the fly

If you feel you can better judge your cutting point while the shot or edit is playing, you can mark 'on-the-fly'. Just play the shot or edit and press Mark at the appropriate point. Play backwards and forwards to confirm that it is the right frame, and if you change your mind, just press Mark again.

If you need to mark a number of points in the shot or edit, you should use the **Cue** button instead. Cues are long-term markers and have to be explicitly deleted (See **Using Cues** in the previous chapter).

Marking both source and record

In Lightworks editing there should only be one mark, on either the source or record. If you attempt an editing operation when both the source and record have marks, the mark on the record will be used and the mark on the source will be ignored. The only exception to this is when performing a fit-to-fill edit. See **Fit-to-fill**.

Editing with tiles

If a tile has a mark, the vanish button for the tile will be coloured blue instead of white.

Selecting tracks for editing

Use the **Track Selector** buttons on the viewer or stripview to choose which tracks are edited. If a track is selected, the button is highlighted in blue. If the track is not selected it is grey. To toggle a track between selected and not selected, left-click on the button for the track.

Any edits made using the console editing buttons will only affect selected tracks. For 'trimming' using the stripview, a track does not have to be selected beforehand (see Trimming).

Audio track assignment

The **track selector** buttons on the viewer or stripview determine how source tracks are edited across to the tracks in the record viewer. The default (when everything is selected) is for the tracks to be edited 'track for track' from source to record, i.e. A1 goes to A1, A2 goes to A2, and so on.

The general rules are:

- Only selected tracks on the source are used, and they are only edited into selected tracks on the record.
- Source tracks will be used in order, starting with the first *selected* track on the record.

Some examples:

• Editing Source A1 to Record A2

- 1) Select source track A1. No other source tracks should be selected (all other track selectors should be grey).
- 2) Select record track A2 only. No other record tracks should be selected.

As record track A2 is now the first selected track, source track A1 will be edited into it. Record track A1 is not selected and it will be ignored.

• Editing Source A2 to Record A1

- 1) Select source track A2. No other source tracks should be selected.
- 2) Select record track A1 only. No other record tracks should be selected.

Source track A2 will be edited into record track A1.

• Editing Source A1 & A2 to Record A3 & A4

- 1) Select tracks A1 and A2 on the source.
- 2) Select tracks A3 and A4 on the record. No other record tracks should be selected.

Track A1 is now the first selected one on the source while track A3 is the first selected track on the record. Track A1 of the source will be edited into it.

The next selected source track (A2) will be edited into the next selected record track (A4). This preservation of the order of tracks applies to any number of selected tracks.

Console Editing I - Replace

The console Replace function 'overlays' a selected part of your edit with a selected part of your source.

If there is no selection (i.e. no mark) on either the source or record, the current frame will be the in-point for the replace.

The various uses for the replace function will become clearer with the following examples:

'Open-ended' replace

This operation is similar to a video 'assemble edit'.

Preliminary

1) Go to the in-point on the record viewer. Do not press the mark button — the current frame will be the in-point.

If you are starting a new edit in an empty viewer, then the in-point will be the very first frame.

2) Go to the in-point on the source viewer or tile (it will be clearer what is happening if you use a viewer).

3) Check that neither of the viewers has a blue mark in its indicator strip. If either does, use Unmark.

4) Press **Replace**.

Everything from the in-point onwards on the record viewer is replaced by everything from the in-point on the source.

NB: Even if there are a number of shots in the edit after the new edit point, **they will all be replaced**. If you only want to replace part of your edit, you should first select that part by marking and parking (see below).

Using a Selection on the Source

Use this procedure if, for example, you want to edit in a specific cutaway with known start and end point.

1) Select the cutaway on the source by marking and parking.

2) Find the in-point on the record viewer and park there.

3) Check that there is no mark on the record viewer. If necessary use Unmark. The indicator strips for source and record will look something like this:



4) Press the **Replace** button. The selected section in the source replaces the material after the current frame marker in the edit, to the same length.

Using a Selection on the Edit

Use this procedure when you want to replace a specific part of your edit with the same length from another shot. A good example would be replacing an unwanted sound on an audio track with 'atmos'.

- 1) Select the section of your edit you wish to replace by marking and parking.
- 2) Go to the in-point on the source.
- 3) Check that there is no mark on the source. If necessary, press Unmark.
- 4) Press **Replace**. The selected part of the edit material is replaced with the same length from the source.

Replacing picture-only, or sound-only

In the above example of replacing an unwanted sound with 'atmos', you would only want to replace material on a selected audio track (or tracks). You would not want the picture to be replaced at the same time.

Conversely, if you wanted to do a picture-only cutaway without dialogue, you would probably not want to replace the underlying sound at the same time.

Use the replace button in conjunction with the track selection buttons on the viewer or stripview to make picture-only or sound-only cuts.

Replacing Entire Shots

To replace an entire shot (or shots) in your edit, use the console jump buttons to make the selection.

NB: The jump buttons always jump to the **first frame after a cut**.

- 1) Jump to the beginning of the first shot to be replaced.
- 2) Press the **Mark** button.
- 3) Press the jump button until you are parked on the first shot *not* to be replaced. Your selection will be easier to see on the edit stripview.
- 4) Press **Replace**.

Replacing Backwards ('backtiming')

In the examples above you start by knowing your in-point (where, for example, a cutaway is to start from) and you will want the replace to start at this point.

Sometimes however, you only know the *out-point* for the replace, without knowing where the inpoint will be, and you will want the replace to *end* at this point.

There are two cases where you would want to replace backwards - when you know the *out-point on the source* and when you know the *out-point on the edit*.

Backtime knowing out-point on source

- 1) Select the section of the edit you want to replace by marking and parking on the record viewer.
- 2) Go to the out-point on the source. Check that there is no mark.
- 3) Hold down the **Stop** button on the console and press **Replace**.

The current frame on the source is laid over the last frame of the selected part of the edit, and the frames before this are replaced backwards (backtimed) until it reaches the start of the selection.

Backtime knowing out-point on edit

- 1) Select a section of the source shot by marking and parking.
- 2) Go to the out-point on the edit. Check that there is no mark.
- 3) Hold down the **Stop** button on the console, then press **Replace**.

The last frame of the selected part of the source is laid over the current frame on the edit, and the frames before this are replaced backwards (backtimed) until it reaches the start of the selection.

Console Editing II – Remove

The **Remove** function 'lifts' a selected part of the edit out into the Clipboard (see **Using the Clipboard** below), leaving the same length of black or silence in its place.

To perform a remove:

- 1) Mark and park the section you want to remove.
Switch off the tracks you do not want to remove by clicking their **track selector** buttons on the viewer or stripview.
- 2) Press **Remove**.

Remove may be thought of as the opposite of the replace function. When you replace a selected part of your edit, the overall length of the edit does not change. The same is true of remove. Furthermore with both replace and remove, if you edit just one track, there are no sync implications for the other tracks.

Console Editing III – Insert

The Replace function described above has the effect of *overlaying* part of an edit (the overall length of the edit is not changed). If you want to insert into the edit *without* overlaying anything, you should use **Insert**.

With Insert, a cut is effectively made into the edit at the point where you are parked and the selected part of the source is inserted into it. This lengthens the edit by an amount equal to the selected part of the source.

You can insert into all edit tracks or just selected tracks. Because of the length difference, if you insert into selected tracks only there will be implications for sync.

To perform an insert:

- 1) Go to the point in the edit where you want to make the insertion and park there.
- 2) Using the track selector buttons, switch off any tracks in which you *do not* want to perform the insert.
- 3) Select the part of the source you want to use by marking and parking.

NB: If you do not mark your source, the section to be inserted will be from the current frame to the end of the source shot.

4) Press **Insert**.

The selected section of the source will be inserted into the edit and the current frame marker left at the first frame of the insert.

Assemble editing

If you want the current frame marker to be left at the *end* of the insert (ready for the next insert), rather than at the start of the insert, use Stop + Insert (Assemble) instead.

Sync issues when using Insert

• **Tracks not selected in the edit**

This may cause sync problems. If tracks are not selected in the edit, it is assumed that you do not want to change them. As nothing will be inserted into them, the relative sync of the edit tracks will change.

• **Tracks not selected in the source**

This is less serious as black or audio spacing will be inserted in the edit on any tracks that do not have a corresponding (selected) source track.

• **More tracks in the edit than the source**

This is a frequent occurrence. The system will insert black or audio spacing into all the (selected) extra tracks of the edit so that sync is not lost.

NB: Experience suggests that it is best to leave all tracks selected in the edit. The system will then default to inserting black and silence where necessary to avoid sync loss.

Console Editing IV - Delete

The **Delete** function cuts out a selected part of an edit and closes up the gap. Since the operation is only applied to selected tracks in the edit, the Delete function has the same sync implications as Insert.

To perform a delete:

- 1) Use the track selector buttons on the edit viewer or stripview to make sure the correct tracks are active. If you delete with some tracks deselected, the relative sync of the edit tracks will change. Unless you intend this to happen, be careful to check that all tracks are switched on.
- 2) Mark and park the section to cut.
- 3) Press **Delete**.

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This operation is the opposite of the **Insert** operation described in the previous section. Both operations change the overall length of the selected edit tracks, and both therefore have implications for sync.

Using the Clipboard

The Clipboard holds the last section of picture and/or sound overwritten by an editing operation.

The **Replace**, **Remove** and **Delete** functions all overwrite a section of the edit. The last section overwritten will be held in the clipboard until a further editing operation changes the clipboard contents.

The clipboard appears on screen as a tile. If you want to use the clipboard contents as your source for 'cutting and pasting' within an edit, the clipboard tile can be enlarged to a viewer by left-clicking on its viewer button.

NB: Stripview 'Drag and Drop' is an alternative method of cutting and pasting (see Stripview Editing Chapter).

To cut and paste using the clipboard:

- 1) Mark and park the section of the edit you want to relocate.
- 2) Press **Delete** or **Move**. The selected section of the edit will appear in the clipboard.
- 3) Click on the clipboard to select it as the source. Its border will change to bright blue.
- 4) Park at the desired new location in the edit.
- 5) Press **Replace** or **Insert**. The contents of the clipboard will be pasted into the edit.

Clipboard undo and redo buttons

The Undo button on the side of the clipboard viewer can be used to undo the last change made to the clipboard. The clipboard is effectively an edit and has as many undos as any other edit.

The Redo button will restore the contents of the clipboard. The number of previous versions of the clipboard that can be found depends on the levels of undo that has been set. The default is ten.

Making an empty cut

For certain operations it is useful to make an 'empty cut' within a shot in your edit. This type of cut is sometimes referred to as an 'invisible edit' or 'zero-length edit'. In film editing, this is equivalent to an unintentional splice in the cutting copy. An example would be where you want to change the sync of one part of a piece of audio without affecting the rest.

To make an empty cut:

- 1) Switch off any tracks which are not to be cut.
- 2) Press the **Mark** button on the console.
- 3) Then press the **Delete** button.

Because the current frame and the blue mark are in the same place, the effect is to delete no frames,

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leaving an 'empty cut' in the shot. If you immediately chose the Simplify command on the Stripview menu, the empty cut would vanish.

Empty cuts are mostly used when varispeeding part of a shot, or when making audio level control adjustments within a shot.

Copying and Clipping up an Edit

It is a good idea to make a safety copy of an edit before embarking on any radical recutting. You may also want to break your edit into shorter sections ('clipping up') during editing. Both of these operations are achieved using the **Copy** button on the side of the viewer.

Copying an entire edit:

- 1) Display the edit in a viewer.
- 2) Press the **Copy** button on the side of the Viewer.

A new tile will appear next to the original edit. This is an entirely new edit which is an exact copy of the original edit.

Copying part of an edit:

- 1) Mark and park the section to be clipped out.
- 2) Press the **Copy** button on the side of the Viewer.

A message will be displayed asking whether you want to clip **All** or **Part** of the edit.

- 3) Left-click on **All**, **Part** or **No**.

- **Part**

A new tile will appear next to the original edit. This is an entirely new edit containing only the selected section of the original edit.

- **All**

A new tile will appear next to the original edit. This is an entirely new edit which is an exact copy of the original edit.

- **No**

Cancels the command. The original edit remains unchanged by this procedure. Edits produced using the Copy button behave in exactly the same way as other edits on the system and can be renamed and used for further editing.

Setting the Start Time for an edit

The start time for an edit defaults to 00:00:00:00. To change the edit start time, use the viewer Labels Panel

- 1) Choose **Labels Panel** on the viewer Label Picker menu.
- 2) Ensure the **Modify** check box is ticked.
- 3) Type the desired start timecode into the Edit Timecode field.
- 4) Press **Enter**.
- 5) Vanish the labels panel.

Fit-to-Fill

The Fit-to-Fill feature allows a selected part of the picture on a source viewer to be forced to fill a specified duration in the edit. The system will automatically determine the % varispeed that is required to do the fill. Fit-to-fill is picture-only. If the mark and park selection on the source and record are the same way round, Fit-to-Fill will run the source shot forwards. If they are not (i.e. park and mark on one viewer, mark and park on the other) then Fit-to-Fill will run the source shot backwards.

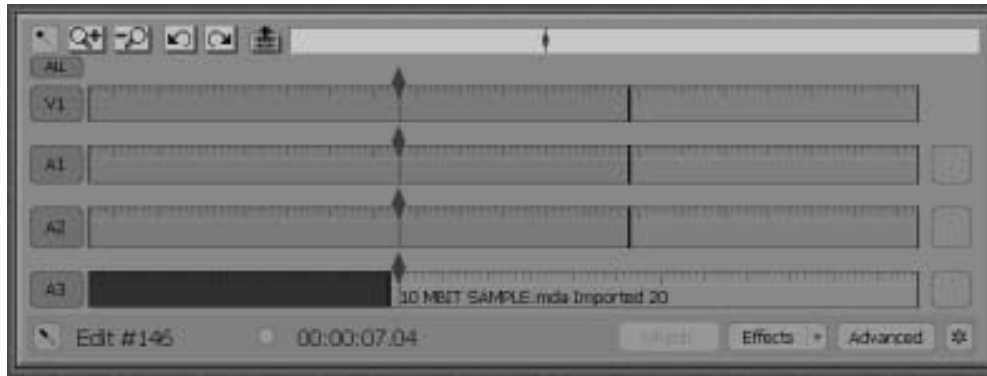
To perform a Fit-to-Fill:

- 1) Select the section to be used on the source.
- 2) Select the section to be filled on the record.
- 3) Press Alt + V on the keyboard.
The selected section of the edit will be filled with the selected section of the source, with the shot speed set accordingly.

Chapter 6 - Editing Using the Stripview

Introducing the Stripview

The Stripview (timeline) provides a simple graphical view of a shot or edit. Its most powerful feature is that it allows you to make changes to an edit. This chapter covers editing operations, especially trimming, which are controlled by the Stripview.



Stripview

To display a Stripview, click on the Stripview button on a Viewer or Tile.

The Stripview contains a strip for each track of video, audio and effects in the edit. Time runs from left-to-right: that is, the beginning of the shot or edit is on the left (unlike tape or film, where the take up reel is on the right) Each shot is represented by a strip of a single colour and cuts are represented by vertical lines across the strip.

The current position in the shot or edit is shown by the current frame marker. Each track has its own current frame marker.

Stripview Displays

Name Display

The name of the shot, ghost or edit in the Stripview is displayed at the bottom. For an edit, it is possible to display the name of the source shot by clicking the Label Toggle button.

Stripview Border

The Stripview Border indicates the source/record status of the shot, ghost or edit it represents:

Red Selected	Edit, active play
Dull Pink Selected	Edit
Blue Selected	Source, active play
Dark Grey	Not Selected

Navigating the Stripview

Indicator Strip

The left of the Indicator Strip represents the beginning of the shot or edit and the right represents the end. On the Stripview, the white section of the Indicator Strip shows which section of the edit is displayed by the strips. This will change when the Zoom In (+) or Zoom Out (-) buttons are used.

The Indicator Strip also shows the position of the current frame (red), any marked frame (blue) and any cues (green).

Any selected frames (those between the current frame and the marked frame) are highlighted by a pink strip.

Stripview Current Frame Marker

The Stripview current frame marker shows the position of the current frame on each strip. When playing or shuttling with the Console Lever or Jog Wheel, the current frame marker will normally move along the strip until it reaches the end of the section displayed in the Stripview. The Stripview will then update and the current frame marker will then jump back to near the start.

The current frame marker in the Stripview can be locked in place by clicking on it - the colour will change from red to purple. Now, when the edit is played, the current frame marker will stay fixed (rather like the heads on a synchroniser or flatbed editor) and the strips will scroll past it. To revert to having the current frame marker move across the strips, click on it again. For this to work, you must be zoomed in.

Note:When the Stripview is completely zoomed out, or when close to the start or end of an edit, the current frame marker will behave in the normal way.

Using the Mouse to Move the Current Frame

You can use the Mouse to move the current frame by dragging the current frame marker. Also, you can jump to a new position immediately by left+right-clicking anywhere on the grey area between the strips or above and below the strips. Take care when clicking between the track strips - if you click on the strips themselves, you will unjoin cuts for trimming.

Customising the Stripview

It is possible to customise the Stripview display:

Stripview Magnification

The Stripview can be set to different magnifications. Initially it shows the entire shot or edit, no matter how long it is. If there are only a few cuts in an edit, this is fine; but as soon as there are many you will need to zoom in. Use the Zoom In (+) and Zoom Out (-) buttons to change the amount of time represented in the Stripview.

Alternatively, position the cursor over either end of the position indicator. The cursor becomes a double-ended arrow. Left or right-click and drag to achieve the desired magnification.

Stripview Size

To resize the entire Stripview, left or right-click and drag anywhere along its edge. Vertical resizing can be achieved by grabbing either the top or bottom edge. Horizontal resizing can be achieved by grabbing either side. Both can be achieved simultaneously by grabbing the corners along the bottom edge.

Resizing Individual Track Strips

It is possible to adjust the size of each individual track strip in the Stripview, by right-clicking and dragging with the Mouse on the top or bottom edge of the strip.

The strip will get shallower or deeper, depending on which direction you are dragging the Mouse.

Displaying Text on the Stripview

It is possible to change the text shown in the strips by using the stripview menu command 'Shot text'. Left clicking the current setting will display a sub-menu of the different text labels that appear on the shot filecard.

The options are: Name, Reel, Scene, Shot, Description, Notes, Audio Reel, 24P Reel, Cam Reel, Lab Roll, Who and None for no text.

Once the new text label has been selected, the stripview will instantly be updated.

Choosing Which Tracks to Display in the Stripview

It is possible to choose which video, audio and effects tracks of an edit should be included in the Stripview display, by using the Stripview Menu command Show/Hide Strips.

Clicking on this command will display the Select tracks to Display Panel, with a button for each track in the shot or edit. The buttons toggle between blue (track is displayed) and grey (track is not displayed).



When the tracks to be displayed have been selected, click on the OK button. The Stripview will update to display only the selected tracks. To display no tracks, click on the None button. To display all tracks, click on the All button.

Tracks that are not displayed are simply not drawn on the Stripview - they remain in the edit or shot and their selected/deselected status remains unchanged, so the track can be edited or deleted as normal.

This feature makes it easier to do detailed Stripview work on a few tracks in a multi-track edit, where the Stripview would otherwise occupy a lot of screen space.

Selecting Tracks

Each track displayed has a Track Selector button on the Stripview. This controls whether the track is selected (button is blue) or not (button is grey).

The Stripview All button can be used to select or deselect all tracks simultaneously.

For Console Editing

Any edits using Console buttons will only affect selected tracks.

For Stripview Editing

A track does not have to be selected to be edited using the Stripview. However, the first selected track determines what point in the edit is monitored during trimming. The Console Jump button will only recognise cuts on selected tracks.

Certain operations, such as fix sync, moving audio tracks and displaying source timecode depend on tracks being selected.

Track Selector buttons also appear on the side of the Viewer, where, for reasons of space, there are buttons for picture and the first two sound tracks only. It is assumed that for more complex editing, you will be using the Stripview.

Grouping tracks

Grouping tracks in an Edit

The tracks in an edit can be grouped together so that any edits or trims made will affect all the tracks in the group. When working with a group of tracks it is not necessary to unjoin all the tracks individually when trimming. This is particularly useful when editing stereo pairs as it ensures any trims made will always affect both audio tracks equally.

To group a number of tracks together:

- 1) On the Stripview Menu, click on the command Group tracks. The Select tracks to Group Panel has a button for each of the tracks not currently grouped.



- 2) Click on the buttons representing the tracks to be grouped. The buttons for the selected tracks will be highlighted in blue.
- 3) To select all the tracks, click on the All button. To deselect all the tracks, click on the None button.
- 4) When you have selected the tracks to group, click on the OK button. The grouped tracks will be displayed as a single strip in the Stripview. The track Selector button shows the names of the grouped tracks.

Note: Grouping tracks in the Stripview only affects how they are displayed in the Stripview and edited. They are still treated as separate tracks for audio routing or video output purposes.

Editing Grouped tracks

For Stripview trims, it is not possible to unjoin cuts with the Mouse for grouped tracks unless the cut is in the same place on all the tracks in the group. Cuts on individual tracks can be selected for Trimming by holding down the shift key when clicking the mouse.

Console edits apply to all grouped tracks currently selected.

Ungrouping tracks in an Edit

To ungroup a number of Stripview track groups:

On the Stripview Menu, click on the command Ungroup tracks.



Ungroup track Panel

The Ungroup track Panel has a button representing each of the currently grouped tracks.

- 1) Click on the buttons representing the tracks to be ungrouped. The buttons for the selected groups will turn from blue to grey.
- 2) To select all the groups, click on the All button. To deselect all the groups, click on the None button.
- 3) Once the desired groups have been highlighted in blue, click on the OK button. The tracks will then be ungrouped.

Other Stripview Controls

Pin Button

Clicking on the Pin button locks the Stripview in its current position on the screen. When the Stripview is locked the Pin button is highlighted. To unlock the Stripview, click on the Pin button.

Pop-Out Original Tile Button

Clicking on this button (situated between the Redo button and the Indicator Strip) will find the original source shot for the current frame in an edit or ghost. The shot is displayed as a Tile and is parked at exactly the same frame as the current frame.

The Pop-Out Original Tile button acts on the first selected track in the edit or ghost. This is usually the video track. To Pop out an audio shot, deselect the video track(s).

Unjoin/Join Button

The Unjoin button, at the bottom of the Stripview reopens the strips at the points where they were last opened for trimming. When the strips are open the button is labelled as Join and can then be used to join the strips back together.

Effects Button – Please note that effects and Advanced Effects are not covered in this Preliminary Users Guide

Advanced Button

The Advanced button expands the Stripview and adds the following controls:

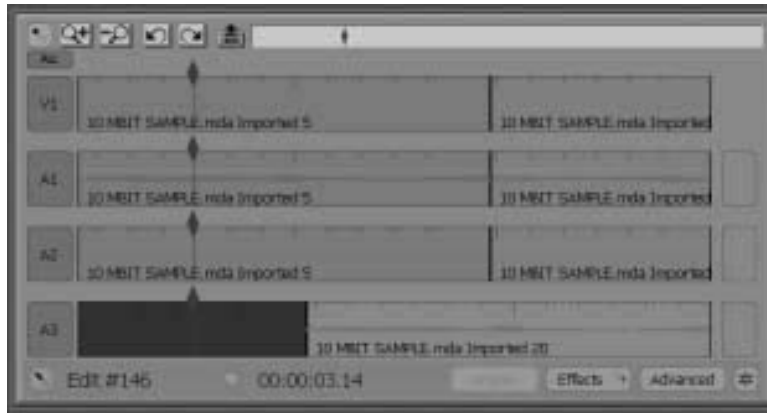
- Varispeed Display**
- Shot Sound Sliders**
- Stripview Sync Buttons**
- Render Button**

Audio Waveforms

Audio waveforms can be displayed for the audio tracks in a shot or edit.

To display audio waveforms in the Stripview:

On the Stripview menu set the command Show Audio Waveforms to YES.



Stripview Waveforms

If the waveforms are difficult to see, they can be magnified by resizing a track strip by right-clicking and dragging with the mouse.

Trimming Cuts

The main use of the Stripview is to make adjustments to the timing of cuts. You do this by opening or *unjoining* the cuts using the mouse, Console or keyboard shortcuts; then, when you play the edit, the position of the cut can move. Finally, the cut is *joined* back together.

There are three places you may unjoin a cut:

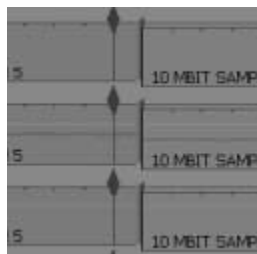
- On the outgoing side (trimming left of the cut).
- On the incoming side (trimming right of the cut).
- In the middle (trimming both left and right simultaneously).

How each method (and combinations of them) can be used is described in the following sections.

Trimming the Outgoing Shot

Left-click a little way to the *left* of a cut (but closer to that cut than to the one before) and the cut is unjoined on the *outgoing* side.

The Stripview shows the edit is unjoined with a little curl just before the cut, signifying that the shot on that side now acts as if it is on a separate roll and can be shortened or lengthened.



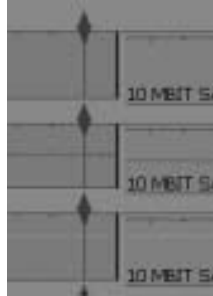
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As soon as you nudge or play forward or backward at any speed, the outgoing shot is extended or shortened as you play. The rest of the edit is pushed along or pulled back, but is otherwise unaffected.

Trimming the Incoming Shot

Left-clicking a little to the *right* of the cut produces the same effect for the *incoming* shot; it can change length while everything before it is unaffected. Playing will change the first frame after the cut

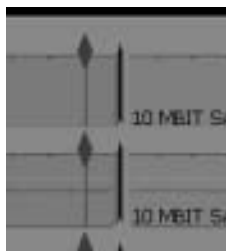
The Open Head Console Trimming button can be used as shortcuts for unjoining an incoming shot.



In both these cases, (trimming an outgoing or incoming shot) the edit changes length overall. To avoid going out of sync, the cuts on every track of the strip must be unjoined together. If only the picture cut was unjoined, then trimming would change the length of the picture, not the sound, and everything would slide out of sync. If all tracks have unjoined cuts, then playing will change the edit length at the unjoined cut on each track by the same amount, keeping everything in sync.

Moving a Cut

Left-clicking directly on a cut (instead of to one side) will unjoin the cut down the middle, with both sides showing a curl.



In this case, when the **Play** button is pressed on the Console, one side gets longer while the other side gets shorter. The cut moves but the overall length of the edit does not. There are no implications for sync: Cuts on one or more than one track can be moved without changing the sync of the edit.

The most common use of this way of unjoining a cut is for making a split or overlapped edit on a single track. Simply unjoin the cut and play until the new position is reached. For example, to overlap a sound cut until the outgoing speaker had finished a line of dialogue, unjoin the cut and play until the sentence is over, then join the cut. For information about which of the tracks is monitored when trimming, See **Monitoring When Trimming**.

The Console has four trimming buttons

- **Top left trim button - Open head of current shot**
- **Bottom left trim button - Open tail of previous shot**
- **Top right trim button - Open tail of current shot**
- **Bottom right trim button - Open head of next shot**

➤ Note: The Open Tail buttons can be used as shortcuts for unjoining an outgoing shot.

Adding Black or Audio Spacing at a Cut

This feature requires that the Stripview menu command **Drag in Black** is enabled. Then, by pointing the mouse to the right hand side of a cut and right+left-clicking, the cut will unjoin on the incoming side. Playing or using the Console lever or Jog Wheel (or dragging with the mouse) will now add black (or audio spacing) to the start of the incoming shot. This feature can be used to quickly add gaps or space between shots.

To maintain sync when dragging in black, you may want to group your tracks beforehand, then drag the whole group together.

➤ **Note:** Before attempting to trim this type of black or audio spacing, press the **S** (Simplify) button on the Stripview first.

Trimming By Numbers

When a cut is unjoined, it is possible to trim it by typing in the number of frames to add or remove:

- 1) Unjoin the cut.
- 2) Type the number of frames that you want to trim on the keyboard. Positive numbers add frames and negative numbers remove frames.
- 3) Press the Enter key. The cut will be trimmed by the specified number of frames.
- 4) Join the cut.

Note: Ensure that the cursor is not in a timecode field before you type in the trim, otherwise pressing Enter will jump the edit to the timecode.

Finishing a Trim

When you have finished trimming, you should join the cuts again. You can do this in one of three ways:

- Left-click at the same point on each strip as you did when unjoining.
- Left-click on the **Join** button on the Stripview.

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This is quicker than the previous method, as it joins all cuts together. The button changes to **Unjoin** and allows you to unjoin the same cuts later.

- Hold down the Console **Stop** button and press the **Unmark** button.
If further changes are needed, you can unjoin the same cuts by pressing the **Unjoin** button, or the **Stop+Unmark** combination again.

It is worth practicing unjoining cuts with the Stripview for a few minutes before starting serious work so that you have a feel for what happens when you click in the different places.

You will notice that once a shot becomes very short in the Stripview display, there is not enough room to choose the side you want to unjoin reliably. This is the time to zoom in by using the Zoom button on the Stripview.

Previewing Trims

The preview feature enables cuts to be played or shuttled through whilst unjoined. This can help speed up trimming, as changes to cut points can be quickly 'previewed' and adjusted further, without first needing to join the trim.

Preview is enabled by pressing CTRL+P on the Keyboard. This will jump the current frame marker back by the preview preroll time.

From the preroll point, the edit will immediately play forward across the unjoined cut and carry on playing. The edit will be seen in the Viewer as normal. If the trimview feature is enabled, the edit is played in the left-hand side of the Trimview Viewer.

When previewing, using the Console Play buttons , Jog Wheel and Lever will not change the position of the cut. They can be used to play or shuttle forwards or backwards over the trim point.

Pressing the Console Stop button disables the preview and returns the current frame marker to its original position. For an unjoined trim, this will usually be at the first trim point. The Console can then be used to adjust the trim as normal.

Preview can be used as a means of 'reviewing' any Console edit. Note that, although the edit will carry on playing past the cut point when the Stop button is pressed, the current frame marker will jump back to the position it was in when the preview mode was entered.

Trimming — Some Practical Examples

Making Split Edits With the Stripview

Any cut on any track can be moved very simply. When applied to picture or audio cuts only, this allows split edits to be created. To move a cut:

- 1) Make the initial cut.
Decide which track (picture or sound) is the most important for this particular cut, and make the edit there. The cut will be made on all selected tracks simultaneously, producing a straight cut. Overlapping sound or picture is very easy and you can do it at any time later. In this way, you can first concentrate on making an assembly quickly, then improve it.
- 2) Unjoin the cut using the Stripview.
Left-click on the middle of the cut that you want to move, on the track(s) on which you want it to move. The cut will now display as a double curl, showing that the shots on both sides can change length. In this way, the cut will move without changing the sync between tracks.
- 3) Play backwards or forwards until you can hear or see that the cut is in the right place.
See **Monitoring When Trimming** on page 69 for details on which side of the cut will be monitored.

4) Click on Do It or press Stop+Unmark to join all the cuts back together.

Here is a specific example: You have cut to picture, halfway through a line of dialogue sentence, and you want to run the outgoing sound to the end of the dialogue underneath the picture.

1) Put the current frame anywhere on the outgoing side by playing or dragging the red marker.

2) Unjoin the sound cut in the middle.

3) Play forward until you hear the end of the dialogue.

4) Click on **Join** (or **Stop+Unmark**).

Monitoring When Trimming

Monitoring Audio When Trimming

When trimming, the position of the red marker will determine where in the edit the audio is monitored. For split edits where picture and audio cuts are in different places, the audio that is heard will not necessarily be the audio at the audio cut point. The first track selected determines the position of the red marker and, hence, where the audio is monitored. When the video track is selected and being trimmed, the audio that is monitored will be at the frame that corresponds to the position of the red marker on the video track.

If you are trimming a split edit and wish to monitor the audio trim rather than the picture trim, deselect the video track.

Monitoring Pictures When Trimming (Trimview)

The Trimview feature controls the way that picture trims are displayed on both the graphics screen and system video outputs. With the Edit menu command **Trimview** set to **Enabled**, two sides of a picture trim can be seen at the same time, both on the graphics screen and on two separate video outputs. The **Trimview** command defaults to **Enabled**. With Trimview disabled, only one side of the picture trim will be shown. The side shown will be determined by the position of the red current-frame marker. The Record Viewer and video output the edit is assigned to will show the side of the trim that the red current-frame marker is on. The exception is trims where only one side of a cut is changing, and this will be shown irrespective of the side the red marker is on.

Pictures Displayed with Trimview Enabled

When a cut on the video track is unjoined by clicking on the strip with the mouse (or by clicking the **Unjoin** button to open a previous trim), the Record Viewer will resize to double its normal width to accommodate a second picture on the right side. When the trim is completed and any trimmed cuts are joined, the Viewer returns to its normal size and original position. The pictures displayed in the Trimview Viewer and on the video outputs will be determined by the type of trim being performed. Where more than one cut is being trimmed, the cut point which is nearest to the red current-frame marker when trimming begins is the one displayed in the Trimview Viewer. During trimming, the picture on the left side of the Trimview Viewer will be shown on the monitor output the edit is assigned to, and the picture in the right side of the Trimview Viewer will be shown on the next monitor output. So, if the edit is assigned to monitor output 1, the left side will appear on monitor output 1 and the right side on monitor output 2.

The following diagrams show examples of which picture will be shown in the Trimview Viewer and the video outputs for the different kinds of trim. The numbers indicate which pictures appear in the left (1) and right (2) side of the Trimview Viewer.

The left hand side of Trimview goes to the Program Comps on the analogue video connection, right hand side of Trimview goes to Preview Comps.

- **Changing Shot Lengths**



Only one side of the cut is changing. The side of the Trimview Viewer that represents the unchanging shot will show a freeze of the first (or last) frame. The other side will show the shot that is changing.

- **Moving a Cut**



The left side of the Trimview Viewer shows the outgoing shot, the right side shows the incoming shot. Both Sides will be changing.

- **Slipping a Shot**



Both the in- and out-points of the shot are changing. The left side of the Trimview Viewer shows the first frame of the shot, the right side shows the last frame of the shot.

- **Sliding a Shot**



The in- and out-points of the shot being slid are not changing. The left side of the Trimview Viewer shows the last frame of the shot before the shot being slid, the right side shows the first frame of the shot after.

Setting the Trimview Default

The **Trimview** command defaults to **Enabled** for all edits. The default can be changed to disabled by means of the CONFIG.DAT parameter **trimview_default**. The **Trimview** command can still be enabled for specific edits using the command on the Edit menu.

Changing Sync Using the Stripview

Often you need to change the sync between tracks; for example, to lay a sound effect in the right place. You can do this very simply using the Stripview, either by playing the shot while trimming, or by marking the matching points on the tracks and then using the **Align Marks** command on the Stripview menu. In the following section, we assume that the tracks are already laid-up and that just the sync is to be changed.

Syncing by Playing

- 1) Find the sync point on one of the tracks in question.
It does not matter which order you work in, but, for an example, let us assume you are laying down a spot effect to a frame. You would find the picture frame first here.
- 2) Deselect the picture track and all the audio tracks to be synced by left-clicking the appropriate **track Selector** buttons on the Stripview. Left-click on the **All** button to switch off all the tracks. This has the effect of locking down the red current-frame marker on those tracks. Normally, you see the red marker moving along the strip as you play, as though a playback head is moving over a stationary track strip. When the track is deselected, the red marker becomes stationary and the track can move over it.
- 3) On each track of sound to be synced to the picture, unjoin both the incoming and outgoing ends of the shot or section (series of shots).
These sections are now free to slip within their own slots. The rest of the edit is unaffected. To sync the shot, simply start playing forwards or backwards until the correct point is reached. For this example, the audio would be moving and you will hear the audio at the frame of picture shown in the Record Viewer. If this is a spot effect, stop when you hear the start of the effect.
- 4) Press **Join** or **Stop+Unmark**.
- 5) Select the tracks again.

Syncing by Aligning Marks

Suppose that you have a picture track and a sound track, and they have been laid together but are not in sync:

- 1) Find the sync point on the picture.
- 2) Press the **Mark** button on the Console.
- 3) Switch off the picture track on the Stripview by pressing its **track Selector** button so it turns grey.
- 4) Find the matching sync point on the sound and press **Mark** again.
There is now a separate blue mark on each track.
- 5) Select the picture track again.
- 6) Unjoin a cut on either the picture or the sound track.
The choice of cut is determined by which of the tracks (picture or sound) you want to move in order to achieve sync. Make sure that you leave one of the track strips joined.
- 7) Left-click on the **Align Marks** command on the Stripview menu. The mark on the track that was unjoined will be lined up with the mark on the other track strip.
- 8) Left-click on the **Join** button and the edit is now in sync.

Preliminary

You can use the same technique within an edit to get a sound effect in sync with the picture. Lay down the effect to match the relevant length of picture, but do not bother with sync yet. Then, find the matching sync points as described above. Finally, unjoin the sound both at the in-point and the out-point. Now, the piece of sound can be slipped relative to the picture, without affecting anything else. Use **Align Marks** and the chosen frames will be aligned.

Fixing Sync Using the Stripview

When editing picture and audio tracks, it is possible for losses of sync to be introduced by making trims and adjustments.

There are two types of sync loss.

- **Loss of Original Sync Relationship for a Shot**

Picture and audio that were recorded into the system together as sync may be put out of sync during editing. (This also applies to picture and audio that were synced on the system.) These type of sync losses are identified and dealt with by using the Stripview menu commands

Show Sync Losses and Fix Sync.

- **Loss of Existing Sync Relationship Between Picture and Audio track(s) in an Edit**

When a cut or trim is made on one track and not the others, the existing sync relationship between tracks may be affected.

This type of sync loss is handled by the Stripview **Sync** buttons.

You may deliberately use both types of sync loss when editing, in which case there is no need to fix anything. However, should a sync loss be introduced accidentally, the fixes available are described in the following sections.

Fixing Sync Using the Stripview Menu Commands

Use this method to fix loss of the original sync relationship for shots or ghosts. The procedure gives a shot-by-shot indication of sync errors.

1) Use the Stripview menu command **Show Sync Losses** to flag (with yellow boxes) any points where the original sync relationship has been lost.

The number of frames out of sync is indicated on the strip at the appropriate point. This can help in making decisions as to how to fix sync errors. For example, if all the amounts out of sync are the same, then several can be fixed at once by fixing the first error only.

- Note - When fixing sync in this way, it is best to start with the left-most sync error and work through to the right hand end of the stripview.

2) Position the current frame so it sits within both the picture and the sound of the shot to be fixed. Fix Sync does not work if the current frame is on a shot that is in sync.

3) Choose appropriate cut point(s) to trim in order to restore sync. Unjoin the chosen cuts in the Stripview accordingly.

4) Left-click on the **Fix Sync** command. The Stripview will update to reflect the sync fix and the cut will automatically close.

In all cases, ensure that the tracks are selected and that the red marker is parked somewhere within the sections of picture and sound to be fixed before left-clicking on the **Fix Sync** command.

- **Note:** A ghost will be treated as if it was a shot recorded as sync.
- To pull up the rest of a sound track that has slipped from a particular cut, unjoin the cut on the sound track on the incoming side. Then left-click on the **Fix Sync** command.
- To correct a single shot where the picture is in the wrong place but the sound is correct, unjoin the incoming and outgoing cuts on the picture track. Then left-click on the **Fix Sync** command.
 - **Note:** The CONFIG.DAT parameter **max_sync_error_seconds** allows you to tell the system to ignore errors greater than a certain duration (thus stopping errors being flagged where sync has been deliberately cheated). Obviously, the issue is what value to choose for this parameter that will ensure all cases are correctly flagged. If in doubt, do not alter the default value.

Fixing Sync Using the Stripview Sync Buttons

When a cut or trim is made on one track and not the others, then the existing sync relationship between tracks may be affected.

This type of sync loss between tracks is handled by the Stripview **Sync** buttons. The **Sync** button mechanism gives a single measure of the overall sync error for each track (rather than individual instances of sync picture and audio track).

A **Sync** button appears on the Stripview at the end of any audio track where the overall sync relationship between audio and the video track has changed. The **Sync** button displays the number of frames that the audio track is out of sync in relation to the video track.

This number is calculated by tracking the difference in overall length between tracks. Whenever any editing or trimming operation changes the length of any audio track without an equal change in length of the video track (or vice versa), then the difference in frames is calculated. A “plus” value indicates that the track has increased in length. A “minus” value indicates that the track has been shortened.

This tracking method applies to both Stripview trimming and Console editing. If no **Sync** buttons are on the Stripview, then the mechanism does not recognise any sync errors.

The **Sync** buttons:

- Accumulate sync errors over any number of operations.
- Indicate the sync error independently for all audio tracks.
- Handle sync errors caused by Insert or Delete Console editing operations where not all tracks are selected.

The **Sync** buttons can then be used to correct the resulting sync errors automatically.

If you wish to ignore any deliberate sync errors, you can reset the sync error to zero by holding down the **Shift** key on the keyboard while left-clicking on the **Sync** button with the mouse.

Preliminary

To fix sync using the Stripview **Sync** buttons:

- 1) Choose the track to be fixed.
- 2) Use the **Show Sync Losses** command on the Stripview menu in conjunction with the **Sync** buttons to help decide where to unjoin the strip(s). The strip must be unjoined so that either the length of the audio track can be adjusted relative to the video track, or the video track can be adjusted relative to the audio track. It is possible to make adjustments on more than one track at once if the strips are unjoined in an appropriate way.
- 3) Unjoin the strip(s) at appropriate place(s).
- 4) Left-click on the **Sync** button for the track to be fixed. The chosen track will be adjusted to bring it back into sync. If the strip(s) were not unjoined in a way that allows the sync to be fixed, or if you have not unjoined the strip(s), then a message will be displayed saying "Current selections do not allow sync fix up."

Undo and Redo

The Undo and Redo buttons on the Stripview undo and redo the latest change to the edit. If you make a mistake, just click on the Undo button. If you undo too many times, click on Redo button. The number of times you can undo (or redo) is normally set by the CONFIG.DAT parameter **backup_depth** to a default of ten.

- **Note:** If a trim made using the Stripview is undone, pressing the **Unjoin** button (or **Stop+Unmark**) will not unjoin the cut. This is because the **Undo** button returns the edit to its previous state, which has no information about future trims made to it.

Shift and Drag

The Stripview "Shift and Drag" facility allows a section of pictures or sound to be copied and dragged to a new position in the Stripview.

- 1) Ensure that the edit is a Record machine.
- 2) Mark and Park the section you want to copy. If you want to copy a single shot, it will not be necessary to Mark and park.
- 3) Hold down the shift key on the Keyboard and right click on the section to be dragged.
- 4) Drag the section to a new position in the stripview, either in the same track strip or a different trackstrip of the same type. As the section drops into position, it will snap to the nearest cut.

Chapter 7 – Audio Editing

Audio track Assignment During Editing

When using **Replace** or **Insert** to edit from a source to a Record Viewer, you can control which track goes where. This procedure is performed using the **track Selector** buttons on the Stripview or Viewer. In general, only selected tracks are used from the source, and they are edited onto selected tracks on the Record Viewer. tracks are used in order.

Replacing Sound with Atmos

If you need to remove some sound and replace it with atmos, there are two simple methods: Replacing or Resyncing.

Replacing

- 1) On the Record Viewer, ensure that only the tracks that are to be changed are selected by using the **track Selector** buttons.
- 2) Mark and park to select the section to be replaced.
- 3) Find the original shot, so you have a source of atmosphere.
The simplest way to do this is to use the **Pop Out Original Tile** button on the Record Viewer or Stripview to Pop Out Original Tile and display it as a Tile.
- 4) Find the beginning of a quiet section on the source shot.
- 5) Press **Replace**.

Resyncing

This method, using the Stripview, can be very quick and elegant if there are long enough pieces of atmosphere available. It allows you to replace a piece of sound with matching atmosphere simply by making a cut at either end of the sound, then slipping the section between the cuts to locate some atmosphere. To do this:

- 1) Make empty cuts by pressing **Mark+Delete** at both ends of the section of sound to be replaced.
- 2) Unjoin this section at the beginning and end by clicking on the Stripview. See **Trimming Cuts** on page 48
- 3) Play through the shot until you find a long enough piece of atmosphere.
- 4) Left-click the **Un-join** button (or Stop+Unmark)

Moving Sections of Audio within an edit

There are several ways of moving audio within an edit.

Using the Clipboard

- 1) Use the **track Selector** buttons on the Stripview to ensure that only the required tracks are selected.
- 2) Mark and park the section of audio to be moved.
- 3) Use the Console Remove or **Delete** buttons to place the audio section in the Clipboard.

- 4) Use the **track Selector** buttons to deselect the track(s) the audio came from and select the destination track(s).
- 5) Select the Clipboard as your source by left-clicking on it and **Replace** or **Insert** the audio section into the edit in the desired position.

Using Alt+M

This keyboard command moves a section of audio to the same position on the next free, active track.

- 1) The edit must be selected as a Record Viewer.
- 2) Use the Stripview **track Selector** buttons to ensure that only the source and destination tracks are active.
- 3) Mark and park the section of audio to be moved. The section may be a shot, a sequence of shots, or part of a shot.
- 4) Press **Alt+M** on the keyboard.
The selected section of audio will move from the source to the destination track.

Using Alt+S

This keyboard command swaps a section of audio from the source to the destination track and vice versa. The operational instructions are the same as **Alt+M** (above).

Using Alt+K

This keyboard command copies a section of audio from the source to the destination track. The operational instructions are the same as **Alt+M** (above).

Shift-And-Drag

The three Alt key functions detailed above move sections of audio vertically within the tripview. Use these functions therefore if you wish to maintain sync. If you want to copy and move audio elsewhere with the Stripview, you can use Shift-And-Drag.

Shift-And-Drag to copy and move an audio shot

- 1) Hold down the shift key on the keyboard.
- 2) Place the cursor over the shot to be moved
- 3) Hold down the right mouse key, and drag the audio to its new location either on the same track or on a different track.

Shift-And-Drag to copy and move a selected section

- 1) Mark and Park the section of the audio to be moved - This can be part of an audio shot or a sequence of shots.
- 2) Hold down the shift key on the keyboard.
- 3) Place the cursor over the selected section.
- 4) Hold down the right hand mouse key and drag the selected section to its new location.
 - Note - This is a copy function - the original audio shot will remain on the source track.

Chapter 8 – Exporting Material

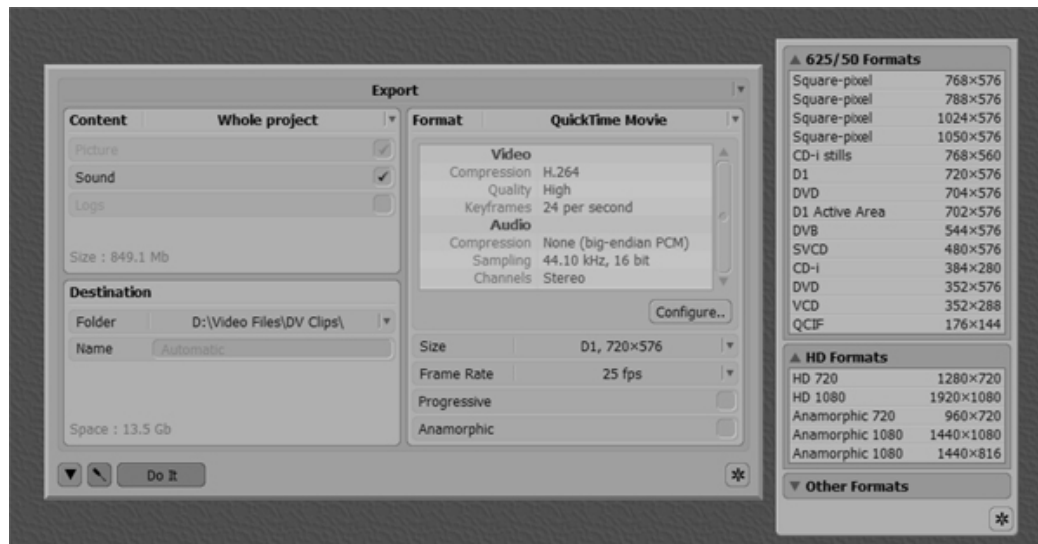


Lightworks Toolbox Icons

Export using the Import-Export tool

To Export a file:

- 1) Click on the import-export tool icon (the stamp) in the toolbox.
- 2) Select the Export tab on the top of the menu. Import is default



- 3) Select the parameters for the output file
- 4) Select the destination material drive for the exported media
- 5) Press 'Do it'.

Status boxes will appear with the progress of the export (Time remaining) and destination information.